

# Lake Buchanan Water System

PWS ID: TX1500037



## Annual Water Quality Report 2021

### Message from Darrin Barker, President

Dear Corix Utilities Texas Customers,

I am pleased to present your Annual Water Quality Report for 2021. Transparency, health, and safety are key priorities in our company's efforts to provide a high-quality, reliable water supply. Included in this report are details about where your water comes from, what it contains, and how it compares to regulatory standards.

**We are proud to share this report which is based on water quality testing through December 2021. We continually strive to supply water that meets and/or exceeds all federal and state water quality regulations.**

Our team is comprised of proud members of the community who are dedicated to providing safe, reliable and cost-effective service to you. This commitment includes acting with integrity, protecting the environment, and enhancing the local community.

Maintaining a safe and reliable water supply is hard work. Our devoted local team of water quality experts are working in the community every day, ensuring that our customers are our top priority, and providing the highest quality drinking water and service – now and well into the future.

Best regards,

Visit us online at  
[www.corixtexas.com](http://www.corixtexas.com) Or  
Join us on Facebook  
[@corixtexas](https://www.facebook.com/corixtexas)

*Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (877) 718-4396.*

### COVID-19 Response

According to the Centers for Disease Control and Prevention (CDC) and the US Environmental Protection Agency (EPA), the virus that causes COVID-19 has not been detected in drinking water. Conventional water treatment methods that use disinfection, such as those provided by Corix Utilities Texas, should remove or inactivate the virus that causes COVID-19 as they do for other pathogens.

**Based on current evidence, the risk to water supplies remains low. Customers can continue using and drinking tap water as usual.**

The EPA also encourages the public to help keep household plumbing and our nation's water infrastructure operating properly by only flushing toilet paper. Disinfecting or other sanitary wipes, including those labeled as "flushable" and other non-toilet paper items, should NOT be flushed in toilets. For more information, visit the CDC at <https://www.cdc.gov/coronavirus/2019-ncov/php/water.html> and EPA at <https://www.epa.gov/coronavirus/coronavirus-and-drinking-water-and-wastewater>.

### Source of Drinking Water

The Lake Buchanan Water System obtains its water from Lake Buchanan. The lake collects and stores rainfall that runs off the surrounding land. Water is pumped to a treatment plant, where alum and polymers are added to remove any remaining particles. The water is then disinfected through a chloramine process to ensure the water is microbiologically safe (free from bacteria, viruses, and protozoan parasites).

It is important to note that all drinking water contains some naturally occurring contaminants that are not harmful to our health. In fact, some minerals provide low levels of nutritional value and actually improve the taste of drinking water. After the drinking water has been thoroughly treated at the water treatment facility, we deliver it to homes and businesses through an underground network of pipes.

Individual homes use service lines to tap into larger, underground water main lines. The water is then passed through a water meter so that the amount of water the household uses can be accurately calculated. The water then flows throughout the home so whenever you turn on your faucet for a drink, you are assured clean, safe water for your entire family.

### Source Water Assessment (SWA)

The State of Texas has completed a Source Water Assessment for your drinking water source, and results indicate that some of our sources are susceptible to certain 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 Robert Hicks at 877-718-4396.

**We are pleased to report that our drinking water meets all federal and state requirements.**

### Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.

⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!

⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

For more information visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

## EPA Wants You To Know

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.

### **Contaminants that may be present in source water include:**

- A. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. **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 stormwater runoff, and septic systems.
- E. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

### **What measures are in place to ensure water is safe to drink?**

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. 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.

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.

### **Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems**

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.

### **Information Concerning Lead in Water**

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. Corix Utilities (Texas) 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 <http://www.epa.gov/safewater/lead>.

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at [www.nsf.org](http://www.nsf.org) to learn more about lead-containing plumbing fixtures.

### **Drain Disposal Information**

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

### **Prescription Medication and Hazardous Waste**

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: [www.epa.gov/hw/household-hazardous-waste-hhw](http://www.epa.gov/hw/household-hazardous-waste-hhw).

**The Safe Drinking Water Act** was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

<b>Understanding This Report</b>	In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.
Action Level (AL)	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.
Avg	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment	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 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).
N/A	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 - 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).
Treatment Technique or TT	A required process intended to reduce the level of a contaminant in drinking water.
Grains per gallon (gpg)	Unit of measure for water hardness, typically used by dishwasher and washing machine manufacturers.
TTHM	Total Trihalomethanes
HAA5	Haloacetic Acids
LRAA	Locational running annual average

### Water Loss

During the water audit performed for calendar year 2021 it was determined that Lake Buchanan Water System had a water loss of 9,203,126 gallons. Corix Utilities (Texas) continues to work to reduce water loss.

### Did You Know?

- ◆ The average family of four uses 255 gallons of water a day, 1,785 gallons a week, and 7,650 gallons per month.
- ◆ A single toilet flush uses approximately 5-7 gallons of water.
- ◆ Taking a shower will use approximately 5-10 gallons per minute. A 15-minute shower will use 75-150 gallons.
- ◆ Your kitchen or bathroom sink uses approximately 4-5 gallons a minute.
- ◆ One dishwasher load uses approximately 4-5 gallons a minute.
- ◆ Washing clothes uses approximately 35 gallons per load.

[We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future](#)

### Monitoring Your Water

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The following tables lists all the drinking water contaminants that were detected in the last round of sampling for the particular contaminant group. The presence of contaminants **does not** necessarily indicate that water poses a health risk. **Unless otherwise**

**noted, the data presented in the table is from testing done January 1 through December 31, 2021.** The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old. *MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.*

### If You Have Questions Or Want To Get Involved

Because Corix Utilities (Texas) is privately owned, there are no scheduled board meetings. This report is available to individual customers. For questions about the quality of our drinking water, or to obtain a copy of this report, contact Mr. Robert Hicks at (877)718-4396 or visit us online at [www.corixtexas.com](http://www.corixtexas.com).

### Violations

In February 2021, Lake Buchanan Water System had the following violations: Monitoring/Reporting Violations Individual/Combined Filter Effluent; Monitoring/Reporting Violation: Contact Time; Monitoring/Reporting Violations: Entry Point/Distribution Disinfectant Residual. These violations occurred during the winter storm which caused freezing of chemical lines and loss of electricity. A boil water advisory was issued during this time until all the issues were corrected.

## Water Quality Test Results

Results in the Level Detected column for radioactive contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

Contaminant and Unit of Measurement	Date(s)	Violation	Highest Average	Range of Results	MCLG	MCL	Likely Source of Contamination
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### Radioactive Contaminants

Gross Beta Emitters (pCi/L)	01/29/18	N	6.0	6.0 - 6.0	0	50	Decay of natural and man-made deposits. The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.
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### Inorganic Contaminants

Barium (ppm)	1/12/21	N	0.0850	0.085 - 0.085	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate (ppm)	1/12/21	N	0.29	0.29 - 0.29	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Fluoride (ppm)	1/12/21	N	0.13	0.13 - 0.13	4	4	Erosion of natural deposits; water additive which promotes strong teeth.
Cyanide (ppb)	2021	N	90	40 - 90	200	200	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.

### Stage 2 Disinfectants and Disinfection By-Products

Chloramines (ppm)	2021	N	2.91	0.5 – 4.9	MRDLG =4	MRDL= 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	2021	N	11.9	5.2 - 12.5	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2021	N	48.9	34.2 - 48.9	N/A	80	By-product of drinking water disinfection

For **Chloramines** the level detected is the average of all samples collected. The average must comply with the limits. The range of results is the range of results of all the individual samples collected during the past year.

For **Haloacetic Acids** or **TTHM**, the level detected is the highest locational running annual average (LRAA). Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations.

*Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the maximum residual disinfectant level (MRDL) could experience stomach discomfort or anemia.*

### Lead and Copper Contaminants

Contaminant and Unit of Measurement	Date of sampling	Violation	90th Percentile	Number of Sites Exceeding AL	MCLG	AL	Likely Source of Contamination
Lead (ppb)	07/20	N	1.0	0	0	15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (ppm)	07/20	N	0.098	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

### 2021 Coliform Bacteria

Parameter	Number of Positive Samples	Highest Monthly Number of Positive Samples	MCLG	Source of Contaminant
Total Coliform	0	0	0	Naturally present in the environment
Escherichia Coli (E. Coli)	0	0	0	Human and animal fecal waste

*Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.*

### Finished Water Turbidity 2021

Highest Single Measurement	Lowest % of Samples Meeting Limits	Source of Contaminant
0.37	98.9%	Soil Runoff

### Other Water Quality Information

1/12/2021	Results	Source of Contaminant
Hardness	167 ppm or 9.8 gpg	This is considered hard water.
Sodium	31.8 ppm	An 8 ounce glass of water is considered low sodium.

### Water Quality Test Results—Unregulated contaminants

**Unregulated 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.

Contaminant and Unit of Measurement	Date(s)	Violation	Highest Average	Range of Results
Chloroform (ppb)	2021	N	6.3	4.3 - 6.3
Bromodichloromethane (ppb)	2021	N	17.3	10.4 - 17.3
Dibromochloromethane (ppb)	2021	N	18.3	12.3 - 18.3
Bromoform (ppb)	2021	N	10.6	5.9 - 10.6
Hexadecanoic Acid (ppb)	1/12/21	N	2.5	2.5 - 2.5

#### PFAS Testing

Corix Utilities Texas continues efforts to conduct statewide drinking water testing for Per- and Polyfluoroalkyl Substances (PFAS). These man-made compounds are used in the manufacturing of products resistant to water, grease or stains including firefighting foams, cleaners, cosmetics, paints, adhesives and insecticides. PFAS can migrate into the soil, water, and air and is likely present in the blood of humans and animals all over the world. The Environmental Protection Agency (EPA) has established a health advisory level at 70 parts per trillion. For more information visit <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>. Corix Utilities Texas is committed to providing safe, reliable, and cost-effective drinking water services to all of our customers.

#### PFAS Results (All results reported as Nanograms per liter (ng/L))

Contaminant	Sample Date	Range of Detect	Average	EPA Advisory	Below HAL
PFOS	2021	2.8 - 2.8	2.8	70	Yes
PFOA	2021	ND	ND	70	Yes
Combined PFOS + PFOA	2021	2.8 - 2.8	2.8	70	Yes

#### Terms and Abbreviations:

- **PFOS** – Perfluorooctane Sulfonate
- **PFOA** – Perfluorooctanoic Acid
- **Health Advisory Level (HAL)** – To provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, EPA established the health advisory levels at 70 parts per trillion.
- **Ng/L** – Nanograms per liter (ng/L) which equals Parts per trillion (ppt) – One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **ND (No Detect)** - No detection means the constituent is not detectable at the minimum reporting limit. 2.0 ng/L is the minimum level the lab is reporting a detection for these parameters.

Violations	Began	End	Explanation
Monitoring, Routine Major (IESWTR/LT1),	02/01/2021	02/28/2021	The <b>Interim Enhanced Surface Water Treatment Rule</b> improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or groundwater under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.
Monitoring, RT Major (LT2-FILTERED)	02/01/2021	02/28/2021	The <b>Long Term Enhanced Surface Water Treatment Rule</b> supplements existing regulations by targeting additional Cryptosporidium treatment to higher risk systems. It also contains provisions to reduce risks from uncovered finished water reservoirs and to ensure that systems maintain microbial protection when reducing the formation of disinfection byproducts
Monitoring, RTN/RPT Major (SWTR-FILTER)	02/02/2021	02/28/2021	The <b>Surface Water Treatment Rule</b> seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.

We had an equipment failure, resulting in an increase in the turbidity. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated. We also failed to send the notification letter within the thirty day timeframe allowed by the regulations.

**To access your utility account anytime, anywhere, please register for our customer portal & download MyUtilityConnect at <https://connect.myutility.us/connect/>**