

**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 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 out regularly 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.
- If you see someone dumping pollutants or anything into any of the lakes, please call the City of Tuscaloosa Lakes Division Manager at (205) 349-0279 or the Ed Love Water Plant at (205)349-0247. Be prepared to give location and description of incident.
- Check out our web site at [www.ourgreatlake.org](http://www.ourgreatlake.org) for all the latest reports and information on our lake.

**WHAT TREATMENT TECHNIQUES ARE USED TO TREAT MY WATER?**

The raw water from Lake Tuscaloosa is gravity fed approximately two miles to the Raw Water Pumping Station, which is a quarter of a mile from the Ed Love Water Plant. The raw water is pumped into a raw water flash mixer where aluminum sulfate and lime are added for coagulation and potassium permanganate is added when necessary for removal of iron and manganese for taste and odor control.

Next, the water flows through four flocculators and four settling basins. The water is then filtered through multi-media filters, lime is added for pH and corrosion control, chlorine is added for disinfection, fluoride is added for the prevention of tooth decay, and ortho-phosphosphate is added for corrosion control. At this point, the water is pumped into the Distribution System, which consists of nine booster pump stations and thirteen storage tanks.

The Ed Love Water Plant, which is named after former superintendent Ed E. Love, is a multi-million dollar facility. The plant is maintained by 31 full-time employees. These employees are responsible for the highest quality water possible for more than 191,000 consumers. The treatment of the water is skillfully handled by our manager, a chief operator, two biologist, a chemist, a senior secretary, five shift operators, four operator trainees, three maintenance operators, one electronics technician, two solids operators, two maintenance operator assistants, and eight operator assistants. The Ed Love Water Plant is operated and maintained 24 hours a day, 365 days a year, which includes weekends and all holidays.

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

Water Mains in Service.....	550 Miles
Water Storage Tanks.....	13 Tanks
Water Booster Pump Stations... ..	9 Stations
Water Storage Capacity.....	25.4 Million Gallons
Water Treatment Capacity.....	45.7 Million Gallons per Day
Public Fire Hydrants.....	3417 Hydrants

The Ed Love Water Treatment Plant has been an award winning plant for the last nine 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.

The City is currently in the final stages of developing plans for a new water plant to facilitate the tremendous growth of our area. The plant is to be built on the north side of the river near the Lake Tuscaloosa Dam. The projected completion date for this new plant is late 2009. The City is also moving forward on a plan to purchase a Supervisory Control Acquisition Data Administration or SCADA system for the entire Water & Sewer System and upgrading the security system for the Water Department. The SCADA system should be installed and fully functional by the summer of 2006.

**WATER AND SEWER DEPARTMENT**

**Maurice T. Sledge, Director**  
**Post Office Box 2090**  
**Tuscaloosa, AL 35403-2090**

The Tuscaloosa City Council Meetings are held twice a week, every week in City Council Chambers on second floor of Tuscaloosa City Hall. The address is 2201 University Blvd. and the meeting times are, Tuesday 8:30 AM and Thursday 6:00 PM. The Agenda for every meeting is published in the Tuscaloosa News on Saturday and Thursday and on the internet at [www.ci.tuscaloosa.al.us](http://www.ci.tuscaloosa.al.us) or you may call 205-349-0499. 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; and William Tinker, III, District 7.

**Water Billing Office  
Turn On/Turn Off**

Office Hours:  
8:00 a.m. – 4:30 p.m.  
Monday – Friday  
(205) 349-0230  
**Drive Through Hours**  
7:30 a.m. – 5:30 p.m.

**Lakes Division  
Source Division**

Office Hours:  
7:00 a.m. – 3:30 p.m.  
Monday – Friday  
(205) 349-0279

**Ed E. Love Water Plant  
Drinking Water Plant**

Office Hours:  
7:00 a.m. – 3:30 p.m.  
Monday – Friday  
(205) 349-0247

**Additional Information:  
Perry Acklin**

Water Plant Manager  
Phone: (205) 349-0247

**Distribution Division  
Line Breaks/Leaks**

Office Hours:  
7:00 a.m. – 3:30 p.m.  
Monday – Friday  
(205) 349-0280

**Hilliard N. Fletcher  
Wastewater Plant**

Office Hours:  
7:00 a.m. – 3:30 p.m.  
Monday – Friday  
(205) 349-0273



**CITY OF TUSCALOOSA  
WATER AND SEWER DEPARTMENT**

**2006**

**ANNUAL WATER QUALITY REPORT**



**Office Address and Telephone Number**

**City of Tuscaloosa  
Ed Love Water Plant  
1125 Jack Warner Parkway North East  
Tuscaloosa, Alabama 35404-1056  
Telephone (205) 349-0247  
Fax (205) 349-0213**

<http://www.ci.tuscaloosa.al.us>

<http://www.ourgreatlake.org>

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

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Ed Love Water Treatment Plant  
1125 Jack Warner Parkway N.E.  
Tuscaloosa, Alabama 35404-1056

## 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](tel:8004264791) or [EPA's website address www.epa.gov/safewater](http://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 immunocompromised 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](tel:8004264791).

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

- 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.
- 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.
- 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.
- 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.
- Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.
- 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 on the next two pages 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

### IS MY WATER SAFE?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency or EPA and Alabama Department of Environmental Management or ADEM's Drinking Water Health Standards. The Table of Primary Drinking Water Parameters lists a majority of contaminates your water has been tested for in the most recent monitoring period ending December of 2005.

Your City of Tuscaloosa Water Department Staff vigilantly safeguards its water supplies with constant monitoring. Once again we are proud to report that our drinking water has never violated a maximum contaminant level or any other of the water quality standards.

## 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, 2005	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Total Coliform Bacteria			0	Coliform Present in 0.91 % of samples	Not detected - 0.91 % CP	No
Naturally present in the environment						
Total Organic Carbon	mg/L	TT	N/A	2.5	1.1 - 2.5	No
Naturally present in the environment						
Turbidity	NTU	0.3	N/A	0.288	0.025 - 0.288	No
Soil Runoff -Turbidity can interfere with disinfection						
100% of all filtered turbidity samples were below the 0.3 NTU.						
RADIOLOGICAL						
All results meet or surpass Federal Drinking Water Regulations						
Gross Alpha	pCi/L	15	0	0.2 +/- 0.3	0.0 ± 0.3 - 0.2 ± 0.3	No
Erosion of natural deposits						
INORGANIC CHEMICALS						
All results meet or surpass Federal Drinking Water Regulations						
Fluoride as F <sup>-</sup>	mg/L	4	4	0.9	0.91 - 0.92	No
Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizers and aluminum factories						
Nitrate as NO <sub>3</sub> <sup>-</sup> -N	mg/L	10	10	0.31	0.31 -0.31	No
Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits						
Sulfate as SO <sub>4</sub>	mg/L	50	50	25.6	23.2 - 25.6	No
Erosion of natural deposits.						
DISINFECTION BY-PRODUCTS						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2005	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Haloacetic Acids	µg/L	60	N/A	21.1	1.34 - 68.7	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	34.6	9.89 - 96.7	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.						
Chlorine as Cl <sub>2</sub>	mg/L	4	4	3.5	0.3 -3.5	No
Water additive used to control microbes						
LEAD AND COPPER PRIMARY MONITORING						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2005	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Lead as Pb	mg/L	AL= 0.015	0	0.006	nd - 0.006	No
Corrosion of household plumbing system; Erosion of natural deposits						
Copper as Cu	mg/L	AL= 1.3	1.3	0.112	nd - 0.112	No
Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives						
There were no violations as greater than 90% of samples were below the action level.						
ORGANIC CHEMICALS UNREGULATED CONTAMINANTS						
All results meet or surpass Federal Drinking Water Regulations						
Period Covered: 12 Months Ending December, 2005	Units	MCL	MCLG	Highest Level in Distribution System	Range of detections	Violation (Yes/No)
Bromodichloro-methane	µg/L	N/A	N/A	5.13	3.82 -5.13	No
By-Product of drinking water chlorination						
Chloroform	µg/L	N/A	N/A	9.88	1.35 - 9.88	No
By-Product of drinking water chlorination						
Dibromochloro-methane	µg/L	N/A	N/A	1.22	1.04 - 1.22	No
By-Product of drinking water chlorination						

## WATER QUALITY REPORT TABLE OF PRIMARY DRINKING WATER PARAMETERS MONITORING PERIOD ENDING DECEMBER 2005 WATER SOURCE LAKE TUSCALOOSA

MICROBIOLOGICAL		
Analyte	MCL	Highest Level Detected
Total Coliform Bacteria	<5%	0.91%
Turbidity	<0.3 NTU	0.288
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 <sup>-</sup>	4 ppm	ND
Lead as Pb	AL=15 ppb	ND
Mercury as Hg	2 ppb	ND
Nitrate as NO <sub>3</sub> <sup>-</sup> -N	10 ppm	ND
Nitrite as NO <sub>2</sub> <sup>-</sup> -N	1 ppm	ND
Selenium as Se	50 ppb	ND
Thallium as Tl	2 ppb	ND
DISINFECTION BY-PRODUCTS		
Chlorine	4 ppm	3.1
Chloramines	4 ppm	ND
Chlorite	1 ppm	ND
Chlorine Dioxide	800 ppb	ND
Bromate	10 ppb	ND
Total Organic Carbon	TT	2.5
Total Trihalomethanes	80 ppb	96.7
Haloacetic Acids	60 ppb	68.7
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	N/A
Endothall	100 ppb	ND

\*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.

RADIOLOGICAL		
Analyte	MCL	Highest Level Detected
Beta / Photon Emitters	4 mrem / yr	N/A
Alpha Emitters	15 pCi/L	0.2 ± 0.3
Combined Radium	5 pCi/L	N/A
Uranium	30 ppb	N/A
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	200 ppt	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