

City of Lawn 2018 Annual Drinking Water Report

(Also known as the Consumer Confidence Report)
Water System Identification Number – TX2210005

Annual Water Quality Report for the period of January 1 to December 31, 2018

City of Lawn treats water from Coleman Lake.

For more information regarding this report contact: Roger Coxe, Public Works Director at (325) 583-2510

Este reporte incluye informacion sobre el agua para tomar. Para asistencia en espanol, favor de llamar at

telefono (325) 583-2510

PUBLIC PARTICIPATION OPPORTUNITIES

Date: Second Tuesday after 9th each month. **Time:** 7:00 pm

Location: City Hall – 150 Main St., Lawn, Texas 79530

Sources of Drinking Water

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 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 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 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

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information 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 allows us to focus source water protection strategies.

For more information 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>

Source Water	Name	Type of Water	Report Status	Location
Intake 1		SW	Complete	Coleman Lake

Water Quality Test Results Explanation of Acronyms Used in this Report: 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 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 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 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.

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.

Level 1 Assessment: A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

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

na: not applicable

mrem: millirems per year (a measure of radiation absorbed by the body)

NTU: nephelometric turbidity units (a measure of turbidity)

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

ppb: micrograms per liter or parts per billion-or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million-or one ounce in 7,350 gallons of water

ppq: parts per quadrillion, or picograms per liter (pg/L)

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

Disinfectant (Chloramine) levels Testing Results in the City of Lawn Distribution System

Disinfectant	Year of Range	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measurement	Violation	Source of Chemical
Chloramines	2018	2..13	1.00	3.83	4.0	4.0	ppm	N	Disinfectant used to control microbes

Lead and Copper

Definitions:

Regulated Contaminants Detected

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

Regulated Contaminants in the City of Lawn Distribution System

Lead and Copper	Date Sampled	MCLG	Action Level(AL)	90 Percentile	#Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2016	1.3	1.3	0.118	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	15	2.76	0	ppb	N	Corrosion of household plumbing systems; Erosions of natural deposits.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2018	21	16.4 - 28.2	No Goal for the Total	60	ppb	N	By-product of drinking water disinfection.
TotalTrihalomethanes (TTHM)	2018	15	11.1 – 16.3	No Goal for the Total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2018	1	1.3 - 1.3	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2018	0.097	0.097 -0.097	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2018	1.2	1.2 – 1.2	100	100	ppb	N	Discharges from steel and pulp Mills. Erosion of natural deposits.
Cyanide	2018	153	107 - 153	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2017	0.1	0.126 – 0.126	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2018	.0158	0.158 -0.158	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
\Beta/photon emitters	2018	8.5	8.5 - 8.5	0	50	pCi/L*	N	Decay of natural and man-made deposits.

Turbidity

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.77 NTU	1 NTU	N	Soil runoff
Lowest monthly % meeting limit	89%	0.3 NTU	Y	Soil runoff

Information Statement: turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.

Total Organic Carbon (TOC)

removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is note in the violations section.

Violations Table /Publications Rule

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	01/01/2018	01/31/2018	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.
PUBLIC NOTICE RULE LINKED TO VIOLATION	03/03/2018	2018	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.
PUBLIC NOTICE RULE LINKED TO VIOLATION	10/21/2015	04/16/2018	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.
Interim Enhanced SWTR			
The Interim Enhanced Surface Water Treatment rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	01/01/2018	01/31/2018	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water. Typical of high levels of solids in surface water and surface water runoff

Violation Explanations—

1. **Consumer Confidence Rule Reports-** Policies and procedures have been updated and employees have been properly trained concerning the proper technique to follow in order to assure that the public is properly notified concerning quality of the drinking water.
2. **Surface Water Treatment Rule** – Policy and procedures have been updated and employees have been properly trained concerning the proper operation of the surface water treatment plant.
3. **Public Notification Rule** – Policy and procedure have been updated and employees have been properly trained concerning the proper technique to follow in order to assure that the public is properly notified concerning violations of the drinking water regulations.

WATER LOSS

Texas Legislature requires the City to file an annual water loss report with the Texas Water Development Board and to notify customers of the results. This notice is intended to meet the notification requirement. Water Loss is unaccounted for water produced by the water system. This is the difference between the water produced and registered at the customer's meter. Leaks, line breaks, unmetered fire protection, hydrant flushing for health and safety, and other activities all contribute to water loss

The City of LAWN – Lawn Water Works, water system has approximately 77 miles of distribution water lines serving 260 active connections within the City of Lawn city limits (Population 780), and in parts of rural SSE Taylor, Callahan and Coleman Counties.

TIME PERIOD COVERED BY AUDIT	ESTIMATED GALLONS OF WATER LOST DURING 2018	COMMENTS OR EXPANATIONS
January 1, 2018 to December 31, 2018	21,573,200	Leaks, line breaks, unmetered fire protection, sampling, hydrant flushing for health and safety, and other activities all contribute to water loss.

June 15, 2019

4 of 4 pages
