PIEDMONT UTILITIES DEPARTMENT
CITY OF PIEDMONT, ALABAMA

ANNUAL DRINKING WATER QUALITY REPORT-2019

INTRODUCTION

We're pleased to present to you this year's Annual Water Quality 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 we make to continually improve the water treatment process, protect our water resources, and to ensure the quality of your water. This report provides background information on your water system and presents water quality data for the year 2019.

WATER SOURCE

We now have two water sources one water source is Ladiga Creek, a stream formed from limestone springs east of Highway 278 East. The second water source is our New well we put in service August of 2019. It is located on Sports Complex Rd. The new well is capable of pumping 200 gallons per minute, we will use this well as a back up to our filter plant. A Source Water Assessment (SWA) for Ladiga Creek and the springs was completed in 2002 the one for the new well was completed in 2019 and both were approved by the Alabama Department of Environmental Management (ADEM). The Source Water Assessment is a study to define the recharge areas to our water sources and helps us better protect your drinking water. In addition, the City of Piedmont completed a Vulnerability Assessment and Emergency Response Plan in 2004 to keep your water safe and secure.

TREATMENT AND DISTRIBUTION SYSTEM

The City of Piedmont has been providing water to citizens in the area since 1898. Components of the original system have been completely replaced. The current Piedmont Utilities Department was first incorporated back in 1948 to ensure a safe, dependable source of water to every home in the area. As of the end of 2019, we were serving approximately 2,727 homes and businesses.

The water from Ladiga Creek is pumped to our Water Treatment Plant for treatment, which includes adding chlorine for disinfection, aluminum sulfate for coagulation and sedimentation, and soda ash for pH control. Next the water flows through a flocculator and two settling basins. The flocculator has recently been upgraded. The water is then filtered through four multi-media filters. Then the finished water is pumped to you. All of the materials and equipment used in the process of treating and distributing water to you has been approved by the National Sanitation Foundation (NSF). The NSF has a general information phone number you can call to get more information (800-673-6275).

In the event of power failure, the Piedmont Water Treatment Plant and the pumps have standby power generation at the creek, which has 100% production capacity.

The Water Treatment Plant has received the **"Best Operated Plant"** award in Alabama eight times in the last 16 years and **"The Safe Drinking Water Excellence Award"** in the Environmental Protection Agency (EPA) Region IV (8 states) in 1993 and 2000. The plant is adequately staffed 24 hours a day, 7 days a week by four State Certified Grade IV operators.

The Piedmont Utility Department currently maintains the following:

- Water Mains in Service – 106 Miles
- Sewer Mains in Service – 28 Miles
- Gas Mains in Service – 76 Miles
- Water Storage Tanks – 3
- Water Storage Capacity – 2.3 Million Gallons
- Water Treatment Capacity – 2.25 Millions Gallons per Day
- Water Booster Pump Stations – 7
- Public Fire Hydrants – 389
- Sewage Treatment Capacity – 1.55 Million Gallons per Day

We routinely complete a water storage facility inspection plan, and utilize a Bacteriological Monitoring Plan and a Cross Connection Policy to ensure safe drinking water for our customers.

MANAGEMENT

Our system is governed by a Piedmont City Council. 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 & third Tuesday of every month. The meeting is held at the Municipal Complex beginning at 6:00 P.M. The Council Members are:

Mayor: Bill Baker **City Clerk: Michelle Franklin**

Council Members:

Ben Keller, Mary Bramblett, Matt Rogers, Doug Dickerson, Greg South, Bobby Harding & Terry Kiser

If you have any questions about this report or concerns about your water utility, please contact:

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We are also members of the American Water Works Association, Alabama Rural Water Association, Water Environment Federation, Alabama Water Pollution and Control Association, Alabama Natural Gas Association, and Municipal Distributors Group of Alabama.

WATER QUALITY DATA FOR 2019

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. Your Local Water officials vigilantly safeguard Piedmont water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard. We are pleased to report that our drinking water is safe and meets all federal and state requirements. This section describes our water quality and what it means.

Piedmont Utilities Department routinely monitors for constituents in your drinking water according to Federal and State laws. The following tables show the results of our monitoring for the period of January 1st to December 31st, 2019, or from the most recent sampling prior to 2012 (ADEM does not require us to monitor for all constituents every year). Although we are only required to report those constituents that were detected, we are including a list of all the tests that we ran to give you an idea of the extensive testing that is done to ensure that

your water is safe. The shaded rows indicate constituents that were detected, although they are all below the regulatory levels. Please note that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

The lab data are presented in eight tables, grouped according to EPA requirements. In these tables 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:

Not Required (NR) – laboratory analysis not required.

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.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

Action Level (AL) - the concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - 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 - 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.

Our monitoring results are shown in the table on the following pages.

Table of Primary 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
Bacteriological		
Total Coliform Bacteria	< 5%	ND
Turbidity	TT	0.10
Fecal Coliform & E. coli	0	ND
Fecal Indicators (enterococci or coliphage)	None	ND
Radiological		
Beta/photon emitters (mrem/yr)	4	ND
Alpha emitters (pci/l)	15	ND
Combined radium (pci/l)	5	0.50
Uranium(pci/l)	30	ND
Inorganic		
Antimony (ppb)	6	ND
Arsenic (ppb)	10	ND
Asbestos (MFL)	7	ND
Barium (ppm)	2	ND
Beryllium (ppb)	4	ND
Bromate(ppb)	10	ND
Cadmium (ppb)	5	ND
Chloramines(ppm)	4	ND
Chlorine(ppm)	4	2.8
Chlorine dioxide(ppb)	800	ND
Chlotite(ppm)	1	ND
Chromium (ppb)	100	ND
Copper (ppm) (2008)	AL=1.3	0.074
Cyanide (ppb)	200	ND
Fluoride (ppm)	4	ND
Lead (ppb)	AL=15	ND
Mercury (ppb)	2	ND
Nitrate (ppm)	10	1.05
Nitrite (ppm)	1	ND
Total Nitrate & Nitrite	10	.76
Selenium(ppb)	50	ND
Thallium(ppb)	2	ND
Organic Chemicals		
Acrylamide	TT	ND
Alachlor(ppb)	2	ND
Atrazine(ppb)	3	ND

CONTAMINANT	MCL	AMOUNT DETECTED
Endothall(ppb)	100	ND
Endrin(ppb)	2	ND
Epichlorohydrin	TT	ND
Ethylbenzene(ppb)	700	ND
Ethylene dibromide(ppt)	50	ND
Glyphosate(ppb)	700	ND
Haloacetic Acids(ppb)	60	20.1
Heptachlor(ppt)	400	ND
Heptachlor epoxide(ppt)	200	ND
Hexachlorobenzene(ppb)	1	ND
Hexachlorocyclopentadiene(ppm)	50	ND
Lindane(ppt)	200	ND
Methoxychlor(ppb)	40	ND
Oxamyl [Vydate](ppb)	200	ND
Pentachlorophenol(ppb)	1	ND
Picloram(ppb)	500	ND
PCBs(ppt)	500	ND
Simazine(ppb)	4	ND
Styrene(ppb)	100	ND
Tetrachloroethylene(ppb)	5	ND
Toluene(ppm)	1	ND
TOC	TT	.64
TTHM(ppb)	80	22.1
Toxaphene(ppb)	3	ND
2,4,5-TP (Silvex)(ppb)	50	ND
1,2,4-Trichlorobenzene(ppb)	70	ND
1,1,1-Trichloroethane(ppb)	200	ND
1,1,2-Trichloroethane(ppb)	5	ND
Trichloroethylene(ppb)	5	ND
Vinyl Chloride(ppb)	2	ND
Xylenes(ppm)	10	ND

Benzene(ppbv)	5	ND
Benzo(a)pyrene[PHAs](ppt)	200	ND
Carbofuran(ppb)	40	ND
Carbon Tetrachloride(ppb)	5	ND
Chlordane(ppb)	2	ND
Chlorobenzene(ppb)	100	ND
2,4-D	70	ND
Dalapon(ppb)	200	ND
Dibromochloropropane(ppt)	200	ND
0-Dichlorobenzene(ppb)	600	ND
p-Dichlorobenzene(ppb)	75	ND
1,2-Dichloroethane(ppb)	5	ND
1,1-Dichloroethylene(ppb)	7	ND
Cis-1,2-Dichloroethylene(ppb)	70	ND
trans-1,2-Dichloroethylene(ppb)	100	ND
Dichloromethane(ppb)	5	ND
1,2-Dichloropropane(ppb)	5	ND
Di-(2-ethylhexyl)adipate(ppb)	400	ND
Di(2-ethylhexyl)phthlates(ppb)	6	ND
Dinoseb(ppb)	7	ND
Dioxin[2,3,7,8-TCDD](ppq)	30	ND
Diquat(ppb)	20	ND

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. Please note the sampling frequency of each of these constituents varies, and the range represents the low and high concentrations detected during the sampling events.

Secondary Contaminants

National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable 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. EPA recommends secondary standards to water systems but does not require systems to comply.

Explanation for reasons for variance/exemption

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.

The tables below list all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done in the calendar year of the report. The EPA or ADEM requires us to monitor for certain contaminants les than once per year because the concentrations of these contaminants do not change frequently.

Table of Detected Drinking Water Contaminants

CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Bacteriological Contaminants January - December 2019								
Turbidity (2013)	0	TT				.10	NTU	Soil runoff
Radiological Contaminants January - December 2019								
Combined Radium 226 & 228 (2019)	0	5	0	-	ND	0.50	pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2019								
Chlorine	MRDLG 4	MRDL 4	1.0	-	2.8	2.8	ppm	Water additive used to control microbes
Copper (2019)	1.3	AL=1.3	No. of Sites above action level 1			0.074	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2019)	0	AL=15	No. of Sites above action level 0			ND	ppb	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as N)	10	10	1.05	-	1.05	1.05	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrate & Nitrite	10	10	1.05	-	1.05	1.05	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity	N/A	TT		-		.10	NTU	Soil runoff
Organic Contaminants January - December 2019								
Haloacetic Acids (HAA5)	N/A	60	1.4	-	20.1	8.13	ppb	By-product of drinking water chlorination
Total Organic Carbon (TOC)	N/A	TT	ND	-	.64	.64		Naturally present in the environment
Total trihalomethanes (TTHM)	0	80	4.9	-	22.1	9.76	ppb	By-product of drinking water chlorination
Secondary Contaminants January - December 2019								
Aluminum	N/A	0.2	ND	-	ND	ND	ppm	Erosion of natural deposits or as a result of treatment with water additives
Chloride	N/A	250	4.32	-	4.32	4.32	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Iron	N/A	0.3	ND	-	ND	ND	ppm	Erosion of natural deposits
Manganese	N/A	0.05	ND	-	ND	ND	ppm	Erosion of natural deposits

Odor	N/A	3	ND	-	ND	ND	T.O.N.	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	N/A	250	14.0	-	14.0	14.0	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	48	-	48	48	ppm	Erosion of natural deposits
Zinc	N/A	5	ND	-	ND	ND	ppm	Erosion of natural deposits
Special Contaminants			**January - December 2019**					
Calcium	N/A	N/A	24.5	-	24.5	24.5	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	2.68	-	2.68	2.68	ppm	Erosion of natural deposits
Magnesium	N/A	N/A	12.6	-	12.6	12.6	ppm	Erosion of natural deposits
pH	N/A	N/A	7.82	-	7.82	7.82	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	N/A	N/A	1.31	-	1.31	1.31	ppm	Naturally occurring in the environment
Specific Conductance	N/A	<500	247	-	247	247	umhos	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	N/A	N/A	14.0	-	14.0	14.0	ppm	Naturally occurring in the environment
Total Alkalinity	N/A	N/A	90.0	-	120	120	ppm	Erosion of natural deposits
Total Hardness (as CaCO3)	N/A	N/A	113	-	113	113	ppm	Naturally occurring in the environment or as a result of treatment with water additives
Unregulated Contaminants			**January - December 2019**					
Bromodichloromethane	N/A	N/A	.001	-	.005	.005	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chloroform	N/A	N/A	.003	-	.014	.014	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Dibromochloromethane	N/A	N/A	0	-	.002	.002	ppm	Naturally occurring in the environment

Note: Analytical results are from the last test performed, and were not necessarily tested in 2019.

Non-Compliance Microbiological (LT2ESWTR) (2010)								
CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Bacteriological	Unit							
Cryptosporidium	0	TT	0	-	0	0	Organisms/Liter	Wildlife and/or human waste
Giardia	0	TT	10.25	-	11.5	11.5	Organisms/Liter	Wildlife and/or human waste
Total Coliform	0	TT	23	-	72700	72700	#/100 ml	Wildlife and/or human waste
E. coli	0	TT	<1	-	1120	1120	#/100 ml	Wildlife and/or human waste
Turbidity	N/A	TT	6.14	-	77.5	77.5	NTU	Soil runoff

GENERAL INFORMATION

Cryptosporidium monitoring/testing was performed on the RAW WATER at each water source for each respective water treatment plant at a frequency of once per month January thru September 2010.

Cryptosporidium is a significant concern in drinking water because it contaminates surface waters used as drinking water sources, it is resistant to chlorine and other disinfectants, and it has caused waterborne disease outbreaks. Consuming water with Cryptosporidium, a contaminant in drinking water sources, can cause gastrointestinal illness, which may be severe in people with weakened immune systems (e.g. infants and the elderly) and sometimes fatal in people with severely compromised immune systems (e.g. cancer and AIDS patients).

The purpose of the LT2 rule is to reduce disease incidence associated with Cryptosporidium and other pathogenic microorganisms in your drinking water. The rule applies to ALL public water systems that use surface water or ground water that is under the direct influence of surface water.

Cryptosporidium was detected in the ***RAW WATER ONLY!*** and ***NOT*** in the ***Finished Drinking Water***.

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.

What does this mean?

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 constituents have been detected. The EPA has determined that your water **IS SAFE** at these levels.

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 activities.

As noted before, 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 the 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 (800) 426-4791, or by visiting their website at http://www.epa.gov.

MCLs 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.

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 health care providers. EPA/CDC (Center of 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. All Drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants.

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. The Piedmont Utilities Department 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.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Please call our office if you have questions.