

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 Lake Tuscaloosa, which is our source of drinking water.

**Our Great Lake - Lake Tuscaloosa
Protect. Preserve. Play.**

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

Lake Tuscaloosa as our primary source of drinking water needs to be protected by every individual who drinks and enjoys the water, as well as those who live or travel in the watershed!!! Several tips to help protect our source water are:

- Reduce the polluted run-off of septic tanks by having the tanks serviced and pumped at least once every three years and give the certificate of service to the Lakes Division
- Reduce the polluted run-off of herbicides, pesticides, fertilizers, and etc. by not over applying or applying when it is going to rain
- Adopt-a-stream or creek segment and help to restore and preserve
- Please report any suspicious activity or the dumping of pollutants into any of the lakes to the Lakes Division Manager at (205)349-0279 or to the Ed Love Water Plant at (205)349-0247. Note the location and a description of the incident
- Check out our web site at www.ourgreatlake.org for all the latest reports and information on our lake

Jerry Plott Water Treatment Plant Completed

On November 19, 2008, the City of Tuscaloosa held a dedication ceremony for the Jerry Plott Water Treatment Plant. City leaders both past and present, as well as, citizens were on hand to witness the cutting of the ribbon and computerized start up of this state of the art membrane filtration treatment facility. The plant is located on the north side of the Black Warrior River near the Lake Tuscaloosa Dam. It has the capacity to treat 14 million gallons of water per day and is staffed by four operators, one operator trainee and one maintenance operator. Due to the tremendous growth of the area, the City of Tuscaloosa remains vigilant in setting the pace for the continuous monitoring and protection of our drinking water quality for future generations.

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 Plott Water Treatment Plant. The Ed Love Water Plant was named for former superintendent Ed E. Love. The Jerry Plott Plant was named after former city councilman Jerry Plott. 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 multi-media filters. Lime is added for pH adjustment and corrosion control. Chlorine is added for disinfection. Fluoride is added for the prevention of tooth decay, and ortho-polyphosphate is added for corrosion control. The finished water is pumped into the Distribution System.

The Jerry Plott 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. This allows for a shorter basin.

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 orthopolyphosphate 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 of water! Because of this excellent quality, numerous industries and businesses have selected Tuscaloosa as their home.

Water Mains in Service, 4" and larger.....575 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 Plott Treatment Capacity.....14 Million Gallons/ Day
 Public Fire Hydrants.....3684 Hydrants

The Ed Love Water Plant has been an award winning plant for the last eleven years. The Alabama Water and Pollution Control Association based on recommendations of a peer review committee, presents the awards annually. They are given in recognition of outstanding operations achieved by the operators of the plant.

WATER AND SEWER DEPARTMENT

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

The Tuscaloosa City Council Meetings are held once a week, in the City Council Chambers on second floor of Tuscaloosa City Hall. The meeting times are Tuesdays 6:00 PM and the address is 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) 248-500
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) 349-0273

Distribution Division
Line Breaks/Leaks
Office Hours:
7:00 am 3:30 pm
Monday Friday
(205) 349-0280

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) 349-0247

Jerry Plott Water Plant
2101 New Watermelon Rd
Tuscaloosa, AL 35406

Additional Information:
Perry A. Acklin
Water Treatment Manager
Phone: (205) 349-0247



CITY OF TUSCALOOSA WATER AND SEWER DEPARTMENT

2009

ANNUAL WATER QUALITY REPORT



City of Tuscaloosa
Ed Love Water Filtration Plant
1125 Jack Warner Parkway North East
Tuscaloosa, Alabama 35404-1056
Telephone (205) 349-0247
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.

The 1996 amendments to the SDWA contained extensive 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. The amendments created the need for this report showing consumers the detected amounts of contaminants and the plain language definitions shown in this pamphlet.

The amendments recognized that some people might 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*

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

pCi/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>.

Thank You

Since 1991 the City of Tuscaloosa tests 57 homes annually for the presence of lead and copper. Thanks to the efforts of these home owners, the lead and copper program is very successful. The City has always maintained compliance with this regulation. Again we would like to say thanks to those 57 participants for their help with this endeavor.

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, 2008	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	0	Coliform Present in 1.69 % of samples in one month	Not detected 3.32 %	No
Only 14 of 2609 samples were positive for Total Coliform or 0.54%, in 2008. No samples were E.coli positive.						
Total Organic Carbon	mg/L	TT	N/A	2.1	1.3 - 2.1	No
Turbidity	NTU	0.3	N/A	0.268	0.000 - 0.268	No
Chlorine as Cl ₂	mg/L	4	4	5.1	0.3 - 5.1	Yes *
Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to the eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.						
RADIOLOGICAL						
All results meet or surpass Federal Drinking Water Regulations						
Gross Alpha	pCi/L	15	0	3.5 +/- 1.0	0.0 ± 0.6 - 3.5 ± 1.0	No
Erosion of natural deposits						
INORGANIC CHEMICALS						
All results meet or surpass Federal Drinking Water Regulations						
Fluoride as F ⁻	mg/L	4	4	1.6	0.00 - 1.60	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	0.32	0.26 - 0.32	No
Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits						
Sulfate as SO ₄	mg/L	50	50	29.4	18.3 - 29.4	No
Erosion of natural deposits						
DISINFECTION BY-PRODUCTS						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2008	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	19.2	6.15 - 49.9	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	42.4	15.9 - 89.9	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, 2008	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	0.009	nd - 0.009	No
Corrosion of household plumbing system; Erosion of natural deposits						
Copper as Cu	mg/L	AL=1.3	1.3	0.341	nd - 0.341	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. Only one lead result and only one copper result were above the action level.						
ORGANIC CHEMICALS						
UNREGULATED CONTAMINANTS						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2008	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Major Sources in Drinking Water						
Bromodichloromethane	µg/L	N/A	N/A	8.7	4.69 - 8.70	No
By-Product of drinking water chlorination						
Bromoform	µg/L	N/A	N/A	0.60	<0.50 - 0.60	No
By-Product of drinking water chlorination						
Chloroform	µg/L	N/A	N/A	11.40	4.87 - 11.4	No
By-Product of drinking water chlorination						
Dibromochloromethane	µg/L	N/A	N/A	5.73	1.85 - 5.73	No
By-Product of drinking water chlorination						
* On January 1st, 2008 the chlorine leaving the Ed Love plant exceeded the 4.0 MCL for four hours. This water mixed with water already in the distribution system and no high readings were reported. Also no adverse health effects were reported.						

WATER QUALITY REPORT TABLE OF PRIMARY DRINKING WATER PARAMETERS MONITORING PERIOD ENDING DECEMBER 2008 WATER SOURCE LAKE TUSCALOOSA				
MICROBIOLOGICAL			RADIOLOGICAL	
Analyte	MCL	Highest Level Detected	Analyte	MCL
Highest Level Detected				
Total Coliform Bacteria	<5%	0.91%	Beta / Photon Emitters	4 mrem / yr
Turbidity	<0.3 NTU	0.288	Alpha Emitters	15 pCi/L
INORGANIC CHEMICALS				
Antimony as Sb	6 ppb	ND	Combined Radium	5 pCi/L
Arsenic as As	10 ppb	ND	Uranium	30 ppb
Asbestos*	7 MFL	N/A	ORGANIC CHEMICALS	
Barium as Ba	2 ppm	ND	Endrin	2 ppb
Beryllium as Be	4 ppb	ND	Epichlorohydrin	TT
Cadmium as Cd	5 ppb	ND	Glyphosate	700 ppb
Chromium as Cr	100 ppb	ND	Heptachlor	400 ppb
Copper as Cu	AL=1.3ppm	ND	Heptachlor epoxide	200 ppt
Cyanide as Cn	200 ppb	ND	Hexachlorobenzene	1 ppb
Fluoride as F ⁻	4 ppm	ND	Hexachlorocyclooctadiene	50 ppb
Lead as Pb	AL=15 ppb	ND	Lindane	200 ppt
Mercury as Hg	2 ppb	ND	Methoxychlor	40 ppb
Nitrate as NO ₃ -N	10 ppm	ND	Oxamyl (Vydate)	200 ppb
Nitrite as NO ₂ -N	1 ppm	ND	PCB's	500 ppt
Selenium as Se	50 ppb	ND	Pentachlorophenol	1 ppb
Thallium as Tl	2 ppb	ND	Picloram	500 ppb
DISINFECTION BY-PRODUCTS				
Chlorine	4 ppm	3.1	Simazine	4 ppb
Chloramines	4 ppm	ND	Toxaphene	3 ppb
Chlorite	1 ppm	ND	Benzene	5 ppb
Chlorine Dioxide	800 ppb	ND	Carbon tetrachloride	5 ppb
Bromate	10 ppb	ND	Chlorobenzene	100 ppb
Total Organic Carbon	TT	2.5	Dibromochloropropane	200 ppt
Total Trihalomethanes	80 ppb	96.7	o-Dichlorobenzene	600 ppb
Haloacetic Acids	60 ppb	68.7	p-Dichlorobenzene	75 ppb
ORGANIC CHEMICALS				
2,4-D	70 ppb	ND	1,1-Dichloroethane	5 ppb
2,4,5-TP(Silvex)	50 ppb	ND	1,1-Dichloroethylene	7 ppb
Acrylamide	TT	ND	cis-1,2-Dichloroethene	70 ppb
Alachlor	2 ppb	ND	trans-1,2-Dichloroethene	100 ppb
Atrazine	3 ppb	ND	Dichloromethane	5 ppb
Benz(a)pyrene	200 ppb	ND	1,2-Dichloropropane	5 ppb
Carbolaran	40 ppb	ND	Ethylbenzene	700 ppb
Chlordane	2 ppb	ND	Ethylene dibromide	50 ppt
Dalapon	200 ppb	ND	Styrene	100 ppb
Di(2-ethylhexyl)adipate	100 ppb	ND	Tetrachloromethylene	5 ppb
Di(2-ethylhexyl)phthalates	6 ppb	ND	1,2,4-Trichlorobenzene	70 ppb
Dinoseb	7 ppb	ND	1,1,1-Trichloroethane	200 ppb
Diquat	20 ppb	ND	1,1,2-Trichloroethane	5 ppb
Dioxin[2,3,7,8-TCDD]*	30 ppq	ND	Trichloroethylene	5 ppb
Endothal	100 ppb	ND	Toluene	1 ppm
			Vinyl Chloride	2 ppb
			Xylenes	10 ppm