



Annual Drinking Water Quality Report

Monitoring Performed January – December 2022

Eufaula Water Works

840 West Washington Street
Eufaula, Alabama 36027
(334) 687-1225

"Working to Serve the Public and Save the Environment"

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report). The purpose of this report is to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We want you to understand the efforts made to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Water Sources:	A total of eight deep groundwater wells. Presently, seven wells are operating and draw water from the Gordo Formation of the Tuscaloosa Group Aquifer.
Water Treatment:	Chlorine for disinfection

The Eufaula Water Works and Sewer Board office is managed by N. Kevin Heartsill. The organization was established as a municipal board and is governed by citizens appointed by the City Council of Eufaula. The Board meets the third Tuesday of each month in the conference room at the Eufaula Water Works and Sewer Board office at 8:00 am (unless changed). If you have any questions about the information in this report or concerning the Eufaula Water and Sewer Board utility, please contact our office at (334) 687-1225. Our office hours are from 8:00 am to 5:00 pm Monday through Thursday & 8:00 am to 12:00 pm on Friday.

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), the Water Works and Sewer Board of the City of Eufaula has completed and adopted a Source Water Assessment Plan to help protect your public health and safety by minimizing contamination of the aquifers from which our wells draw water. Copies of our Protection Plan may be obtained by contacting our office at (334) 687-1225. This program along with our Groundwater Guardian and Wellhead Protection Plan help educate the public about groundwater protection.

Our water sources are routinely monitored for contaminants, according to a schedule determined by Federal and State regulations. Every water system has individually assigned monitoring requirements. ADEM allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The following table shows the most recent year and the next monitoring requirement for the contaminant groups.

Constituent Monitored	Date Monitored / Next Monitoring
Inorganic Contaminants	2022 / 2025
Lead/Copper	2020 / 2023
Microbiological Contaminants	Monthly
Nitrates	Annually
Radioactive Contaminants	2022 / 2026 - 2034
Synthetic Organic Contaminants (including pesticides and herbicides)	2022 / 2025
Volatile Organic Contaminants	2022 / 2025
Disinfection By-products	Annually

Variances and Exemptions

ADEM or the EPA can give permission not to meet an MCL or a treatment technique under certain conditions.

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.

Reporting Noncompliance

Eufaula Water Works incurred a reporting noncompliance from a failure to submit the January - June 2022 PFAS monitoring results by the required date.

ADEM Admin Code r. 335-7-2.20(1)(a) states, "the supplier of water shall report to the Department the results of any test, measurement or analysis within the first 10 days following the month in which the result is received to the first 10 days following the end of the required monitoring period as stipulated by the Department, whichever is shortest."

The Collection Date was May 3, 2022; however, the results were not reported to ADEM until August 2, 2022.

If you have any questions about this notice, please get in touch with Michael Taylor, Treatment/Production Superintendent at (334) 687-1225.

Please visit our website for information about our organization, to pay your bill online or print needed forms.

Also on our website, sign up for Auto Debit (ACH) and E-Statement. Sign up TODAY and never worry again when you bill is due.

www.eufaulawaterworks.com

If you haven't already - Like us on Facebook at Eufaula Water Works for updates and current information



En Español:

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

General Information Regarding Drinking Water Contaminants

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. MCLs, 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, in some cases, radioactive material, and 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, can be naturally occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides may come from a variety of sources such as agriculture, stormwater 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 stormwater runoff, and septic systems.
- Radioactive contaminants, 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 that 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 which must provide the same protection for public health. 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 healthcare providers.

Water systems also test your source water for pathogens, such as Cryptosporidium and Giardia. These pathogens can enter the water from animal or human waste. All test results were well within state and federal standards. For people who may be immuno-compromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of Cryptosporidium in our drinking water. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).



Please help keep our sewer system clean and operable by disposing of cooking oil properly.

10 Year Capital Improvement Plan

We updated our 10 year Capital Improvements Plan in 2017. We identified over \$35 million of needs through 2027. We secured funding for \$8 million of the higher priority needs through the issuance of Bonds in 2017. We issued \$12.75 million in Bonds in 2020 to fund additional projects identified in the 10 year plan update.

We began Well and Booster Station site upgrades in 2021 and this was completed in 2022. We will also begin a water meter replacement project in 2023. We will continue to work to improve our systems for our customers.

Lead & Copper Monitoring

Eufaula Water Works completed monitoring requirements for lead and copper in 2020. Thirty sites were sampled without exceeding the Action Level Limits for lead or copper. The system will continue to monitor for lead and copper every three years. The next monitoring period for the system will be the period of June – September 2023. Our monitoring results in 2020 were as follows:

2020 Results	MCL	90th Percentile Sample	Range of Levels
Lead	AL = 15	0.58 ppb	ND - 2
Copper	AL = 1.3	0.032 ppm	0.0024 - 0.0371

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

The tables below contain detected results from the most recent monitoring of primary, secondary, and unregulated contaminants. Unless otherwise noted, the data presented in this table is from the calendar year of this report. We are pleased to report that our drinking water meets or exceeds Federal and State requirements.

Table of Detected Primary Contaminants					
Primary Standards - Mandatory standards set by the Safe Drinking Water Act used to protect public health. These apply to all public water systems.					
Contaminant & Unit of MSMT	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range of Detected Low - High (MD)	Violation	Major Sources
RADIOLOGICAL CONTAMINANTS					
Alpha emitters (pCi/L)	15	0	ND - 3.43	No	Erosion of natural deposits
INORGANIC CONTAMINANTS					
Antimony (ppb)	6	6	ND - 0.24	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	10	0	ND - 0.4 ‡	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.0038 - 0.0034	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	4	4	ND - 0.19	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	5	5	ND - 0.02	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	0.81 - 1.4	No	Discharge from steel and pulp mills; Erosion of natural deposits
Copper - action level at consumer taps (ppm)	AL=1.3	1.3	0.0024 - 0.0371 (2020)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	0.433 - 0.585	No	Water additive which promotes strong teeth; erosion of natural deposits; Discharge from fertilizer and aluminum factories
Lead - action level at consumer taps (ppb)	AL=15	0	ND - 2 (2020)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - source water (ppb)	AL=15	0	ND - 0.58	No	Corrosion of household plumbing systems; Erosion of natural deposits
Selenium (ppm)	0.05	0.05	ND - 0.00084	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	2	0.5	ND - 0.15	No	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
DISINFECTANTS & DISINFECTION BYPRODUCTS †					
Total Haloacetic Acids HAA (ppb)	60	NA	ND - 0.1	No	By-product of drinking water disinfection
Total Trihalomethanes THM (ppb)	80	NA	7.2 - 19	No	By-product of drinking water disinfection

‡ While your drinking water meets EPA's standard for **Arsenic**, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

† There is convincing evidence that the addition of a **disinfectant** is necessary for the control of microbial contaminants.

Secondary Standards - Non Mandatory standards established as a guideline to assure good aesthetic qualities such as taste, color, and odor.						
Contaminant & Unit of MSMT	MCL	Range of Detected Low - High (MD)	Contaminant & Unit of MSMT	MCL	Range of Detected Low - High (MD)	
Aluminum (ppm)	250	ND - 0.00314	Alkalinity, Total (as Ca, Co3) (ppm)	NA	ND - 191	
Chloride (ppm)	250	ND - 21.4	Calcium, as Ca (ppm)	NA	ND - 0.849	
Copper (ppm)	1	ND - 0.0231	Carbon Dioxide (ppm)	NA	ND - 159	
Manganese (ppm)	0.05	0.00035 - 0.0043	Conductivity (umhos)	NA	ND - 383	
Sulfate (ppm)	250	ND - 6.6	Magnesium (ppm)	NA	0.0313 - 0.07	
Total Dissolved Solids (ppm)	500	164 - 246	pH (std units)	6.5 - 8.5	9 - 9.3	
Zinc (ppm)	5	ND - 0.0014	Sodium (ppm)	NA	ND - 109	

Daily Testing of Wells for Chlorine ‡	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8
Max Detected (ppm)	offline	3.1	2.9	2.7	3.2	3.2	3.3	2.9

‡ The major source of **Chlorine** is through water additives used to control microbes. This is tested daily and the results shown above is the Max Detected during calendar year 2022.

UNREGULATED CONTAMINANTS		
Contaminant & Unit of MSMT	Range of Detected Low - High (MD)	Major Sources
Bromodichloromethane (ppb)	ND - 6.2	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by product of chlorination
Bromoform (ppb)	ND - 5	
Chloroform (ppb)	ND - 1.5	
Dibromochloromethane (ppb)	ND - 7.8	

As part of an ongoing evaluation program, the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help ensure that future decisions on drinking water standards are based on sound science.

Contaminant & Unit of MSMT	Reported Level (2019)	Range of Detected Low - High (MD)
Alpha-BHC (ppb)	0.0034	0.0032 - 0.0034
Chlorpyrifos (ppb)	0.011	0.0096 - 0.011
Dimethipin (ppb)	0.069	0.065 - 0.069

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of contaminants in water provided by public water systems. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful to our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection for public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels.

Table of Primary Contaminants											
Contaminant & Unit of MSMT	MCL, TT, or MRDL (What's Allowed?)	Max Detected	Contaminant	MCL, TT, or MRDL (What's Allowed?)	Max Detected	Contaminant	MCL, TT, or MRDL (What's Allowed?)	Max Detected			
BACTERIOLOGICAL CONTAMINANTS											
Total Coliform Bacteria	< 5% present/absent	Absent	Dalapon (ppb)	200	ND	Lindane (ppt)	200	ND			
Fecal Coliform & E. coli	present/absent	Absent	1,1,2-Trichloroethane (ppb)	5	ND	Dibromochloropropane (ppt)	200	ND			
Total Organic Carbon (TOC)	TT	NA	1,1-Dichloroethylene (ppb)	7	ND	Di (2-ethylhexyl)phthalate (ppb)	400	ND			
Turbidity (NTU)	TT	NA	1,2,4-Trichlorobenzene (ppb)	0.07	ND	Di (2-ethylhexyl)phthalate (ppb)	6	ND			
RADIOLOGICAL CONTAMINANTS											
Beta/Photon emitters (mrem/yr)	4	ND	1,2-Dichloroethane (ppb)	5	ND	Dinoseb (ppb)	7	ND			
Alpha emitters (pCi/L)	15	3.43	1,2-Dichloropropane (ppb)	5	ND	Dioxin [2,3,7,8-TCDD] (ppq)	30	ND			
Combined radium (pCi/L)	5	ND	2,4,5-TP [Silvex] (ppb)	50	ND	Diquat (ppb)	20	ND			
INORGANIC CONTAMINANTS											
Antimony (ppb)	6	0.24	2,4-D (ppb)	70	ND	Endothall (ppb)	100	ND			
Arsenic (ppb)	10	0.4	Acrylamide (ppb)	TT	ND	Endrin (ppb)	2	ND			
Asbestos (MFL)	7	NA	Alachlor (ppb)	2	ND	Epichlorohydrin (ppb)	TT	ND			
Barium (ppm)	2	0.0034	Atrazine (ppb)	3	ND	Ethylbenzene (ppb)	700	ND			
Beryllium (ppb)	4	0.19	Benzene (ppb)	5	ND	Ethylene Dibromide (ppt)	50	ND			
Cadmium (ppb)	5	0.02	Benz(a)pyrene [PAHs] nanograms/L	200	ND	Glyphosate (ppb)	700	ND			
Chromium (ppb)	100	1.4	Carbofuran (ppb)	40	ND	Heptachlor (ppt)	400	ND			
Copper - action level at consumer taps (ppm)	AL=1.3	0.0371 (2020)	Carbon Tetrachloride (ppb)	5	ND	Heptachlor Epoxide (ppt)	200	ND			
Cyanide (ppb)	200	ND	Chlordane (ppb)	2	ND	Hexachlorobenzene (ppb)	1	ND			
Fluoride (ppm)	4	0.585	Chlorobenzene (ppb)	100	ND	Hexachlorocyclopentadiene (ppb)	50	ND			
Lead - action level at consumer taps (ppb)	AL=15	2 (2020)	cis-1,2-Dichloroethylene (ppb)	70	ND	DISINFECTANTS & DISINFECTION BYPRODUCTS					
Mercury (ppb)	2	ND	Bromate (ppb)	10	ND	Chlorine Dioxide (ppb)	800	0.25	Total Haloacetic Acids HAA (ppb)	60	0.1
Nitrate [measured as Nitrogen] NO3 (ppm)	10	ND	Chloramines (ppm)	4	ND	Chlorite (ppm)	1	0.91	Total Trihalomethanes TTHM (ppb)	80	19
Nitrite [measured as Nitrogen] NO2 (ppm)	1	ND	Chlorine (ppm)	4	3.3						
Selenium (ppm)	0.05	0.00084									
Thallium (ppb)	2	0.15									

Abbreviations & Definitions

Action Level (AL): The concentration of a contaminant that triggers treatment or other requirements that a water system must follow.

Lowest Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Contaminant Level (MCL): 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 (MD)

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants in drinking water.

Maximum Residual Disinfection 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.

Not Applicable (NA)

Nepholometric Turbidity Unit (NTU): A measure of the clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not Detected (ND): Laboratory analysis indicates that the constituent is not present above the detection limits of lab equipment.

pCi/L (picocuries per liter): a measure of radioactivity

ppb (parts per billion): micrograms per liter (µg/L)

ppm (parts per million): milligrams per liter (mg/L)

Threshold Odor Number (T.O.N.): The greatest dilution of a sample with odor-free water that still yields a just detectable odor.

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

Table of Secondary & Additional Contaminants

Contaminant & Unit of MSMT	Max Detected
Aluminum (ppm)	0.0314
Chloride (ppm)	21.4
Color (color units)	ND
Copper (ppm)	0.0231
Foaming agents MBAS (ppm)	ND
Iron (ppm)	ND
Manganese (ppm)	0.0043
Odor (threshold odor number)	ND
Silver (ppm)	ND
Sulfate (ppm)	6.6
Total Dissolved Solids (ppm)	246
Zinc (ppm)	0.0014

Contaminant & Unit of MSMT	Max Detected
Alkalinity, Total (as Ca, Co3) (ppm)	191
Calcium, as Ca (ppm)	0.849
Carbon Dioxide (ppm)	159
Conductivity (umhos)	383
Corrosivity (non corrosive)	ND
Hardness (ppm)	ND
Magnesium (ppm)	0.07
Nickel (ppm)	ND
pH (std units)	9.3
Sodium (ppm)	109

PFAS Contaminants	2016 Advisory	2022 Advisory	2023 Proposed MCL	May 2022
PFOA	70 ppt (combined)	.004 ppt (Interim)	4.0 ppt	No Detect
PFOS		.02 ppt (Interim)		No Detect
GEN X	NA	10 ppt (Final)		No Detect
PFBS	NA	2,000 ppt (Final)		No Detect
PFNA	NA	NA	1.0 Hazard Index -	No Detect
PFFxS	NA	NA		No Detect

Table of Unregulated Contaminants

Contaminant	Average Detected	Contaminant	Average Detected
1,1 - Dichloropropene	ND	Chloroform (ppb)	0.12
1,1,1,2-Tetrachloroethane	ND	Chloromethane	ND
1,1,2,2-Tetrachloroethane	ND	Dibromochloromethane (ppb)	2.02
1,1-Dichloroethane	ND	Dibromomethane	ND
1,2,3 - Trichlorobenzene	ND	Dicamba	ND
1,2,3 - Trichloropropane	ND	Dichlorodifluoromethane	ND
1,2,4 - Trimethylbenzene	ND	Dieldrin	ND
1,3 - Dichloropropane	ND	Hexachlorobutadiene	ND
1,3 - Dichloropropene	ND	Isopropylbenzene	ND
1,3,5 - Trimethylbenzene	ND	M-Dichlorobenzene	ND
2,2 - Dichloropropane	ND	Methomyl	ND
3-Hydroxycarbofuran	ND	Metolachlor	ND
Aldicarb	ND	Metribuzin	ND
Aldicarb Sulfate	ND	MTBE	ND
Aldicarb Sulfoxide	ND	N - Butylbenzene	ND
Aldrin	ND	Naphthalene	ND
Bromobenzene	ND	N-Propylbenzene	ND
Bromochloromethane	ND	O-Chlorotoluene	ND
Bromodichloromethane (ppb)	1.57	P-Chlorotoluene	ND
Bromoform (ppb)	1.37	P-Isopropyltoluene	ND
Bromomethane	ND	Propachlor	ND
Butachlor	ND	Sec - Butylbenzene	ND
Carbaryl	ND	Tert - Butylbenzene	ND
Chloroethane	ND	Trichlorfluoromethane	ND

PFAS Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have properties useful in the manufacture of nonstick cookware, stain-resistant carpet and textiles, firefighting foams, food wrappers, and many more industrial and consumer applications. These chemicals, which have been produced in the United States since the early 1940s, are very persistent in the environment.

- A **Hazard Index** helps to account for the increased risk from mixtures of PFAS that may be found in contaminated drinking water. The Hazard Index is a long-established tool that the EPA regularly uses, for example, to inform risks of chemical mixtures. A Hazard Index considers how toxic each of the four PFAS is and allows a site-specific determination based on the specific drinking water concentrations.