

WHAT IS THE SOURCE OF OUR DRINKING WATER?

Lake Tuscaloosa is Tuscaloosa's primary surface water supply source for drinking water. Lake Tuscaloosa is a 5,885-acre impoundment of North River and several major creeks. This beautiful man-made lake holds more than 40 billion gallons of excellent quality water. Lake Nicol and Harris Lake are our alternate sources of water. Currently, Harris Lake is used for industrial water.

The City of Tuscaloosa has completed the required Source Water Assessment and has published the data. A copy of the data may be viewed at the City of Tuscaloosa Water & Sewer Department's Office at 2201 University Blvd., 2nd floor.

Lake Tuscaloosa's watershed is comprised of a large portion of three counties. Every activity in the watershed has an impact on the quality of our drinking water.

WHAT CAN I DO TO PROTECT OUR SOURCE OF DRINKING WATER?

The Lakes Division is planning a Watershed Festival on May the 6th followed by the third annual Lake Cleanup Day on May the 7th. These events are a great way to learn about our lakes and to participate in their protection. Contact the Lakes Division at (205) 349-0279 or visit the City's website at www.tuscaloosa.com for more information.

Jerry Platt Water Treatment Plant



In its first year of eligibility, the Jerry Platt Water Treatment Plant won the Best Operated Plant Award from the Alabama Water & Pollution Control Association for a water plant of its size and type. The award recognizes the quality of operations and the dedication of the plant staff. The Platt Plant joins the Ed Love Water Treatment Plant which has been an award winning plant for the past thirteen years! Improvements are ongoing to the facilities to meet the demands for quality water in sufficient quantity.

In 2010, the Ed Love Plant added a building to house sodium hypochlorite, a chemical that takes the place of chlorine. This chemical is much safer and does the same job of disinfecting the water as chlorine. The new building also has room to expand if other operational changes are necessary in the future.

WHAT TREATMENT TECHNIQUES ARE USED TO TREAT MY WATER?

The City of Tuscaloosa operates two water treatment plants. These are the Ed Love Water Plant, and the Jerry Platt Water Treatment Plant. The Ed Love Water Plant was named for former Superintendent Ed E. Love. The Jerry Platt Plant was named after former city councilman Jerry Platt. Both plants treat water from a common intake structure at Lake Tuscaloosa.

The Ed Love facility is a conventional treatment plant. Raw water enters a flash mixer where aluminum sulfate and lime are added for coagulation. Sodium permanganate is added when necessary for removal of iron and manganese for taste and odor control. The water then travels through four flocculators and four settling basins.

The water is then gravity filtered through multimedia filters. Lime is added for pH adjustment and corrosion control. Sodium hypochlorite is added for disinfection. Fluoride is added for the prevention of tooth decay, and ortho-phosphosphate is added for corrosion control. The finished water is pumped into the Distribution System.

The Jerry Platt Water Plant uses the same basic treatment as the Ed Love Plant, but with some different chemicals and techniques. Coagulation starts in a flash mixer with poly aluminum chloride. As the water passes through one of two flocculators, it enters a settling basin. The plant has two basins. Settling is accelerated with a series of settling plates.

The settled water is pumped under pressure to a bank of seven membrane filters. The water is squeezed through the pores of the membranes while impurities are left behind. Sodium hydroxide is added for pH control. Fluoride and orthophosphosphate are also added. The finished water then goes to the distribution system. The water produced at these two plants is very similar.

The plants are maintained by 35 full-time employees. These employees are responsible for the highest quality water possible for more than 200,000 consumers. The plants are operated 24 hours a day, 365 days a year.

The City's most valuable asset is its abundant supply of excellent quality water! Because of this excellent quality, numerous industries and businesses have selected Tuscaloosa as their home.

Water Mains in Service, 4" and larger..... 559 Miles
 Water Storage Tanks..... 13 Tanks
 Water Booster Pump Stations..... 8 Stations
 Water Storage Capacity..... 25.4 Million Gallons
 Ed Love Treatment Capacity... 45.7 Million Gallons/Day
 Jerry Platt Treatment Capacity... 14 Million Gallons/Day
 Public Fire Hydrants..... 3218 Hydrants

WATER AND SEWER DEPARTMENT

Jimmy W. Junkin, Director
 Post Office Box 2090
 Tuscaloosa, AL 35403-2090

The Tuscaloosa City Council Meetings are held every Tuesday at 6:00 pm in the City Council Chambers on the second floor of Tuscaloosa City Hall, 2201 University Blvd. The agenda for each meeting is published in the Tuscaloosa News on Saturday and on the internet at www.tuscaloosa.com or you may call (205) 248-5010. The City of Tuscaloosa's Mayor and Council are as follows:

Mayor, Walt Maddox
Bobby Howard, District 1
Harrison Taylor, District 2
Cynthia Almond, District 3
Lee Garrison, District 4
Kip Tyner, District 5
Bob Lundell, District 6
William Tinker, III, District 7

Water Billing Office

Turn On/Turn Off

Office Hours:

8:00 am – 4:30 pm

Monday – Friday

(205) 248-5000

Drive Through Hours

7:30 am – 5:00 pm

Hilliard N. Fletcher Wastewater Plant

Office Hours:

7:00 am – 3:30 pm

Monday – Friday

(205) 248-5900

Distribution Division Line Breaks/Leaks

Office Hours:

7:00 am – 3:30 pm

Monday – Friday

(205) 248-5950

Lakes Division Source Division

Office Hours:

7:00 am – 3:30 pm

Monday – Friday

(205) 349-0279

Ed Love Water Filtration Plant

Office Hours:

7:00 am – 3:30 pm

Monday - Friday

(205) 248-5630

Jerry Platt Water Plant

2101 New Watermelon Road

(205) 248-5600

Tuscaloosa, AL 35406

Additional Information:

Perry A. Acklin

Water Treatment Manager

Phone: (205) 248-5630

Scott Sanderford

Lakes Division Manager

Phone: (205) 349-0279



CITY OF TUSCALOOSA WATER AND SEWER DEPARTMENT

2011

ANNUAL WATER QUALITY REPORT



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

<http://www.tuscaloosa.com>

Office Hours:
 7:00 a.m. to 3:30 p.m.

THE SAFE DRINKING WATER ACT... What Does It Mean For You?

The Safe Drinking Water Act (SDWA) was signed into law on December 16, 1974. The purpose of the law is to assure that the nation's water supply systems serving the public meet minimum national standards for the protection of public health.

The SDWA directed the U.S. Environmental Protection Agency (EPA) to establish national drinking water standards. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline 800-426-4791 or EPA's website address www.epa.gov/safewater.

Amended in 1996, the SDWA contains 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 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 appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791.

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 can pick up substances resulting from the presence of animals or from human activity.

PLAIN LANGUAGE DEFINITIONS

- 1. Maximum Contaminant Level Goal or 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.
- 2. Maximum Contaminant Level or 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.
- 3. Maximum Residual Disinfectant Level Goal or 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.

PLAIN LANGUAGE DEFINITIONS continued

- 4. Maximum Residual Disinfectant Level or MRDL:** The highest level of a disinfectant allowed in drinking water. There is

convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

- 5. Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.
- 6. Action Level or AL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

In the following tables you may find terms and abbreviations that might not be familiar to you. To help you better understand these terms we have provided the following definitions.

- ppm means parts per million and is equal to mg/L or milligrams per liter**
- ppb means parts per billion and is equal to µg/L or micrograms per liter**
- ppt means parts per trillion and is equal to ng/L or nanograms per liter**
- µCi/L equals picocuries per liter, a measure of radiation**
- NTU equals Nephelometric Turbidity Units**
- CFU equals Colony Forming Units**
- MFL means million fibers per liter longer than 10 micrometers**
- N/A - not applicable - ND - not detected**

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.

EPA Lead and Copper Statement

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. The City of Tuscaloosa is responsible for providing high quality drinking water, but cannot control the variety of materials used in the 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 with 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 <http://www.epa.gov/safewater/lead>.

Tuscaloosa's Lead and Copper Program

Since 1991, the City of Tuscaloosa has tested 57 homes annually for the presence of lead and copper. Because of the involvement of these citizens, the lead and copper program continues to be very successful. The City has always maintained compliance with this regulation. We would like to commend those 57 participants for their support of this endeavor.

WATER QUALITY REPORT
PRIMARY DRINKING WATER PARAMETERS
WATER SOURCE LAKE TUSCALOOSA

Period Covered: 12 Months Ending December 2010	Units	MCL	MCLG	Significant Level in Distribution System	Range of detection	Maximum (Per Bag)	Major Source in Drinking Water
Total Coliform	CFU/100 ml	0	0	Present in 100% of samples in 120 required	None detected (1.0%)	None	Naturally present in the environment
Coliform Bacteria	CFU/100 ml	0	0	Present in 100% of samples in 120 required	None detected (1.0%)	None	Naturally present in the environment
Only 4 of 2506 samples were positive for Total Coliform or 0.16%. In 2009, No samples were E.coli positive.							
Total Organic Carbon	mg/L	TT	N/A	1.9	1.1 - 1.9	No	Naturally present in the environment
Turbidity	NTU	0.3	N/A	0.488	0.065 - 0.488	No	Soil Runoff - Turbidity can increase with rain
Chlorine as Cl ₂	mg/L	4	4	3	0.2 - 3.0	No	Water added to control microbes
Stress Alpha	BCU/L	15	0	0.6 - 0.5	0.6 - 0.5	No	Erosion of natural deposits
Fluoride as F	mg/L	4	4	1.28	0.70 - 1.28	No	Discharge from industries and natural sources
Nitrate as NO ₃ -N	mg/L	10	10	0.038	0.32 - 0.38	No	Road from fertilizer use, leaching from septic tanks, sewage. Erosion of Sulfate as SO ₄
Sulfate as SO ₄	mg/L	50	50	31.0	15.3 - 31.0	No	Erosion of natural deposits
Period Covered: 12 Months Ending December 2010	Units	MCL	MCLG	Average Level in Distribution System	Range of detection (Per Bag)	Maximum (Per Bag)	Major Source in Drinking Water
Halobenzoic Acids	µg/L	60	N/A	25.1	9.6 - 51.0	No	By-product of drinking water chlorination
The sum of Dichloroacetic, Dichloroacetic, Monochloroacetic, Monochloroacetic, & Trichloroacetic Acids annual average MCL equal to or less than 60 µg/L.							
Total Trihalogenated	µg/L	80	N/A	35.9	13.9 - 65.5	No	By-product of drinking water chlorination
The sum of Chloroform, Bromochloroacetic, Dichloroacetic, Monochloroacetic, & Bromoform annual average MCL equal to or less than 80 µg/L.							

WATER QUALITY REPORT
TABLE OF PRIMARY DRINKING WATER PARAMETERS MONITORING PERIOD ENDING DECEMBER 2010
WATER SOURCE LAKE TUSCALOOSA

Analyte	MCL	Level Detected	Analyte	MCL	Level Detected
Total Coliform Bacteria	<0.3 NTU	0.300	Bate / Phoson Emitters	4 ppm / yf	N/A
Turbidity	0.3	0.488	Alpha Emitters	15 pCi/L	1.2 ± 0.8
Chlorine as Cl ₂	4	3	Combined Radium	5 pCi/L	N/A
Copper as Cu	1.3	1.3	Uranium	30 pCi/L	N/A
Fluoride as F	4	1.28	Endrin	2 ppb	ND
Lead as Pb	AL=15 ppb	ND	Endrin/Chlordane	TT	ND
Mercury as Hg	2 ppb	ND	Glypsofos	700 ppb	ND
Nitrate as NO ₃ -N	10 ppm	ND	Heptachlor	400 ppb	ND
Nitrite as NO ₂ -N	1 ppm	ND	Heptachlor epoxide	200 ppb	ND
Selenium as Se	50 ppb	ND	Hexachlorobenzene	1 ppb	ND
Thallium as Tl	2 ppb	ND	Heptachlorocyclopentadiene	50 ppb	ND
REGULATED CHEMICALS					
Chloroform	4 ppm	3.6	Methoxychlor	40 ppb	ND
Dieldrin	4 ppm	ND	Oxamyl (Vydate)	200 ppb	ND
Dibenzodioxin	1 ppm	ND	PCBS	500 ppb	ND
Dibenzofuran	800 ppb	ND	Permethrin	1 ppb	ND
Bromine	10 ppm	ND	Picloram	500 ppb	ND
Total Organic Carbon	TT	2.8	Sinazine	4 ppb	ND
UNREGULATED CHEMICALS					
1,2-Dichloroethane	80 ppb	1.28	Toxaphene	3 ppb	ND
1,1,1-Trichloroethane	80 ppb	1.28	Benzene	5 ppb	ND
1,2-Dichloroethane	70 ppb	ND	Carbon tetrachloride	5 ppb	ND
1,1,1-Trichloroethane	100 ppb	ND	Chlorobenzene	100 ppb	ND
1,2-Dichloroethane	5 ppb	ND	1,2-Dichlorobenzene	200 ppb	ND
1,1,1-Trichloroethane	5 ppb	ND	1,2-Dichlorobenzene	75 ppb	ND
1,2-Dichloroethane	75 ppb	ND	1,2-Dichlorobenzene	5 ppb	ND
1,1,1-Trichloroethane	70 ppb	ND	1,1-Dichloroethylene	70 ppb	ND
1,2-Dichloroethane	100 ppb	ND	1,1,1-Trichloroethylene	100 ppb	ND
1,1,1-Trichloroethane	5 ppb	ND	Dibromofluorene	5 ppb	ND
1,2-Dichloroethane	5 ppb	ND	1,2-Dichloropropane	5 ppb	ND
1,1,1-Trichloroethane	5 ppb	ND	Ethylbenzene	700 ppb	ND
1,2-Dichloroethane	5 ppb	ND	Ethylene dibromide	50 ppb	ND
1,1,1-Trichloroethane	5 ppb	ND	Styrene	100 ppb	ND
1,2-Dichloroethane	70 ppb	ND	Tetrahydrofuran	5 ppb	ND
1,1,1-Trichloroethane	200 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Dibenzodioxin	400 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Dibenzofuran	6 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Dieldrin	7 ppb	ND	Trichloroethylene	5 ppb	ND
Diquat	20 ppb	ND	Toluene	1 ppm	ND
Endrin	30 ppb	ND	Vinyl Chloride	2 ppb	ND
Endrin/Chlordane	ND	ND	Xylenes	10 ppm	ND

ORGANIC CHEMICALS

Period Covered: 12 Months Ending December 2010	Units	MCL	MCLG	Significant Level in Distribution System	Range of detection (Per Bag)	Maximum (Per Bag)	Major Source in Drinking Water
Bromochloroform	µg/L	N/A	N/A	4.26	2.57 - 4.26	No	Major Source in Drinking Water
Chloroform	µg/L	N/A	N/A	8.8	4.28 - 8.81	No	By-product of drinking water chlorination
Dibromochloroform	µg/L	N/A	N/A	1.28	0.85 - 1.28	No	By-product of drinking water chlorination

There were no violations - more than 90% of samples were below the action level. Only one total result and only one **CHLOROFORM** result were above the action level.

INORGANIC CHEMICALS

Period Covered: 12 Months Ending December 2010	Units	MCL	MCLG	Significant Level in Distribution System	Range of detection (Per Bag)	Maximum (Per Bag)	Major Source in Drinking Water
Lead as Pb	mg/L	AL=0.015	0	0.005	<0.005 - 0.005	No	Major Source in Drinking Water
Copper as Cu	mg/L	AL=1.3	1.3	0.105	<0.050 - 0.105	No	By-product of drinking water chlorination