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.

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, 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
Phyllis W. Odom, District 1
Raevan Howard, District 2
Cynthia Lee Almond, District 3
Lee Busby, District 4
Kip Tyner, District 5
Eddie Pugh, District 6
Sonya McKinstry, 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) 248-5010.

ED LOVE WATER PLANT RECEIVES THE OPTIMIZATION AWARD

In 2020, the City of Tuscaloosa was awarded the Water Fluoridation Quality Award by the CDC. This is awarded to water treatment plans that achieved optimal fluoridation levels for all 12 months of the year.

In 2019, the Alabama Department of Environmental Management, (ADEM), recognized the Ed Love Water Filtration Plant for achieving optimized performance goals. To win this award, plants must exceed the US EPA requirements by a factor of three or more for the entire year.

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

Distribution Division Line Breaks/Leaks
Office Hours: Mon. – Fri. 7:00 a.m. – 3:30 p.m.
205- 248-5950

Tuscaloosa 311 Call Center
Operational Hours: Mon. – Fri. 7:00 a.m. – 7:00 p.m.
Dial 311
Calling 311 connects you to all non-emergency City Services

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.

City of TUSCALOOSA
INFRASTRUCTURE & PUBLIC SERVICES

Tera Tubbs
Executive Director

2021 ANNUAL WATER QUALITY REPORT

Testing Performed January - December 2020

Ed Love Water Filtration Plant
1125 Jack Warner Parkway North East
Tuscaloosa, Alabama 35404-1056
Telephone 205-248-5630
Fax 205-349-0213

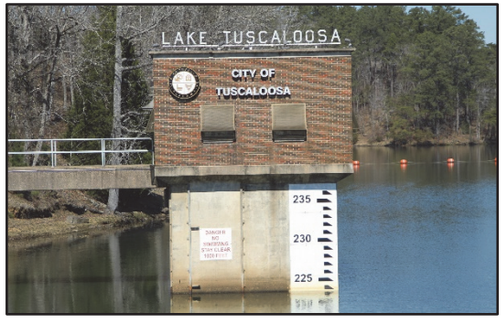
Jerry Plott Water Filtration Plant
2101 New Watermelon Road
Tuscaloosa, Alabama 35406
Telephone 205-248-5600

For Additional Information Contact:
Kimberly Michael
Associate Director

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!



Celebrating 50 Years as Tuscaloosa's Premier Water Source!

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 6th Street.

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 though 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	701 Miles
Water storage tanks	13
Water storage capacity	25.4 Million
Water booster pump stations	10
Public fire hydrants	3751

UNREGULATED CONTAMINATE MONITORING RULE NUMBER 4

The Unregulated Contaminant Monitoring Rule (UCMR4) required water systems serving more than 10,000 people to monitor for 30 unregulated contaminants over a three-year span. The chart below contains the results for monitoring in 2018 and 2020, which were our assigned sampling periods.

UCMR 4 CHEMICALS		
Analyte	**MCL**	**Level Detected**
Germanium	0.3 ppb	ND
Manganese	0.4 ppb	ND
Alpha-hexachlorocyclohexane	0.01 ppb	ND
Chlorpyifos	0.03 ppb	ND
Dimethipin	0.2 ppb	ND
Ethoprop	0.03 ppb	ND
Oxyfluorfen	0.05 ppb	ND
Anatoxin-a	0.03 ppb	ND
Cylindrospemopsin	0.09 ppb	ND
Total Microcystins	0.30 ppb	ND

DETECTED DRINKING WATER CONTAMINANTS

We routinely monitor for constituents in your drinking water according to Federal and State laws, and we are pleased that we have met or surpassed water quality standards set by the EPA and the ADEM.

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, 2020	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation Yes/No	Major Sources in Drinking Water
Total Coliform Bacteria	Presence of total coliform bacteria in <5% of the 120 required monthly samples		0	Coliform Present in 0.90 % of samples in one month	Not detected - 1.33 %	No	Naturally present in the environment
In 2020, 6 of 2550 samples were positive for Total Coliform or 0.24%							
Total Organic Carbon	mg/L	TT	N/A	1.7	0.8-.7	No	Naturally present in the environment
Turbidity	NTU	0.3	N/A	0.856	0.009-.856	No	Soil Runoff: Turbidity can interfere with disinfection
Chlorine as Cl_2	mg/L	4	4	2.4	0.2-2.4	No	Water additive used to control microbes
Chlorine Dioxide as ClO_2	mg/L	0.8	0.8	0.69	0.02-0.69	No	Water additive used to control microbes
Chlorite as ClO_2^-	mg/L	1	1	0.770	0.310-0.770	No	Water additive used to control microbes

RADIOLOGICAL
All results meet or surpass Federal Drinking Water Regulations

Gross Alpha	pCi/L	15	0	0.59+/-1.10	0.000+/-0.426 - 0.530+/-.10	No	Erosion of natural deposits

INORGANIC CHEMICALS
All results meet or surpass Federal Drinking Water Regulations

Fluoride as F^-	mg/L	4	4	0.86	0.02-0.86	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizers and aluminum factories
Nitrate as NO_3 -N	mg/L	10	10	0.27	0.23-0.27	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sulfate as SO_4	mg/L	50	50	34.9	13.9 -34.9	No	Erosion of natural deposits.

DISINFECTION BY-PRODUCTS
All results meet or surpass Federal Drinking Water Regulations

Period Covered: 12 Months Ending December, 2019	Units	MCL	MCLG	Average Level in Distribution System	Range of detections	Violation Yes/No	Major Sources in Drinking Water
Haloacetic Acids	µg/L	60	N/A	41.8	24.0-81.0	No	By-product of drinking water chlorination
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	44.7	21.0-87.0	No	By-product of drinking water chlorination
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, 2019	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation Yes/No	Major Sources in Drinking Water
Lead as Pb	mg/L	AL=0.015	0	0.0021	<0.001-0.0021	No	Corrosion of household plumbing system; Erosion of natural deposits
Copper as Cu	mg/L	AL=1.3	1.3	1.2	0.0051-1.2	No	Corrosion of household plumbing system; Erosion of natural deposits ;Leaching from wood preservatives
There were no violations, more than 90% of samples were below the action level. No lead and no copper results were above the action level.							

ORGANIC CHEMICALS
UNREGULATED CONTAMINANTS
All results meet or surpass Federal Drinking Water Regulations

Period Covered: 12 Months Ending December, 2019	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation Yes/No	Major Sources in Drinking Water
Bromodichloro-methane	µg/L	N/A	N/A	2.70	<1.00-2.70	No	By-Product of drinking water chlorination
Chloroform	µg/L	N/A	N/A	8.90	6.70-8.90	No	By-Product of drinking water chlorination
Dibromochloro-methane	µg/L	N/A	N/A	<1.00	<1.00-<1.00	No	By-Product of drinking water chlorination

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 2020
WATER SOURCE LAKE TUSCALOOSA

MICROBIOLOGICAL		
Analyte	**MCL**	**Highest Level Detected**
Total Coliform Bacteria	<5%	1.33%
Turbidity	<0.3 NTU	0.856
INORGANIC CHEMICALS		
Antimony as Sb	6 ppb	ND
Arsenic as As	10 ppb	ND
Asbestos*	7 MLF	N/A
Barium as Ba	2 ppm	ND
Beryllium as Be	4 ppb	ND
Cadmium as Cd	5 ppb	ND
Chromium as Cr	100 ppb	ND
Copper as Cu	AL=1.3ppm	ND
Cyanide as Cn	200 ppb	ND
Fluoride as F^-	4 ppm	0.82
Lead as Pb	AL=15 ppb	ND
Mercury as Hg	2 ppb	ND
Nitrate as $NO3^-$-N	10 ppm	0.27
Nitrite as $NO2^-$-N	1 ppm	ND
Selenium as Se	50 ppb	ND
Thallium as Tl	2 ppb	ND
DISINFECTION BY-PRODUCTS		
Chlorine	4 ppm	2.4
Chlorite	1 ppm	0.770
Chlorine Dioxide	800 ppb	0.69
Total Organic Carbon	TT	1.7
Total Trihalomathanes	80 ppb	87
Haloacetic Acids	60 ppb	81
ORGANIC CHEMICALS		
2,4-D	70 ppb	ND
2,4,5-TP(Silvex)	50 ppb	ND
Acrylamide	TT	ND
Alachlor	2 ppb	ND
Atrazine	3 ppb	ND
Benzo(A)pyrene	200 ppb	ND
Carbofuran	40 ppb	ND
Chlordane	2 ppb	ND
Dalapon	200 ppb	ND
Di(2-ethylhexyl)adipate	400 ppb	ND
Di(2-ethylhexyl)phthalates	6 ppb	ND
Dinoseb	7 ppb	ND
Diquat	20 ppb	ND
Dioxin[2,3,7,8-TCDD] *	30 ppq	ND
Endothall	100 ppb	ND

RADIOLOGICAL		
Analyte	**MCL**	**Highest Level Detected**
Alpha Emitters	15 pCi/L	0.590+/-1.10
Radium 228	N/A	3.868+/-0.33*
ORGANIC CHEMICALS		
Endrin	2 ppb	ND
Epichlorohydrin	TT	ND
Glyphosate	700 ppb	ND
Heptachlor	400 ppb	ND
Heptachlor epoxide	200 ppt	ND
Hexachlorobenzene	1 ppb	ND
Hexachlorocyclopentadiene	50 ppb	ND
Lindane	200 ppt	ND
Methoxychlor	40 ppb	ND
Oxamyl (Vydate)	200 ppb	ND
PCB's	500 ppt	ND
Pentachlorophenol	1 ppb	ND
Picloram	500 ppb	ND
Simazine	4 ppb	ND
Toxaphene	3 ppb	ND
Benzene	5 ppb	ND
Carbon tetrachloride	5 ppb	ND
Chlorobenzene	100 ppb	ND
Dibromochloropropane	0.2 ppb	ND
o-Dichlorobenzene	600 ppb	ND
p-Dichlorobenzene	75 ppb	ND
1,2-Dichloroethane	5 ppb	ND
1,1-Dichloroethylene	7 ppb	ND
cis-1,2-Dichloroethylene	70 ppb	ND
trans-1,2-Dichloroethylene	100 ppb	ND
Dichloromethane	5 ppb	ND
1,2-Dichloropropane	5 ppb	ND
Ethylbenzene	700 ppb	ND
Ethylene dibromide	50 ppt	ND
Styrene	100 ppb	ND
Tetrachloroethylene	5 ppb	ND
1,2,4-Trichlorobenzene	70 ppb	ND
1,1,1-Trichloroethane	200 ppb	ND
1,1,2-Trichloroethane	5 ppb	ND
Trichloroethylene	5 ppb	ND
Toluene	1 ppm	ND
Vinyl Chloride	2 ppb	ND
Xylenes	10 ppm	ND