

ANNUAL WATER QUALITY REPORT

Reporting Year 2021



Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (972) 377-5554.

Presented By
Town of Little Elm

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Source Water Assessment

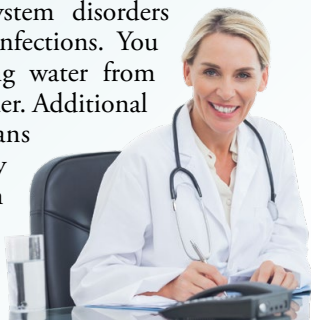
The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact Tim Walker at (972) 377-5554.

NORTH TEXAS MUNICIPAL WATER DISTRICT	
SOURCE NAME	SUSCEPTIBILITY RATING
Lake Lavon	Low
Lake Texoma	Low
Jim Chapman Lake	Low

If you would like a copy of our assessment, please feel free to contact our office during regular business hours at the number provided in this report.

Important Health Information

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; 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. Additional guidelines on appropriate means to lessen the risk of infection by *cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.



QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Tim Walker, Utilities Manager, at (972) 377-5554.

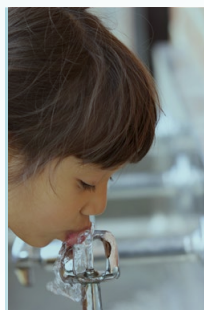
Where Does My Water Come From?

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



Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 172,879,708 gallons of water. If you have any questions about the water loss audit, please call PWS phone number.



Lead in Home Plumbing

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. This water supply is 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations 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.

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 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, 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.

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 our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



BY THE NUMBERS

The number of Americans who receive water from a public water system.

300
MILLION

1
MILLION

The number of miles of drinking water distribution mains in the U.S.

The number of gallons of water produced daily by public water systems in the U.S.

34
BILLION

135
BILLION

The amount of money spent annually on maintaining the public water infrastructure in the U.S.

The number of active public water systems in the U.S.

151
THOUSAND

199
THOUSAND

The number of highly trained and licensed water professionals serving in the U.S.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2021	3	3	0.3	0.2–0.3	No	Runoff from herbicide used on row crops
Barium (ppm)	2021	2	2	0.038	0.037–0.038	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters (pCi/L)	2021	50	0	0	0–0	No	Decay of natural and human-made deposits
Bromate (ppb)	2021	10	0	69.2	5.27–69.2	No	By-product of drinking water disinfection
Chloramines (ppm)	2021	[4]	[4]	2.06	0.5–3.75	No	Water additive used to control microbes
Chlorite (ppm)	2021	1	0.8	0.105	0–0.97	No	By-product of drinking water disinfection
Fluoride (ppm)	2021	4	4	0.480	0.306–0.480	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 1 (ppb)	2021	60	NA	34.4	15.3–34.4	No	By-product of drinking water disinfection
Nitrate (ppm)	2021	10	10	0.802	0.110–0.802	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2021	4	4	0.12	0.08–0.12	No	Herbicide runoff
TTHMs [Total Trihalomethanes]–Stage 1 (ppb)	2021	80	NA	40.8	23.7–40.8	No	By-product of drinking water disinfection
Total Organic Carbon ¹ (ppm)	2020	TT	NA	3.14	2.13–3.14	No	Naturally present in the environment

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	1.3	0.3153	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2019	15	0	1.44	0/30	No	Lead services lines, corrosion of household plumbing systems including fittings and fixtures; Erosion of natural deposits

SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2020	300	NA	78.9	23.2–78.9	No	Runoff/leaching from natural deposits
Manganese (ppb)	2020	50	NA	17	12–17	No	Leaching from natural deposits
pH (Units)	2020	>7.0	NA	8.60	8.04–8.60	No	Naturally occurring
Total Dissolved Solids [TDS] (ppm)	2020	1,000	NA	504	265–504	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2020	12.3	8.83–12.3	By-product of drinking water disinfection
Bromoform (ppb)	2020	2.98	1.19–2.98	By-product of drinking water disinfection
Chloroform (ppb)	2020	12.2	5.86–12.2	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2020	9.55	6.07–9.55	By-product of drinking water disinfection
Nickel (ppb)	2020	0.0068	0.0066–0.0068	Nickel is a natural element of the Earth's crust; therefore, small amounts are found in food, water, soil, and air.
Sodium (ppm)	2020	68.5	62.7–68.5	Erosion of natural deposits; By-product of oil field activity
Sulfate (ppm)	2020	158	42.0–158	Naturally occurring; Common industrial by-product; By-product of oil field activity

OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Calcium (ppm)	2020	60.7	60.6–60.7	Abundant naturally occurring element
Magnesium (ppm)	2020	9.40	8.83–9.40	Abundant naturally occurring element
Total Alkalinity as CaCO₃ (ppm)	2020	107	72.0–107	Naturally occurring soluble mineral salts
Total Hardness as CaCO₃ (ppm)	2020	207	106–207	Naturally occurring calcium

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit: <https://www.atsdr.cdc.gov/pfas/index.html>.

¹The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

²Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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.

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 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.

NA: Not applicable

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SCL (Secondary Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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