

2018 Drinking Water Quality Report



MWSC is an equal opportunity provider and employer.

TX2270033

MANVILLE WATER SUPPLY CORPORATION
Annual Drinking Water Quality Report January 1 to December 31, 2018

Public Participation Opportunities

Board Meeting Second Thursday of each month.
Time: 6:00 pm
Location: 13805 South SH 95
Coupland, TX 78615
Phone No: (512) 856 - 2488 or (888) 856 - 2488

Contact Information

Mailing Address: P.O. Box 248, Coupland TX 78615
Physical Address: 13805 South SH 95, Coupland, TX 78615
Phone Numbers: (512) 856-2488
Fax Number: (512) 856-2029
Auto Bill Pay: (512) 856-9006
Website: www.manvillewsc.org

PAYMENT LOCATIONS & HOURS

Manville Office @ 13805 South SH 95
Hrs. Mon.-Fri. 8am-5pm. Drop box available 24/7.
Coupland: Citizens National Bank @ 102 Hoxie Street
Hrs. Mon.-Fri. 9am-3pm.
Taylor: Citizen National Bank @ 316 N. Main
Hrs. Mon.-Thur. 9am-3pm, Fri. 9:00am - 5:00pm.
Pflugerville: Citizens National Bank @601 FM 685
Hrs. Mon.-Fri. 7:30am - 5:00pm Sat. 9:00am-12:00pm.

NOTE: ALL PAYMENTS MADE AFTER 3 P.M. MAY NOT BE CREDITED UNTIL THE FOLLOWING BUSINESS DAY.

PAYMENT OPTIONS

Bank Drafting - Forms can be obtained from our website, www.manvillewsc.org, or by calling our office.
Online - Make your payment online by visiting our website.
Bill Pay System - Credit/debit card payments can be made on our phone bill pay system (512) 856-9006.

ALL PAYMENT OPTIONS ARE FREE.

Attention Members - Payments made to www. DOXO.com is unauthorized and does not constitute payment of your water bill.

Private leaks occasionally occur and unfortunately, when it happens, water usage and charges can be significantly higher. In this situation, our staff will gladly assist you in setting up a payment plan.

Notice to Customers

Enclosed with this report you will find data sheets provided by the City of Pflugerville and 130 Regional WSC. Manville purchases water from these entities for various areas within our serving area and we are required to provide customers with this data. Please note that City of Pflugerville is surface (lake) water so the testing requirements slightly differ from Manville's. 130 Regional WSC is well water.

Termination of Service

To avoid termination of your service for non-payment, you must pay the balance of your account by the due date. Once your service has been terminated; the full account balance, including any new charges and the reconnection fee, must be paid. Fees must be paid by credit/debit card, cash, cashiers check or money order. NO PERSONAL CHECKS ACCEPTED.

METER READING/LEAK DETECTION

Your meter is an automatic meter read meter (AMR). See photos below



If you have a billing discrepancy, the first thing you should do is read your water meter. The water meter is in a meter box that is in the ground at the road. Open the lid on the meter box. To read meter see below. Then compare the reading to the present reading on your water bill. Please contact the office for any assistance. Any customer that feels the meter is to blame for the high usage can have the meter removed and tested at the customer's expense.

TESLA - Read the large numbers from left to right but do not include the two small digits at the end of the digital register. If the word LEAK is illuminated you have a leak.	Neptune - Read the numbers from left to right including the digits in black. If no water is on and the red triangle is turning you have a leak.
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*This is your water quality report for January 1 to December 31, 2018.
This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.*

For more information regarding this report contact:

Name Erik Prinz

Phone 512-856-2488

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (512) 856-2488.

Source Water Assessment

No Source Water Assessment for our drinking water source(s) has been conducted by the TCEQ. This information 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 information in this assessment will allow us to focus our source water protection strategies.

For more information about our sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://tceq.texas.gov/gis/swaview>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWWW/>

Sources 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 pick up substances resulting from the presence of animals or from human activity.

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.

Our drinking water is obtained from surface and ground water sources in Travis, Lee, Williamson & Bureson counties. It comes from the Edwards Aquifer, River Alluvium Aquifer, Simsboro and the Carrizo-Wilcox Aquifer. Water purchased from the City of Pflugerville is surface water from Lake Pflugerville.

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 our business office at 512-856-2488.

Special notice for the Elderly, Infants, Cancer Patients, people with HIV/AIDS or other immune problems:

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immune compromised 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.

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MANVILLE WATER SUPPLY CORP.

Annual Drinking Water Quality Report January 1 to December 31, 2018

Source Name - Ground Water

HEB 1 & 2	Dell Well 2	4 & 4B Royston Ln	Raw Ground water - Alcoa	Stewart 1,2,3
HEB 3	3 & 3B Tacon	Lawrence	7&7A Beaukiss	130 Regional WSC
Schultz Ln	Wilke Ln	Springbrook	Blue Wells 1,2,3,4,5,6	Fritsch 1 & 2

Source Name - Surface Water

Pflugerville Lake - Pflugerville Pkwy East & West

Lead and Copper

	Collection Date	90th Percentile	# of Sites over AL	Action Level	MCLG	Units	Violation	Likely Source of Contamination
Copper	2018	0.17	0	1.3	1.3	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	2018	2.6	1	15	0	ppb	N	Erosion of natural deposits; Corrosion of household plumbing systems; erosion of natural deposits.

Recommended 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>.

Water Quality Test Results

Definitions	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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.
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.
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.
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 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 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)
na	not applicable
mrem	millirems per year (a measure of radiation absorbed by the body)
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
Treatment Technique or TT	A required process intended to reduce the level of a contaminant in drinking water
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

Regulated Contaminants

Collection Date	Disinfectants and Disinfection By-Products	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2018	Total Haloacetic Acids (HAA5)*	14	4-28.5	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
2018	Total Trihalomethanes (TTHm)*	22	4.4-45.4	No goal for the total	80	ppb	N	By-product of drinking water chlorination.

* The value in the Highest Level or Average Detection column is the highest average of all HAA5 sample results collected at a location over a year.

* The value in the Highest Level or Average Detection column is the highest average of all THHM sample results collected at a location over a year.

Inorganic Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Unit of Measure	Likely Source of Contamination
2017	Barium	0.140	0.0505-0.140	2	2	N	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2017	Cyanide	20	<10-20	200	200	N	ppb	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
2017	Fluoride	1.54	0.13-1.54	4	4	N	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2017	Selenium	7.1	0-7.1	50	50	N	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
2018	Nitrate (measured as Nitrogen)	2.05	0.02-2.05	10	10	N	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age, high nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall.

Radioactive Contaminants

2017	Beta/Photon emitters	4.4	<4.0-4.4	0	4	N	mrem/yr	Erosion of natural deposits.
* EPA considers 50 pCi/L to be the level of concern for beta particles.								
2017	Combined Radium 226 & 228	2.26	<1.0-2.26	0	5	N	pCi/L	Erosion of natural deposits.
2017	Gross Alpha excluding radon and uranium	6.7	0-6.7	0	5	N	pCi/L	Erosion of natural deposits.
2017	Uranium	2.3	<1.0-2.3	0	30	N	ug/L	Erosion of natural deposits.

Volatile Organic Contaminants

2018	Xylenes	0.065	0.065	10	10	N	ppm	Discharge from petroleum factories and chemical factories.
2018	Ethylbenzene	1.7	0-1.7	700	700	N	ppb	Discharge from petroleum refineries; industrial chemical factories

Unregulated Contaminants

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Unit of Measure	Likely Source of Contamination
2018	Chloroform	25.6	<1.0-25.6	N/A	N/A	N	ppb	By-product of drinking water disinfection.
2018	Bromoform	6.5	<1.0-6.5	N/A	N/A	N	ppb	By-product of drinking water disinfection.
2018	Bromo-dichloromethane	13.5	<1.0-13.5	N/A	N/A	N	ppb	By-product of drinking water disinfection.
2018	Dibromo-chloromethane	13	<1.0-13	N/A	N/A	N	ppb	By-product of drinking water disinfection.

Residual Disinfectant Level

Year	Disinfectant	Maximum Level	Range of Levels Detected	MRDL	Unit of Measure	Source of Disinfectant	
2018	Chloramines Residual	3.94	0.82-3.94	4.0	<4.0	ppm	Disinfectant used to control microbes.
2018	Chlorine Residual, Free	2.94	0.68-2.94	4.0	<4.0	ppm	Disinfectant used to control microbes.

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positives	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No of Positive E Coli or Fecal Coliform Samples	Violation	Likely Source of Contaminant
0	1 positive monthly sample	1	Fecal Coliform or E. Coli Maximum Contaminant MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.	0	N	Naturally present in the environment

LEAD & COPPER RULE TIER III MONITORING AND REPORTING VIOLATION - IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Manville WSC has violated the monitoring and reporting requirements set by the Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Even though these were not emergencies, as our customers, you have the right to know what happened and what we are doing (or did) to correct these situations.

We are required to monitor your drinking water for specific contaminant(s) on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the **3rd quarter of the July - Dec 2018** monitoring period we did not complete all monitoring or testing for the **distribution system water quality parameters (WQP)** and therefore cannot be sure of the quality of your drinking water during that time. Manville has completed all WQP monitoring requirements for the **January - June 2019** monitoring period.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which the follow-up samples were or will be taken.

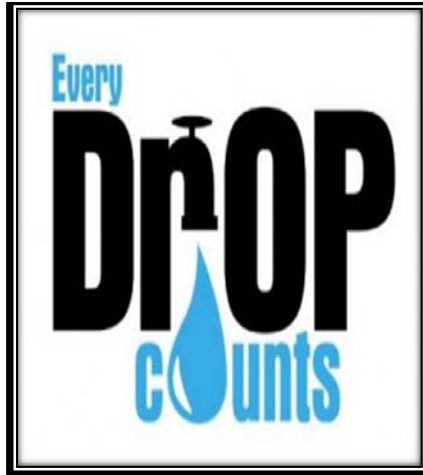
Contaminant	Required sampling frequency	Number of Samples taken	Number of Samples that should have been taken	When samples should have been taken	When samples were or will be taken
Water Quality Parameters	Quarterly	9	10	3rd Qtr 2018	1st & 2nd Qtr 2019

We are working to correct this problem and this violation has since been returned to compliance. For more information, please contact Erik Prinz at 512-856-2488 or PO Box 248, Coupland, TX 78615.

***Secondary and Other Constituents Not Regulated (No associated adverse health effects)**

Collection Date	Constituent	Range of Levels Detected	Highest Level	Secondary	Unit Measure	Source of Constituent
2017	Bicarbonate	201-389	389	NA	ppm	Abundant naturally occurring element.
2018	Calcium	10.7-110	110	NA	ppm	Abundant naturally occurring element.
2018	Chloride	Dec-62	62	300	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
2018	Iron	<0.01-0.405	0.405	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2017	Magnesium	9.20-29.70	29.7	NA	ppm	Abundant naturally occurring element.
2018	Manganese	<0.0010-0.0269	0.0269	0.05	ppm	Abundant naturally occurring element.
2017	Nickel	0.0016-0.0047	0.0047	NA	ppm	Erosion of natural deposits.
2018	Sodium	14.2-72.8	72.8	NA	ppm	Erosion of natural deposits; byproducts of oil field activity.
2018	Sulfate	<1.0-109	109	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2018	Total Alkalinity as CaCO3	102-334	334	NA	ppm	Naturally occurring soluble mineral salts.
2018	Total Dissolved Solids	181-579	579	1000	ppm	Total dissolved mineral constituents in water.
2018	Total Hardness as CaCO3	40.9-379	379	NA	ppm	Naturally occurring calcium.
2017	Zinc	<0.0050-0.0397	0.0397	5	ppm	Moderately abundant naturally occurring element used in the metal industry.

2018 WATER LOSS AUDIT - In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimated 277,175,709 gallons of water. If you have any questions about the water loss audit please call 512-856-2488.



Manville Water Supply Corp.

PLEASE CONSERVE

VOLUNTARY WATERING SCHEDULE

2019 Schedule:

Residential

Odd # addresses: Wed. and/or Sat.

Even # addresses: Thurs. and/or Sun.

Commercial/Multifamily

All addresses – Tues. & or Friday

All Customers - Operation of irrigation systems or hose-end sprinklers should be before 10am & after 7pm. Hand watering anytime.

By city ordinance all residents within the city limits of Pflugerville are under Stage II Mandatory watering restrictions regardless of your water provider.

Helpful Tips to Conserve Water

Check for and fix all leaky faucets.

Use your water meter to check for hidden water leaks.

Test toilets for leaks by adding a few drops of food coloring or a dye tablet in the water tank. Wait a few minutes and see if coloring appears in the bowl. (If it does, the toilet has a silent leak that needs repair)

Install water-saving showerheads that use 2.5 gallons per minute or less.

When brushing your teeth, turn the water off until it is time to rinse.

Take a 5 minute shower or 6" deep bath.

Use your clothes washer and dishwasher only when they are full. This will save up to 1,000 gallons a month.

Chill drinking water in the refrigerator instead of running the faucet until the water is cold.

Don't use running water to thaw food. Defrost food in the refrigerator for water efficiency and food safety.

Purchase a rain barrel to capture rainwater for use on your landscape.

Plant drought-tolerant plants, shrubs and grasses when landscaping.

Do not over water your lawn. The soil only holds so much moisture and the rest runs off.

Position sprinklers so they are not watering walkways and driveways.

Check sprinkler systems and timing devices regularly to be sure they are working properly.

Avoid watering your lawn on windy days.

Adjust your lawnmower to cut grass high. Taller grass holds moisture better.

Do not "sweep" walks and driveways with the hose. Use a broom or rake instead.

Keeping our water safe

The production and delivery of safe water is the highest priority for a public water supply system. After a potable water has been produced, precautions must be taken to ensure that it is not contaminated with water, liquids, gases, or corrosive products from external sources.



What is a cross-connection



A physical connection between a public water system and any source which may contain contaminating or polluting substances or any source of water treated to a lesser degree in the treatment process. Most common potential cross - connection is the simple misuse of an ordinary garden hose in the residential setting. Any time a hose is connected to an unprotected faucet or to the end of a pipe, this constitutes an extension of your water line and compromises its built-in air gap.

Backflow Prevention Device

Hose Bib Vacuum Breaker This device is a non-testable atmospheric vacuum breaker designed for attachment to a hose-bib/sillcock to prevent backsiphonage only.

Manville WSC mandates that all customers use this device on every hose bib.

Taste - Odor - Discoloration of water

It's Manville's desire to provide our customers with safe, reliable and affordable water; therefore, if you notice that your water has an odor, is discolored or tastes bad, please contact our office immediately **(512)856-2488 or (888)856-2488**

This can be caused by a variety of substances and is more pronounced in warmer water.

Rotten egg smell / Sulfur taste -- caused by Sulfur compounds

Yellow/Brown water -- caused by Iron & Manganese in water

Chlorine -- disinfectant reacts with organisms, organic matter or minerals and may produce taste and/or odor in the drinking water

Private plumbing may also cause taste & odor in water.

Water Heater - Minerals & gases can be trapped in the bottom of water heaters. Also if the thermostat on the water heater is set too high or malfunctions the water can overheat causing it to back up into the cold water lines. Both will cause bad taste and/or odor in your water. **Old Plumbing** -- Old pipes can contain scaling or corrosion which can create an odor or bad taste.

Private Shut off valve

Every customer must have a private shut off valve on their side of meter to shut off the water supply. The meter shut off valve is for Manville WSC use only.

City of Pflugerville

Annual Drinking Water Quality Report 2018

City of Pflugerville Surface Water Regulated at the Treatment Plant

PARAMETER	MCL	MCLG	DATE	AVG Result	High	Low
Fluoride(ppm)	2	2	2018	0.26	0.29	0.23
Nitrate (as N) (ppm)	10	10	2018	1.3	2.11	0.09
Turbidity (ntu)	0.3	n/a	2018	0.09	0.27	0.01

99.5% of all reading below 0.3 NTU

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples meeting limits	Turbidity Limits	Units of Measure	Contaminant Source
2018	Turbidity	0.27	100	0.3	NTU	Soil runoff

The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by TCEQ to be removed. TCEQ requirement is to have a running annual average equal to or greater than 1.

Total Organic Carbon Disinfection Byproducts Regulated at the Treatment Plant

Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Units of Measure	Source of Contaminant
2018	Raw Water TOC	6.9	4.4	9.8	ppm	Naturally present in the environment.
2018	Finished Water TOC	5.3	2.3	7.7	ppm	Naturally present in the environment.
2018	Present Removal	24.1	6.25	46.46	% removal	NA
2018	Total Hardness	190	137	248	mg/L	Naturally occurring calcium and magnesium.

Cryptosporidium Monitoring Information

The City of Pflugerville started monitoring for cryptosporidium in June of 2008. We collect one sample per month and send it to a lab in Waco. All the samples have been negative. Cryptosporidium is a microbial parasite that may be commonly found in surface water. Cryptosporidium may come from animal and human feces in the watershed. The results of our monitoring indicated that there may be cryptosporidium in the raw water and/or treated finished water. Although treatment by filtration removes cryptosporidium, it cannot guarantee 100 percent removal. The testing methods used cannot determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water.

Year	Contaminant	Ocysts	Cysts
2018	Cryptosporidium	0.00	N/A
2018	Giardia	0	0

Regulated in the Distribution System

PARAMETER	MCL	MCLG	DATE	Average Result	High	Low
Haloacetic acids HAA5 (ppb)	60	NA	2018	6.2	16.6	1.8
Total Trihalomethanes (ppb)	80	NA	2018	6.6	18.1	1.5

Regulated Disinfectant

PARAMETER	MRDL	MRDLG	DATE	AVG Result	High	Low
Chloramines (ppm)	4	4	2018	2.28	4.24	0.50

Total Coliform

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. *Presence of coliform bacteria in 5% or more of the monthly samples.

Year	Contaminant	Number of positive samples	MCL	Units of Measure	Source of Contaminant
2018	Total Coliform Bacteria	1	*	Presence	Naturally present in the environment

* Presence of coliform bacteria in 5% or more of the monthly samples

Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA

Violations: N/A

City of Pflugerville

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Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Level	Unit of Measure	Source of Constituent
2018	Aluminum	.0359	.0359	.0359	0.05	ppm	Abundant naturally occurring element corrosion of carbonate rock such as limestone.
2018	Bicarbonate	215	119	310	NA	ppm	Abundant naturally occurring element.
2018	Calcium	21.1	21.1	21.1	NA	ppm	Abundant naturally occurring element.
2018	Chloride	35.5	33	38	300	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
2018	Total Cyanide	.05	.05	.05	0.2	ppm	Naturally occurring element
2018	PH	7.9	7.5	8.3	7	units	Measure of corrosivity of water.
2018	Sodium	23.4	23.4	23.4	NA	ppm	Erosion of natural deposits; byproducts.
2018	Sulfate	31	25	36	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2018	Total Alkalinity	175.5	97	254	NA	ppm	Naturally occurring soluble mineral salts.
2018	Total Hardness	118	118	118	NA	ppm	Naturally occurring calcium and magnesium.
2018	Total Dissolved	282	189	375	1000	ppm	Total dissolved mineral constituents in water.
2018	Zinc	<0.005	<0.005	<0.005	5	ppb	Moderately abundant naturally occurring element used in the metal industry.

***Secondary and Other Constituents Not Regulated (No associated adverse health effects)**

Year	Constituent	Highest Level	Ranges of Detection	MCLG	MCL	Unit	Likely Source of Constituent
2018	Chlordane	<0.20	<0.20	0	2	ppb	Residue of banned termiticide
2018	Endrin	<0.01	<0.01	2	2	ppb	Residue of banned insecticide
2018	Heptachlor Epoxide	<0.02	<0.02	0	200	ppt	Breakdown of heptachlor
2018	Toxaphene	<1.0	<1.0	0	3	ppb	Runoff from insecticides used on cotton & cattle

Inorganic Contaminant

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Likely Source of Contaminant
2018	Arsenic	<0.002	<0.002	<0.002	10	2	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
2018	Barium	0.0298	0.0298	0.0298	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2018	Combined Radium 226 & 228	<1.0	<1.0	<1.0	5	0	pCi/L	Erosion of natural deposits.
2018	Gross beta emitters	<4.0	<4.0	<4.0	50	0	pCi/L	Decay of natural and man-made deposits.
2018	Gross alpha	<3.0	<3.0	<3.0	15	0	pCi/L	Erosion of natural deposits
2018	Atrazine	0.07	<0.1	0.21	3	3	ppb	Runoff from herbicide used on row crops.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MCL	MRDLG	Unit of Measure	Source of Disinfectant
2018	Chloramines Residual	2.28	0.50	4.24	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts Entry Points

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Likely Source of Contaminant
2018	Total Haloacetic Acids	6.2	1.8	16.6	60	ppb	By product of drinking water disinfection.
2018	Total Trihalomethanes	6.6	1.5	18.1	80	ppb	By product of drinking water disinfection.

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the systems for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

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Unregulated Contaminants/Proposed Standards

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Units of Measure	Likely Source of Contaminant
2018	Chloroform	3.2	1.0	9.7	ppb	Byproduct of drinking water disinfection.
2018	Bromoform	0.159	<1.0	1.4	ppb	Byproduct of drinking water disinfection.
2018	Bromodichloromethane	1.58	<1.0	5.0	ppb	Byproduct of drinking water disinfection.
2018	Dibromochloromethane	1.01	<1.0	2.3	ppb	Byproduct of drinking water disinfection.

Lead and Copper

Year	Contaminant	The 90th Percentile	# of Sites over AL	Action Level	Unit of Measure	Source of Contamination
2018	Lead	0.00261	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2018	Copper	0.157	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives.

Recommended 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>."

Reminder - By city ordinance all residents within the city limits of Pflugerville are under Stage II Twice a Week Watering Conservation restrictions regardless of your water provider. Visit www.pflugervilletx.gov/conservation for more information and watering schedule.

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Regulated Contaminants

Inorganic Contaminants

Collection Date	Contaminant	Highest Level	Range of Level Detected	MCL	MCLG	Unit of Measure	Source of Constituent
2016	Barium	0.132	0.132-0.132	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2016	Fluoride	0.18	0.18-0.18	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2018	Nitrate	0.18	0.18-0.18	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfection Byproducts

2018	Total Trihalomethanes (TTHm)*	12.2	12.2-12.2	80	No goal	ppb	By-product of drinking water chlorination.
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Unregulated Contaminants

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Units of Measure	Likely Source of Contaminant
2018	Chloroform	1.7	1.7	1.7	ppb	Byproduct of drinking water disinfection.
2018	Bromoform	2.1	2.1	2.1	ppb	Byproduct of drinking water disinfection.
2018	Bromodichloromethane	3.9	3.9	3.9	ppb	Byproduct of drinking water disinfection.
2018	Dibromochloromethane	4.5	4.5	4.5	ppb	Byproduct of drinking water disinfection.