

Annual Water Quality Report
EAST LAUDERDALE COUNTY WATER & FIRE PROTECTION AUTHORITY
January - December 2019

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 and protect our water resources. We are committed to ensuring the quality of your water. Our water source is 100% strictly purchase from **Pluris LLC**. **Pluris LLC** is supplied by groundwater that is pumped from the Center Star Well and the Carver Springs Well. **We have emergency connections with Florence Water and Limestone County Water & Sewer Authority. Florence Water** is supplied by surface water from the Tennessee River and Cypress Creek. In addition, if purchased Florence Water Department pumps groundwater from two wells in the Killen and Center Star areas in Lauderdale County, which is blended with the treated surface water sources. **Limestone County Water** is supplied from the Elk River and groundwater is pumped from the Lawson and Newby Wells and treated in modern treatment plants. In an emergency, the water provided to our customers (from Limestone County), chlorine is added for disinfection purposes, poly aluminum chloride is added for turbidity removal and caustic soda for corrosion control. This insures the quality of water throughout the distribution system. In an emergency, the water provided to our customers (from Florence), chlorine is added for disinfection purposes, fluoride for the prevention of tooth decay, lime to produce a desirable water quality by raising the pH level to reduce corrosion and acidic conditions, potassium permanganate to oxidize iron, and aid in taste and odor control, poly aluminum chloride for turbidity removal and alum for coagulation. Florence Water & Sewer Department, the Limestone Water & Sewer Authority and Pluris LLC have implemented Source Water Protection Plans. These plans provide more information such as potential sources of contaminations, which may affect our water source. **We are pleased to report that our drinking water is safe and meets federal and state requirements.**

If you have any questions about this report or concerning your water utility, please contact Ronald Woodard, Manager, (256) 247-1606. We want our valued customers to be informed about their water utility. If you want to learn more, please attend our monthly scheduled meetings. The board meets the second Tuesday of each month. Interested parties may obtain the exact time of each meeting by calling the office beforehand. The water board office is located at 2943 Highway 101, Rogersville, AL (phone # 247-1606).

BOARD OF DIRECTORS

Thomas W. Howard, Chairman

Terry Herston, Vice-Chairman

Bruce Springer, Secretary/Treasurer

East Lauderdale County Water & Fire Protection Authority, Florence Water & Sewer Department and the Limestone Water & Sewer Authority routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2019. 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.

PLAIN LANGUAGE DEFINITION

- **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.
- **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 – (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 – (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 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					
Total Coliform Bacteria (East Lauderdale)	< 5%	ND	Fecal Coliform & E. coli	0	ND
Turbidity (Pluris)	TT	0.08			
Radiological					
Alpha emitters (pci/l) (Pluris)	16	0.70	Uranium(ppm)	30	ND
Inorganic					
Antimony (ppb)	6	ND	Copper (ppm) (2019)	AL=1.3	1.30
Arsenic (ppb)	10	ND	Cyanide (ppb)	200	ND
Barium (ppm)	2	ND	Lead (ppb) (2019)	AL=15	23
Beryllium (ppb)	4	ND	Mercury (ppb)	2	ND
Cadmium (ppb)	5	ND	Nitrate (ppm) Pluris	11	1.89
Chlorine(ppm) (East Lauderdale 2019)	4	1.63	Selenium(ppb)	50	ND
Chlorine dioxide(ppb)	800	ND	Thallium(ppb)	2	ND
Chromium (ppb)	100	ND			
Organic Chemicals					
Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
Alachlor(ppb)	2	ND	Haloacetic Acids(ppb) East Lauderdale	60	1.40
Atrazine(ppb)	3	ND	Heptachlor(ppt)	400	ND
Benzene(ppbv)	5	ND	Heptachlor epoxide(ppt)	200	ND
Benzo(a)pyrene[PHAs](ppt)	200	ND	Hexachlorobenzene(ppb)	1	ND
Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppm)	50	ND
Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Dibromochloropropane(ppt)	200	ND	PCBs(ppt)	500	ND
0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	1.50
trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb) East Lauderdale	80	3.20
Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Di(2-ethylhexyl)phthlates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	ND
Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
Endothall(ppb)	100	ND	Xylenes(ppm)	10	ND
Endrin(ppb)	2	ND			
Epichlorohydrin	TT	ND			
Ethylbenzene(ppb)	700	ND			

Table of Detected Drinking Water Contaminants

CONTAMINANT	MCLG	MCL	Range			Amount Detected	Likely Source of Contamination
Bacteriological Contaminants January - December 2019							
Turbidity (Pluris 2019)	1	TT				0.08	NTU Soil runoff
Radiological Contaminants January - December 2019							
Alpha emitters (Pluris 2014)	0	15				0.70	pCi/L Erosion of natural deposits
Combined Radium 226 & 228 (Pluris)	0	5				0.30	pCi/L Erosion of natural deposits
Inorganic Contaminants January - December 2019							
Chlorine (East Lauderdale 2019)	MRDLG 4	MRDL 4	1.19	-	1.63	1.63	ppm Water additive used to control microbes
Copper (2019)	1.3	AL=1.3	No sites above action lever			1.30	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 3			23	ppb Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as N) Pluris	10	10	1.30	-	1.92	1.89	ppm Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity (Pluris 2019)	N/A	TT				0.08	NTU Soil runoff
Organic Contaminants January - December 2019							
Haloacetic Acids (HAA5) East Lauderdale	N/A	60	ND	-	1.40	ND	Ppb By-product of drinking water chlorination
Total trihalomethanes (TTHM) East Lauderdale	0	80	N/D	-	3.20	ND	ppb By-product of drinking water chlorination
Secondary Contaminants January - December 2019							
Chloride (Pluris)	N/A	251	5.40	-	5.40	5.40	ppm Naturally occurring in the environment or as a result of agricultural runoff
Sulfate (Pluris 2019)	N/A	251	1.20	-	2.53	1.86	ppm Naturally occurring in the environment
Total Dissolved Solids (Pluris 2019)	N/A	501	64.0	-	76.0	70.0	ppm Erosion of natural deposits
Zinc (Pluris 2019)	N/A	5	0.13	-	0.13	0.13	ppm Erosion of natural deposits
Special Contaminants January - December 2019							
Calcium (Pluris 2019)	N/A	N/A	13.3	-	17.3	17.3	ppm Erosion of natural deposits
Carbon Dioxide (Pluris 2019)	N/A	N/A	12.4	-	19.7	19.7	ppm Erosion of natural deposits
Magnesium (Pluris 2019)	N/A	N/A	2.35	-	3.34	2.84	ppm Erosion of natural deposits
pH (Pluris 2019)	N/A	N/A	6.16	-	7.24	7.24	SU Naturally occurring in the environment or as a result of treatment with water additives
Sodium (Pluris 2019)	N/A	N/A	2.58	-	2.66	2.62	ppm Naturally occurring in the environment
Specific Conductance (Pluris 2019)	N/A	<501	124.00	-	139.00	139.00	umhos Naturally occurring in the environment or as a result of treatment with water additives
Total Alkalinity (Pluris 2019)	N/A	N/A	36.9	-	50.9	50.9	ppm Erosion of natural deposits
Total Hardness (as CaCO3) (Pluris 2019)	N/A	N/A	43.0	-	46.7	44.9	ppm Naturally occurring in the environment or as a result of treatment with water additives
Unregulated Contaminants January - December 2019							
Bromodichloromethane (East Lauderdale)	N/A	N/A	ND	-	1.58	1.58	ppb Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination

Chloroform (East Lauderdale)	N/A	N/A	ND	-	1.32	1.32	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Dibromochloromethane (East Lauderdale)	N/A	N/A	ND	-	1.05	1.05	ppm	Naturally occurring in the environment

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

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

Reporting Violation

The East Lauderdale County Water & Fire Protection Authority failed to put a reporting violation in its 2018 Consumer Confidence Report. The violation consisted of failure to provide the Department proof that sampled customers were given their results and the required supporting documentation.

Lead & Copper Violation

The Alabama Department of Environmental Management (ADEM) and East Lauderdale County Water and Fire Protection Authority have concerns about lead in your drinking water. Although lead has not been detected in the water sources which supply East Lauderdale County Water and Fire Protection Authority and most homes have very low levels in their drinking water, 3 out of the 20 homes sampled in the community were found to have lead levels above the EPA action levels of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under federal law we are required to have a corrosion control program in place to minimize lead in your drinking water. While East Lauderdale County Water & Fire Protection Authority's corrosion control program has been effective in date the results of recent sampling indicate that the current program is in need of modification. The current program is under review and will be modified no later than December 31, 2019. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line is found to contribute to lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program.

After further testing and resampling of the affected homes in the community we at East Lauderdale Water & Fire Protection Authority have found that all levels have come back under the EPA required action levels of 15 ppb. We are continuing to monitor and use our comprehensive treatment program in hopes of keeping all levels and any signs of lead down below the action levels. If you have any further questions or concerns regarding how we are carrying out the requirements of the lead regulation or about the violation, please give us a call at the water office at 256-247-1606.

GENERAL INFORMATION

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.

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. These people should seek advice about drinking water from their health care providers. EPA (Environmental Protection Agency)/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 (800-426-4791). 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

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 (1-800-426-4791).

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two 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.

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.

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.

East Lauderdale County Water & Fire Protection 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 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>.

We at the East Lauderdale Water & Fire Protection Authority work 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, way of life and our children's future.