ANNUAL WATER QUALITY REPORT

Cleburne County Water Authority

January – December 2016

We're pleased to present to you this year's Annual Quality on Tap Report. This report is designed to inform you about the quality 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. We want you to understand the efforts make to continually improve the water treatment process and protect our water resources. Presently water is made available in the Oak Level Community East to the Alabama/Georgia Line on County Road 65. The water line extends South to Fruithurst and most of the Muscadine area. The Welcome Center and Weight Station is provided water by the Cleburne County Water Authority. This line extends in the Abernathy area. We also provide water in the Macedonia Area know as the Flower Wood Nursery Line. These areas are supplied water through Carroll County Water Authority from the City of Bowdon. This is treated water from the Little Tallapoosa drainage basin known as Turkey Creek. The City of Bowdon and Carroll County Water Authority also test daily and routinely monitors for contaminants. Water is being supplied to the residents between Interstate 20 and the Tallapoosa River from the Waterworks and Sewer Board of the City of Anniston.

The Source Water Protection Plans (SWAP) has been completed for the source waters of our suppliers and a copy is available at their respective offices for viewing along with information regarding how individuals may obtain copies. The SWAP is a study to define the recharge area for our water sources. They provide more information such as potential sources of contamination. I'm pleased to report that our drinking water is safe and meets federal and state requirements**.**

If you have questions about this report or concerning your water utility, please contact Mike at 256-463-7860. To learn more, attend our regularly scheduled meetings held on the 3rd Tuesday of each month, 6 P.M. CST, at our water office located at 2531 Hwy 46E in Heflin Alabama. Special meetings are advertised in the Cleburne News and post at the Water Authority Office, the Cleburne County Courthouse and the Heflin Post Office. Our office hours are Monday - Friday 8 am until 4 pm CST.

DIRECTORS

- Roger Hand-Chairman
- Larry Brown- Treasurer
- Randall White- Secretary
- Kim Bible
- Jimmy Jimmerson

The Cleburne County Water Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. This table below shows the results of our monitoring for the period of January 1st to December 31st, 2016 unless noted**.** All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

PLAIN LANGUAGE DEFINITION

- *Non-Detects (**ND**)* - laboratory analysis indicates that the contaminant 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.
- *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.
- *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.
- *Parts per quadrillion (**ppq**) or Picograms per liter (picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.
- *Picocuries per liter (**pCi/L**)* - picocuries per liter is a measure of the radioactivity in water.
- *Millirems per year (**mrem/yr**)* - measure of radiation absorbed by the body.
- *Nephelometric Turbidity Unit (**NTU**)* - nephelometric turbidity unit is 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 – (AL)* the concentration of a contaminant which, 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.
- Threshold Odor Number (T.O.N.)- The greatest dilution of a sample with odor-free water that still yields a just-detectable odor.
- *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 as feasible using the best available treatment technology.
- *Maximum Contaminant Level Goal* - (mandatory language) The "Goal"(**MCLG**) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level Goal or MRDLG - The level of a 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 or 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.

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.

Table of Primary Drinking Water Contaminants
At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Chloramines (ppm)	4	ND
Total Coliform Bacteria	< 5%	1.40%	Chlorite (ppm)	1	ND
Turbidity (NTU)	TT	0.11-0.09	Endothall (ppb)	100	ND
Fecal Coliform & E. coli	0	0.138	Endrin (ppb)	2	ND
Radiological			Epichlorohydrin (ppb)	TT	ND
Beta particle and photon (mrem/yr)	4	ND	Glyphosate (ppb)	700	ND
Gross Alpha particle (pCi/L)	15	-0.25+/-1.63	Heptachlor (ppt)	400	ND
Combined radium 228 (pCi/L	5	0.19+/-0.45	Heptachlor Epoxide (ppt)	200	ND
Tritium (pCi/L)	20,000	ND	Hexachlorobenzene (ppb)	1	ND
Strontium 90 (pCi/L)	8	ND	Hexachlorocyclopentadiene (ppb)	50	ND
Uranium (ppb)	30	ND	Lindane (ppt)	200	ND
Inorganic			Methoxychlor (ppb)	40	ND
Antimony (ppb)	6	ND	Oxamyl [Vydate] (ppb)	200	ND
Arsenic (ppb)	10	0.55	Polychlorinated Biphenyls (PCBs)(ppt)	500	ND
Asbestos (MFL)	7	ND	Pentachlorophenol (ppb)	1	ND
Barium (ppm)	2	.023	Picloram (ppb)	500	ND
Beryllium (ppb)	4	ND	Simazine (ppb)	4	ND
Cadmium (ppb)	5	ND	Toxaphene (ppb)	3	ND
Chromium (ppb)	100	2.3	Benzene (ppb)	5	ND
Copper (ppm)90th percentile result	AL=1.3	0.081	Carbon Tetrachloride (ppb)	5	ND
Cyanide (ppb)	200	ND	Monochlorobenzene (ppb)	100	ND
Fluoride (ppm)	4	0.63-0.79	Dibromochloropropane (ppt)	200	ND
Lead (ppb)	AL=15	ND	0-Dichlorobenzene (ppb)	600	ND
Mercury (ppb)	2	ND	Para-dichlorobenzene (ppb)	75	ND
Nickel (ppb)	100	ND	1,2-Dichloroethane (ppb)	5	ND
Nitrate (as N)(ppm)	10	0.56	1,1-Dichloroethylene (ppb)	7	ND
Nitrite (as N)(ppm)	1	ND	Cis-1,2-Dichloroethylene (ppb)	70	ND
Total Nitrate/Nitrite (ppm)	10	0.56	Trans-1,2-Dichloroethylene (ppb)	100	ND
Selenium (ppb)	50	ND	Dichloromethane (ppb)	5	ND
Sulfate (ppm)	500	20.6	1,2-Dichloropropane (ppb)	5	ND
Thallium (ppb)	2	ND	Ethylbenzene (ppb)	700	ND
Organic Chemicals			Ethylene Dibromide (EDB)(ppt)	50	ND
2,4-D (ppb)	70	ND	Styrene (ppb)	100	ND
2,4,5-TP (Silvex) (ppb)	50	ND	Tetrachloroethylene (ppb)	5	ND
Acrylamide (ppm)	TT	ND	1,2,4-Trichlorobenzene (ppb)	70	ND
Alachlor (ppb)	2	ND	1,1,1-Trichloroethane (ppb)	200	ND
Atrazine (ppb)	3	ND	1,1,2-Trichloroethane (ppb)	5	ND
Benzo(a)pyrene[PHAs] (ppt)	200	ND	Trichloroethylene (TCE)(ppb)	5	ND
Carbofuran (ppb)	40	ND	Total trihalomethanes (TTHM)(ppb)	80	64.0
Chlordane (ppb)	2	ND	Toluene (ppm)	1	ND
Dalapon (ppb)	200	ND	Vinyl Chloride (ppb)	2	ND
Di-(2-ethylhexyl)adipate (ppb)	400	ND	Chlorine (ppm)	4	1.70 avg.
Di(2-ethylhexyl)phthlates (ppb)	6	ND	Chlorine dioxide (ppb)	800	ND
Dinoseb (ppb)	7	ND	Bromate (ppb)	10	ND
Diquat (ppb)	20	ND	Total Organic Carbon (TOC)	TT	1.28-0.68
Dioxin[2,3,7,8-TCDD] (ppq)	30	ND	Xylenes (Total)(ppm)	10	ND
			Haloacetic Acids (HAA5)(ppb)	60	27.0

Table of Detected Contaminants

CONTAMINANT	MCLG	MCL	Amount Detected			Likely Source of Contamination
Bacteriological January – December 2016			**Carroll Co.**	**Anniston**		
Turbidity	0	TT	ND	0.09	NTU	Soil runoff
Radiological						
Gross Alpha particle	0	15	9.86	ND	pCi/L	Erosion of natural deposits
Combined Radium 228	0	5	ND	ND	pCi/L	Erosion of natural deposits
Inorganic 2016-2016						
*Copper 2011 (90th percentile test results)	1.3	AL=1.3	0.081 Cleburne Co. test results		ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Inorganic 2013						
Chromium (ppb)	100	100	ND	ND	ppb	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate (as N)	10	10	1.5	ND	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	1.60-2.15 Cleburne Co. result		ppm	Water additive used to control microbes

TTHM (Cleburne Co.)	0	80	ND-64.9. average 12.00		Ug/l	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	0	60	ND-27.0 average 2.92 C. Co.		Ug/l	By-product of drinking water chlorination
Inorganic						
Fluoride	4	4	0.79	0.6	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Barium	2000	2000	.170	.023	ppb	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Secondary Contaminants						
Chloride	N/A	250	ND	5.36	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Aluminum	N/A	200	.068	170.00	ppb	Erosion of natural deposits or as a result of treatment with water additives
Total Dissolved Solids	N/A	500	ND	145	ppm	Erosion of natural deposits
Iron	N/A	300	3.4	55.6	ppb	Erosion of natural deposits
Sulfate	N/A	500	ND	20.6	ppm	Naturally occurring in the environment
Odor	N/A	3.0	ND	ND	T.O.N.	Naturally occurring in the environment or as a result of treatment with water additives
Zinc	N/A	5.0	0.	ND	ppm	Erosion of natural deposits
Copper	N/A	1300	ND	20.0	ppb	Erosion of natural deposits
Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components.						
Special Contaminants						
Carbon Dioxide	0	N/A	ND	9.03	ppm	Naturally occurring in the environment
Ph	0	N/A	ND	7.7	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	0	N/A	4.7	1.60	ppm	Naturally occurring in the environment
Total Alkalinity	0	N/A	11.2	97.7	ppm	Naturally occurring in the environment
Calcium	N/A	N/A	ND	22.1	ppm	Erosion of natural deposits
Magnesium	N/A	N/A	ND	11.3	ppm	Erosion of natural deposits
Total Hardness (as CaCO3)	N/A	N/A	ND	102.00	ppm	Naturally occurring in the environment or as a result of treatment with water additives
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.						
Unregulated Contaminants			**Carroll Co.**	**Anniston**		
Bromodichloromethane	N/A	N/A	1.9	ND	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chloroform	N/A	N/A	6.7	ND	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Dibromochloromethane	N/A	N/A	ND	ND	ppm	Residual of banned fire extinguisher additive

GENERAL INFORMATION

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. 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 by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

MCL's 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 individuals with other immune system disorders, some elderly, and infants, can be particularly at risk from infections. Those at risk should seek advice about drinking water from the health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Crytosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).**

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. Cleburne County Water 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 http://www.epa.gov/safewater/lead.

Based on a study conducted by the 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.

We at the Cleburne County Water Authority check around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.