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

POARCH BAND OF CREEK INDIANS UTILITY AUTHORITY

5811 Jack Springs Road
Atmore, AL 36502
Phone 251-446-1617
Fax 251-446-1624

We are pleased to present to you this year's Annual Water Quality Report. This report will tell you where your water comes from, what contaminants have been detected, and how these detection levels compare to Federal and State drinking water standards. This report is designed to inform you about the quality water and services we deliver to you every day. 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.

Water Source	Two groundwater wells producing from the Miocene formation	
Interconnections	West Escambia Utilities	
Water Treatment	Chlorination, fluoridation and pH adjustment	
Storage Capacity	Two storage tanks with a total capacity of 1.2 million gallons	
Number of Customers	Approximately 240	
Board Members	Josh Martin	Chairman
	Ron Marshall	Vice Chairman
	Chris McGhee	Secretary/Treasurer
	Ronald Rolin	Member
	John O Kelley	Member
	Charles Bo Bray	Member
	Vacant seat	Member
Staff	Joshua Thomas	Utilities Executive Director
	James Ramer	Maintenance Superintendent
	Rebecca Black	Customer Service Supervisor
	Shaun Livermore	Operations Manager
	Nathaniel Dortch	Maintenance Foreman
	Tyler Jackson	Operator I
	Kimberly Weatherford	Office Coordinator
	Dempsey Rolin	Chief Operator
	Trenton McGhee	Operator II
	Larry Bailey Jr.	Operations Supervisor
	Bo Slate	Maintenance Technician
	Trent Flowers	Maintenance Technician
	Jerry Walker	Utilities Assistant
	Blake Cunningham	Utilities Assistant

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), Poarch Band of Creek Indians Utility Authority has developed a Source Water Assessment 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. The report has been completed and approved by ADEM. A copy of the report is available in our office for review.

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.

Questions?

If you have any questions about this report or concerning your water utility, please contact Josh Thomas. 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 the Utilities Office, 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).

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 levels 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).

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 minimize 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, or
- 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 at www.epa.gov/safewater/lead.

Monitoring Schedule and Results

Your water sources are routinely monitored for contaminants in your drinking water according to Federal laws, using EPA approved methods and a certified laboratory. Environmental regulations allow 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.

Constituents Monitored	Date Monitored
Inorganic Contaminants	2020
Lead/Copper	2021
Microbiological Contaminants	current
Nitrates	2021
Radioactive Contaminants	2021
Synthetic Organic Contaminants (including pesticides and herbicides)	2021
Volatile Organic Contaminants	2021
Disinfection By-products	2021
PFAS Contaminants	2020

As you can see by the following tables, our system had no violations. 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. The following table shows *only* those contaminants that were detected in our water.

DETECTED DRINKING WATER CONTAMINANTS						
Contaminants	**Violation Y/N**	**Level Detected**	**Unit Msmt**	**MCLG**	**MCL**	**Likely Source of Contamination**
Combined radium	NO	1.03	PCi/l	0	5	Erosion of natural deposits
Gross Alpha	NO	0.70	PCi/l	0	15	Erosion of natural deposits
Barium	NO	0.04	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	NO	0.018 [1]	ppm	1.3	AL=1.3	Household plumbing corrosion; erosion; preservative leaching
Fluoride	NO	ND-0.48	ppm	4	4	Erosion; water additive; fertilizer & aluminum factory discharge
Nitrate (as Nitrogen)	NO	1.4-1.6	ppm	10	10	Fertilizer runoff; septic tank leaching, sewage; erosion
TTHM [Total trihalomethanes]	NO	1.20-47.0	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	ND-11.0	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Chloroform	NO	ND-3.60	ppb	n/a	n/a	Naturally occurring; factory discharge; agricultural runoff
Bromodichloromethane	NO	ND-3.40	ppb	n/a	n/a	Naturally occurring; factory discharge; agricultural runoff
Dibromochloromethane	NO	ND-2.20	ppb	n/a	n/a	Naturally occurring; factory discharge; agricultural runoff
Secondary Contaminants						
Chloride	NO	3.80-5.60	ppm	n/a	250	Naturally occurring; factory discharge; agricultural runoff
Hardness	NO	5.90-7.40	ppm	n/a	n/a	Naturally occurring; treatment with water additives
pH	NO	6.8-7.2	S.U.	n/a	n/a	Naturally occurring; treatment with water additives
Sodium	NO	9.60-27.2	ppm	n/a	n/a	Naturally occurring in the environment
Sulfate	NO	ND-2.3	ppm	n/a	250	Naturally occurring in the environment; erosion
Total Dissolved Solids	NO	33-89	ppm	n/a	500	Naturally occurring; factory discharge; agricultural runoff

[1] Figure shown is 90th percentile and number of sites above the Action Level = 0

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals for which the EPA has not established national 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 water sources were monitored as required in 2020 and the results of that monitoring. *PFAS was not detected in our drinking water.*

PFAS CONTAMINANTS						
Contaminant	**Unit Msmt**	**Level Detected**		**Contaminant**	**Unit Msmt**	**Level Detected**
11Cl-PF3OUdS (11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid)	ppb	ND		Perfluoroheptanoic acid	ppb	ND
9Cl-PF3ONS (9-chlorohexadecafluoro-3-oxanone-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
NEtFOSAA (N-ethylperfluorooctanesulfonamidoacetic acid)	ppb	ND		Perfluorooctanoic acid	ppb	ND
NMeFOSAA (N-methylperfluorooctanesulfonamidoacetic acid0	ppb	ND		Perfluorotetradecanoic acid	ppb	ND
Perfluorobutanesulfonic acid	ppb	ND		Perfluorotridecanoic acid	ppb	ND
Perfluorodecanoic acid	ppb	ND		Perfluoroundecanoic acid	ppb	ND
Perfluorohexanoic acid	ppb	ND		Total PFAS	ppb	ND
Perfluorododecanoic acid	ppb	ND				

For more information on PFAS contaminants, please consult www.epa.gov/pfas/pfas-fact-sheets-and-infographics

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.

List of Definitions

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

Coliform Absent (ca)- Laboratory analysis indicates that the contaminant is not present.

Cryptosporidium- a microscopic parasite that can cause disease, mainly diarrhea, if swallowed.

Disinfection byproducts (DBPs)- 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.

Distribution System Evaluation (DSE)-a 4-quarter study to identify distribution system locations with high concentrations of DBPs.

Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water.

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.

Millirems per year (mrem/yr)-measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU)-a measure of the clarity of water.

Non-Detect (ND)- laboratory analysis indicates that the constituent is not present above 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 (LRAA)-yearly average of all the DPB results at each specific sampling site in the distribution system.

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

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

Below is a table of contaminants for which the Environmental Protection Agency and the Alabama Department of Environmental Management require testing where applicable. These contaminants were not detected in your drinking water unless they are also listed in the Detected Drinking Water Contaminants table elsewhere in this report.

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS

Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants			cis-1,2-Dichloroethylene	70	ppb
Total Coliform Bacteria	<5%	present/absent	trans-1,2-Dichloroethylene	100	ppb
Fecal Coliform and E. coli	0	present/absent	Dichloromethane	5	ppb
Turbidity	TT	NTU	1,2-Dichloropropane	5	ppb
Cryptosporidium	TT	Calc.organisms/l	Di (2-ethylhexyl)adipate	400	ppb
Radiological Contaminants			Di (2-ethylhexyl)phthalate	6	ppb
Beta/photon emitters	4	mrem/yr	Dinoseb	7	ppb
Alpha emitters	15	pCi/l	Dioxin [2,3,7,8-TCDD]	30	ppq
Combined radium	5	pCi/l	Diquat	20	ppb
Uranium	30	pCi/l	Endothall	100	ppb
Inorganic Chemicals			Endrin	2	ppb
Antimony	6	ppb	Epichlorohydrin	TT	TT
Arsenic	10	ppb	Ethylbenzene	700	ppb
Asbestos	7	MFL	Ethylene dibromide	50	ppt
Barium	2	ppm	Glyphosate	700	ppb
Beryllium	4	ppb	Heptachlor	400	ppt
Cadmium	5	ppb	Heptachlor epoxide	200	ppt
Chromium	100	ppb	Hexachlorobenzene	1	ppb
Copper	AL=1.3	ppm	Hexachlorocyclopentadiene	50	ppb
Cyanide	200	ppb	Lindane	200	ppt
Fluoride	4	ppm	Methoxychlor	40	ppb
Lead	AL=15	ppb	Oxamyl [Vydate]	200	ppb
Mercury	2	ppb	Polychlorinated biphenyls	0.5	ppb
Nitrate	10	ppm	Pentachlorophenol	1	ppb
Nitrite	1	ppm	Picloram	500	ppb
Selenium	.05	ppm	Simazine	4	ppb
Thallium	.002	ppm	Styrene	100	ppb
Organic Contaminants			Tetrachloroethylene	5	ppb
2,4-D	70	ppb	Toluene	1	ppm
Acrylamide	TT	TT	Toxaphene	3	ppb
Alachlor	2	ppb	2,4,5-TP(Silvex)	50	ppb
Atrazine	3	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 (para)	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

LIST OF SECONDARY CONTAMINANTS

Alkalinity, Total (as CA, Co_3)	Copper	Manganese	Specific Conductance
Aluminum	Corrosivity	Odor	Sulfate
Calcium, as Ca	Foaming agents (MBAS)	Nickel	Total Dissolved Solids
Carbon Dioxide	Hardness	pH	Zinc
Chloride	Iron	Silver	
Color	Magnesium	Sodium	

LIST OF UNREGULATED CONTAMINANTS

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