

The City of Tuscaloosa is pleased to provide this Annual Water Quality Report to you. This report provides information on the sources of our water, the results of our tests, and important information about water and health.

The sources of drinking water (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.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. 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.

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 SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA) was signed into law on December 16, 1974. Amended in 1996, the SDWA added provisions for consumer involvement and right-to-know. The Consumer Confidence Report or Annual Water Quality Report is the centerpiece of public right-to-know in the SDWA. This report provides consumers the detected amounts of contaminants, sources of contamination, and plain language definitions.

The amendments recognized that 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 means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the [Safe Drinking Water Hotline 1-800-426-4791](http://www.epa.gov/safewater).

STATEMENTS ON LEAD IN WATER

The City of Tuscaloosa is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Lead is rarely found in source water. It is primarily from corrosion of materials that were used in older plumbing, solder that connects pipes, or from pipes connecting a house to the main water pipe in the street. Lead is no longer used in manufacturing these products, but older plumbing components still remain in some older homes. When water sits for several hours in these older pipes lead can leach into the water.

Elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. The EPA and the CDC make the following recommendations:

- *Never use warm tap water to mix baby formula.* Use only water from the cold tap for drinking and cooking.
- Before using any tap water for drinking or cooking, flush your water system by running the tap on COLD for 1–2 minutes. Flushing can minimize the potential for lead exposure.
- Periodically remove the aerator on the tip of the faucet and wash out any debris such as metal particles.
- Boiling water will NOT reduce lead in water.

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 your family's exposure is available from the [Safe Drinking Water Hotline 1-800-426-4791](http://www.epa.gov/safewater), or at the EPA's website <http://www.epa.gov/safewater/lead>.

PLAIN LANGUAGE DEFINITIONS

To help you better understand the terms use in this report, please note the following abbreviations and definitions:

- AL** - Action Level; the level of a contaminant that, if exceeded, triggers treatment or other requirements.
- ca** – coliform absent
- cfu** - colony forming units
- DBP** - disinfection byproducts
- MCL** - maximum contaminant level
- MCLG** - maximum contaminant level goal
- MRDLG** –maximum residual disinfectant level goal
- MFL** - million fibers per liter; longer than 10 micrometers
- MRDL** - maximum residual disinfectant level
- mg/l** - milligrams per liter; equivalent to parts per million
- mrem/yr** - millirems per year; a measure of radiation
- NTU** - nephelometric turbidity unit; turbidity units
- NA** - not applicable
- ND** - not detected
- ppb** - parts per billion; equal to micrograms per liter
- ppm** - parts per million; equal to mg/L (milligrams per liter)
- ppq** - parts per quadrillion
- picograms/l** - picograms per liter
- pCi/L** - picocuries per liter; a measure of radiation
- ppt** – parts per trillion; equal to ng/L or nanograms per liter
- S.U.** - standard units; a measure the water's pH
- TT** - treatment technique; process to reduce contaminant
- µg/L** - micrograms per liter; equal to parts per billion
- V&E** - variances & exemptions

The City of Tuscaloosa's Mayor and Council

- Walt Maddox, Mayor
- Matthew Wilson, District 1
- Raevan Howard, District 2
- Norman Crow, District 3
- Lee Busby, District 4
- Kip Tyner, District 5
- John Faile, District 6
- Cassius Lanier, District 7

The Tuscaloosa City Council meets every Tuesday at 6:00 p.m. in the Council Chambers on the second floor of Tuscaloosa City Hall, 2201 University Boulevard. The Tuscaloosa News publishes the agenda for each meeting, and The City of Tuscaloosa posts the agenda on the website www.tuscaloosa.com. You may contact the City Clerk for more information at (205) 248-5011.

AWARD-WINNING WATER TREATMENT

In 2023, the Jerry Plott Plant received the Best Operated Plant Award for plants producing 10.1 – 20 MGD from the Alabama Water Pollution Control Association.

Please join us in thanking the staff of the City of Tuscaloosa Water Treatment Plants for their dedication to ensure that customers receive the best possible water quality.

IMPORTANT CONTACT INFORMATION

Water Billing Office Turn On/Turn Off
Office Hours: Mon. – Fri. 7:00 a.m. – 5:00 p.m.
205- 248-5500
Drive Thru: Mon. – Fri. 7:00 a.m. – 5:00 p.m.

Lakes Division
Office Hours: Mon. – Fri. 7:00 a.m. – 3:30 p.m.
205- 349-0279

Tuscaloosa 311 Call Center
Operational Hours: Mon. – Fri. 7:00 a.m. – 7:00 p.m.
Dial 311 Within City Limits or Call 205-248-5311

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline 800-426-4791 or by visiting EPA's website www.epa.gov/safewater.



Kimberly Michael
Executive Director

2024 ANNUAL WATER QUALITY REPORT

Testing Performed January - December 2023



Ed Love Water Filtration Plant
1125 Jack Warner Parkway North East
Tuscaloosa, Alabama 35404-1056
Telephone 205-248-5630



Jerry Plott Water Filtration Plant
2101 New Watermelon Road
Tuscaloosa, Alabama 35406
Telephone 205-248-5600

www.tuscaloosa.com/city-services/water/water-treatment

For Additional Information Contact:
Anissa Merriweather,
Water Quality Program Manager

THE SOURCE OF OUR DRINKING WATER

Lake Tuscaloosa is our primary source for drinking water. It is a 5,885-acre impoundment of North River and several other creeks. It holds over 40 billion gallons of excellent quality water.



Our Great Lake!

The City of Tuscaloosa developed a Source Water Assessment that assists in protecting our water sources. This plan provides information such as potential sources of contamination. It classifies potential contaminants as high, moderate, or non-susceptible to contaminating the water source. For further information regarding the Source Water Assessment, please call or come by our Business Office at 2230 Gary Fitts Street.

Turbidity Non-compliance 2023: During the August 2023 monitoring period, the water system exceeded the turbidity MCL of 1.0 resulting in a treatment technique violation and failed to make notification within 24 hours resulting in an acute violation requiring a 24-hour public notice.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

Subsequent monitoring and additional follow-up testing have not indicated any water contamination. Disinfection standards at the Ed Love Water Treatment Plant were never interrupted.

Ensuring your water quality is our highest priority and we will continue to monitor water quality to ensure all regulations are being met. If you have questions, please call the Ed Love Water Treatment Facility at 205-248-5630.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

OUR WATER TREATMENT PROCESSES

The Ed Love Water Filtration Plant and the Jerry Plott Water Filtration Plant supply water to nearly 200,000 customers in the metropolitan Tuscaloosa area. These facilities operate 24-hours a day, 365 days a year. Ed Love Plant has the capacity to treat 45.7 million gallons/day.

The Jerry Plott Water Filtration Plant can treat 14 million gallons/day. Each plant utilizes the basic five steps of treatment: coagulation, flocculation, sedimentation, filtration, and chlorination. The speed of treatment and the chemicals used to accomplish the five steps differ somewhat for each plant. The biggest difference in the two plants is in the filtration step.

The Ed Love Water Treatment Plant utilizes conventional filtration consisting of two layers of filter media. An 18-inch layer of anthracite coal sits on top of the filter and helps trap organic material and dirt. The second layer of 12 inches of torpedo sand traps dirt and protozoans. The sand is similar to the sand found on many beaches around the world. What makes this sand special is its high degree of uniformity, which allows the sand to pack together tightly, increasing the filter's effectiveness. Water filters by gravity.

The Jerry Plott facility utilizes pressure to squeeze water through membranes made of Polyvinylidene Fluoride, PVDF. This lightweight plastic polymer is formed into long hollow tubes. The hollow tubes have an appearance reminiscent of spaghetti. The water molecules pass through the filter and collect in the hollow center of the fibers. Dirt, pathogens, organic material, and bacteria are left on the outside of the fibers. After filtration, the water receives a dose of chlorine in the form of sodium hypochlorite. This chemical is commonly known as bleach. The water goes to a storage tank called a clear well. This tank gives the chlorine time to disinfect the water before it is pumped to the distribution system, and our customers. Facilities in our distribution include:

Water Mains in service, 4" and larger	714.30 Miles
Water storage tanks	14
Water storage capacity	26.4 Million Gal.
Water booster pump stations	10
Public fire hydrants	3895

UNREGULATED CONTAMINANT MONITORING RULE NUMBER 5 (UCMR5)

The Fifth Unregulated Contaminant Monitoring Rule (UCMR5) requires monitoring by certain water systems for 30 unregulated contaminants during 2022-2026 on assigned schedules. UCMR5 specifies monitoring for 29 PFAS and one metal (lithium). Our recent sampling on 11-27-2023 and 02-08-2024 yielded no detections of the 30 contaminants. For more information please refer to <https://www.epa.gov/dwucmr>.

PFAS CONTAMINANTS

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that were used in the manufacture of nonstick cookware, stain-resistant carpet and textiles, food wrappers, and other industrial and consumer applications. The City of Tuscaloosa monitored both water treatment plants for PFAS contaminants on March 30, 2021. PFAS contaminants were not detected in our drinking water. For more information please refer to <https://www.epa.gov/pfas>.

DETECTED DRINKING WATER CONTAMINANTS

We routinely monitor for constituents in your drinking water according to Federal and State laws. We work diligently to provide a high-quality, cost-effective drinking water supply.

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.

WATER QUALITY REPORT PRIMARY DRINKING WATER PARAMETERS WATER SOURCE LAKE TUSCALOOSA						
DETECTED CONTAMINANTS						
MICROBIOLOGICAL						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2023	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Total Coliform Bacteria			0	Coliform Present in 0.80% of samples in one month	Not detected- 0.80 %	No
In 2023, 4 of 2500 samples were positive for Total Coliform or 0.16%						
Total Organic Carbon	mg/L	TT	N/A	1.6	0.9-1.6	No
Turbidity	NTU	0.3	N/A	1.251	0.003-1.251	No
Chlorine as Cl ₂	mg/L	4	4	3.2	0.2-3.2	No
Chlorine Dioxide as ClO ₂	mg/L	0.8	0.8	0.64	0.04-0.64	No
Chlorite as ClO ₂	mg/L	1	1	0.89	0.026-0.890	No
RADIOLOGICAL						
All results meet or surpass Federal Drinking Water Regulations						
Gross Alpha	pCi/L	15	0	2.04+/-0.660	1.50+/-0.590-2.04+/-0.660	No
INORGANIC CHEMICALS						
All results meet or surpass Federal Drinking Water Regulations						
Barium as Ba	mg/L	2	2	0.021	0.017-0.021	No
Fluoride as F	mg/L	4	4	0.65	<0.05-0.65	No
Nitrate as NO ₃ -N	mg/L	10	10	0.11	0.09-0.11	No
Sulfate as SO ₄	mg/L	50	50	13.8	13.1-13.8	No
DISINFECTION BY-PRODUCTS						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2023	Units	MCL	MCLG	Average Level in Distribution System	Range of detections	Violation (Yes/No)
Haloacetic Acids	µg/L	60	N/A	25.6	8.3-38.0	No
The sum of Dibromoacetic, Dichloroacetic, Monobromoacetic, Monochloroacetic, & Trichloroacetic Acids annual average MCL equal to or less than 60 µg/L						
Total Trihalomethanes	µg/L	80	N/A	42.8	18.0-67.0	No
The sum of Chloroform, Bromodichloromethane, Dibromochloromethane & Bromoform annual average MCL equal to or less than 80 µg/L						
LEAD AND COPPER PRIMARY MONITORING						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2023	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Lead as Pb	mg/L	AL=0.015	0	<0.001	<0.001	No
Copper as Cu	mg/L	AL=1.3	1.3	0.13	0.0029-0.13	No
There were no violations, more than 90% of samples were below the action level.						
UNREGULATED ORGANIC CONTAMINANTS						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2023	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Bromodichloromethane	µg/L	N/A	N/A	0.0028	0.0022-0.0028	No
Chloroform	µg/L	N/A	N/A	0.0085	0.0043-0.0085	No

PRIMARY DRINKING WATER CONTAMINANTS

Below is a list of *Primary Drinking Water Contaminants* for which our water system routinely monitors. 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 in accordance with the regulatory schedule.

WATER QUALITY REPORT TABLE OF PRIMARY DRINKING WATER PARAMETERS MONITORING PERIOD ENDING DECEMBER 2023 WATER SOURCE LAKE TUSCALOOSA				
MICROBIOLOGICAL			RADIOLOGICAL	
Analyte	MCL	Highest Level Detected	Analyte	Highest Level Detected
Total Coliform Bacteria	<5%	0.80%	Beta / Photon Emitters	4 mrem / yr
Turbidity	<0.3 NTU	1.251	Alpha Emitters	15 pCi/L
INORGANIC CHEMICALS			Combined Radium	5 pCi/L
Antimony as Sb	6 ppb	ND	Uranium	30 ppb
Arsenic as As	10 ppb	ND	ORGANIC CHEMICALS	
Asbestos*	7 MLF	N/A	Endrin	2 ppb
Barium as Ba	2 ppm	0.021	Epichlorohydrin	TT
Beryllium as Be	4 ppb	ND	Glyphosate	700 ppb
Cadmium as Cd	5 ppb	ND	Heptachlor	400 ppb
Chromium as Cr	100 ppb	ND	Heptachlor epoxide	200 ppt
Copper as Cu	AL=1.3ppm	0.0036	Hexachlorobenzene	1 ppb
Cyanide as Cn	200 ppb	ND	Hexachlorocyclopentadiene	50 ppb
Fluoride as F	4 ppm	0.65	Lindane	200 ppt
Lead as Pb	AL=15 ppb	ND	Methoxychlor	40 ppb
Mercury as Hg	2 ppb	ND	Oxamyl (Vydate)	200 ppb
Nitrate as NO ₃ -N	10 ppm	0.11	PCB's	500 ppt
Nitrite as NO ₂ -N	1 ppm	ND	Pentachlorophenol	1 ppb
Selenium as Se	50 ppb	ND	Picloram	500 ppb
Thallium as Tl	2 ppb	ND	Simazine	4 ppb
DISINFECTION BY-PRODUCTS			Toxaphene	3 ppb
Chlorine	4 ppm	3.2	Benzene	5 ppb
Chloramines	4 ppm	N/A	Carbon tetrachloride	5 ppb
Chlorite	1 ppm	0.890	Chlorobenzene	100 ppb
Chlorine Dioxide	800 ppb	640	Dibromochloropropane	0.2 ppb
Bromate	10 ppb	N/A	o-Dichlorobenzene	600 ppb
Total Organic Carbon	TT	1.6	p-Dichlorobenzene	75 ppb
Total Trihalomethanes	80 ppb	67	1,2-Dichloroethane	5 ppb
Haloacetic Acids	60 ppb	38	1,1-Dichloroethylene	7 ppb
ORGANIC CHEMICALS			cis-1,2-Dichloroethylene	70 ppb
2,4-D	70 ppb	ND	trans-1,2-Dichloroethylene	100 ppb
2,4,5-TP(Silvex)	50 ppb	ND	Dichloromethane	5 ppb
Acrylamide	TT	N/A	1,2-Dichloropropane	5 ppb
Alachlor	2 ppb	ND	Ethylbenzene	700 ppb
Altrazine	3 ppb	ND	Ethylene dibromide	50 ppt
Benzo(A)pyrene	200 ppb	ND	Styrene	100 ppb
Carbofuran	40 ppb	ND	Tetrachloroethylene	5 ppb
Chlordane	2 ppb	ND	1,2,4-Trichlorobenzene	70 ppb
Dalapon	200 ppb	ND	1,1,1-Trichloroethane	200 ppb
Di(2-ethylhexyl)adipate	400 ppb	ND	1,1,2-Trichloroethane	5 ppb
Di(2-ethylhexyl)phthalates	6 ppb	ND	Trichloroethylene	5 ppb
Dinoseb	7 ppb	ND	Toluene	1 ppm
Diquat	20 ppb	ND	Vinyl Chloride	2 ppb
Dioxin[2,3,7,8-TCDD] *	30 ppq	N/A	Xylenes	10 ppm
Endothal	100 ppb	ND		
UCMR 5 CHEMICALS			UCMR 5 CHEMICALS	
Analyte	MRL	Highest Level Detected	Analyte	Highest Level Detected
PFTdA	0.0064 ppb	ND	PFHxA	0.0030 ppb
NETFOSAA	0.0045 ppb	ND	ADONA	0.0030 ppb
NMEFOSAA	0.0054 ppb	ND	PFPeS	0.0040 ppb
PFTeDA	0.0073 ppb	ND	6:2 FTS	0.0050 ppb
PFBA	0.0050 ppb	ND	PFOA	0.0040 ppb
PFMPA	0.0040 ppb	ND	PFHpS	0.0030 ppb
PFPeA	0.0030 ppb	ND	PFOS	0.0040 ppb
PFBS	0.0030 ppb	ND	PFNA	0.0040 ppb
PFMBA	0.0030 ppb	ND	9Cl-PF3ONS	0.0020 ppb
PFEESA	0.0030 ppb	ND	8:2 FTS	0.0050 ppb
HFPO-DA	0.0050 ppb	ND	PFDA	0.0030 ppb
NFDHA	0.020 ppb	ND	PFUnA	0.0020 ppb
4:2 FTS	0.0030 ppb	ND	11Cl-PF3OUdS	0.0050 ppb
PFHxS	0.0030 ppb	ND	PFDoA	0.0030 ppb
PFHpA	0.0030 ppb	ND	Lithium	9.00 ppb