

ANNUAL DRINKING WATER QUALITY REPORT for January 1-December 31, 2014  
**TANGLEWOOD FOREST WATER SYSTEM TX2040054**

For more information regarding this report or Public Participation Opportunities contact:  
 Pure Utilities, L. C., 207 W Mill St, Livingston, TX 77351; (936) 327 - 7070

**Sources of Drinking Water**

**TANGLEWOOD FOREST WATER SYSTEM IS GROUND WATER.**

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. The sources of drinking water (both tap 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 material, and can pick up substances resulting from the presence of animals or from human activity.

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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage 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 runoff, and residential uses.
- Organic chemicals 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 prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800) 426-4791.

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. We are responsible for providing high quality drinking water, but we 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>.

**Information about Source Water Assessments**

The TCEQ completed an assessment of your source water and the results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact our office.

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being conducted by the Texas Commission on Environmental Quality and should be provided to us this year. The report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow us to focus water protection strategies. For more information on about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

<u>Source Water Name</u>	<u>Location</u>	<u>Type of Water</u>	<u>Report Status</u>
1- LONE OAK/HOLLY	LONE OAK/HOLLY	GW	
2- LONE OAK/HOLLY	LONE OAK/HOLLY	GW	

**Lead and Copper**

Definitions: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	9/13/2013	1.3	1.3	0.184	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	9/13/2013	0	15	0.88	0	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits.

**Maximum Residual Disinfectant Level**

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2014	Chlorine	1.07	.25	2	4.0	<4.0	ppm	Disinfectant used to control microbes.

**DEFINITIONS:** The following tables contain scientific terms and measures, some of which may require explanation.

**Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**Maximum Contaminant Level (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 Contaminant Level Goal (MCLG)**

-The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (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.

**Maximum Residual Disinfectant Level Goal (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.

**MFL:** million fibers per liter (a measure of asbestos)

**na:** not applicable

**NTU** - Nephelometric Turbidity Units

**ppt** - parts per trillion, or nanograms per liter (ng/L)

**ppq** - parts per quadrillion, or picograms per liter

**pCi/L** - picocuries per liter (a measure of radioactivity)

**ppm** - parts per million, or milligrams per liter (mg/L); one ounce in 7,350 gallons of water

**ppb** - parts per billion, or micrograms per liter (µg/L); once ounce in 7,350,000 gallons of water

**Regulated Contaminants** \*EPA considers 50 pCi/L to be the level of concern for beta particles.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic - While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.	2014	6	6.1-6.1	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2/20/2013	0.354	0.354-0.354	2	2	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Fluoride	2/20/2013	0.24	0.24-0.24	4	4.0	ppm	N	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon Emitters	2013/4	47.5	36.7-47.5	0	50	pCi/L*	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2014	24	21.3-25.8	0	5	pCi/L	Y	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2014	96	73.7-110	0	15	pCi/L	Y	Erosion of natural deposits.

**Violations**

**Combined Radium 226/228** : Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, Average	1/1/2014	3/31/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, Average	4/1/2014	6/30/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

<b>MCL, Average</b>	7/1/2014	9/30/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
<b>MCL, Average</b>	10/1/2014	12/31/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

**Gross alpha excluding radon and uranium:** Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

<b>MCL, Average</b>	<b>1/1/2014</b>	<b>3/31/2014</b>	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
<b>MCL, Average</b>	4/1/2014	6/30/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
<b>MCL, Average</b>	7/1/2014	9/30/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
<b>MCL, Average</b>	10/1/2014	12/31/2014	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

**Public Notification Rule**

The Public Notification Rule helps to ensure that customers will always know if there is a problem with their drinking water. These notices immediately alert customers if there is a serious problem with their drinking water (e.g., a boil water emergency).

<b>PUBLIC NOTICE RULE LINKED TO VIOLATION</b>	<b>4/30/2013</b>	<b>2014</b>	We failed (rather, we were late) to adequately notify you, our drinking water customers, about a violation of the drinking water regulations. As soon as we were aware a notice was required, it was sent to you.
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In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2014, our system lost an estimated 359,736 gallons of water. If you have any questions about the water loss audit please call our office.

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