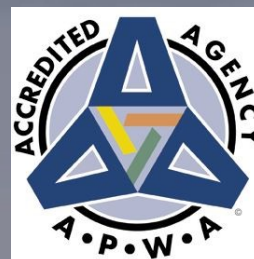


# Town of Little Elm

## 2018 Water Quality Report



Reported 2019



### For More Information...

- Or to report service problems or leaks contact the Public Works Department at 972-377-5556.
- Or for questions about your utility bill contact Utility Billing at 214-975-0480.

### Get Involved...

Town Council Meetings are held on the first and third Tuesdays of each month beginning at 6:00 PM. For more information please contact the Town Secretary at 214-975-0404

## A Message from the Town Manager:

The Town of Little Elm takes pride in the water we provide and strives for uninterrupted service.

Throughout the year, The Town of Little Elm takes samples of the water supply from various locations in Town. These samples are sent in for analysis and the results are compiled into the Annual Water Quality Report for our water customers.

We are pleased to announce that The Town of Little Elm's water supply has met or exceeded all regulations and mandates established by the Environmental Protection Agency and the Texas Commission on Environmental Quality.

Please take the opportunity to read through this report to learn about the quality of Little Elm's water and Water Conservation.

If you have any questions regarding the Town's drinking water, or the information contained in this report, please contact Public Works at 972-377-5556.

Sincerely,

Matt Mueller

Town Manager



### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### Availability of Monitoring Data for Unregulated Contaminants (UCMR3 / UCMR4) for Town of Little Elm System #0610035

Our water system has sampled for a series of unregulated contaminants (UCMR3) / UCMR4. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this testing data is available. If you are interested in examining the results, please contact Andrew Figueroa at 972-377-5557 or 1600 Mark Tree Lane, Little Elm, Texas 75068.

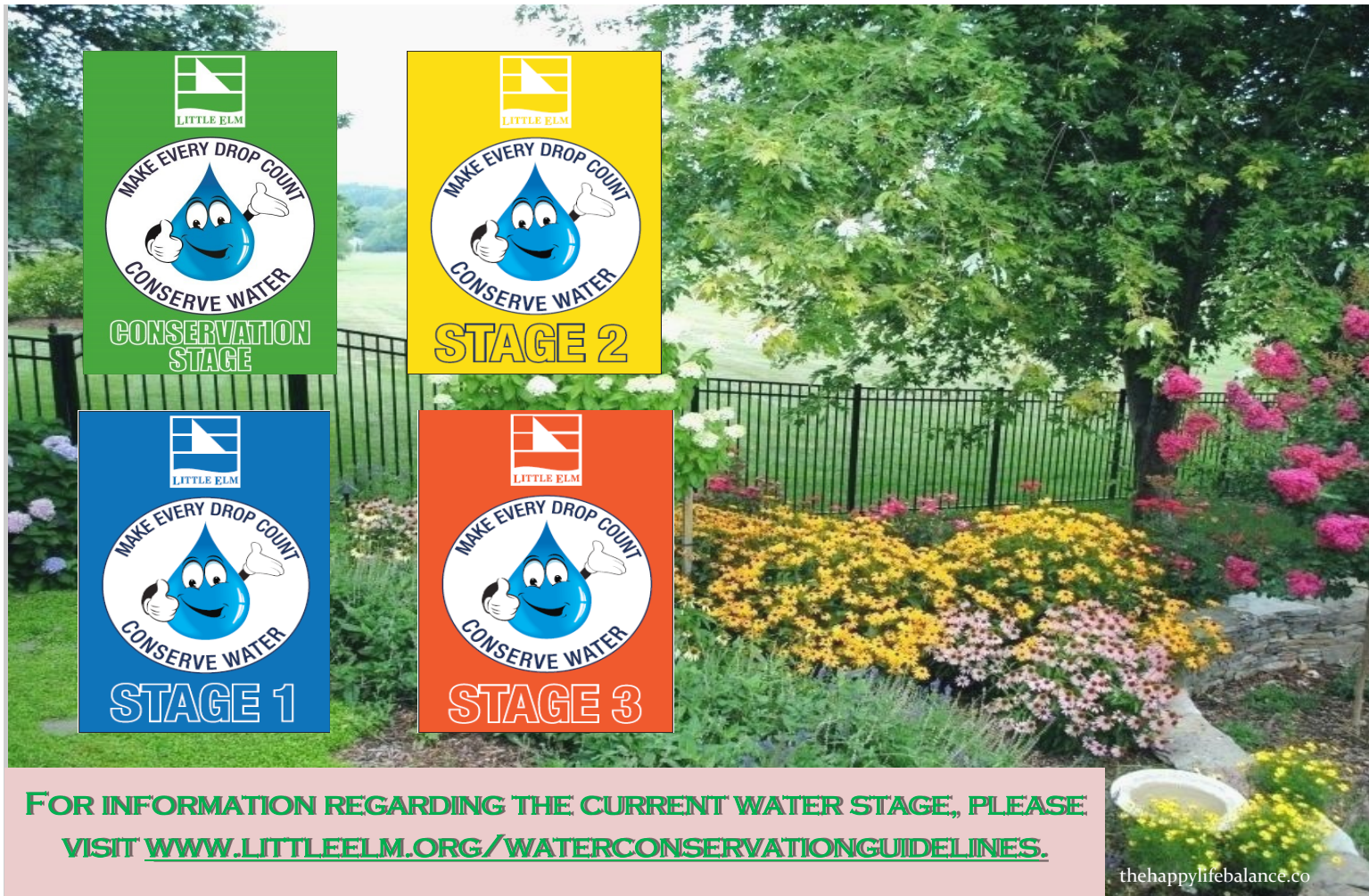
This notice is being sent to you by Town of Little Elm .

State Water System ID#: 0610035.

Date Distributed: (2015-2016), (2018-2019)

Sampling Years: (2014-2015), (2018)





The **cycle and soak method** of applying water to the landscape drastically reduces and in some cases eliminates runoff. This method of applying water to the landscape is made up of multiple cycles for each station with 30 to 60 minutes for the water to soak into the soil between cycles.

1. The first cycle will break the surface tension of the soil and saturate the top layer of soil.
2. The second cycle infiltrates the soil more efficiently and deeply after the first cycle.
3. A third, and sometimes a fourth cycle, is beneficial if a slope is involved or if runoff occurs after the sprinklers run for just a few minutes.

*For example: if you have determined you need to run a sprinkler station 12 minutes, schedule your controller to run the station 2 times for 6 minutes or 3 cycles for 4 minute. If a slope or runoff is involved, run the station 4 cycles for 3 minutes.*



In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimated gallons 105,517,051 gallons of water. If you have any questions about the water loss audit please call (972) 377-5556.

## Important Health Information

**Y**ou 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; those 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 provider. Additionally guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the **U.S. EPA's Safe Drinking Water Hotline at**

**(800) 426-4791.**

## Naturally Occurring Bacteria

**T**he simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us, in our food; on our skin; in our bodies; and, in our air, soil, and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested many water samples for coliform bacteria. In that time, none of the samples came back positive for the bacteria. Federal regulations now require that public water that tests positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliform are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

## Lead and Drinking Water

**I**f 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. The Town of Little Elm is 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).**

## Definitions

**Level 1 Assessment:** Is a study of the water system to identify potential problems & determine if possible why total coliform bacteria were found.

**Level 2 Assessment:** is a very detailed study of the water system to identify potential problems & determine (if possible) why an *Escherichia coli* (E-coli) maximum contaminant level violation has occurred and /or why total coliform bacteria were found on multiple occasions.

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

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

**MCL (Maximum Contaminant Level):** 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. Secondary MCLs (SMCL) are set for the control of taste and odor.

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

**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 control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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.

**NA:** Not applicable.

**ND (Not Detected):** Indicates that the substance was not found by laboratory analysis.

**NTU: (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter). Or one ounce in 7,350,000 gallons of water

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter). Or one ounce in 7,350 gallons of water

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms per liter).

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

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



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulation limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by call the EPA Safe Drinking Water Hotline at (800) 426-4791.

Contaminants may also 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 Public Works Department at (972) 377-5556.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may present in source water include:

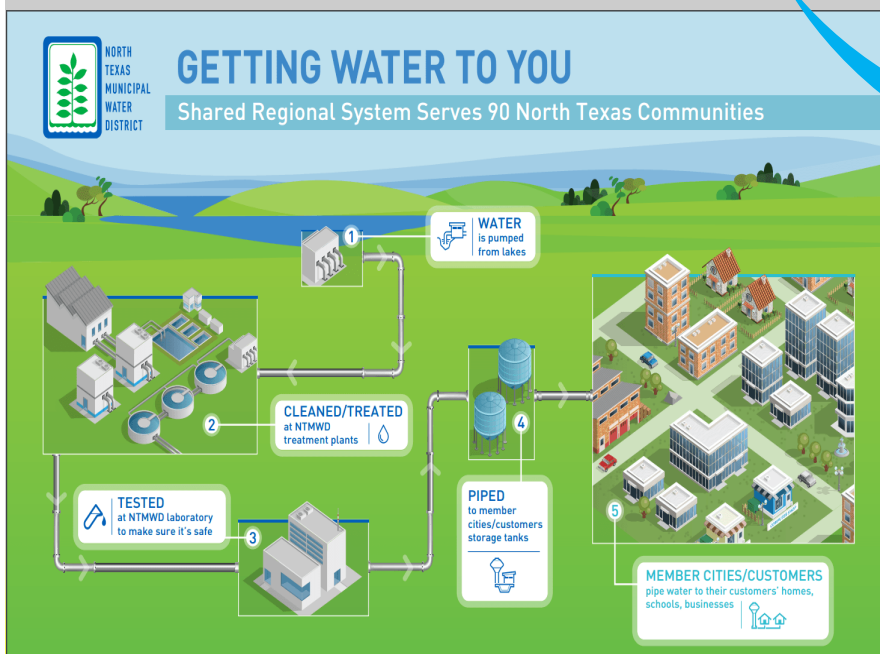
**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.



The Town of Little Elm purchases water from North Texas Municipal Water District. The water is drawn from surface water sources including Lake Lavon (Collin County, TX) Texoma (Grayson County, TX & Bryan County, OK), and Jim Chapman (Delta & Hopkins County, TX)

## Sampling Results

During the past year we have taken numerous water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants, and chlorine residuals levels. The tables below show only those contaminants that were detected in the water.

### Town of Little Elm Water Quality Data 2018

#### Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Number of E. coli Positive Results	Number of Assessments Required	Number of Assessments Performed	Violation	Likely Source of Contamination
0	1 positive monthly sample	0	0	0	N	Naturally present in the environment.

#### Regulated Contaminates

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	2018	28	1.8-25.9	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2018	38	24.7-33.6	No goal for the total	80	ppb	No	By-product of drinking water disinfection.

Note: The value in the Highest Level or Average Detected column is the highest average of all HAA5 & TTHM sample results collected at a location over a year.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2018	0.068	0.058 - 0.068	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	2018	0.264	0 - 0.264	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2018	0.078	0.022 - 0.503	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.

Nitrate Advisory: 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 agricultural activity. If you are caring for an infant you should ask advice from your healthcare provider.

Este reporte incluye información importante sobre el agua para tomar.  
Para asistencia en español, favor de llamar al telefono (972) 377-5557

# Town of Little Elm Water Quality Data 2018

TCEQ completed an assessment of your source water, and results indicate that our sources have a low susceptibility to contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Public Works (972) 377-5557

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2018	8.0	8.0 - 8.0	0	50	pCi/L	No	Decay of natural and man-made deposits.
Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2018	0.30	0.20 - 0.30	3	3	ppb	No	Runoff from herbicide used on row crops.
Simazine	2018	0.13	0 - 0.13	4	4	ppb	No	Herbicide runoff.

## Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.45	No	Soil runoff.
Lowest monthly percentage (%) meeting limit	0.3 NTU	99.10%	No	Soil runoff.

**NOTE:** 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

	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Source Water	2018	4.7	3.68 - 4.70	PPM	Naturally present in the environment
Drinking Water	2018	3.0	1.85 - 3.00	PPM	Naturally present in the environment.
Removal Ratio	2018	54.4%	26.5 - 54.4	% Removal	N/A

**NOTE:** Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report. \* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

# Town of Little Elm Water Quality Data 2018

## Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	6/29/2016	1.3	1.3	0.3425	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	6/29/2016	0	15	1.73	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.

## Maximum Residual Disinfectant Level

Disinfectant Type	Year	Average Level of Quarterly Data	Lowest Result of Single Sample	Highest Result of Single Sample	MRDL	MRDLG	Units	Source of Chemical
Chlorine Residual (Chloramines)	2018	2.03	.5	4.0	4.0	<4.0	ppm	Disinfectant used to control microbes.
Chlorine Dioxide	2018	0	0	0	0.8	0.8	ppm	Disinfectant.
Chlorite	2018	0.012	0	0.48	1.0	N/A	ppm	Disinfectant.

**Note:** Water providers are required to maintain a minimum chlorine disinfection residual level of 0.5 parts per million (ppm) for systems disinfecting with chloramines and an annual average chlorine disinfection residual level between 0.5 (ppm) and 4 parts per million (ppm). Water systems using free chlorine are required to maintain a minimum chlorine disinfection residual level of 0.2 parts per million (ppm). The 0.21 ppm result was sampled during our temporary change in disinfectant from chloramines to free chlorine.





# Town of Little Elm Water Quality Data 2018

## Secondary and Other Constituents Not Regulated

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
Calcium	2018	55.3	43.6 - 55.3	ppm	Abundant naturally occurring element.
Chloride	2018	93.7	30.8 - 93.7	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Magnesium	2018	9.61	9.18 - 9.61	ppm	Abundant naturally occurring element.
Manganese	2018	0.0064	0.0037 - 0.0064	ppm	Abundant naturally occurring element.
Nickel	2018	0.0055	0.0053 - 0.0055	ppm	Erosion of natural deposits.
pH	2018	8.51	7.83 - 8.51	units	Measure of corrosivity of water.
Silver	2018	0.001	0 - 0.001	ppm	Erosion of natural deposits.
Sodium	2018	88.6	86.8 - 88.6	ppm	Erosion of natural deposits; by-product of oil field activity.
Sulfate	2018	134	86 - 134	ppm	Naturally occurring; common industrial by-product; by-product of oil field activity.
Total Alkalinity as CaCO <sub>3</sub>	2018	101	65 - 101	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2018	556	288 - 556	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO <sub>3</sub>	2018	188	105 - 188	ppm	Naturally occurring calcium.

## Source Water Susceptibility Assessment

Source Water	Type of Water	Status	Location	
SW From North Texas Municipal Water District	CC From TX0430044 North SW	A	Lavon, Texoma & Jim Chapman-Lakes	TCEQ completed an assessment of your source water, and results indicate that our sources have a low susceptibility to contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Public Works (972) 377-5556

## Violations Table

Violation Type	Violation Begin	Violation End	Violation Explanation
Lead Consumer Notice (LCR)	12/30/2017	04/16/2018	NTMWD failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

**Lead Copper Rule:** The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and Copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

# Town of Little Elm Water Quality Data 2018

## Unregulated Contaminant Monitoring Rule 4

Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	Units	Likely Source of Contamination
<b>Unregulated Inorganics</b>					
Manganese	2018	0.00769	0.0041 - 0.00769	ppm	Abundant naturally occurring element.
Germanium	2018	.0005	0 - .005	ppm	Abundant naturally occurring element
<b>Unregulated Haloacetic Acids</b>					
Bromochloroacetic Acid	2018	0.0111	0.00523 - 0.0111	ppm	By-product of drinking water disinfection.
Bromodichloroacetic acid	2018	0.00294	0.00141 – 0.00294	ppm	By-product of drinking water disinfection.
Chlorodibromoacetic acid	2018	0.00139	0.000738 - 0.00139	ppm	By-product of drinking water disinfection.
Dibromoacetic Acid	2018	0.00714	0.00159 - 0.00714	ppm	By-product of drinking water disinfection.
Dichloroacetic Acid	2018	0.0151	0.00469 – 0.0151	ppm	By-product of drinking water disinfection.
Monobromoacetic Acid	2018	0.00138	0.000386 - 0.00138	ppm	By-product of drinking water disinfection.
Trichloroacetic acid	2018	0.00349	0.00148 – 0.00349	ppm	By-product of drinking water disinfection.
Tribromacetic Acid	2018	0.00227	0.00221 –0.00227	ppm	By-product of drinking water disinfection.

**Think smart. Plant smart.**  
**#PledgeToPlantSmart**

# Upcoming Town Events 2019



Saturday, June 1, 2019



Thursday, July 4, 2019



September 12th—15th 2019



Pumpkin Hollow

Thursday Oct 17 From 6-9 p.m.

Friday Oct 18 & Saturday Oct 19 6-10 p.m.



Christmas at the Beach

Dec 7 - 8, 2019

Dec 14 - 15, 2019

## TOWN OF LITTLE ELM

BI-ANNUAL HOUSEHOLD HAZARDOUS  
WASTE COLLECTION & RECYCLING EVENT

*Clean & Green*

KEEPING TEXAS WATERWAYS CLEAN SINCE 2011

PUBLIC WORKS BUILDING  
1600 MARK TREE LANE  
8:00 A.M. TO NOON



2019 DATES:  
JUNE 15TH &  
OCTOBER 5TH



