



2021 Annual Drinking Water Quality Report

A Consumer Confidence Report (CCR) for the City of Liberty Hill Water Customers

The following is an annual report of the City of Liberty Hill drinking water quality. The Environmental Protection Agency (EPA) sets regulatory limits for the amounts of certain contaminants in water provided by public water systems, and the data shown in this report comes from tests conducted on the City of Liberty Hill between January 1st to December 31st 2021.

For more information regarding this report, contact Trey Evans-
Water Superintendent-(512)778-5449.

Este reporte incluye informacion importante sobre el agua para
tomar. Para asistencia en espanol, favor de llamar al telefono
(512)778-5449.

Where Do We Get Our 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 pick up substances resulting from the presence of animals or from human activity.

The City of Liberty Hill provides surface water and ground water from within the Trinity-Hensley Aquifer, as well as the City of Leander-Lake Travis which are located within Williamson and Travis Counties.

INFORMATION ABOUT YOUR DRINKING 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 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.

SPECIAL NOTICE FOR ELDERLY, INFANTS AND IMMUNOCOMPROMISED PEOPLE

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).

DEFINITIONS & ABBREVIATIONS

The following contain scientific terms and measures, some of which may require explanation.

- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- **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.
- **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.
- **MFL** million fibers per liter (a measure of asbestos)
- **mrem:** millirems per year (a measure of radiation absorbed by the body)
- **na:** not applicable.
- **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
- **ppm:** milligrams per liter or parts per million
- **ppq** parts per quadrillion, or picograms per liter (pg/L)
- **ppt** parts per trillion, or nanograms per liter (ng/L)
- **Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.



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Additional Health Information for Lead:

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

CITY OF LIBERTY HILL purchases treated water from City of Leander; City of Leander provides purchased surface water from Lake Travis located in Travis County. The City of Liberty Hill owns and operates four groundwater wells within the Trinity Hensley Aquifer located in Williamson County. TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on the 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 Trey Evans-Water Superintendent at (512)778-5449 ext.: 280.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	10/30/2019	1.3	1.3	0.112	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	10/30/2019	0	15	2.37	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2021 Water Quality Test Results

<u>Disinfection By-Products</u>	<u>Collection Date</u>	<u>Highest Level Detected</u>	<u>Range of Individual Samples</u>	<u>MCLG</u>	<u>MCL</u>	<u>Units</u>	<u>Violation</u>	<u>Likely Source of Contamination</u>
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<u>Haloacetic Acids (HAA5)</u>	2021	8	1.1 - 19.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
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*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

<u>Total Trihalomethanes (TTHM)</u>	2021	17	0 - 53.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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*The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

<u>Inorganic Contaminants</u>	<u>Collection Date</u>	<u>Highest Level Detected</u>	<u>Range of Individual Samples</u>	<u>MCLG</u>	<u>MCL</u>	<u>Units</u>	<u>Violation</u>	<u>Likely Source of Contamination</u>
<u>Arsenic</u>	06/11/2019	7.9	7.9 - 7.9	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

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 costs 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.

<u>Barium</u>	06/11/2019	0.289	0.289 - 0.289	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<u>Cyanide</u>	02/19/2020	80	80 - 80	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
<u>Fluoride</u>	06/11/2019	0.81	0.81 - 0.81	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.



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Nitrate <u>[measured as Nitrogen]</u>	2021	0.25	0 - 0.25	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	06/11/2019	21.5	21.5 - 21.5	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2021	22	16.4 - 22	0	50	pCi/L*	N	Decay of natural and man-made deposits.

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

Combined Radium 226/228	2021	6	5.3 - 6.52	0	5	pCi/L	Y	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2021	22	12 - 22	0	15	pCi/L	Y	Erosion of natural deposits.
Uranium	2021	9	7.9 - 12.2	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramine	2021		0.50 mg/L - 4.0 mg/L	4	4	Mg/L	ppm	Chlorine (gas), Liquid Ammonium Sulfate (LAS)

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	07/01/2021	09/30/2021	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	10/01/2021	12/31/2021	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.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	7/1/2021	9/30/2021	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	10/01/2021	12/31/2021	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 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	01/12/2020	02/08/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	11/28/2021	2/8/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.