

Pine Bluff Water Authority 2022 Consumer Confidence Report For 2021



Pine Bluff Water Authority
P O Box 89
Locust Fork, AL 35097

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Call Before You Dig.
1-800-292-8525 or visit www.al1call.com

CCR: Government Mandated

The Pine Bluff Water Authority (PBWA), like water utilities across the U.S., is required by the Environmental Protection Agency to send its customers this water quality report of Consumer Confidence Report (CCR) each year.

In 1996, Congress amended the Safe Drinking Water Act by adding a provision requiring all community water systems to deliver to their customers an annual water quality report or CCR, which contains information on the water system's source water, the levels of any detected contaminants, compliance with drinking water rules and other educational information.

Every community water system serving at least 25 people year-round must prepare and distribute the CCR each year to all of its customers by July 1. Since 1999, the PBWA has provided its customers with this annual water quality report as required by the Safe Drinking Water Act.

In 2021, as in years past, PBWA met all state and federal regulations for water quality. This CCR is available at the PBWA office, 5501 County Highway 15 Cleveland, AL 35049.

The Water Treatment Process

1. Intake – Water is taken from the source. Logs, fish and plants are screened out and water is drawn into the treatment plant.
2. Chemical Addition – Chemicals are added to kill germs and improve taste and odor.
3. Mixing – Water and chemicals are rapidly mixed.
4. Coagulation & Flocculation – The particles stick together and form larger particles called floc.
5. Sedimentation – The water and floc particles flow into a sedimentation basin. The floc then settles to the bottom and is removed from the water.
6. Filtration – Water Flows through filters. The filters are made of layers of sand and gravel.
7. Disinfection – A small amount of chlorine or other disinfecting chemical is added to kill any remaining germs and keeps the water safe as it travels to your house.
8. Storage – Water is placed in a closed tank or clearwell.
9. Distribution – Water is transported to houses.

SOURCE WATER ASSESSMENT

A source water assessment has been updated on the water system. It is available for review at the BWWB's main office during normal business hours. The following is a list of the sources of raw water along with the susceptibility rate of the contaminant source and the contaminant sources:

- Mulberry fork – moderate susceptibility (septic tanks and propane tanks); high susceptibility (industrial facility, bridge and highway)
- Sipsey Fork – moderate susceptibility (power plant)

The Birmingham Water Works Board is making a maximum effort to physically protect all of our critical assets.

EDUCATIONAL INFORMATION

Some people may be vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people with cancer undergoing chemotherapy, people who have undergone organ transplant, people with HIV/AIDS or other immune system disorder, some elderly, and infants can be particularly at risk from infections. These people should seek advice about the drinking water from their health care providers. Environmental Protection Agency and the Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline. (1-800-426-4791).

FOR YOUR HEALTH

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their healthcare 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 at 1-800-426-4791. For further information, contact the Jefferson County Health Department at 205-933-9110.

ADDITIONAL INFORMATION

All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. The sources of drinking water (both tap water and bottled water) include 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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activity.

DEFINITIONS

Action Level (AL) – Concentration of contaminant which, when exceeded, triggers treatment of other requirements that a water system must follow.

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

Maximum Contaminant Level (MCL) – 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.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Treatment Technique (TT) – Required process intended to reduce the level of a contaminant in drinking water.

Running Annual Average (RAA) – Compliance period where an average of four consecutive quarterly samples are used.

Contaminant - Any substance other than water. Note that contaminants, as defined, include dissolved minerals, purifying and dental health promotion additives.

Turbidity – Measure of the clarity of water as it relates to its particle content.

Variance and Exemptions – ADEM or EPA permission not to meet an MCL or treatment technique under certain conditions.

Mg/L – milligrams per liter, or parts per million (ppm).

Ug/L – micrograms per liter, or parts per billion (ppb).

DBP – Disinfection By-Products is a by-product of treatment.

Trihalomethanes – A disinfection By-product

Haloacetic Acids – A disinfection By-product

Wavier

Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

QUESTIONS AND ANSWERS

What is the Consumer Confidence Report? The Consumer Confidence Report (CCR) is an annual report **required** by the Environmental Protection Agency (EPA) on the water quality of a particular water system such as the PBWA. **The report details and outlines contaminants and their levels in drinking water.**

Why am I getting this report? The PBWA is federally mandated by the EPA to provide this information to you. The Alabama Department of Environmental Management (ADEM) enforces these rules for the EPA. Regulated drinking water substances that were detected during the 2019 calendar year are provided in the chart.

For whom is this report produced? The Consumer Confidence Report is produced for customers and wholesalers of the PBWA and ensures that everyone is provided safe drinking water.

How much does it cost to receive this report? This report is free of charge to all customers and stakeholders of the PBWA.

Where can I get additional copies of this report? You may obtain additional copies of the Consumer Confidence Report at Pine Bluff Water Authority Office, by mail (upon request). For questions concerning the CCR, please call Kim Vaughn at 205-681-8871.

What authorities regulate contaminant levels? In order to ensure that tap water is safe to drink, the EPA and ADEM prescribe regulations that limit the amount of certain substances in water provided by public water systems.

When does the board meet? 3rd Tuesday of each month at 5:30 pm.

Board Members are: Chairperson: Jeff McDonald, Vice Chair: Debra Hicks, Secretary/Treasurer: Milton Faris, Director: Deanna Washburn, Director: Ned Fortenberry.

ABBREVIATIONS

NA: Not Applicable
Protection Agency

CDC: Centers for Disease Control
ADEM: Alabama Department of Environmental Management

ND: Not Detected
NTU: Nephelometric Turbidity Unit

EPA: Environmental

Birmingham Water Works Board 2021 Chemical Analysis											
Standard List Of Primary Drinking Water Contaminants for CCR											
Primary Drinking Water Standards - Limits are set based on public health effects.											
Bacteriological											
MCL			Distribution System Microbiological Substance (Regulated)								
TT											
Total Coliform Bacteria			The highest percentage of bacteria in the distribution system for one month was 0.55% (2 out of 363 of samples). All locations that tested total coliform - positive were tested for E. coli. E. coli was not detected in any of these samples. All locations that tested total coliform - positive were resampled and all resamples were negative.								
E. coli	Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.										
Primary Contaminants											
Inorganic Chemicals and Radiologicals			Regulated Organic Chemicals			Regulated Organic Chemicals			Regulated Organic Chemicals		
Parameters (mg/L)	MCL	Highest	Parameters (µg/L)	MCL	Highest	Parameters (µg/L)	MCL	Highest	Parameters (µg/L)	MCL	Highest
Antimony	0.006	ND	1,1-Dichloroethylene	7	ND	Dichloromethane	5	ND	PCB, 1254	0.5	ND
Arsenic	0.01	ND	1,1,1-Trichloroethane	200	ND	Dinoseb	7	ND	PCB, 1260	0.5	ND
Barium	2	0.024	1,1,2-Trichloroethane	5	ND	Diquat	20	ND	p-Dichlorobenzene	75	ND
Beryllium	0.004	ND	1,2-Dichloroethane	5	ND	Endothall	100	ND	Pentachlorophenol	1	ND
Cadmium	0.005	ND	1,2-Dichloropropane	5	ND	Endrin	2	ND	Picloram	500	ND
Chlorine	MRDL = 4	3.15	1,2,4-Trichlorobenzene	70	ND	Ethylbenzene	700	ND	Simazine	4	ND
Chromium	0.1	ND	2,4,5-TP (Silvex)	50	ND	Ethylene Dibromide (EDB)	0.05	ND	Styrene	100	ND
Copper	AL = 1.3	0.020	2,4-D	70	ND	Glyphosate	700	ND	Tetrachloroethylene	5	ND
Cyanide	0.2	ND	Alachlor	2	ND	Heptachlor	0.4	ND	Toluene	1000	ND
Fluoride	4	0.98	Atrazine	3	ND	Heptachlor Epoxide	0.2	ND	Total Haloacetic Acids	60	32.3
Gross Alpha (pCi/L)	15	ND	Benzene	5	ND	Hexachlorobenzene	1	ND	Total Trihalomethanes	80	27.3
Lead	AL = 0.015	ND	Benzo(a)pyrene	0.2	ND	Hexachlorocyclopentadiene	50	ND	Toxaphene	3	ND
Mercury	0.002	ND	Carbofuran	40	ND	Lindane	0.2	ND	Trans-1,2-Dichloroethylene	100	ND
Nitrate as N	10	0.36	Carbon Tetrachloride	5	ND	Methoxychlor	40	ND	Trichloroethylene	5	ND
Nitrite as N	1	ND	Chlordane	2	ND	o-Dichlorobenzene	600	ND	Vinyl Chloride	2	ND
Radium 226 (pCi/L)	5	0.6	Chlorobenzene	100	ND	Oxamyl (Vydate)	200	ND	Xylenes	10,000	ND
Radium 228 (pCi/L)	5	ND	Cis-1,2-Dichloroethylene	70	ND	PCB, 1016	0.5	ND	TOC Step Removal for Filter Plants		
Selenium	0.05	ND	Dalapon	200	ND	PCB, 1221	0.5	ND	Total Organic Carbon (TOC)	TT	2
Thallium	0.002	ND	Di (2-Ethylhexyl) Adipate	400	ND	PCB, 1232	0.5	ND	System Wide Stage 2 Sites		
Total Nitrate/Nitrite	10	0.36	Di (2-Ethylhexyl) Phthalate	6	ND	PCB, 1242	0.5	ND	Total Haloacetic Acids	60	32.6
Turbidity (NTU)	0.3 (TT)	0.72	Dibromochloropropane	0.2	ND	PCB, 1248	0.5	ND	Total Trihalomethanes	80	42.1

Birmingham Water Works Board 2021 Chemical Analysis											
Detected Regulated Drinking Water Contaminants for CCR											
Primary Drinking Water Standards - Limits are set based on public health effects.											
Bacteriological											
MCLG			MCL			Major Sources in Drinking Water					
N/A			TT			Naturally present in the environment					
Total Coliform Bacteria			Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.			The highest percentage of bacteria in the distribution system for one month was 0.55% (2 out of 363 samples). All locations that tested total coliform - positive were tested for E. coli. E. coli was not detected in any of these samples. All locations that tested total coliform - positive were resampled and all resamples were negative.					
E. coli	0					Human and animal fecal waste					
Inorganic Chemicals and Radiological											
Parameters (mg/L)	MCLG	MCL	Highest	Range	Major Sources in Drinking Water						
Barium	2	2	0.024	0.012 - 0.024	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits						
Chlorine	MRDLG = 4	MRDL = 4	3.15	1.06 - 3.15	Water additive used to control microbes						
Copper	1.3	AL = 1.3	0.020	ND - 0.02	Corrosion of household plumbing systems; erosion of natural deposits						
Fluoride	4	4	0.98	ND - 0.98	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories						
Nitrate as N	10	10	0.36	ND - 0.36	Runoff from fertilizer; leaching from septic tanks and sewage; erosion of natural deposits						
Radium 226 (pCi/L)	0	5	0.6	0.4 - 0.6	Erosion of natural deposits						
Total Nitrate/Nitrite	10	10	0.36	ND - 0.36	Runoff from fertilizer; leaching from septic tanks and sewage; erosion of natural deposits						
Turbidity (NTU)	N/A	0.3 (TT)	0.72	0.011 - 0.72	Soil runoff						
Regulated Organic Chemicals											
Parameters (µg/L)	MCLG	MCL	Highest	Range	Major Sources in Drinking Water						
Total Haloacetic Acids	N/A	60	32.3	10.2 - 32.3	By-product of drinking water chlorination						
Total Trihalomethanes	N/A	80	27.3	8.46 - 27.3	By-product of drinking water chlorination						
Running Annual Average (RAA) for System Wide Stage 2 Sites											
Parameters (µg/L)	MCLG	MCL	RAA	Range	Major Sources in Drinking Water						
Total Haloacetic Acids	N/A	System-wide RAA: 60 µg/L	32.6	11.3 - 46.5	By-product of drinking water chlorination						
Total Trihalomethanes	N/A	System-wide RAA: 80 µg/L	42.1	17.0 - 79.3	By-product of drinking water chlorination						
TOC Step Removal for Filter Plants											
TOC Percent Removal	MCLG	MCL	Highest	Range	Major Sources in Drinking Water						
Total Organic Carbon (TOC)	N/A	TT	2	1 - 2	Naturally present in the environment						

Birmingham Water Works Board 2021 Chemical Analysis
Secondary Drinking Water Standards

Limits are set based on cosmetic or aesthetic effects.

Parameters (mg/L)	MCL	Highest	Range	Major Sources in Drinking Water
Aluminum	0.05 - 0.2	0.024	0.007 - 0.024	By-product of drinking water treatment
Calcium	Monitored	41.6	12.9 - 41.6	
Chloride	250	10.5	3.72 - 10.5	
Copper	1	0.020	ND - 0.020	
Iron	0.3	0.087	ND - 0.087	
Langlier Index (LSI)	Non-corrosive	0.129	-1.55 to 0.129	
Magnesium	Monitored	8.15	2.58 - 8.15	
Manganese	0.05	0.002	ND - 0.002	
pH (SU)	6.5 - 8.5	8.73	7.71 - 8.73	
Potassium	Monitored	1.75	1.23 - 1.75	
Sodium	Monitored	11.3	1.43 - 11.3	
Specific Conductivity (µS/cm)	Monitored	344	113 - 344	
Sulfate	250	73.0	20.1 - 73.0	
Total Dissolved Solids (TDS)	500	183	30.0 - 183	
Temperature (°F)	Monitored	79	48 - 79	
Total Alkalinity	Monitored	78	20 - 78	
Total Hardness	Monitored	134	42 - 134	

Monitoring

Nickel	0.1	0.002	ND - 0.002	Discharge from nickel smelting/refining and steelworks industries
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Unregulated Organic Contaminants Detected

Parameters (µg/L)	MCL	Highest	Range	MCLG
Bromodichloromethane	Monitored	6.51	1.94 - 6.51	0
Chloroform	Monitored	23.4	5.74 - 23.4	70
Dibromochloromethane	Monitored	1.68	ND - 1.68	60
Dichloroacetic Acid	Monitored	20.0	7.64 - 20.0	0
Monochloroacetic Acid	Monitored	1.81	ND - 1.81	70
Trichloroacetic Acid	Monitored	10.9	2.55 - 10.9	20

Birmingham Water Works Board 2021 Chemical Analysis

Not Detected Contaminants

Unregulated Organic

Parameters (µg/L)	MCLG	Parameters (µg/L)	MCLG	Parameters (µg/L)	MCLG
1,1,1,2-Tetrachloroethane	0	Bromoform	0	Monobromoacetic Acid	N/A
1,1,2,2-Tetrachloroethane	0	Bromomethane	0	Naphthalene	0
1,1-Dichloroethane	0	Butachlor	0	n-Butylbenzene	0
1,1-Dichloropropene	0	Carbaryl	0	n-Propylbenzene	0
1,2,3-Trichlorobenzene	0	Chloroethane	0	o-Chlorotoluene	0
1,2,3-Trichloropropane	0	Chloromethane	0	p-Chlorotoluene	0
1,2,4-Trimethylbenzene	0	Dibromoacetic Acid	N/A	p-Isopropyltoluene	0
1,3,5-Trimethylbenzene	0	Dibromomethane	0	Propachlor	0
1,3-Dichlorobenzene	0	Dicamba	0	Propoxur	0
1,3-Dichloropropane	0	Dichlorodifluoromethane	0	sec-Butylbenzene	0
1,3-Dichloropropene	0	Dieldrin	0	tert-Butylbenzene	0
2,2-Dichloropropane	0	Fluorotrichloromethane	0	Secondary Standards - Parameters (mg/L)	MCL
3-Hydroxycarbofuran	0	Hexachlorobutadiene	0	Bromide	Monitored
Aldicarb	0	Isopropylbenzene	0	Carbon Dioxide	Monitored
Aldicarb Sulfone	0	Methiocarb	0	Foaming Agent	0.5
Aldicarb Sulfoxide	0	Methomyl	0	Silver	0.1
Aldrin	0	Methyl Tertiary Butyl Ether	0	Zinc	5
Bromobenzene	0	Metolachlor	0	Color, APHA (color units)	15
Bromochloromethane	0	Metribuzin	0	Odor (TON)	3

In 2019, BWWB participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

BWWB Unregulated Contaminant Monitoring Rule Phase IV (UCMR4)		
Detected Contaminants		
Contaminants (µg/L)	Average Level Detected	Range of Detections
Haloacetic Acids (HAA ₆ Br)	4.82	2.39 - 8.56
Haloacetic Acids (HAA ₆)	25.2	15.1 - 38.4
Manganese	1.02	ND - 4.36
Quinoline	0.003	ND - 0.042
Non-Detected Contaminants		
1-butanol	Ethoprop	O-toluidine
2-methoxyethanol	Germanium	Oxyfluorfen
2-propen-1-ol	Microcystin-LA	Profenofos
Alpha-hexachlorocyclohexa	Microcystin-LF	Tebuconazole
Anatoxin-a	Microcystin-LR	Total Microcystin
Butylated hydroxyanisole	Microcystin-LY	Total Permethrin (cis- & trans-)
Chlorpyrifos	Microcystin-RR	Tribufos
Cylindrospermopsin	Microcystin-YR	
Dimethipin	Nodularin	

ONEONTA UTILITIES BOARD

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Contaminants Monitored			Date Monitored						
Inorganic Compounds			2021						
Lead and Copper			2019						
Microbiological Contaminants			Current						
Nitrates			2021						
Radioactive Contaminants			2017						
Synthetic Organic Contaminants (including herbicides and pesticides)			2021						
Volatile Organic Contaminants			2020 - 2021						
Disinfection By-products (TTHM and HAA5)			2021						
Table of Primary Drinking Water Contaminants									
CONTAMINANT	MCL	Amount Detected	CONTAMINANT	MCL	Amount Detected				
Bacteriological									
Total Coliform Bacteria	< 5%	ND	Endothal	100 ppb	ND				
Turbidity	TT	0.88	Endrin	2 ppb	ND				
Radiological									
Beta/photon emitters (mrem/yr)	4	ND	Epichlorohydrin	TT	ND				
Alpha emitters (pCi/L)	15	4.8	Glyphosate	700 ppb	ND				
Combined radium (pCi/L)	5	ND	Heptachlor	400 ppt	ND				
Inorganic									
Antimony	5 ppb	ND	Heptachlor epoxide	200 ppt	ND				
Arsenic	10 ppb	ND	Hexachlorobenzene	1 ppb	ND				
Barium	2 ppm	0.019	Lindane	200 ppt	ND				
Beryllium	4 ppb	ND	Methoxychlor	40 ppb	ND				
Cadmium	5 ppb	ND	Oxamyl (Vydate)	200 ppb	ND				
Chromium	100 ppb	ND	PCBs	500 ppt	ND				
Copper *	AL=1.3 ppm	0.26	Pentachlorophenol	1 ppb	ND				
Cyanide	200 ppb	ND	Picloram	500 ppb	ND				
Fluoride	4 ppm	0.45	Simazine	4 ppb	ND				
Lead *	AL=15 ppb	1.	Toxaphene	3 ppb	ND				
Mercury	2 ppb	ND	Benzene	5 ppb	ND				
Nitrate	10 ppm	1.23	Carbon Tetrachloride	5 ppb	ND				
Nitrite	1 ppm	ND	Chlorobenzene	100 ppb	ND				
Selenium	50 ppb	ND	Dibromochloropropane	200 ppt	ND				
Thallium	2 ppb	ND	o-Dichlorobenzene	600 ppb	ND				
*80th percentile of the most recent sampling event.									
Organic Chemicals									
2,4-D	70 ppb	ND	p-Dichlorobenzene	75 ppb	ND				
2,4,5-TP (Silvex)	50 ppb	ND	trans-1,2-Dichloroethylene	100 ppb	ND				
Acrylamide	TT	ND	Dichloromethane	5 ppb	ND				
Alachlor	2 ppb	ND	1,2-Dichloropropane	5 ppb	ND				
Atrazine	3 ppb	ND	Ethylbenzene	700 ppb	ND				
Benzo(a)pyrene(PAHs)	200 ppt	ND	Ethylene dibromide	50 ppt	ND				
Carbofuran	40 ppb	ND	Styrene	100 ppb	ND				
Chlordane	2 ppb	ND	Tetrachloroethylene	5 ppb	ND				
Dalapon	200 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND				
Di(2-ethylhexyl)adipate	400 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND				
Di(2-ethylhexyl)phthalates	5 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND				
Dinoseb	7 ppb	ND	Trichloroethylene	5 ppb	ND				
Diquat	20 ppb	ND	TTHM	80 ppb	14.6				
Chloramines	4 ppm	ND	Toluene	1 ppm	ND				
Chlorite	1 ppm	ND	Vinyl Chloride	2 ppb	ND				
HAA5	60 ppb	9	Xylenes	10 ppm	ND				
			TOC	TT	0.4				
			Chlorine	4 ppm	2.2				
Table of Unregulated Drinking Water Contaminants									
CONTAMINANT	Low Result, PPM	High Result, PPM	CONTAMINANT, PPM	Low Result, PPM	High Result, PPM				
1,1 - Dichloropropane	ND	ND	Chloroform	ND	ND				
1,1,1,2-Tetrachloroethane	ND	ND	Chloromethane	ND	ND				
1,1,2,2-Tetrachloroethane	ND	ND	Dibromochloromethane	ND	ND				
1,1-Dichloroethane	ND	ND	Dibromomethane	ND	ND				
1,2,3 - Trichlorobenzene	ND	ND	Dicamba	ND	ND				
1,2,3 - Trichloropropane	ND	ND	Dichlorodifluoromethane	ND	ND				
1,2,4 - Trimethylbenzene	ND	ND	Dieldrin	ND	ND				
1,3 - Dichloropropane	ND	ND	Hexachlorobutadiene	ND	ND				
1,3 - Dichloropropene	ND	ND	p-Isopropylbenzene	ND	ND				
1,3,5 - Trimethylbenzene	ND	ND	m-Dichlorobenzene	ND	ND				
2,2 - Dichloropropane	ND	ND	Methomyl	ND	ND				
3-Hydroxycarbofuran	ND	ND	MTBE	ND	ND				
Aldicarb	ND	ND	Metolachlor	ND	ND				
Aldicarb Sulfone	ND	ND	Metribuzin	ND	ND				
Aldicarb Sulfoxide	ND	ND	N - Butylbenzene	ND	ND				
Aldrin	ND	ND	Naphthalene	ND	ND				
Bromobenzene	ND	ND	N-Propylbenzene	ND	ND				
Bromochloromethane	ND	ND	O-Chlorotoluene	ND	ND				
Bromodichloromethane	ND	ND	P-Chlorotoluene	ND	ND				
Bromofom	ND	ND	P-Isopropyltoluene	ND	ND				
Bromomethane	ND	ND	Propachlor	ND	ND				
Butachlor	ND	ND	Sec - Butylbenzene	ND	ND				
Carbaryl	ND	ND	Tert - Butylbenzene	ND	ND				
Chloroethane	ND	ND	Trichlorofluoromethane	ND	ND				
Table of Secondary Drinking Water Contaminants									
Parameters	MCLG	MCL	Low Result	High Result	Parameters (mg/L)	MCLG	MCL	Low Result	High Result
pH	7	Monitored	7.05	7.86	Aluminum	0	0.2	0.002	0.003
Color, APHA (units)	N/A	15	ND	ND	Copper	N/A	1	ND	0.008
Odor	N/A	3	ND	ND	Iron	0	0.3	ND	ND
Foaming Agents	N/A	0.5	ND	ND	Manganese	0	0.05	ND	ND
TDS	0	500	154	172	Silver	0	0.1	ND	ND
Fluoride	N/A	2.0	ND	0.45	Zinc	0	5	ND	ND
Sulfate	0	250	3.96	7.06	Total Hardness	0	Monitored	131	172
Chloride	N/A	250	2.97	4.67	Corrosivity	N/A	N/A	Non-Corrosive	Non-Corrosive

Table of Detected Primary Drinking Water Contaminants						
CONTAMINANT	MCL	MCL	Range Detected		Likely Source of Contamination and Health Affects	
Turbidity	N/A	TT	0.13	-	0.88	Soil Runoff.
Barium	2	2 ppm	0.005	-	0.019	Discharge of drilling wastes; discharge of metal refineries; erosion of natural deposits.
Nitrate	10	10 ppm	0.42	-	1.23	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride	4	4 ppm	ND	-	0.45	Erosion of natural deposits; water additives which promotes strong teeth; discharge from fertilizer and aluminum factories
Copper	1.3	AL=1.3 ppm	ND	-	0.26	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives (90 th Percentile Value)
Lead	15	AL=15 ppb	ND	-	1.	Corrosion of household plumbing systems; erosion of natural deposits
Alpha Emitters	0	15 pCi/L	ND	-	4.8	Erosion of natural deposits
HAA5	N/A	60 ppb	ND	-	9	By-product of drinking water chlorination
TTHM	N/A	80 ppb	ND	-	14.6	By-product of drinking water chlorination
TOC	N/A	TT	0.2	-	0.4	Runoff from industrial, urban, and natural soils; Decomposition of plant material in surface water
Chlorine	MRDLG=4	MRDL =4 ppm	1.07	-	2.2	Drinking water additive for bacterial disinfection

Water Systems are selected by The Environmental Protection Agency (EPA) to participate in the Unregulated Contaminant Monitoring (UCMR) program to collect nationally representative data for contaminants suspected to be present in drinking water. These contaminants do not have regulatory standards. The monitoring period is between 2018 – 2020. This monitoring is used by the EPA to understand the frequency and level of occurrence of unregulated contaminants in the nation's public water systems. Every five years the EPA develops a new list of UCMR contaminants, largely based on the Contaminant Candidate List (CCL). The detection of a UCMR contaminant does not represent cause for concern, in and of itself.

UCMR Definitions:

UCMR Minimum Reporting Level (MRL): The minimum concentration that may be reported by a laboratory as a quantified value for a method analyte following analysis. The MRLs were established based on the capability of the analytical method, not based on a level established as "significant" or "harmful".

UCMR Reference Concentration: The reference concentrations are based on publicly-available health information found in the following EPA resources: 2018 Edition of the Drinking Water Standards and Health Advisories Tables [i.e., Health advisories (HA)] and the CCL 4 Contaminant Information Sheets (i.e., Health Reference Levels (HRLs)). The primary sources of the health information used to derive the guideline values in the resources referenced above are peer-reviewed assessments from EPA or other governmental agencies. The reference concentrations are subject to change as new health assessments are completed. Reference Concentrations are not legally enforceable federal standards.

Health Reference Levels (HRL): The CCL process derives HRLs for screening purposes using available data and can be used in the Regulatory Determination process as risk-derived concentrations against which to evaluate the occurrence data to determine if contaminants may occur at levels of public health concern. HRLs are not final determinations about the level of a contaminant in drinking water that is necessary to protect any particular population and, in some cases, are derived prior to development of a complete exposure assessment using the best available data. HRLs are not legally enforceable federal standards

Health Advisories (HA): Has provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to State agencies and other public health officials on health effects, analytical methodologies, and treatment technologies to assist with risk management decisions.

Table of UCMR 4 Contaminants						
Contaminant	Minimum Reporting Level (MRL/ug/L)	Reference Concentration (ug/L)	Range Detected		Additional Information	
Manganese	0.4	300	ND	-	7.2	Naturally occurring element; commercially available in combination with other elements and materials; a byproduct of zinc ore processing; used in infrared optics, fiber optic systems, electronics and solar applications
Bromochloroacetic Acid	NA	NA	ND	-	2.7	By-products of drinking water chlorination
Bromodichloroacetic Acid	NA	NA	ND	-	2.4	By-products of drinking water chlorination
Chlorodibromoacetic Acid	NA	NA	ND	-	0.72	By-products of drinking water chlorination
Dichloroacetic Acid	NA	NA	ND	-	9.5	By-products of drinking water chlorination
Monobromoacetic Acid	NA	NA	ND	-	0.34	By-products of drinking water chlorination
Dibromoacetic Acid	NA	NA	ND	-	0.39	By-products of drinking water chlorination
Trichloroacetic Acid	NA	NA	ND	-	6.3	By-products of drinking water chlorination

Blount County Water

Table of Detected Contaminants

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity	No	0.049	NTU	N/A	TT	Soil runoff
Radioactive Contaminants						
Alpha Emitters	No	ND	pCi/l	N/A	15	Erosion of natural deposits
Combined Radium	No	1.0	pCi/l	N/A	5	Erosion of natural deposits
Inorganic Contaminants						
Barium	No	0.017	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chloride	No	3.65	Ppb	N/A	2.5	By-product of drinking water chlorination
Chromium	No	3.0	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits.
Copper	No	0.137	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Nitrate	No	1.41	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants						
Total Trihalomethanes (TTHM)	No	11.4	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	6.0	ppb	N/A	60	By-product of drinking water chlorination
Total Organic Carbon (TOC)	No	2.95	ppm	N/A	TT	Naturally present in the environment
Chlorine	No	1.4	ppm	4	4	Water additive used to control microbes
Methylene Chloride	No	1.53	ppb	NA	5	Discharge from petroleum factories; Discharge from chemical factories
Bromodichloromethane	No	1.82	ppb	NA	NA	
Chlorodibromomethane	No	0.601	ppb	NA	NA	
Chloroform	No	3.47	ppb	NA	NA	

Table of Primary Contaminants
 At elevated levels, some primary contaminants are known to pose a health risk to humans.
 This table provides a quick glance of any primary contaminant detections.

Contaminant	MCL	Amount Detected	Contaminant	MCL	Amount Detected
Bacteriological			Endrin	2 ppb	ND
Total Coliform Bacteria	>5%	ND	Epichlorohydrin	TT	ND
Turbidity	5.0 NTU	0.049	Glyphosate	700 ppb	ND
Fecal coliform and <i>E. coli</i>	TT	ND	Total Organic Carbon (TOC)	TT (ppm)	0.4
Radiological			Heptachlor	400 ppt	ND
Beta/Photon Emitters	4	ND	Heptachlor epoxide	200 ppt	ND
Alpha Emitters	15	ND	Hexachlorobenzene	1 ppb	ND
Combined Radium	5	1.0	Hexachlorocyclopentadiene	50 ppb	ND
Inorganic			Lindane	200 ppt	ND
Antimony	6 ppb	<1.0	Methoxychlor	40 ppb	ND
Arsenic	10 ppb	<1.0	Oxamyl (Vydate)	200 ppb	ND
Asbestos (MFL)	7	ND	PCBs	500 ppt	ND
Barium	2 ppm	0.0179	Pentachlorophenol	1 ppb	ND
Beryllium	4 ppb	<1.0	Picloram	500 ppb	ND
Cadmium	5 ppb	<1.0	Simazine	4 ppb	ND
Chromium	100 ppb	<1.0	Tovaphene	3 ppb	ND
Copper	AL=1.3 ppm	0.1376	Benzene	5 ppb	ND
Cyanide	200 ppb	<20.0	Carbon Tetrachloride	5 ppb	ND
Fluoride	4 ppm	<0.20	Chlorobenzene	100 ppb	ND
Lead	AL=15 ppb	<1.0	Dibromochloropropane	200 ppt	ND
Mercury	2 ppb	<1.0	o-Dichlorobenzene	600 ppb	ND
Nitrate	10 ppm	1.41	p-Dichlorobenzene	75 ppb	ND
Nitrite	1 ppm	<0.10	1,2-Dichloroethane	5 ppb	ND
Selenium	50 ppb	<1.0	1,1-Dichloroethylene	7 ppb	ND
Thallium	2 ppb	<1.0	cis-1,2-Dichloroethylene	70 ppb	ND
Organic Chemicals:			trans-1,2-Dichloroethylene	100 ppb	ND
2,4-D	70 ppb	ND	Dichloromethane	5 ppb	ND
2,4,5-TB (Silvex)	50 ppb	ND	1,2-Dichloropropane	5 ppb	ND
Acrylamide	TT	ND	Ethylbenzene	700 ppb	ND
Alachlor	2 ppb	ND	Ethylene dibromide	50 ppt	ND
Atrazine	3 ppb	ND	Styrene	100 ppb	ND
Benzo(a)pyrene (PAHs)	200 ppt	ND	Tetrachloroethylene	5 ppb	ND
Carbofuran	40 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Chlordane	2 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Dalapon	200 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Di-(2-ethylhexyl) adipate	400 ppb	ND	Trichloroethylene	5 ppb	ND
Di-(2-ethylhexyl) phthalates	6 ppb	ND	THHM	80 ppb	11.4
Dinoseb	7 ppb	ND	Haloacetic Acids (HAA5)	60 ppb	6.0
Diquat	20 ppb	ND	Toluene	1 ppm	ND
Dioxin (2,3,7,8-TCDD)	30 ppt	ND	Vinyl Chloride	2 ppb	ND
Endothall	100 ppb	ND	Xylenes	10 ppm	0.00382

Unregulated contaminants have no MCL set by the EPA or ADEM but are tested for in your drinking water. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components presence in drinking water over time.

Test Results – Unregulated Contaminant Table					
Monitoring Results in ppb					
CONTAMINANT	Low Result	High Result	CONTAMINANT	Low Result	High Result
1,1 – Dichloropropene	ND	ND	Chloroform	0.6	5.1
1,1,1,2-Tetrachloroethane	ND	ND	Chloromethane	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	Dibromochloromethane	0.6	1.9
1,1-Dichloroethane	ND	ND	Dibromomethane	ND	ND
1,2,3 – Trichlorobenzene	ND	ND	Dicamba	ND	ND
1,2,3 – Trichloropropane	ND	ND	Dichlorodifluoromethane	ND	ND
1,2,4 – Trimethylbenzene	ND	ND	Dieldrin	ND	ND
1,3 – Dichloropropane	ND	ND	Hexachlorobutadiene	ND	ND
1,3 – Dichloropropene	ND	ND	Isopropylbenzene	ND	ND
1,3,5 – Trimethylbenzene	ND	ND	M-Dichlorobenzene	ND	ND
2,2 – Dichloropropane	ND	ND	Methomyl	ND	ND
3-Hydroxycarbofuran	ND	ND	MTBE	ND	ND
Aldicarb	ND	ND	Metolachlor	ND	ND
Aldicarb Sulfone	ND	ND	Metribuzin	ND	ND
Aldicarb Sulfoxide	ND	ND	N - Butylbenzene	ND	ND
Aldrin	ND	ND	Naphthalene	ND	ND
Bromobenzene	ND	ND	N-Propylbenzene	ND	ND
Bromochloromethane	ND	ND	O-Chlorotoluene	ND	ND
Bromodichloromethane	1.4	3.1	P-Chlorotoluene	ND	ND
Bromoform	ND	ND	P-Isopropyltoluene	ND	ND
Bromomethane	ND	ND	Propachlor	ND	ND
Butachlor	ND	ND	Sec - Butylbenzene	ND	ND
Carbaryl	ND	ND	Tert - Butylbenzene	ND	ND
Chloroethane	ND	ND	Trichlorofluoromethane	ND	ND

In addition to the primary contaminants, we monitor regularly for some of the following secondary and unregulated contaminants as required by ADEM.

Secondary Contaminants			
Monitoring results in ppb			
CONTAMINANT	MCL	AMOUNT DETECTED	VIOLATION Y/N
Aluminum (ppm)	2.0	0.036	N
Calcium (ppm)	NA	47.7	N
Carbon Dioxide (ppm)	NA	5.28	N
Chloride (ppm)	250	9.87	N
Color (units)	15	7.0	N
Conductance (umhos)	NA	270	N
Hardness (ppm CaCO3)	NA	131	N
Iron (ppm)	0.3	ND	N
Magnesium (ppm)	NA	2.97	N
Manganese (ppm)	0.5	ND	N
pH (std. units)	NA	7.15	N
Silver (ppm)	0.1	ND	N
Sodium (ppm)	NA	5.16	N
Total Alkalinity (ppm CaCO3)	NA	151	N
Total Dissolved Solids (ppm)	500	222	N
Zinc (ppm)	5	ND	N

The fourth Unregulated Contaminant Rule (UCMR4) was initiated by EPA in 2016. UCMR4 requires the monitoring of 10 cyanotoxins and 20 additional unregulated chemical contaminants. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components present in drinking water over time.

Fourth Unregulated Contaminant Monitoring (UCMR4)			
Monitoring results in ppb			
CONTAMINANT	DETECTED	CONTAMINANT	DETECTED
Germanium	ND	Tribufos	ND
Manganese	ND	1-butanol	ND
Alpha-hexachlorocyclohexane	ND	2-methoxyethanol	ND
Chlorpyrifos	ND	2-propen-1-ol	ND
Dimethipin	ND	Butylated hydroxyanisole	ND
Ethoprop	ND	O-toluidine	ND
Oxyfluorfen	ND	Quinoline	ND
Profenofos	ND	Total Organic Carbon (TOC)	2,950
Tebuconazole	ND	HAA9 Group	2.3
Total permethrin (cis- & trans-)	ND	Bromide	16,600
Bromochloroacetic Acid	0.76		
Bromodichloroacetic Acid	ND	Monobromoacetic Acid	ND
Chlorodibromoacetic Acid	ND	Monochloroacetic Acid	ND
Dibromoacetic Acid	ND	Tribromoacetic Acid	ND
Dichloroacetic Acid	1.6	Trichloroacetic Acid	ND

Pine Bluff Water 2021 Stage 2 Disinfection Byproducts					
Total Trihalomethane Monitoring (TTHM)					
		950 County Hwy 13		426 Sand Valley Road	
		LRAA TTHM			
Quarter	Sample Date	ppb	Sample Date	ppb	
First	2/10/21	5.0	2/10/21	47.0	26.0
Second	5/13/21	5.4	5/13/21	50.9	28.2
Third	8/12/21	4.8	8/12/21	64.9	34.9
Fourth	11/9/21	17.0	11/9/21	76.50	46.8
	Local Running Average:	8.1	Local Running Average:	59.8	33.9
Haloacetic Acid Monitoring (HAA5)					
		950 County Hwy 13		426 Sand Valley Road	
		LRAA HAA5			
Quarter	Sample Date	ppb	Sample Date	ppb	
First	2/10/21	0.0	2/10/21	29.0	14.5
Second	5/13/21	0.0	5/13/21	45.0	22.5
Third	8/12/21	6.0	8/13/21	0.0	3.0
Fourth	11/9/21	0.0	11/9/21	42.00	21.0
	Local Running Average:	1.5	Local Running Average:	29.0	15.3

The most recent testing for lead and copper compliance within the distribution system was from July 2021 – August 2021. This testing was done in accordance with applicable regulations. The 90th percentile lead sample was <0.01mg/L. No lead samples exceeded the action level. The 90th percentile copper sample was 0.0186 mg/L. No copper samples exceeded the action level. The BWWB voluntarily monitors for the organisms Cryptosporidium and Giardia quarterly at our raw water sites. **Distribution System Evaluation Sites (DSE)** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Pine Bluff Water Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have it tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the safe drinking Water hotline or at <http://www.epa.gov/safewater/lead>.