2022 Annual Water Quality Report
(Testing Performed January through December 2021)

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We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. The Phil Campbell Water Works & Sewer Board along with the Upper Bear Creek Water, Sewer and Fire Protection District routinely monitor for constituents in your drinking water according to Federal and State laws. This report contains results from the most recent monitoring, which was performed in accordance with the regulatory schedule.

Water Source:	Bear Creek Reservoir
Storage Capacity of Reservoir:	1,000,000 gallons at the water plant
Treatment Techniques:	Chlorine dioxide, coagulation, flocculation, sedimentation, rapid sand filtration and chlorine
Board Members:	Sammy Taylor, Chairman Gary Dolan, Vice Chairman Denny Hagood, Secretary Mike McQuary, Member Darryl Whitehead, Member

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), Upper Bear Creek Water, Sewer and Fire Protection District has developed a Source Water Assessment plan that will assist in protecting our water sources. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. All of the potential contaminants sited in our study area were rated as low risk to our water supply. The assessment has been performed, public notification has been completed, and the plan has been approved by ADEM. A copy of the report is available in the Upper Bear Creek Water, Sewer and Fire Protection Districts office for review during normal business hours, or you may purchase a copy upon request for a normal reproduction fee. Please help us make this effort worthwhile by protecting our source water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden and properly dispose of household chemicals, paints and waste oil.

Monitoring Schedule

Upper Bear Creek Water Authority and Phil Campbell Water Works *routinely* monitors for constituents in your drinking water according to Federal and State laws. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Constituents Monitored	**Date Monitored**
Inorganic Contaminants	2021
Lead / Copper—PC Water	2020
Microbiological Contaminants	Current
Nitrates	2021
Radioactive Contaminants	2021
Synthetic Organic Contaminants (including herbicides and pesticides)	2021 partials
Volatile Organic Contaminants	2020
Disinfection By-products	2021
Cryptosporidium	2017
PFAS Contaminants	2020

General Information

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, are set at very stringent levels. To understand the possible health effects described for

many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also, come from gas stations, urban storm water run-off and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that the tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers.

This water system also tests our source water for pathogens, such as *Cryptosporidium* and *Giardia.* These pathogens can enter the water from animal or human waste. All test results were within state and federal standards. For people who may be immuno-compromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater/crypto.html or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of cryptosporidium in our drinking water. 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 the contaminants was not required.

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. Your water system 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 your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Information about Lead

Lead in drinking water is rarely found in source water but is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is more likely to cause leaching of lead from plumbing materials. When your water has been sitting for several hours, you can minimized the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. These recommended actions are very important to the health of your family.

Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead
- Your home has copper pipes with lead solder and you have naturally soft water, and
- Water often sits in the pipes for several hours.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water hotline or a www.epa.gov/safewater/lead.

We have learned through our monitoring and testing that some constituents have been detected. We are pleased to report that our drinking water meets federal and state requirements. This report shows our water quality and what it means.

TABLE OF DETECTED DRINKING WATER CONTAMINATS						
Contaminants	**Violation Y/N**	**Level Detected**	**Unit Measurement**	**MCLG**	**MCL**	**Likely Source of Contamination**
Chlorine	No	1.00-2.4	Ppm	MRDLG =4	MRDL =4	Water additive used to control microbes
Chlorite	No	0.04-0.98	Ppm	0.80	1.00	Water additive used to control microbes
Turbidity	No	Highest 0.22 100% < 0.5	NTU	n/a	TT	Soil Runoff
Total Organic Carbon	No	1.3-2.1	Ppm	n/a	TT	Soil Runoff
Barium	No	0.02	Ppm	2	2	Drilling waste; refinery discharge; erosion
Combined radium	No	0.3±0.5	PCi/l	0	5	Erosion of natural deposits
Copper	No	0.130**	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems: erosion of natural deposits; leaching from wood preservatives
Nitrate (as Nitrogen)	No	0.29	Ppm	10	10	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHM (Total trihalomethanes)	No	LRAA 21.0	Ppb	0	80	By-product of drinking water chlorination
HAA5 (Total haloacetic acids)	No	LRAA 25.0	Ppb	0	60	By-product of drinking water chlorination
2, 4-D	No	ND-0.17	Ppb	70	70	Runoff from herbicide used on row crops
UNREGULATED CONTAMINANTS						
Chloroform	No	12.8	Ppb	n/a	n/a	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Bromodichlormethane	No	1.60	Ppb	n/a	n/a	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Metolachlor	No	0.10	Ppb	n/a	n/a	Runoff from herbicide used on row crops
SECONDARY CONTAMINANTS						
Aluminum	No	0.02	Ppm	n/a	0.2	Erosion of natural deposits or as a result of treatment with water additives
Chloride	No	10.4	Ppm	n/a	250	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Hardness	No	28.0	Ppm	n/a	n/a	Naturally occurring in the environment or as a result of treatment with water additives
pH	No	6.7	S.U.	n/a	n/a	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	No	8.1	Ppm	n/a	500	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff
Total Dissolved Solids	No	59.0	Ppm	n/a	500	Naturally occurring; runoff
Zinc	No	0.35	Ppm	n/a	5	Erosion of natural deposits; discharge from refineries and factories; runoff from land fills

*Figure shown is 90th percentile and # of sites above Action Level (AL) = 0

PFAS Contaminants

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that were used in manufacturing and in other industrial and consumer applications. The EPA has not established primary drinking water regulations for PFAS substances. The lifetime health advisory level for PFOA and PFOS is a combined 70 parts per trillion (ppt), or 0.07 parts per billion (ppb). Below is a list of PFAS contaminants for which our system monitored in 2020 as required and the results of that monitoring. For more information on PFAS contaminants, please consult https://www.epa.gov/pfas/pfas-fact-sheets-and-infographics

Contaminant	Unit Msmt	Level Detected		Contaminant	Unit Msmt	Level Detected
11CI-PF3OUdS (11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid)	Ppb	ND		Perfluoroheptanoic acid	Ppb	ND
9CI-PF3ONS (9-chlorohexadecafluoro-3oxanone-1-sulfonic acid	Ppb	ND		Perfluorohexanesulfonic acid	Ppb	ND
ADONA (4,8-dioxa-3H-perfluorononanoic acid)	Ppb	ND		Perfluorononanoic acid	Ppb	ND
HFPO-DA (Hexafluoropropylene oxide dimer acidA)	Ppb	ND		Perfluorooctanesulfonic acid	Ppb	ND_0.005
NEtFOSAA (N-ethylperfluorooctanesulfonamidoacetic acid)	Ppb	ND		Perfluoroctanoic acid	Ppb	ND
NMeFOSAA (N-methylperfluorooctanesulfonamidoacetic acid0	Ppb	ND		Perfluorotetradecanoic acid	Ppd	ND
Perfluorobutanesulfonic acid	Ppb	ND		Perfluorotridecanoic acid	Ppd	ND
Perfluorodecanoic acid	Ppb	ND		Perfluoroundecanoic acid	Ppd	ND
Perfluorohexanoic acid	Ppb	ND		Total PFAS	Ppd	ND_0.005
Perfluorododecanoic acid	Ppb	ND				

Questions ?

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Monday of each month at the Phil Campbell Water Works & Sewer Board office building at 5:00 p.m. The office is located at 215 McClung Street, Phil Campbell, Alabama. If you have any questions about this report or anything concerning your water utility, please contact Darren Steward, Superintendent at (205)993-5464. More information about contaminants to drinking water and potential health effects can be obtained by called the EPA Safe Drinking Water Hotline at 1-800-426-4791.

We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. We are pleased to report that our drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means.

DEFINITIONS

In this report you may find terms and abbreviations with which you might not be familiar. To help you better understand these terms we have provided the following definitions:

*Non Applicable (n/a): Not applicable to water system because not required to perform the referenced monitoring.
*Non-Detects (ND): laboratory analysis indicates that the constituent is not present
*Not Required (NR): laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama
*Parts per million (Ppm) or Milligrams per liter (mg/l): one part per million corresponds to one minute in two years or a single penny in $10,000.00
*Parts per billion (Ppb) or Micrograms per liter: one part per billion corresponds to one minute in 2,000 years or a single penny in $10,000,000.00
*Parts per trillion (Ppt) or Nanograms per liter (nanograms/l): one part per trillion corresponds to one minute in 2,000,000 years or a single penny in $10,000,000,000,000.00
*Parts per quadrillion (ppq) or Picograms per liter (pictograms/l): one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in $10,000,000,000,000.00
*Picocuries per liter (pCi/L): picocuries per liter are a measure of the radioactivity in water
*Millirems per year (mrem/yr): measure of radiation absorbed by the body
*Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person
*Variances & Exemptions (V&E): state or EPA permission not to meet an MCL or a treatment technique under certain conditions
*Action Level: the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow
*Treatment Technique (TT): (mandatory language) a treatment technique is a required process intended to reduce the level of a contaminant in drinking water
*Maximum Contaminant Level: (mandatory language) 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 allow for a margin of safety.
*Maximum Contaminant Goal: (mandatory language) the Goal (MCGL) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCGLs allow for a margin of safety.
*Coliform Absent (ca): laboratory analysis that the contaminant is not present

*Disinfection byproducts: are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacedic acids (HAA5), bromate and chlorite.
*Initial Distribution System Evaluation (IDSE): a one-time study conducted by water systems to identify distribution systems with high concentrations of trihalomethanes (TTHM) and haloacetic acids (HAA5). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for Stage 2 DBPR.
*Threshold Odor Number (TON): the greatest dilution of a sample with odor-free water that yields a barely detectable odor

At the end of this report is a list of *Primary Drinking Water Contaminants* and a list of *Unregulated Contaminants* for which our water system routinely monitors. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants.*

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS					
Contaminant	**MCL**	**Unit of Msmt**	**Contaminant**	**MCL**	**Unit of Msmt**
Bacteriological Contaminants			Trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	<5%	present or absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present or absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calculated organisms/liter	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants			Dinoseb	7	ppb
Beta/photon emitters	4	mrem/yr	Dioxin [2,3,7,8-TCDD]	30	ppq
Alpha emitters	15	pCi/l	Diquat	20	ppb
Combined radium	5	pCi/l	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals			Epichlorohydrin	TT	TT
Antimony	6	ppb	Ethylbenzene	700	ppb
Arsenic	10	ppb	Ethylene dibromide	50	ppt
Asbestos	7	MFL	Glyphosate	700	ppb
Barium	2	ppm	Heptachlor	400	ppt
Beryllium	4	ppb	Heptachlor epoxide	200	ppt
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Hexachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	ppt
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxamyl [Vydate]	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls (PCBs)	0.5	ppb
Mercury	2	ppb	Pentachlorophenol	1	ppb
Nitrate	10	ppm	Picloram	500	ppb
Nitrite	1	ppm	Simazine	4	ppb
Selenium	.05	ppm	Styrene	100	ppb
Thallium	.002	ppm	Tetrachloroethylene	5	ppb
Organic Contaminants			Toluene	1	ppm
2,4-D	70	ppb	Toxaphene	3	ppb
Acrylamide	TT	TT	2,4,5-TP(Silvex)	50	ppb
Alachlor	2	ppb	1,2,4- Trichlorobenzene	.07	ppm
Benzene	5	ppb	1,1,1- Trichloroethane	200	ppb
Benzo(a)pyrene [PAHs]	200	ppt	1,1,2- Trichloroethane	5	ppb
Carbofuran	40	ppb	Trichloroethylene	5	ppb
Carbon tetrachloride	5	ppb	Vinyl Chloride	2	ppb
Chlordane	2	ppb	Xylenes	10	ppm
Chlorobenzene	100	ppb	**Disinfectants & Disinfection Byproducts**		
Dalapon	200	ppb	Chlorine	4	ppm
Dibromochloropropane	200	ppt	Chlorine Dioxide	800	ppb
1,2-Dichlorobenzene	1000	ppb	Chloramines	4	ppm
1,4-Dichlorobenzene	75	ppb	Bromate	10	ppb
o-Dichlorobenzene	600	ppb	Chlorite	1	ppm
1,2-Dichloroethane	5	ppb	HAA5 [Total haloacetic acids]	60	ppb

1,1-Dichloroethylene	7	ppb	TTHM [Total trihalomethanes]	80	ppb
cis-1,2-Dichloroethylene	70	ppb			

LIST OF SECONDARY CONTAMINANTS

Alkalinity, Total (as CA, Co3)	Chloride	Foaming agents(MBAS)	Manganese	Silver	Total Dissolved Solids
Aluminum	Color	Hardness	Odor	Sodium	Zinc
Calcium, as Ca	Copper	Iron	Nickel	Specific Conductance	
Carbon Dioxide	Corrosivity	Magnesium	pH	Sulfate	

UNREGULATED CONTAMINANTS

1,1- Dichloropropene	Aldicarb	Dibromochloromethane	1-Naphthol
1,1,1,2- Tetrachloroethane	Aldicarb Sulfone	Dibromomethane	Paraquat
1,1,2,2- Tetrachloroethane	Aldicarb Sulfoxide	Dicamba	N – Butylbenzene
1,1- Dichloroethane	Aldrin	Dichlorodifluoromethane	Propachlor
1,2,3- Trichlorobenzene	Bromoacetic Acid	Dieldrin	N-Propylbenzene
1,2,3- Trichloropropane	Bromobenzene	Hexachlorobutadiene	O-Chlorotoluene
1,2,4- Trimethylbenzene	Bromochloromethane	Isoprpylbenzene	P-Chlorotoluene
1,3 – Dichloropropane	Bromodichloromethane	M-Dichlorobenzene	P-Isopropyltoluene
1,3 – Dichloropropene	Bromoform	Methomyl	Tetrachloroethene
1,3,5 – Trimethylbenzene	Bromomethane	Methylene chloride	Trichloroacetic Acid
2,2 – Dichloropropane	Butachlor	Methyl tert-butyl ehter	Trichloroethene
3-Hydroxycarbofuran	Carbaryl	Metolachlor	Trichlorfluoromethane
Sec – Butylbenzene	Chloroethane	Metribuzin	
Tert – Butylbenzene	Chloroform	MTBE	
	Chloromethane	Naphthalene	