MCDOWELL COUNTY PSD ECKMAN WV3302405

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from :

Source Name	Source Water Type			
SPRING - MINE	Ground Water			

Buyer Name	Seller Name	
There are no additional purcl	nases to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 118 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum</u> Residual <u>Disinfectant Level</u> (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.

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD ECKMAN

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Fou	ind in the Calendar Year	of 2020		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	12/3/2019	0.0351	0.0351	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	12/3/2019	0.1	C.1	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	4/8/2020	0.2	0.2	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	6/19/2018	0.24	0.24	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM	12/3/2019	6.3	6.3	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
No Detected Results were	ound in the Cale	endar Year of 2	2020					

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.0529	0.0089 - 0.0857	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2017 - 2019	0.8	0.2 - 1	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
12/01/2020 - 12/31/2020	2	MG/L	1.6	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
04/05/2016	WATER SYSTEM	McDowell County PSD failed to collect and/or submit Lead and Copper test results for the sampling period of January 1, 2012 to December 31, 2012. The PSD has since resumed all required testing and is returning to compliance.

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	2.61	2.61	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.708	0.708	pCi/L	5	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
CHLORIDE	12/3/2019	2.8	2.8	MG/L	250
CHLORINE	12/12/2019	1.5	1.5	MG/L	4
SODIUM	12/3/2019	112	112	MG/L	1000
SULFATE	12/3/2019	320	320	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments	
5/1/2020 - 5/31/2020	CHLORINE	FAILURE TO COMPLETE OR SUBMIT MOR	
10/1/2020	LEAD & COPPER RULE	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
o Violations Occurred in the Calenda	r Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD TIDEWATER

WV3302407

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from:

Source Water Type	
Ground Water	

Buyer Name	Seller Name	
There are no additional purchases	to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 188 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum</u> Residual <u>Disinfectant Level</u> (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.

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD TIDEWATER

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results wer	re Found in the Calendar Year	of 2020		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	12/3/2019	0.0495	0.0495	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	12/3/2019	0.13	0.13	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	12/3/2019	0.25	0.25	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	12/3/2019	0.54	0.54	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRITE	12/3/2019	0.29	0.29	ppm	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Monitoring	Highest	Range (low/high)	Unit	MCL	MCI	Typical Source
		•	3				MOL	

	Period	LRAA	G	
No Detected Results were Found in the	Calendar Year o	f 2020		<u> </u>

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2018 - 2020	0.0678	0.0206 - 0.0856	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2018 - 2020	150	0.18 - 300	ppb	15	1	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines					
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units	
02/01/2020 - 02/29/2020	2.4	MG/L	1.8	MG/L	

Unresolved DeficiencyDate Identified	Facility	Comments
08/23/2017	WATER SYSTEM	
08/23/2017	WATER SYSTEM	The PSD has not addressed the significant deficiencies noted in the last Sanitary Survey dated. December 18, 2012.
08/23/2017	WELL 1 (SPRING)	Raw water is supplied to this system from an abandoned coal mine adjacent to the treatment facility. A superficial inspection of the rock wall enclosing the water source revealed some openings large enough for small animals to enter. The PSD should seal these openings as recommended by the WV Department of Environmental Protection and divert surface water away from this feature.
08/23/2017	TREATMENT PLANT	All of the water treatment facilities associated with this system are dilapidated and have exceeded their useful life span. The PSD should make every effort to expedite the construction of the regional water system near Maybeury in order to provide service to the customers currently served by this system.
08/23/2017	TREATMENT PLANT	This system does not provide adequate chlorine contact time to provide 4-log removal of viruses as required by the Revised Total Coliform Rule. This information was provided to the PSD in a letter dated November 25, 2009. The PSD must install an adequate chlorine contact tank.

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	0.69	0.69	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.341	0.341	pCi/L	5	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
CHLORIDE	12/3/2019	9.6	9.6	MG/L	250
CHLORINE	12/12/2019	2.5	2.5	MG/L	4
SODIUM	12/3/2019	74.8	74.8	MG/L	1000
SULFATE	12/3/2019	88.2	88.2	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments	
1/1/2020 - 12/31/2020	NITRATE	MONITORING, ROUTINE MAJOR	

Additional Required Health Effects Language:

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
Violations Occurred in the Calenda	r Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD PREMIER

WV3302411

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Our drinking water is supplied from another water system through a Consecutive Connection (CC). To find out more about our drinking water sources and additional chemical sampling results, please contact our office at the number provided above. Your water comes from :

Source Name	Source Water Type	
No other sources to display.		

Buyer Name			Seller Name	
MCDOWELL PREMIER	COUNTY	PSD	WELCH CITY OF	

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).

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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.

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<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 122 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

<u>Secondary Maximum Contaminant Level (SMCL):</u> 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.

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

<u>Maximum</u> <u>Residual</u> <u>Disinfectant</u> <u>Level</u> (<u>MRDL</u>): 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.

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

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Testing Results for: MCDOWELL COUNTY PSD PREMIER

Microbiological	Result		MCL				MCLG	Typical Source
No Detected Results were For	und in the Calenda	r Year of 2020						
Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	
No Detected Results were Fou	l und in the Calenda	Year of 2020						

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	88 BOOKER T STEPHENS WAY	2020	23	21.9 - 27.1	ppb	60	0	By-product of drinking water disinfection
ТТНМ	88 BOOKER T STEPHENS WAY	2020	81	19.5 - 113	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2020	0.15	0.0515 - 0.191	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020	2.7	0.86 - 3.7	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
12/01/2020 - 12/31/2020	2.4	MG/L	1.7	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
02/09/2016	WATER SYSTEM	McDowell county PSD has not submitted any of the sampling plans required for the Revised Total Coliform Rule. These reports are overdue and must be submitted to the Beckley district office immediately to allow time for review and approval prior to rule implementation on April 1, 2016.
02/09/2016	WATER SYSTEM	The woody brush and overgrown tank site was noted in the last Sanitary Survey.
02/09/2016	WATER SYSTEM	The system received a Total Trihalomethane maximum contaminant level violation for the fourth quarter of 2015. Given that this PWS purchases finished water from the City of Welch, the PSD should work closely with the City to try to lower disinfection byproducts levels.
02/09/2016	WATER SYSTEM	The system has received violations for failure to collect or report Lead and Copper samples for the 2013, 2014 and 2015 monitoring periods. McDowell County PSD must consistently test for Lead and Copper in the drinking water In accordance with Federal Safe Drinking Water Regulations 40CFR141.86 and 40CFR141.90 as well as West Virginia Legislative Rule 34-3-10.

Analyte	Facility	Highest Value	Unit of Measure	Month Occurred
No Detected Results were Found in the Ca	lendar Year of 2020			

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
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No Detected Results were Found in the Calendar Year of 2020

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
7/1/2020 - 9/30/2020	TTHM	MCL, LRAA
1/5/2020 - 2/14/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION
1/10/2020 - 2/14/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION
11/13/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION

Additional Required Health Effects Language:

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.

There are no additional required health effects violation notices. Some or all of our drinking water is supplied from another water system. The table below lists all of the drinking water contaminants, which were detected during the 2020 calendar year from the water systems that we purchase drinking water from.

Regulated Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ARSENIC	3/2/2017	WELCH CITY OF	1.1	1.1	ppb	10		Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM	3/2/2017	WELCH CITY OF	0.257	0.257	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	3/2/2017	WELCH CITY OF	0.92	0.92	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
GROSS ALPHA, EXCL. RADON & U	1/15/2019	WELCH CITY OF	4.5	4.5	pCi/L	15	0	Erosion of natural deposits
NITRATE	3/17/2020	WELCH CITY OF	0.35	0.35	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	2/15/2018	WELCH CITY OF	0.34	0.34	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
RADIUM-228	1/15/2019	WELCH CITY OF	0.47	0.47	pCi/L		0	

Disinfection Byproducts	Monitoring Period	Water System	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results w	vere Found in the C	Calendar Year of 2020						

Secondary Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	SMCL
SODIUM	3/2/2017	WELCH CITY OF	242	242	MG/L	1000
SULFATE	3/2/2017	WELCH CITY OF	2.5	2.5	MG/L	250

Please Note: Because of sampling schedules, results may be older than 1 year.

During the 2020 calendar year, the water systems that we purchase water from had the below noted violation(s) of drinking water regulations.

Water System	Туре	Category	Analyte	Compliance Period
WELCH CITY OF	CCR ADEQUACY/AVAILABILITY/CONTENT	RPT	CONSUMER CONFIDENCE RULE	10/1/2020
WELCH CITY OF	LEAD CONSUMER NOTICE (LCR)	RPT	LEAD & COPPER RULE	12/30/2020

There are no additional required health effects violation notices.

There are no additional required health effects notices.

ASHLAND COMMUNITY

WV3302417

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from :

Source Water Type	
Ground Water	

Buyer Name	Seller Name	
There are no additional purch	nases to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 70 and is required to test a minimum of 1 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.

Water Quality Data

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

<u>Secondary Maximum Contaminant Level (SMCL):</u> 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.

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

<u>Monitoring Period Average (MPA):</u> 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.

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

Testing Results for: ASHLAND COMMUNITY

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found	d in the Calendar Year of 2020			

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	11/24/2019	0.0585	0.0585	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	11/24/2019	0.1	0.1	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	4/8/2020	0.36	0.36	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	6/19/2018	0.38	0.38	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRITE	8/11/2020	0.27	0.27	ppm	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Down do	4- 0 1 - 1							
Disinfection Byproduc	cts Sample Point	Monitoring	Highant	Range (low/high)	Unit	MCI	MCL	Typical Source
		Monitoring	nignest	Tunigo (To turnigh)	Oilie	MOL	MCL	i ypicai source

		Period	LRAA				G	
ТТНМ	5663 CHEROKEE ROAD	2020	1	1.1 - 1.1	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.237	0.0073 - 0.313	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2017 - 2019	3.7	0 - 6.8	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines	2000			
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
10/01/2020 - 10/31/2020	2.4	MG/L	1.8	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
02/07/2019	WATER SYSTEM	This public water system received violations for the monitoring period of Jan. 1, 2014 to Dec. 31, 2016 for either not collecting VOC samples or submitting the results late. The system should endeavor to submit all required samples in a timely manner to avoid future violation.
02/07/2019	TREATMENT PLANT	
02/07/2019	WATER SYSTEM	This public water system received violations for the monitoring period of July 1, 2017 to July 31, 2017 for either not collection TCR samples or submitting the results late. The system should endeavor to submit all required samples in a timely manner to avoid future violation.

Collection	Highest				
Date	Value	Range	Unit	TT	Typical Source
12/10/2019	1.39	1.39	MG/L	0	Naturally present in the environment
	Date	Date Value	Date Value Range	Date Value Range Unit	Date Value Range Unit TT

Analysta	T			
Analyte	Facility	Highest Value	Unit of Measure	Month Occurred
				From Occurred

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	0.063	0.063	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.418	0.418	pCi/L	5	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
CARBON, TOTAL	12/10/2019	1.39	1.39	ppm	10000
CHLORIDE	11/24/2019	1.7	1.7	MG/L	250
CHLORINE	2/17/2016	0.5	0.5	MG/L	4
SODIUM	11/24/2019	73.2	73.2	MG/L	1000
SULFATE	11/24/2019	75.7	75.7	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments	
No Violations Occurred in the	Calendar Year of 2020		

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
Violations Occurred in the Calendar	r Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD KIMBALL WV3302431

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from:

Source Name	Source Water Type	
No other sources to display.		

Buyer Name	Seller Name	
There are no additional purc	hases to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 605 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum</u> Residual <u>Disinfectant Level (MRDL)</u>: 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.

<u>Monitoring Period Average (MPA):</u> 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.

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

Testing Results for: MCDOWELL COUNTY PSD KIMBALL

Microbiological	Result	MCL	MCLG	Typical Source	
No Detected Results were Four	nd in the Calendar Year of 2020				

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ANTIMONY, TOTAL	5/25/2016	0.4	0.4	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
BARIUM	5/25/2016	0.0551	0.0551	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	5/25/2016	0.11	0.11	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	4/8/2020	0.2	0.2	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	6/19/2018	0.17	0.17	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SELENIUM	5/25/2016	3.1	3.1	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
No Detected Results were	Found in the Cale	endar Year of 2	2020					

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2018 - 2020	0.0876	0.0074 - 1.23	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2018 - 2020	2.2	0 - 2.5	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
04/01/2020 - 04/30/2020	2.2	MG/L	1.9	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
08/23/2017	WATER SYSTEM	The PSD has not addressed the significant deficiencies noted in the past two Sanitary Surveys. These deficiencies noted poor plant condition, lack of fencing, inaccessible tank site as well as other items.
08/23/2017	TREATMENT PLANT	This water treatment facility is dilapidated and has reached the end of its useful service life. The PSD must make every effort to expedite phase 2 of the Elkhorn water extension project in order to take this treatment plant out of service.
08/23/2017	TREATMENT PLANT	On the day this system was inspected the water line feeding the chlorine educator was broken and leaking within the treatment plant. The chlorine system must be regularly monitored and repaired to insure continuous disinfection of the distributed water.
08/23/2017	STORAGE 2	This tank was again inaccessible as noted in the last Sanitary Survey. The operator noted that the tank is in poor repair and likely not holding water. If so, this tank must be replaced immediately as it poses a public health threat.

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	-1.67	-1.67	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.365	0.365	pCi/L	5	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
CHLORINE	12/12/2019	2	2	MG/L	4
NICKEL	5/25/2016	0.0034	0.0034	MG/L	0.1
SODIUM	5/25/2016	64.6	64.6	MG/L	1000
SULFATE	5/25/2016	88.1	88.1	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) cf drinking water regulations.

Compliance Period	Analyte	Comments	
8/1/2020	LEAD & COPPER RULE	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	-
10/1/2020	LEAD & COPPER RULE	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
Violations Occurred in the Calenda	r Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD BARTLEY

WV3302434

Consumer Confidence Report – 2021

Covering Calendar Year – 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from:

Source Name	Source Water Type
WELL - MINE	Ground Water under the Influence of Surface Water

Buyer Name	Seller Name	
There are no additional purch	nases to display.	

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:

<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 1632 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.

Water Quality Data

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

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

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD BARTLEY

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were	Found in the Calendar Yea	ar of 2020		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	3/19/2020	0.241	0.241	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	3/19/2020	1.1	1.1	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	10/7/2020	0.02	0.02	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	4/16/2019	0.55	0.55	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRITE	11/4/2020	0.63	0 - 0.63	ppm	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts Sample Point Monitoring Highest Range (low/high) Un	Init MC	MCL MC	L Typical Source
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		Period	LRAA				G	
TOTAL HALOACETIC ACIDS (HAA5)	BIG CREEK PIA	2020	17	8.7 - 18.1	ppb	60	0	By-product of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	TIPPLE HOLLOW	2020	9	8.7 - 8.7	ppb	60	0	By-product of drinking water disinfection
ТТНМ	16202 MARSHALL HWY	2020	46	36.2 - 38.2	ppb	80	0	By-product of drinking water chlorination
ттнм	16202 MARSHALL HWY	2020	32	31.8 - 31.8	ppb	80	0	By-product of drinking water chlorination
ТТНМ	TIPPLE HOLLOW	2020	35	34.5 - 34.5	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.223	0.0103 - 0.305	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2017 - 2019	0.55	0 - 0.7	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
10/01/2020 - 10/31/2020	3	MG/L	2.1	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
07/15/2019	WATER SYSTEM	This system has undergone numerous extensions that justify reevaluating the disinfection byproduct sampling plan. The system should sample at the maximum residence location that is likely in the Paynesville area.
07/15/2019	TREATMENT PLANT	The chlorine leak detector was not functional on the day the treatment plant was inspected.
07/15/2019	BARTLEY TANK	The tank site is poorly drained and most of the tank site is saturated which could lead to foundation failure. Better site drainage must be installed to prevent future tank damage and or failure.
07/15/2019	WATER SYSTEM	The PSD has not addressed two of the Significant Deficiencies noted in the last Sanitary Survey. The Bartley tank site still has inadequated drainage and the surrounding ground is saturated, and the chlorine leak detector is still inoperative.

Total Organic Carbon	Collection	Highest	_			
Lowest Month for Removal	Date	Value	Range	Unit	TT	Typical Source
CARBON, TOTAL	9/16/2020	1.4	0.95 - 1.4	MG/L	0	Naturally present in the environment

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	0.068	0.068	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.44	0.44	pCi/L	5	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
CARBON, TOTAL	9/16/2020	1.4	0.95 - 1.4	ppm	10000
SODIUM	3/19/2020	110	110	MG/L	1000
SULFATE	3/19/2020	61.1	61.1	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
/1/2020 LT2ESWTR		FAILURE ADDRESS DEFICIENCY (EPA SURVEY)
2/29/2020 - 5/31/2020	TRIHALOMETHANES	MONITORING, ROUTINE (DBP), MAJOR
6/1/2020 - 8/31/2020 TRIHALOMETHANES		MONITORING, ROUTINE (DBP), MAJOR
6/1/2020 - 8/31/2020	HALOACETIC ACIDS	MONITORING, ROUTINE (DBP), MAJOR
3/12/2020 - 3/13/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
No Violations Occurred in the Calenda	r Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD BERWIND

WV3302435

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from :

Source Name	Source Water Type				
BERWIND WELL	Ground Water under the Influence of Surface Water				

Buyer Name	Seller Name	
There are no additional purcha	ases to display.	

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:

<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 863 and is required to test a minimum of 1 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.

Water Quality Data

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

<u>Secondary Maximum Contaminant Level (SMCL):</u> 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.

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

<u>Maximum</u> <u>Residual</u> <u>Disinfectant</u> <u>Level</u> (<u>MRDL</u>): 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.

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

Testing Results for: MCDOWELL COUNTY PSD BERWIND

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Fo	ound in the Calendar Year of 2020)		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	3/19/2020	0.0778	0.0778	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	3/19/2020	0.44	0.44	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	9095 ROCKET BOYS DRIVE	2020	24	10.4 - 13.2	ppb	60	0	By-product of drinking water disinfection
ТТНМ	35 PALM STREET	2020	32	12.8 - 21.4	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.0931	0.0064 - 0.384	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2017 - 2019	0.7	0 - 3.4	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines	10000000	Harry or an Israel		
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
06/01/2020 - 06/30/2020	3.5	MG/L	2.1	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
08/19/2016	TREATMENT PLAN BERWIND	Given that most of the piping is beneath the concrete plant floor it is unclear exactly the route the chlorine process water follows. However, it appears as though the prechlorine solution feeding the exterior sedimentation tank is directly plumbed to the high service pump discharge. Given the free water surface in this tank is higher than the clearwell, a potential cross connection exists between the sedimentation basin and the clearwell. An approved backflow device must be installed on the supply water pipe to prevent this potential backflow.
08/19/2019	WATER SYSTEM	While the PSD has addressed most of the significant deficiencies noted in the last Sanitary Survey, the excessive rust and corrosion of the filter units is still an outstanding issue. In accordance with responses from the PSD dated October 17, 2016 and November 20, 2017, these deficiencies will be addressed in some future project when funding is available. Given the scope of the work needed to make these repairs, it is not likely the PSD could complete any of the required repairs with staff on hand.
08/19/2019	TREATMENT PLAN BERWIND	As noted in past Sanitary Surveys, the media within the filter units has likely never been evaluated for consistency with the required size and uniformity specifications. Any future repairs to the filter units must include installation of new filter media.

Total Organic Carbon	Collection	Highest				
Lowest Month for Removal	Date	Value	Range	Unit	TT	Typical Source
CARBON, TOTAL	3/19/2020	1.7	0.62 - 1.7	MG/L	0	Naturally present in the environment

Analyte	Facility	Highest Value	Unit of Measure	Month Occurred

TURBIDITY	TREATMENT PLANT-BERWIND	0.29	NTU	JUN 2020

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	10/15/2019	0.454	0.454	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	10/15/2019	1.1	1.1	pCi/L	5	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
CARBON, TOTAL	3/19/2020	1.7	0.62 - 1.7	ppm	10000
CHLORIDE	3/19/2020	30	30	MG/L	250
SODIUM	3/19/2020	67.5	67.5	MG/L	1000
SULFATE	3/19/2020	79.9	79.9	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
1/19/2020	LT2ESWTR	FAILURE ADDRESS DEFICIENCY (EPA SURVEY)
8/12/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
Violations Occurred in the Calendar	Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD COALWOOD

WV3302439

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from:

Source Name	Source Water Type	
WELL NO. 2	Ground Water	
WELL-MINE	Ground Water	

Buyer Name	Seller Name	
There are no additional pur	chases to display.	

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.

 $\underline{\textit{Microbial contaminants}}, \text{ such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.}$

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 1008 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.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2020 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, 2020. 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.

Contaminants that may be present in sources water before we treat it include:

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum</u> <u>Residual</u> <u>Disinfectant</u> <u>Level</u> (<u>MRDL</u>): 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.

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

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD COALWOOD

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Fou	ind in the Calendar Year	of 2020		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	5/20/2019	0.706	0.706	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	5/20/2019	0.47	0.47	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
MERCURY	5/20/2019	0.1	0.1	ppb	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	1185 SANDYHUFF RD	2020	18	13.8 - 20.4	ppb	60	0	By-product of drinking water disinfection

TOTAL HALOACETIC ACIDS (HAA5)	5351 COAL HERITAGE ROAD	2020	16	13 - 18.7	ppb	60	0	By-product of drinking water disinfection
ТТНМ	1185 SANDYHUFF RD	2020	45	22.9 - 83.4	ppb	80	0	By-product of drinking water chlorination
ТТНМ	5351 COAL HERITAGE ROAD	2020	23	18.6 - 26.3	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.263	0.0053 - 0.336	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2017 - 2019	0.65	0 - 0.79	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

MPA	MPA Units	RAA	RAA Units
2.5	MG/L	2.0	MG/L
		,	2.5

Unresolved DeficiencyDate Identified	Facility	Comments
10/17/2019	TREATMENT PLANT	The chlorine feed and storage area does not have a leak detector. Given that this treatment plant is a public area that conducts meetings, houses administrative staff, receives in person payment from customers, etc., it is imperative that proper chlorine leak detections equipment is installed as soon as possible. Additionally, ventilation and exhaust fan equipment should be checked daily to ensure the safety of PSD staff and the general public,

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	10/15/2019	1.11	1.11	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	10/15/2019	0.237	0.237	pCi/L	5	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
SODIUM	5/20/2019	49.2	49.2	MG/L	1000
SULFATE	5/20/2019	5.54	5.54	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments	
3/17/2020 - 4/28/2020	GROUNDWATER RULE	FAILURE ADDRESS DEFICIENCY (GWR)	

Additional Required Health Effects Language:

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.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
iolations Occurred in the Calenda	r Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD HAVACO

WV3302440

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Our drinking water is supplied from another water system through a Consecutive Connection (CC). To find out more about our drinking water sources and additional chemical sampling results, please contact our office at the number provided above. Your water comes from :

Source Name	Source Water Type					
No other sources to display.						

Buyer Name			Seller Name
MCDOWELL HAVACO	COUNTY	PSD	WELCH CITY OF

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).

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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:

<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 370 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

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

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

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

Testing Results for: MCDOWELL COUNTY PSD HAVACO

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
No Detected Results were Four	nd in the Calendar `	Year of 2020					

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	100 HEADQUART ERS LANE	2020	15	5.5 - 19.6	ppb	60	0	By-product of drinking water disinfection
TTHM	100 HEADQUART ERS LANE	2020	56	6.5 - 74.2	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2020	0.428	0.0521 - 0.429	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020	1	0.62 - 1	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines		(90,0000) POTA (9000) - 2000		
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
05/01/2020 - 05/31/2020	2.3	MG/L	2.0	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
02/09/2016	WATER SYSTEM	The system has received violations for failure to collect or report Lead and Copper samples for the 2013, 2014 and 2015 monitoring periods. McDowell County PSD must consistently test for Lead and Copper in the drinking water in accordance with Federal Safe Drinking Water Regulations 40CFR141.86 and 40CFR141.90 as well as West Virginia Legislative Rule 34-3-10.

Analyte	Facility	Highest Value	Unit of Measure	Month Occurred
To Detected Results were Found in the Ca	lendar Year of 2020			

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	
No Detected Results were Four	nd in the Calenda	ar Year of 2020						

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments	

1/10/2020 - 2/14/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION
4/2/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION

There are no additional required health effects notices.

There are no additional required health effects violation notices. Some or all of our drinking water is supplied from another water system. The table below lists all of the drinking water contaminants, which were detected during the 2020 calendar year from the water systems that we purchase drinking water from.

Regulated Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ARSENIC	3/2/2017	WELCH CITY OF	1.1	1.1	ppb	10		Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM	3/2/2017	WELCH CITY OF	0.257	0.257	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	3/2/2017	WELCH CITY OF	0.92	0.92	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
GROSS ALPHA, EXCL. RADON & U	1/15/2019	WELCH CITY OF	4.5	4.5	pCi/L	15	0	Erosion of natural deposits
NITRATE	3/17/2020	WELCH CITY OF	0.35	0.35	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	2/15/2018	WELCH CITY OF	0.34	0.34	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
RADIUM-228	1/15/2019	WELCH CITY OF	0.47	0.47	pCi/L		0	

Disinfection Byproducts	Monitoring Period	Water System	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results	were Found in the (Calendar Year of 2020						

Secondary Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	SMCL
SODIUM	3/2/2017	WELCH CITY OF	242	242	MG/L	1000
SULFATE	3/2/2017	WELCH CITY OF	2.5	2.5	MG/L	250

Please Note: Because of sampling schedules, results may be older than 1 year.

During the 2020 calendar year, the water systems that we purchase water from had the below noted violation(s) of drinking water regulations.

Water System	Туре	Category	Analyte	Compliance Period
WELCH CITY OF	CCR ADEQUACY/AVAILABILITY/CONTENT	RPT	CONSUMER CONFIDENCE RULE	10/1/2020
WELCH CITY OF	LEAD CONSUMER NOTICE (LCR)	RPT	LEAD & COPPER RULE	12/30/2020

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD HEMPHILL

WV3302441

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Our drinking water is supplied from another water system through a Consecutive Connection (CC). To find out more about our drinking water sources and additional chemical sampling results, please contact our office at the number provided above. Your water comes from :

Source Name	Source Water Type	
No other sources to display.	-	

Buyer Name			Seller Name	
MCDOWELL HEMPHILL	COUNTY	PSD	WELCH CITY OF	

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:

<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 322 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

<u>Monitoring Period Average (MPA):</u> 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.

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

Testing Results for: MCDOWELL COUNTY PSD HEMPHILL

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Fou	nd in the Calendar Year of 202	20		
	The state of the s	.0		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	
No Detected Results were Fou	nd in the Calendar	Year of 2020		L				

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	530 COPPER RIDGE RD	2020	14	5.4 - 21.9	ppb	60	0	By-product of drinking water disinfection
TTHM	530 COPPER RIDGE RD	2020	38	6.6 - 50.9	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
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			(low/high)				
COPPER, FREE	2020	0.254	0.0154 - 1.46	ppm	1.3	1	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020	1.3	0.16 - 5.4	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines		5.6000000000000000000000000000000000000		
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
12/01/2020 - 12/31/2020	2.8	MG/L	2.1	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
02/09/2016	WATER SYSTEM	The system received a Total Trihalomethane maximum contaminant level violation for the third quarter of 2014. Given that this PWS purchases finished water from the City of Welch, the PSD should work closely with the City to try to lower disinfection byproducts levels.
02/09/2016	WATER SYSTEM	The system has received violations for failure to collect or report Lead and Copper samples for the 2014 and 2015 monitoring periods. McDowell County PSD must consistently test for Lead and Copper in the drinking water in accordance with Federal Safe Drinking Water Regulations 40CFR141.86 and 40CFR141.90 as well as West Virginia Legislative Rule 34-3-10.

Analyte	Facility	Highest Value	Unit of Measure	Month Occurred
Io Detected Results were Found in the C	alendar Year of 2020			

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	
No Detected Results were Four	nd in the Calenda	r Year of 2020						

Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
ALKALINITY, TOTAL	9/24/2020	540	420 - 540	MG/L	10000
CALCIUM	4/30/2020	3.2	3.2	MG/L	
CALCIUM	12/16/2020	5.6	2.8 - 5.6	MG/L	
CALCIUM HARDNESS	4/2/2020	10	7 - 10	MG/L	
CHLORINE	12/10/2020	3.5	1.9 - 3.5	MG/L	4
CONDUCTIVITY @ 25 C UMHOS/CM	7/26/2018	1270	1080 - 1270	UMHO/CM	
HARDNESS, CALCIUM MAGNESIUM	12/16/2020	14	7 - 14	MG/L	
HARDNESS, TOTAL (AS CACO3)	3/26/2020	10	10	MG/L	
ORTHOPHOSPHATE	5/19/2020	0.9	0.1 - 0.9	MG/L	
PH	11/12/2020	8.3	7.7 - 8.3	SU	8.5
TEMPERATURE (CENTIGRADE)	7/16/2020	23.2	16.3 - 23.2	С	
TOTAL CHLORINE	8/29/2019	2.6	2.5 - 2.6	MG/L	

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
9/1/2020 - 9/30/2020	CHLORINE	FAILURE TO COMPLETE OR SUBMIT MOR
10/1/2020 - 10/31/2020	CHLORINE	FAILURE TO COMPLETE OR SUBMIT MOR
8/15/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION

There are no additional required health effects notices.

There are no additional required health effects violation notices. Some or all of our drinking water is supplied from another water system. The table below lists all of the drinking water contaminants, which were detected during the 2020 calendar year from the water systems that we purchase drinking water from.

Regulated Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ARSENIC	3/2/2017	WELCH CITY OF	1.1	1.1	ppb	10		Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM	3/2/2017	WELCH CITY OF	0.257	0.257	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	3/2/2017	WELCH CITY OF	0.92	0.92	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
GROSS ALPHA, EXCL. RADON & U	1/15/2019	WELCH CITY OF	4.5	4.5	pCi/L	15	0	Erosion of natural deposits
NITRATE	3/17/2020	WELCH CITY OF	0.35	0.35	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	2/15/2018	WELCH CITY OF	0.34	0.34	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
RADIUM-228	1/15/2019	WELCH CITY OF	0.47	0.47	pCi/L		0	

Disinfection Byproducts	Monitoring Period	Water System	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results v	vere Found in the Ca	alendar Year of 2020						

Secondary Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	SMCL
SODIUM	3/2/2017	WELCH CITY OF	242	242	MG/L	1000
SULFATE	3/2/2017	WELCH CITY OF	2.5	2.5	MG/L	250

Please Note: Because of sampling schedules, results may be older than 1 year.

During the 2020 calendar year, the water systems that we purchase water from had the below noted violation(s) of drinking water regulations.

Water System	Туре	Category	Analyte	Compliance Period
WELCH CITY OF	CCR ADEQUACY/AVAILABILITY/CONTENT	RPT	CONSUMER CONFIDENCE RULE	10/1/2020
WELCH CITY OF	LEAD CONSUMER NOTICE (LCR)	RPT	LEAD & COPPER RULE	12/30/2020

There are no additional required health effects violation notices.

There are no additional required health effects notices.

CRUMPLER COMMUNITY WATER

WV3302448

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from :

Source Name	Source Water Type	
SPRING 1-MINE/ZENITH	Ground Water	
SPRING 2-MINE/JOYCE	Ground Water	
SPRING 3 MINE/KERMIT	Ground Water	

Seller Name	
s to display.	

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:

<u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife.

<u>Inorganic contaminants</u>, such as salts and metals, which can be naturallyoccurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 318 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: CRUMPLER COMMUNITY WATER

/licrobiological	Result	MCL	MCLG	Typical Source
No Detected Results were Fo	und in the Calendar Year of	2020		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
NITRATE	5/13/2020	0.13	0.13	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	6/19/2018	0.31	0.31	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
ТТНМ	271 WHISTLE POST CIRCLE	2020	1	0.6 - 0.6	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
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			(low/high)				
COPPER, FREE	2020	0.0136	0.0033 - 0.0199	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020	0.7	0.12 - 1.1	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
12/01/2020 - 12/31/2020	1.7	MG/L	1.5	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments				
02/07/2019	WATER SYSTEM	This public water system received violations for failure to submit a monthly operational report for the monitoring period of Feb. 1, 2018 to Feb. 28, 2018. The system must submit a monthly operational report by the 10th of the following month to avoid future violation.				
02/07/2019	WATER SYSTEM	This public water system received violations for the monitoring period of Feb. 1, 2018 to Feb. 28, 2018 for either not collection T.C.R. samples or submitting the results late. The system should endeavor to submit all required samples in a timely manner to avoid future violation.				
02/07/2019	WATER SYSTEM	The system has not address significant deficiencies noted in several of the past sanitary surveys.				
02/07/2019	CRUMPLER STORAGE TANK	The overflow pipe for this tank is continuous and lacks a sanitary airgap and screen.				
02/07/2019	CRUMPLER STORAGE TANK	The foundation of this storage facility is badly deteriorated, and the structure is likely beyond repair. The PSD should have a plan in place to replace this structure and to provide temporary finished water storage in the event of tank failure.				
11/29/2016	DIST SYSTEM	LOW/INADEQUATE DISINFECTANT RESIDUAL				
11/29/2016	DIST SYSTEM	LOSS OF PRESSURE (LESS THAN 20 psi)				
11/29/2016	WATER SYSTEM	OPERATOR RESIGNED				
11/29/2016	TREATMENT PLANT	INADEQUATE DISINFECTION				

Analyte	Facility	Highest Value	Unit of Measure	Month Occurred
No Detected Results were Found in the Cale	endar Year of 2020			

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/16/2019	0.844	0.844	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/16/2019	0.977	0.977	pCi/L	5	0	Erosion of natural deposits

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
10/1/2020	LEAD & COPPER RULE	FOLLOW-UP OR ROUTINE TAP M/R (LCR)
8/13/2020	PUBLIC NOTICE	PUBLIC NOTICE RULE LINKED TO VIOLATION

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
To Violations Occurred in the Calendar Y	lear of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD MAYBEURY WV3302460

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from :

Source Water Type	
Ground Water	

Buyer Name	Seller Name	
There are no additional purch	ases to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 871 and is required to test a minimum of 1 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.

Water Quality Data

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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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.

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<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD MAYBEURY

Microbiological	Result		MCL				MCLG	Typical Source
No Detected Results were For	und in the Calenda	r Year of 2020						
Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source	
No Detected Results were Fou	ınd in the Calenda	r Year of 2020						

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TTHM	378 COMPANY STORE ROAD	2020	1	0.51 - 0.51	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.105	0.0174 - 0.243	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood

							preservatives
LEAD	2017 - 2019	2.4	0 - 2.4	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
10/01/2020 - 10/31/2020	2.2	MG/L	1.9	MG/L

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/16/2019	-0.306	-0.306	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/16/2019	0.284	0.284	pCi/L	5	0	Erosion of natural deposits

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
No Violations Occurred in the C	alendar Year of 2020	

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
o Violations Occurred in the Calendar	Vear of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD GREENBRIER

WV3302465

Consumer Confidence Report – 2021

Covering Calendar Year - 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Your water comes from :

Source Name	Source Water Type	
SPRING/MINE	Ground Water	

Buyer Name	Seller Name	
There are no additional purc	hases to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 165 and is required to test a minimum of 1 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.

Water Quality Data



<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: the "Maximum Allowed" MCL is the highest level of a contaminant that is allowed in drinking water. MC_s are set as close to the MCLGs as feasible using the best available treatment technology.

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

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

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

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

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD GREENBRIER

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were For	und in the Calendar Year of 20	020		1407 250100

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	11/24/2019	0.0618	0.0618	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	11/24/2019	0.11	C.11	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	5/13/2020	0.13	0.13	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	6/19/2018	0.24	0.24	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
No Detected Results were I	Found in the Cale	endar Year of 2	2020					

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2018 - 2020	0.0543	0.0104 - 0.0629	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2018 - 2020	0.83	0.21 - 0.84	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
12/01/2020 - 12/31/2020	2.4	MG/L	1.7	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
05/03/2017	WATER SYSTEM	The PSD has not addressed the poor physical condition of this system as noted in the last Sanitary Survey. A planned regional water system, operated by the PSD, will eventually replace this water system.
05/03/2017	TREATMENT PLANT	All of the water treatment facilities associated with this system are dilapidated and have exceeded their useful life span. The PSD should make every effort to expedite the construction of the regional water system near Maybeury to provide service to the customers currently served by this system.
05/03/2017	TREATMENT PLANT	

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	0.05	0.05	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.31	0.31	pCi/L	5	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
CHLORIDE	11/24/2019	2.9	2.9	MG/L	250
SODIUM	11/24/2019	60.8	60.8	MG/L	1000
SULFATE	11/24/2019	48.2	48.2	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Yo	ear of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD BIG FOUR WV3302471

Consumer Confidence Report – 2021

Covering Calendar Year – 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 3C4-297-2622.

Your water comes from :

Source Name	Source Water Type	
WELL 1	Ground Water	

Buyer Name	Seller Name	
There are no additional purch	nases to display.	

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.

<u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, 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 363 and is required to test a minimum of 1 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.

Water Quality Data

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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

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

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

<u>Nephelometric Turbidity Unit (NTU)</u>: 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.

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

Testing Results for: MCDOWELL COUNTY PSD BIG FOUR

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Foun	d in the Calendar Year of 20	20		

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	12/3/2019	0.0787	0.0787	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	12/3/2019	0.08	0.08	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	5/13/2020	0.13	0.13	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	6/19/2018	0.15	0.15	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
No Detected Results were I	Found in the Cale	endar Year of 2	2020					

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2020	0.0641	0.0147 - 0.0656	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2020	1.7	0.52 - 2.3	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
05/01/2020 - 05/31/2020	2.3	MG/L	2.1	MG/L

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, EXCL. RADON & U	12/12/2019	-3.81	-3.81	pCi/L	15	0	Erosion of natural deposits
RADIUM-228	12/12/2019	0.00957	0.00957	pCi/L	5	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
CHLORIDE	12/3/2019	9.9	9.9	MG/L	250
CHLORINE	12/12/2019	1.1	1.1	MG/L	4
SODIUM	12/3/2019	38.5	38.5	MG/L	1000
SULFATE	12/3/2019	51.6	51.6	MG/L	250

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
No Violations Occurred in the Calend	ar Year of 2020	

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Water System	Туре	Category	Analyte	Compliance Period
o Violations Occurred in the Calendar	Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.

MCDOWELL COUNTY PSD BISHOP WV3302475

Consumer Confidence Report – 2021

Covering Calendar Year – 2020

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 affect drinking water quality, please call MAVIS BREWSTER at 304-297-2622.

Our drinking water is supplied from another water system through a Consecutive Connection (CC). To find out more about our drinking water sources and additional chemical sampling results, please contact our office at the number provided above. Your water comes from :

Source Name	Source Water Type
lo other sources to display.	
to other sources to display.	

Buyer Name			Seller Name
MCDOWELL BISHOP	COUNTY	PSD	TOWN OF TAZEWELL, VA

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).

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<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

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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 100 and is required to test a minimum of 1 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.

Water Quality Data



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.

<u>Maximum Contaminant Level (MCL)</u>: 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.

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

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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.

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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.

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

Testing Results for: MCDOWELL COUNTY PSD BISHOP

Microbiological	Result		MCL				MCLG	Typical Source
No Detected Results were Fo	und in the Calenda	r Year of 2020						
Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source	
No Detected Results were Fou	and in the Calendar	Voor of 2020	(low/high)					

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range (low/high)	Unit	MCL	MCL G	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	130 SKYGUSTY HIGHWAY	2020	32	17.2 - 52	ppb	60	0	By-product of drinking water disinfection
ТТНМ	130 SKYGUSTY HIGHWAY	2020	29	11 - 44.1	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2017 - 2019	0.0344	0.0032 - 0.0547	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2017 - 2019	0.4	0 - 0.5	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Chlorine/Chloramines				
Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
05/01/2020 - 05/31/2020	1.9	MG/L	40	
	1.3	WG/L	1.6	MG/L

Unresolved DeficiencyDate Identified	Facility	Comments
08/19/2016	WATER SYSTEM	McDowell County PSD failed to notify customers or failed to submit certification of notification to the Office of Environmental Health Services related to Lead and Copper sampling for the 2015 sampling period.

Analyte	Facility	High oot Value	YY 1. C	
	- 40	Highest Value	Unit of Measure	Month Occurred
o Detected Results were Found in the	0.1 1 11 22			
o betteted Results were round in the	Calendar Year of 2020			

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
No Detected Results were Four	nd in the Calenda	Year of 2020					

During the 2020 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments	
			og CLANGET I AND SOM STATE OF

No Violations Occurred in the Calendar Year of 2020

There are no additional required health effects notices.

There are no additional required health effects violation notices. Some or all of our drinking water is supplied from another water system. The table below lists all of the drinking water contaminants, which were detected during the 2020 calendar year from the water systems that we purchase drinking water from.

Disinfection Byproducts	Monitoring Period	Water System	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results v	were Found in the	Calendar Year of 2020						

Please Note: Because of sampling schedules, results may be older than 1 year.

During the 2020 calendar year, the water systems that we purchase water from had the below noted violation(s) of drinking water regulations.

Water System	Туре	Category	Analyte	Compliance Period
Violations Occurred in the Calendar	Year of 2020			

There are no additional required health effects violation notices.

There are no additional required health effects notices.