

2020 Annual Water Quality Report
(Testing Performed January - December 2019)

ESCAMBIA COMMUNITY UTILITIES
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We are pleased to present to you this year's Annual Water Quality Report. Last year your tap water once again met all U.S. E.P.A. and Alabama Department of Environmental Management (ADEM) drinking water health standards.

Number of Customers	Approximately 500
Water Sources	Two groundwater wells: Huxford well and Canoe well
Interconnections	Uriah Water System
Water Treatment	Chlorination for disinfection, pH adjustment
Storage Capacity	Two storage tanks with a total capacity of 125,000 gallons
Water Board Members	Josh Thomas – Executive Director
	Shaun Livermore – Operations Manager
	Brenda Faircloth - Treasurer
	Rita Hall – Vice Treasurer

Water Quality Protection

In compliance with the Alabama Department of Environmental Management (ADEM), **Escambia Community Utilities** has developed a Source Water Assessment plan that will assist in protecting our water sources. The assessment has been performed, public notification has been completed, and the plan has been approved by ADEM. All the potential contaminants sited in our study area were ranked as medium and low in the susceptibility analysis. A copy of the report is available in our office for review during regular business hours, or you may purchase a copy upon request for a nominal reproduction fee.

Escambia Community Utilities routinely utilizes a Bacteriological Monitoring Plan. The required chlorine residual is maintained throughout our distribution system to protect your drinking water from possible outside contaminants. We have also established a Cross-Connection Policy to insure safe drinking water for our customers. Please help us make these efforts 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. We ask that all our customers help us protect our valuable water sources, which are the heart of our community, our way of life, and our children's futures.

General Information

All drinking water, including bottled drinking 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 runoff, 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 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. 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 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).

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.

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.

Questions?

If you have any questions about this report or concerning your water utility, please contact **Shaun Livermore** at 251-446-1617. 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 third Thursday of each month at 263 Aplin Rd, Atmore, Alabama. More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

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Monitoring Schedule

Escambia Community Utilities routinely monitors for contaminants in your drinking water according to Federal and State laws, using EPA approved methods and a State certified laboratory. The Alabama Department of Environmental Management (ADEM) allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

Constituent Monitored	Year Monitored
Inorganic Contaminants	2019
Lead/Copper	2019
Microbiological Contaminants	current
Nitrates	2019
Radioactive Contaminants	2017
Synthetic Organic Contaminants (including pesticides and herbicides)	2018
Volatile Organic Contaminants	2019
Disinfection By-products	2019
Corrosivity Characteristics	2014

Monitoring Results

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 CONTAMINANTS Escambia Community Utilities						
Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Alpha emitters	NO	0.9	PCi/l	0	15	Erosion of natural deposits
Combined radium	NO	1.6	PCi/l	0	5	Erosion of natural deposits
Copper (distribution)	NO	0.920 * 0>AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (distribution)	NO	0.018 ** 1>AL	ppm	0	AL=0.015	Corrosion of household plumbing systems, erosion of natural deposits
Barium	NO	0.07-0.09	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen)	NO	2.20-3.39	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM [Total trihalomethanes]	NO	1.10-6.60	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	ND-2.00	ppb	0	60	By-product of drinking water chlorination
Secondary Contaminants						
Chloride	NO	7.35-10.6	ppm	n/a	250	Naturally occurring or from discharge or runoff
Hardness	NO	11.8-16.9	ppm	n/a	n/a	Naturally occurring or from water treatment
Manganese	NO	0.01-0.04	ppm	n/a	0.05	Erosion of natural deposits; leaching from pipes
pH	NO	6.76-7.97	S.U.	n/a	n/a	Naturally occurring or from water treatment
Sodium	NO	9.53-51.6	ppm	n/a	n/a	Naturally occurring in the environment
Total Dissolved Solids	NO	32-164	ppm	n/a	500	Naturally occurring or from discharge or runoff
Zinc	NO	ND-0.10	ppm	n/a	5	Erosion; industrial discharge; runoff from landfills

* Figure shown is 90th percentile and number of sites above the Action Level (1.3 ppm) = 0

** Figure shown is 90th percentile and number of sites above the Action Level (0.015 ppm) = 1
(Lead was not detected when site was re-sampled.)

Corrosivity Characteristics 2013 – Huxford Well			
	Source	Distribution	
Contaminants	Level Detected	Level Detected	Unit of Msmt
Alkalinity, Total (as CaCO ₃)	1.60	6.90-37.5	mg/L CaCO ₃
Calcium (as Ca)	1.87-1.89	1.90-1.93	mg/L
Hardness, Calcium/Magnesium (as CaCO ₃)	10.7-10.9	10.9-11.1	mg/L
Carbon Dioxide	1.60-2.00	1.80-3.40	mg/L
Magnesium	1.47-1.49	1.49-1.52	mg/L
pH	4.50-4.60	6.30-6.40	pH units
Specific Conductance	51.0-52.0	119-121	µmhos/cm
Sulfate	ND	ND	mg/L
Temperature	19.4-20.0	17.5-18.0	°C
Total Dissolved Solids	28.0-44.0	60.0-68.0	mg/L
Corrosivity Characteristics 2014 – Canoe Well			
	Source	Distribution	
Contaminants	Level Detected	Level Detected	Unit of Msmt
Alkalinity, Total (as CaCO ₃)	ND	100	mg/L CaCO ₃
Calcium (as Ca)	2.4	2.4	mg/L
pH	4.73	7.63	pH units
Specific Conductance	72	260	µmhos/cm
Sulfate	ND	ND	mg/L
Temperature	20.2	20.0	°C

Tips on Becoming Water-Wise

Read Your Water Meter:

- Use your water meter to check for leaks in your home. Start by turning off all faucets and water-using appliances and make sure no one uses water during the testing period.
- Take a reading on your water meter, wait for about 30 minutes, and then take a second reading. If the numbers have changed, you have a leak.

Check for Leaky Toilets:

- The most common source of leaks is the toilet. Check toilets for leaks by placing a few drops of food coloring in the tank. If after 15 minutes the dye shows up in the bowl, the toilet has a leak.
- Leaky toilets can usually be repaired inexpensively by replacing the flapper.

Check for Leaky Faucets:

The next place to check for leaks is your sink and bathroom faucets. Dripping faucets can usually be repaired by replacing the rubber O-ring or washer inside the valve.

DEFINITIONS

Action Level- the concentration of a contaminant that, if exceeded, triggers treatment or other requirements for a water system.

ADEM- Alabama Department of Environmental Management.

Coliform Absent- (ca) indicates that coliform bacteria is not present.

Disinfection byproducts- (DBPs) are formed when disinfectants react with bromide and/or natural organic matter present in the source water. Disinfection byproducts for which we test are trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

Distribution System Evaluation- (DSE) a four quarter study to identify locations with high concentrations of disinfection byproducts.

EPA- Environmental Protection Agency.

Maximum Contaminant Level- (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- (MCLG) 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- (MRDL) the highest level of a disinfectant allowed in drinking water

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.

Micrograms per liter- (ug/L) Equivalent to parts per billion (ppb) since one liter of water is equal in weight to one billion micrograms.

Milligrams per liter- (mg/L) Equivalent to parts per million

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.

Non-Detects- (ND) laboratory analysis indicates that the constituent is not present above the detection limits of lab equipment.

Parts per billion- (ppb) or Micrograms per liter (µg/l) one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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 quadrillion- (ppq) or Picograms per liter (picograms/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.

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.

Picocuries per liter- (pCi/L) picocuries per liter is a measure of the radioactivity in water.

Running Annual Average- (RAA) running yearly average of results at each specific sampling site.

Standard Units- (S.U.) pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas.

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

Variations & Exemptions- (V&E) State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Following 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
o-Dichlorobenzene	600	ppb	Chloramines	4	ppm
p-Dichlorobenzene	75	ppb	Bromate	10	ppb
1,2-Dichloroethane	5	ppb	Chlorite	1	ppm
1,1-Dichloroethylene	7	ppb	HAA5 [Total haloacetic acids]	60	ppb
cis-1,2-Dichloroethylene	70	ppb	TTHM [Total trihalomethanes]	80	ppb
UNREGULATED CONTAMINANTS					
1,1 – Dichloropropene	Aldicarb		Chloroform		Metolachlor
1,1,1,2-Tetrachloroethane	Aldicarb Sulfone		Chloromethane		Metribuzin
1,1,2,2-Tetrachloroethane	Aldicarb Sulfoxide		Dibromochloromethane		N - Butylbenzene
1,1-Dichloroethane	Aldrin		Dibromomethane		Naphthalene
1,2,3 - Trichlorobenzene	Bromobenzene		Dicamba		N-Propylbenzene
1,2,3 - Trichloropropane	Bromochloromethane		Dichlorodifluoromethane		O-Chlorotoluene
1,2,4 - Trimethylbenzene	Bromodichloromethane		Dieldrin		P-Chlorotoluene
1,3 – Dichloropropane	Bromoform		Hexachlorobutadiene		P-Isopropyltoluene
1,3 – Dichloropropene	Bromomethane		Isopropylbenzene		Propachlor
1,3,5 - Trimethylbenzene	Butachlor		M-Dichlorobenzene		Sec - Butylbenzene
2,2 – Dichloropropane	Carbaryl		Methomyl		Tert - Butylbenzene
3-Hydroxycarbofuran	Chloroethane		MTBE		Trichlorofluoromethane