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

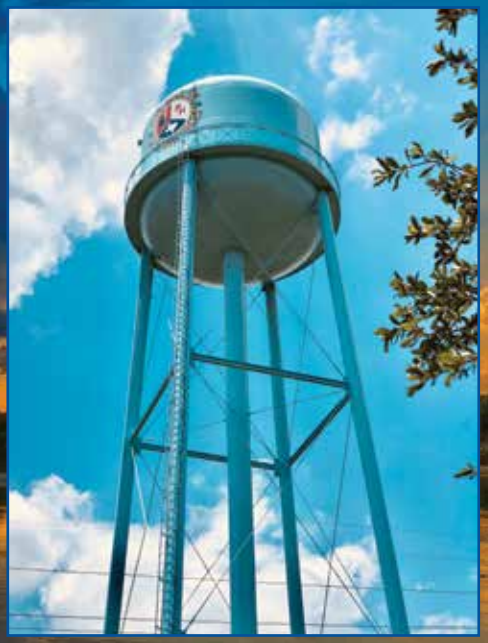
You can attend regular City Council meetings on the the 2nd or 4th Monday of each month at 7:00 p.m., in the council chambers at 3200 Diana Drive.

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



2019 Annual Drinking Water Quality Report

2019 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, 2019. 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)*	2019	10	0	1.50	0 - 1.50	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine (ppb)*	2019	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)*	2019	2	2	0.06	0.05 - 0.06	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Bromate (ppb)*	2019	10	0	4.35	0 - 14.8	No	By-product of drinking water disinfection
Cyanide (ppb)*	2019	200	200	126	74.8 - 126	No	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
Fluoride (ppm)	2017	4	4.0	1.85	1.85 - 1.85	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Fluoride (ppm)*	2019	4	4.0	0.54	0.15 - 0.54	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	2019	10	10	1	0.0122 - 0.908	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)*	2019	10	10	0.58	0.18 - 0.58	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)*	2019	1	1	0.02	0.01 - 0.02	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Turbidity (NTU)*	2019	TT	NA	0.5	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)*	2019	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)* ^	2017	50	0	5.6	4.4 - 5.6	No	Decay of natural and man-made deposits
Combined Radium 226/228 (pCi/L)* ^	2017	5	0	2.5	NA		Erosion of natural deposits
Uranium (pCi/L)*^	2017	15	0	1.1	0 - 1.1		Erosion of natural 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.

Disinfectants and Disinfection By-Products

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected (Average)	Range Low - High	Violation	Typical Source
Haloacetic Acids [HAA5] (ppb)	2019	60	NA	9	0 - 13.6	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	12	0 - 15.6	No	By-product of drinking water disinfection
Haloacetic Acids [HAA5] (ppb)*	2019	60	NA	13.9	3.5 - 12.9	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)*	2019	80	NA	19.0	2.44 - 29.2	No	By-product of drinking water disinfection
Chlorine, Free (ppm)	2019	4	4	1.98	0.04 - 3.41	No	By-product of drinking water disinfection
Chloramines (ppm)	2019	4	4	1.89	ND - 3.47	No	By-product of drinking water disinfection
Chloramines (ppm)*	2019	4	4	3.37	0.89 - 4.40	No	Water additive used to control microbes
Chloral Hydrate (ppb)*	2019	NA	NA	0.33	0.23 - 0.43	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)	2019	TT = 5% of monthly samples are positive	0	1%	0 - 1%	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
Manganese (ppb)*	2019	0.93	0.40 - 4.19	Naturally occurring; used in drinking water and waste-water treatment; used in steel production, fertilizer, batteries and fireworks
HAA5 (ppb)*	2019	3.94	1.27 - 5.11	By-product of drinking water disinfection
Haa6Br (ppb)*	2019	3.16	1.71 - 4.05	By-product of drinking water disinfection
HAA9 (ppb) *	2019	6.26	2.98 - 7.47	By-product of drinking water disinfection

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 - Secondary and Water Characteristic Substances

Substance (Unit of Measure)	Year Sampled	RUL [Secondary MCL]	Range Low - High	Typical Source
Hardness [as CaCO3] (ppm)*	2019	250	138 - 178	Naturally occurring
Hardness in grains (grains/gallon)*	2019	NA	8 - 10	Naturally occurring
Alkalinity, Total [as CaCO3] (ppm)*	2019	NA	128 - 150	Naturally present in the environment
Chloride (ppm)*	2019	250	19.5 - 35.1	Runoff/leaching from natural deposits
Sulfate (ppm)*	2019	250	23.4 - 44.3	Runoff/leaching from natural deposits
pH (units)	2019	6.5 - 8.5	7.01 - 8.65	Naturally occurring
pH (units)*	2019	6.5 - 8.5	8.1 - 8.4	Naturally occurring
Total Dissolved Solids (TDS)*	2019	500	192 - 266	Runoff/leaching from natural deposits
Sodium (ppm)*	2019	50	15.1 - 26.8	Naturally occurring

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.

Unregulated Contaminants - Other Parameters

Substance (Unit of Measure)	Year Sampled	MCL	Range Low - High
Calcium (ppm)*	2019	NA	42.4 - 60.7
Magnesium (ppm)*	2019	NA	4.64 - 8.30
Bicarbonate (ppm)*	2019	NA	128 - 149
Conductivity (EC) (uS/cm)*	2019	1600	403 - 482

* 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 – E. coli

Violation Type	Violation Begin	Violation End	Violation Explained
MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	07/16/2019	2019	We failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

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.