Tap vs. Bottled, Rethinking What You Are Drinking

When choosing the water you want to drink, it is often easy to be convinced that bottled water is healthier for you than tap water, but in truth is it? The answer, thanks to a study by the Natural Resources Defense Council (NRDC) is not always. First, approximately 25 percent of bottled water is – in reality – bottled tap water. Additionally, the Food and Drug Administration (FDA) regulates bottled water; however, their testing standards are not as rigorous as the ones required by the US Environmental Protection Agency (EPA) for tap water. Moreover, FDA oversight does not apply to water that is packaged and sold within the same state. According to the NRDC's report, this leaves approximately 60 -70 percent of bottled water, including the contents of watercooler jugs, free of FDA regulation.

It is estimated that people spend almost 5,000 times more per gallon of bottled water than they would for tap water. For those who get their recommended eight glasses of water a day, you could be saving over $1,000 annually if you switched to tap water!

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Richland Hills
3200 Diana Drive
Richland Hills, Texas 76118

Public Participation Opportunities

You can attend regular City Council meetings on the 2nd or 4th Monday of each month at 7:00 p.m., in the council chambers at 3200 Diana Drive.

Questions?

For more information about this report, your drinking water, or if you would like to schedule a meeting for your group or organization, please call (817) 616-3830.

Richland Hills

PWS ID# TX2200022

2020 Annual Drinking Water Quality Report

Our Drinking Water Is Regulated

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Source 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 pickup substances resulting from the presence of animals or from human activity.

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.

Where Do We Get Our Drinking Water?

Our drinking water is obtained from GROUND AND SURFACE water sources. The surface water is purchased from The City of Fort Worth. Fort Worth uses water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River. Fort Worth owns Lake Worth. The U.S. Army Corp of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by Tarrant Regional Water District. The groundwater supply is from the Trinity and Paluxy aquifers and operated by Richland Hills. The average daily water consumption for Richland Hills is approximately one million gallons.

All Drinking Water May Contain Contaminants

When drinking water meets federal standards there may not be any health benefits to purchasing bottled water or point of use devices. 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 (1-800-426-4791).

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Required 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. This water supply 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.

In 2020, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The Texas Commission on Environmental Quality (TCEQ) has established public water system ratings, and Richland Hills's water supply system received the highest achievable rating. Superior.

TCEQ Accesses Raw Water Supplies

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of our source waters. TCEQ classified the risk to Fort Worth and Richland Hills source waters as high for most contaminants. High susceptibility means there are activities near the source water or watershed making it very likely that chemical constituents may come into contact with the source water. It does not mean that there are any health risks present. Tarrant Regional Water District, from which Fort Worth purchases its water, received the assessment reports. For more information on Fort Worth source water assessments and protection efforts, contact Stacy Walters at 817-392-8203 or email Stacy.Walters@FortWorthTexas.gov. The sampling requirements for our water system are based on this susceptibility and previous sample data. Detection of these contaminants will be found in this report. For more information on source water protection efforts at our system, contact Robert Rush at 817-616-3830 or email rrush@richlandhills.com. Further details about the source water assessments are available at the following URL: https://dww2.tceq.texas.gov/DWW/JSP/SWAP.jsp?tinwsys_is_number=5809&tinwsys_st_code=TX&wsnumber=TX2200022%20%20%20&DWWState=TX

Microorganism Testing Show Low Detections In Fort Worth Water Sources

Tarrant Regional Water District monitors the raw water at all Fort Worth water intake sites for *Cryptosporidium*, *Giardia Lamblia* and viruses. The source is human and animal fecal waste in the watershed. The 2020 sampling showed low levels of *Cryptosporidium*, *Giardia Lamblia* and viruses in some but not all of the water supply sources. Cryptosporidium and Giardia Lamblia are removed through a combination of disinfection and/or filtration.

In the water loss audit submitted to the Texas Water Development Board for the time period of January 2020 to December 2020, our system lost an estimated 21,876,966 gallons. If you have any questions about the water loss audit, please call (817)616-3830.

En Español

Éste reporte incluye importante información sobre el agüa potable. Si tiene preguntas ó comentarios sóbre éste reporte, puede comunicarse con una representate bilinqüe al teléfono (817) 616-3830.

2020 Test Results

PWS ID# TX2200022

We routinely monitor for constituents in your drinking water according to federal and state laws. The test results table shows the results of our monitoring for the period of January 1st to December 31st, 2020. 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).

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.

In addition, because Richland Hills purchases much of its water from the City of Fort Worth, the levels are a compilation of both entities annual sampling results with the highest detected levels shown.

Inorganic Contaminants

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected (Average)	Range Low - High	Violation	Typical Source
Arsenic (ppb)*	2020	10	0	1.5	0 - 1.5	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine (ppb)*	2020	3	0	0.1	0 - 0.1	No	Runoff from herbicide used on row crops
Barium (ppm)	2019	2	2	0.023	0.019 - 0.023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Barium (ppm)*	2020	2	2	0.06	0.05 - 0.06	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)*	2020	100	100	3.3	0 - 3.3	No	Erosion of natural deposits; discharge from steel and pulp mills
Cyanide (ppb)	2020	200	200	52.3	0 - 52.3	No	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
Cyanide (ppb)*	2020	200	200	159	0 - 159	No	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
Fluoride (ppm)	2020	4	4.0	1.79	1.63 - 1.79	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Fluoride (ppm)*	2020	4	4.0	0.52	0.15 - 0.52	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	2020	10	10	1	0.0176 - 0.709	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)*	2020	10	10	0.49	0.19 - 0.58	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)*	2020	1	1	0.02	0.01 - 0.02	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Turbidity (NTU)*	2020	TT	NA	0.3	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)*	2020	TT = 95% of samples meet the limit	NA	99.90%	NA	No	Soil runoff

Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Radioactive Contaminants

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected (Average)	Range Low - High	Violation	Typical Source
Beta/Photon Emitters (pCi/L)* ^	2020	50	0	6.8	0 - 6.8	No	Decay of natural and man-made deposits

^ Because Fort Worth historically has had low levels of radionuclides in its water, TCEQ requires this monitoring occur only once every six years. The test results shown above are from 2017. The next monitoring will occur in 2023.

Regulated Substances

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected (Average)	Range Low - High	Violation	Typical Source
Haloacetic Acids [HAA5] (ppb)	2020	60	NA	10	0 - 27	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2020	80	NA	18	0 - 51.1	No	By-product of drinking water disinfection
Haloacetic Acids [HAA5] (ppb)*	2020	60	NA	10.6	3 - 23	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)*	2020	80	NA	21.0	1.37 - 56	No	By-product of drinking water disinfection
Chlorine, Free (ppm)	2020	4	4	0.12	0 - 2.03	No	By-product of drinking water disinfection
Chloramines (ppm)	2020	4	4	2.38	0.71 - 3.52	No	By-product of drinking water disinfection
Chloramines (ppm)*	2020	4	4	3.5	1 - 11	No	Water additive used to control microbes
Bromate (ppb)*	2020	10	0	4.79	0 - 11.4	No	By-product of drinking water disinfection

Coliform Bacteria

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected (Average)	Range Low - High	Violation	Typical Source
Total Coliforms (including fecal coliform and E. coli)*	2020	TT = 5% of monthly samples are positive	0	1.7%	0 - 1.7%	No	Naturally present in the environment

Lead and Copper

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected (Average)	Range Low - High	Violation	Typical Source
Copper (ppm)	2019	1.3	1.3	0.3736	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2019	15	0	1.3	0	No	Lead service lines, corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

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

Unregulated Contaminant Monitoring Rule 4 (UCMR4)

Substance (Unit of Measure)	Year Sampled	Amount Detected (Average)	Range Low - High	Typical Source
Bromoform (ppb) *	2020	0.85	0 - 3.53	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane (ppb) *	2020	2.93	3.18 - 17.5	
Chloroform (ppb) *	2020	3.05	3.10 - 24.7	
Dibromochloromethane (ppb) *	2020	2.73	1.59 - 11.8	
Dibromoacetic Acid (ppb) *	2020	1.33	1.70 - 3	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Dichloroacetic Acid (ppb) *	2020	4.11	4.20 - 11	
Monobromoacetic Acid (ppb) *	2020	0.02	0 - 1	
Monochloroacetic Acid (ppb) *	2020	0.49	1 - 5	
Trichloroacetic Acid (ppb)*	2020	0.1	0 - 5	

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.

Unregulated Contaminants - Other Parameters

Substance (Unit of Measure)	Year Sampled	MCL	Range Low - High
Bicarbonate (ppm)*	2020	NA	108 - 131
Calcium (ppm)*	2020	NA	37.9 - 50.8
Chloride (ppm)*	2020	250	19.3 - 37.6
Conductivity (µmhos/cm)*	2020	1600	324 - 440
pH (units)*	2020	6.5 - 8.5	8.2 - 8.4
Magnesium (ppm)*	2020	NA	4.24 - 8.12
Sodium (ppm)*	2020	50	18 - 26.9
Sulfate (ppm)*	2020	250	20.6 - 36.5
Total Alkalinity [as CaCO3] (ppm)*	2020	NA	108 - 131
Total Dissolved Solids (TDS)*	2020	500	181 - 277
Total Hardness [as CaCo3] (ppm)*	2020		112 - 160
Total Hardness in grains (grains/gallon)*	2020	NA	7 - 9

To meet the requirements of the Lead and Copper Rule, Fort Worth achieves corrosion control through pH adjustment. Richland Hills monitors the pH levels on a regularly scheduled basis. To obtain more information on Richland Hills Lead and Copper Rule compliance efforts, please contact Cathy Riegel at 817–616–3830.

* Samples tested by the City of Fort Worth.

Total Organic Carbon (TOC)*

The percentage of TOC removal was measured each month, and the system met all TOC removal requirements.

Violations – Public Notification Rule

The Public Notification Rule helps ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alet consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

Violation Type	Violation Begin	Violation End	Violation Explained
PUBLIC NOTICE RULE LINKED TO VIOLATION	11/02/2020	12/22/2020	We failed to adequately notify you, our drinking water consumers, about a vioation of the drinking water regulations.

Definitions

In the table you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following definitions:

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 is 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 (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 (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 (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 (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.

NA – not applicable.

NTU – Nephelometric Turbidity Units.

Parts per billion (ppb) – micrograms per liter (µg/l) or one ounce in 7,350,000 gallons of water.

Parts per million (ppm) – milligrams per liter (mg/l) or one ounce in 7,350 gallons of water.

Picocuries per liter (pCi/L) – a measure of radioactivity.