



Water...the real taste of life!

# 2014 Water Quality Report for Old Hickory Water Treatment Plant

Este informe contiene información muy importante. Tradúzcalo ó hable con alguien que lo entienda bien

## What is this report about?

The State of Tennessee and the United States Environmental Protection Agency require that the public water systems annually report the analyses of their drinking water. On July 1, 2013, Old Hickory Utility District (OHUD) became part of Metro Water Services (MWS). Prior to July 1, 2013, MWS purchased water from the OHUD to provide water to Rayon City customers. This report reflects the results of analyses from both OHUD and MWS.

---

## Your Water Source

Our top priority is to provide our customers with a clean and safe water supply. We are pleased to report that your water meets or exceeds all of the United States Environmental Protection Agency (EPA) health standards and all state and federal requirements.

Your water source is Old Hickory Lake. The Tennessee Department of Environment and Conservation (TDEC) has prepared a source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. A copy of the Water Assessment Report will be available for review at Metro Water's Administrative Library, located at 1600 Second Ave. North. A source water assessment summary is available at [http://www.tn.gov/environment/water/water-supply\\_source-assessment.shtml](http://www.tn.gov/environment/water/water-supply_source-assessment.shtml). TDEC has rated your source as reasonably susceptible.

---

## Drinking Water Sources

The sources of drinking water (both tap water and bottled water) include lakes, streams, ponds, reservoirs, springs, 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.

Impurities that may be present in source water include:

- (A) Biological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater run-off, and residential uses.
- (D) Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, stormwater run-off, and septic systems.
- (E) Radioactive materials, which can be naturally-occurring or can be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency prescribes regulations that limit the amount of certain impurities in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled 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 (1-800-426-4791).

---

## Important Health Information

Some people may be more vulnerable to impurities in drinking water than the general population. Immuno-compromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about food preparation, handling infants and pets, personal sanitation, and drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

---

## How You Can Get Involved??

The public may participate in decisions concerning water quality by attending the Metropolitan Council meetings held on the first and third Thursday of every month in the Council Chambers of the Metro Courthouse, One Public Square.

## WATER QUALITY TABLE

Most of the data presented in the table below is taken from testing performed between January 1 through December 31, 2013. Old Hickory Utility District monitors for some contaminants less than once per year. For those contaminants, the date of the last sample is shown in the table.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria *1	No	.41%	N/A	2013	Absence or Presence	0%	5%	Naturally present in the environment
Turbidity *2	No	0.08	0.043-0.232	2013	NTU	n/a	TT	Soil runoff
Lead *3	No	90 <sup>th</sup> % = 1.7	N/A	2011	ppb	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Copper	No	90 <sup>th</sup> % = .53	N/A	2011	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.72 avg.	0.67 – 0.78	2013	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium	No	7.4	N/A	2012	ppm	n/a	n/a	Erosion of natural deposits; used in water treatment
TTHM *4 (Total Trihalomethanes)	No	42.5 avg.	36.1 – 42.5	2013	µg/L	0	80	By-product of drinking water disinfection
HAA5 (Haloacetic Acids)	No	31.4 avg.	25.3 – 31.4	2013	µg/L	0	60	By-product of drinking water disinfection
Total Organic Carbon *5	No	N/A	N/A	N/A	ppm	TT	TT	Naturally present in the environment
Nitrate *6 (as Nitrogen)	No	0.48	N/A	2013	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	1.79 avg.	0.09 – 3.2	2013	ppm	4	4	Water additive used to control microbes

- **MCLG** - Maximum Contaminant Level Goal, The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **MCL** - Maximum Contaminant Level, The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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, 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, The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **ppm** - Parts per million 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.
- **ppb** - Parts per billion 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.
- **NTU** - Nephelometric Turbidity Units Standard, units for measurement of water clarity. Turbidity does not present any risk to your health. Old Hickory Utility District monitors turbidity, a measure of the cloudiness of water, because it is a good indicator that the filtration system is functioning properly.
- **TT** - Treatment Technique, A required process intended to reduce the level of a contaminant in drinking water.
- **µg/L** - Micrograms per liter or parts per billion.

During the most recent round of Lead and Copper testing, 0 out of 20 households sampled contained concentrations exceeding the action level.

\*1 During 2013, MWS collected 246 Total Coliform Bacteria samples. 1 out of 246 tested positive for total coliforms. All recollections were negative.

\*2 99.9% of our samples were below the turbidity limit of 0.300 NTU. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration process.

\*3 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. Old Hickory Utility District and Metro Water Services are responsible for providing high quality drinking water, but cannot 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 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>.

\*4 While your drinking water meets EPA's standards for trihalomethanes,(THM) it does contain low levels. Some people who drink water containing THMs 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 We have met the treatment technique requirements for Total Organic Carbon removal in 2012.

\*6 Nitrate in drinking water at levels above 10 ppm 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 seek advice from your health care provider.