The City of Lakewood Water Quality Report 2009

Is my drinking water safe?
Yes, our water meets all of EPA's health standards. The Old Hickory Utility District (OHUD) has conducted numerous tests for over 80 contaminants that may be in drinking water. As you'll see in the chart, OHUD had only 10 of these contaminants. All of these contaminants were at safe levels.

What is the source of my water?
Your water, which is surface water, comes from Old Hickory Lake. We purchase water from OHUD. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to ***potential*** contamination. The Tennessee Department of Environment and Conservation (TDEC) have prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this system. The SWAP report assesses the susceptibility of untreated water sources to ***potential*** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible or slightly susceptible based on geographic factors and human activities in the vicinity of the water source. OHUD sources were rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at www.state.us/environment/dws/dwassess.php or you may contact OHUD to obtain copies of specific assessments.

Why are there contaminants in my water?
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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

For more information about your drinking water, please contact Mr. Brad Hutchinson, at 847-2187.

Este informe contiene informacion muy importante. Traduscalo o hable con alguien que lo entienda bien.

How can I get involved?
The City Officials meet at City Hall located at 3401 Hadley Avenue the 2nd Thursday of each month. Please feel free to participate in these meetings.

Is our water system meeting other rules that govern our operations?
The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. We want you to know that we pay attention to all the rules.

Other Information
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 in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity.
Contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria, which may come from sewer 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 runoff, 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, urban storm water runoff, 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.

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Old Hickory Utility District's water treatment processes are designed to reduce any such substances to levels well below any health concern. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Do I Need To Take Special Precautions?
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have under-gone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Lead in Drinking Water
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. OHUD is responsible for providing Lakewood with high quality drinking water, but neither OHUD nor Lakewood Water Department can control the variety of materials used in 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 about lead in your drinking 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

Water System Security
We urge the public to report any suspicious activity at any pumping stations, fire hydrants, manholes, water meters, valves etc. to 615-847-2187

Water Quality Data

What does this chart mean?

- MCLG - Maximum Contaminant Level Goal, or 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.
- MCL - Maximum Contaminant Level, or 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. 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.
- MRDL: 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 the control of microbial contaminants.
- MRDLG: Maximum residual disinfectant level goal. 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.
- AL - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Below Detection Level (BDL) - laboratory analysis indicates that the contaminant is not present at a level that can be detected.
- Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) – explained as a relation to time and money as one part per million corresponds to one minute in two years or a single penny in $10,000.
- Parts per billion (ppb) or Micrograms per liter - explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
- Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
- Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- TT - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform *1 Bacteria	No	1 positve		2009	Presence or Absent	0	<2 positive samples	Naturally present in the environment
Turbidity *2	No	.632	.034-.632	2009	NTU	n/a	TT	Soil runoff
Lead *3	No	90th% =3.4		2008	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Copper	No	90th% =.28		2008	ppm	1.3	AL=1.3	Corrosion of household Plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	1.06 avg.	0.49-1.34	2009	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium	No	6.0		2009	ppm	n/a	n/a	Erosion of natural deposits; used in water treatment
TTHM *4 (Total Trihalomethanes)	No	44 avg.	24-88	2009	ppb	n/a	80	By-product of drinking water disinfection
HAA5 (Haloacetic Acids)	No	46 avg.	20-81	2009	ppb	n/a	60	By-product of drinking water disinfection
Total Organic *5 Carbon	No	1.42 avg.		2009	ppm	TT	TT	Naturally present in the environment
Nitrate *6 (as Nitrogen)	No	0.48		2009	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage, erosion of natural deposits

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	2.13 avg.	1.10-2.84	2009	ppm	4	4	Water additive used to control microbes.

During the most recent round of Lead and Copper testing, only 1 out of 20 households sampled contained concentrations exceeding the action level.

*1 During 2009 the Old Hickory Utility District collected 53 Total Coliform Bacteria samples. 1 of the 53 samples tested positive for total coliforms. Due to the 1 positive sample 3 repeat samples were collected within 24hrs. One at the original site and one within 5 taps upstream and one within 5 taps downstream. All repeats samples were negative for total coliform bacteria.

*2 99.9% of our samples were below the turbidity limit.

*3 Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

*4 While your drinking water meets EPA's standard for trihalomethanes, it does contain low levels. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

*5 The Old Hickory Utility District has met the treatment technique requirements for Total Organic Carbon removal in 2009.

*6 Nitrate in drinking water at levels above 10ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant you should ask advice from your health care provider.

Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water and is set at a very stringent level. To understand the possible health effects described for many contaminants, a person would have to consume 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 effects.

OLD HICKORY UTILITY DISTRICT
2009
WATER QUALITY DATA