

Annual Water Quality Report for the period of January 1 to December 31, 2014

Public Participation Opportunities

Date: Board meetings are scheduled for the second Thursday of every month.
Time: 7:00 pm
Location: 108 North Commerce Street
 Coupland, TX 78615
Phone No: (888) 856 - 2488 or (512) 856 - 2488

Contact Information

Mailing Address: P.O. Box 248, Coupland TX 78615
Physical Address: 108 North Commerce Street, Coupland, TX 78615
Phone Numbers: (888) 856-2488 or (512) 856-2488
Fax Number: (888) 856-2242
Auto Bill Pay: (866) 343-4999
Website: www.manvillewsc.org

PAYMENT LOCATIONS & HOURS

Manville Office @ 108 North Commerce Street
 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 (866) 343-4999.
 By Phone - we accept Visa, Mastercard, Discover or check by phone.
ALL PAYMENT OPTIONS ARE FREE.

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 Blue Water. 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. Blue Water 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 photo 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. Remove the lid from the meter box. Read the large numbers from left to right but do not include the two small digits at the end of the digital register. 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. The new digital meter has the word LEAK that becomes bold if the register detects constant water flow for 48 hours.

Annual Water Quality Report for the period of January 1 to December 31, 2014

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 Edgar Prinz Jr

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.

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 pickup 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. 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 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.

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. 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 contained in this assessment will allow us to focus on our source water protection strategies. Further details about sources and source-water assessments are available at Drinking Water Watch at <http://dww.tceq.texas.gov/DWW>. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrdrc=>

Source Name - Ground Water Sources

10-HEB 1	12-Schultz Ln	4A & B Royston Ln	7&7A Beaukiss
11-HEB 2	2-FM 170	3A&BTacon	5-Wilke Ln
			9-Lawrence

Source Name - Surface Water Sources

Blue Wells 2,4,6	Stewart 1,2,3	Pflugerville Pkwy East & West
Springbrook	Blue Water 130	

Lead and Copper

	Date Sampled	The 90th	# of Sites over	Action	MCLG	Violation	Units	Likely Source of
Lead	8/8/2013	1.59	0	15	0	N	ppb	Erosion of natural deposits; Corrosion of household plumbing systems; erosion of natural deposits.
Copper	8/8/2013	.182	0	1.3	1.3	N	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>."

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.
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 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
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
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

Disinfection Byproducts

Collection Date	Disinfectants and Disinfection By-Products	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violator	Likely Source of Contamination
2014	Total Haloacetic Acids (HAA5)*	31.7	1.4-31.7	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
2014	Total Trihalomethanes (TThm)*	109	<0.05-109	No goal for the total	80	ppb	N	By-product of drinking water chlorination.

Inorganic Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Unit of Measure	Likely Source of Contamination
2013	Barium	0.138	0.0539-0.138	2	2	N	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2013	Chromium	4.16	2.35-4.16	100	100	N	ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
2014	Cyanide	0.07	<0.01-0.07	200	200	N	ppb	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
2014	Fluoride	1.88	0.16-1.88	4	4	N	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2013	Selenium	0.135	<0.00100-0.135	50	50	N	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
2014	Nitrate (measured as Nitrogen)	3.13	<0.01-3.13	10	10	N	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2014	Nitrite (measured as Nitrogen)	0.135	<0.014-0.135	1	1	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

2014	Combined Radium 226 & 228	1.22	<1.0-1.22	0	5	N	pCi/L	Erosion of natural deposits.
2014	Gross Alpha excluding radon and uranium	4	4-4	0	5	N	pCi/L	Erosion of natural deposits.

Volatile Organic Contaminants

2014	Xylenes	2.10	<0.05-2.10	10	10	N	ppm	Discharge from petroleum factories and chemical factories.
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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	Range of Levels	MCLG	MCL	Violation	Unit of Measure	Likely Source of Contamination
2014	Chloroform	28.3	<0.05-28.3	N/A	N/A	N	ppb	By-product of drinking water disinfection.
2014	Bromoform	14.6	<0.05-14.6	N/A	N/A	N	ppb	By-product of drinking water disinfection.
2014	Bromo-dichloromethane	32.6	<0.05-32.6	N/A	N/A	N	ppb	By-product of drinking water disinfection.
2014	Dibromo-chloromethane	36.3	<0.05-36.3	N/A	N/A	N	ppb	By-product of drinking water disinfection.

Residual Disinfectant Level

Year	Disinfectant	Highest Level Detected	Range of Levels Detected	Average Levels	MRDL	MRDLG	Unit of Measure	Likely Source of Disinfectant
2014	Chloramines Residual	3.6	.82-3.58	1.81	4.0	<4.0	ppm	Disinfectant used to control microbes.
2014	Chlorine Residual, Free	2.85	.68-2.85	1.6	4.0	<4.0	ppm	Disinfectant used to control microbes.

TX2270033

MANVILLE WSC

Annual Drinking Water Quality Report

E. coli

Fecal Coliform and E. Coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitor GWR/Triggered Source	5/1/2014	5/31/2014	We failed to collect all the required follow-up samples within 24 hours of learning of the total coliform positive sample taken by a wholesale customer. These need to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

Ground Water Rule

The Ground Water Rule specifies the appropriate use of disinfection while addressing other components of ground water systems to ensure public health protection.

Failure to notify other PWS	12/5/2013	2014	We failed to notify a water system about the presence of total coliform or fecal contamination. The water system needed notification because it affects them as well as us.
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***Secondary and Other Constituents Not Regulated (No associated adverse health effects)**

Collection	Constituent	Range of Levels Detected	Highest Level	Secondary	Unit	Source of Constituent
2013	Aluminum	<0.00400-0.00474	0.00474	0.05	ppm	Abundant naturally occurring element corrosion of carbonate rock such as
2014	Bicarbonate	161-384	384	NA	ppm	Abundant naturally occurring element.
2013	Calcium	49.4-96.5	96.5	NA	ppm	Abundant naturally occurring element.
2014	Chloride	18-104	104.0	300	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
2013	Hardness as Ca/Mg	159-330	330	NA	ppm	Naturally occurring calcium and magnesium.
2013	Iron	0-0.333	0.333	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or
2013	Magnesium	8.7-21.6	21.6	NA	ppm	Abundant naturally occurring element.
2013	Manganese	0-0.0244	0.0244	0.05	ppm	Abundant naturally occurring element.
2013	Nickel	0.000996-0.0028	0.0028	NA	ppm	Erosion of natural deposits.
2011	pH	7.0-7.70	7.70	7	units	Measure of corrosivity of water.
2013	Sodium	20.3-56.1	56	NA	ppm	Erosion of natural deposits; byproducts of oil field activity.
2013	Sulfate	24.6-38.5	38.5	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2014	Total Alkalinity as CaCO3	132-315	315	NA	ppm	Naturally occurring soluble mineral salts.
2013	Total Dissolved Solids	350-425	425	1000	ppm	Total dissolved mineral constituents in water.
2013	Total Hardness as CaCO3	159-330	330	NA	ppm	Naturally occurring calcium.
2013	Zinc	0.0140-0.0170	0.0170	5	ppm	Moderately abundant naturally occurring element used in the metal industry.

2014 WATER LOSS AUDIT - In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2014, our system lost an estimated 116,201,846 gallons of water. If you have any questions about the water loss audit please call 512-856-2488.



Manville Water Supply Corp. Voluntary Watering Schedule

Please follow the schedule below

2015 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.

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.

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

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.

Put a layer of mulch around shrubs, trees and plants.

Sweep your driveways, and sidewalks with a broom instead of spraying them off with a hose.

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 highly recommends 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 Consumer Confidence Report Data 2014

Inorganic Contaminants

Collection Date	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Likely Source of Contaminant
2014	Arsenic	0.002	0.002	0.002	10	2	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
2014	Barium	0.064	0.064	0.064	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2011	Combined Radium 226 & 228	<1.0	<1.0	<1.0	5	0	pCi/L	Erosion of natural deposits
2011	Gross beta emitters	<4.0	<4.0	<4.0	50	0	pCi/L	Decay of natural and man-made deposits.
2011	Gross alpha	2.0	2.0	2.0	15	0	pCi/L	Erosion of natural deposits

Organic Contaminants

2014	Atrazine	0.33	0.33	0.33	3	3	ppb	Runoff from herbicide used on row crops.
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Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MCL	MRDLG	Unit of Measure	Source of Disinfectant
2014	Chloramines Residual	1.4	0.5	2.9	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

Collection Date	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Likely Source of Contaminant
2014	Total Haloacetic acids (HAA5)*	2.07	<1.0	4.3	60	ppb	By product of drinking water disinfection
2014	Total Trihalomethanes (TThm)*	3.58	<1.0	10.0	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.

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
2014	Chloroform	3.6	<1.0	7.00	ppb	Byproduct of drinking water disinfection
2014	Bromoform	2.24	<1.0	3.70	ppb	Byproduct of drinking water disinfection
2014	Bromodichloromethane	4.98	<1.0	10.0	ppb	Byproduct of drinking water disinfection
2014	Dibromochloromethane	3.5	1	8.70	ppb	Byproduct of drinking water disinfection

Synthetic Organic Contaminants Including Pesticides

Year or (Range)	Constituent	Highest Level Detected	Ranges of Detection	MCLG	MCL	Units	Likely Source of Contaminant
2014	Chlordane	<0.20	<0.20	0	2	ppb	Residual of banned termiticide
2014	Endrin	<0.01	<0.01	2	2	ppb	Residual of banned insecticide
2014	Heptachlor epoxide	<0.02	<0.02	0	200	ppb	Breakdown of heptachlor
2014	Toxaphene	<1.0	<1.0	0	3	ppb	Runoff from insecticides used on cotton and cattle

City of Pflugerville Consumer Confidence Report Data 2014

continued

Lead and Copper

Date Sampled	Contaminant	The 90th Percentile	# of Sites over AL	Action Level	Unit of Measure	Source of Contamination
2013	Lead	0.0019	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2013	Copper	0.053	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>."

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. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Year	Contaminant	Highest Monthly % of positive samples	MCL	Units of Measure	Source of Contaminant
2014	Total Coliform Bacteria	2	*	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 Surface Water Regulated at the Treatment Plant 2014

PARAMETER	MCL	MCLG	DATE	AVG Result	High	Low
Fluoride(ppm)	2	2	2014	0.24	0.26	0.23
Nitrate (as N) (ppm)	10	10	2014	2.17	3.15	0.28
Turbidity (ntu)	0.3	n/a	2014	0.04	0.39	0.01

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	Source of Contaminant
2014	Turbidity	0.39	99.5	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
2014	Raw Water TOC	5.45	3.20	8.70	ppm	Naturally present in the environment.
2014	Finished Water TOC	3.69	2.60	4.80	ppm	Naturally present in the environment.
2014	Present Removal	29.2	9.80	53.70	% removal	NA
2014	Total Hardness	189			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.

Cryptosporidium Monitoring Information	Ocysts	Cysts
2010 Cryptosporidium	0	N/A
2010 Giardia	N/A	0

City of Pflugerville Consumer Confidence Report Data 2014

continued

Regulated in the Distribution System

PARAMETER	MCL	MCLG	DATE	AVG. Resu	High	Low
Haloacetic Acids HAA5 (ppb)	60 AVG	na	2014	2.07	4.3	<1.0
Total Trihalomethanes (ppb)	80 AVG	na	2014	3.58	10.0	<1.0

Regulated Disinfectant

PARAMETER	MRDL	MRDLG	DATE	AVG. Resu	High	Low
Chloramines (ppm)	4	4	2014	1.40	2.90	0.05

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

Year or (Range)	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Level	Unit of Measure	Source of Constituent
2014	Aluminum	0.02	0.02	0.02	0.05	ppm	Abundant naturally occurring element corrosion of carbonate rock such as limestone.
2014	Bicarbonate	291.5	183	400	NA	ppm	Abundant naturally occurring element.
2014	Calcium	49.9	49.9	49.9	NA	ppm	Abundant naturally occurring element.
2014	Chloride	36	27	45	300	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
2014	Hardness as Ca/Mg	189	189	189	NA	ppm	Naturally occurring calcium and magnesium.
2014	PH	7.6	7.2	8	7	units	Measure of corrosivity of water.
2014	Sodium	27.9	27.9	27.9	NA	ppm	Erosion of natural deposits; byproducts.
2014	Sulfate	45	38	52	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2014	Total Alkalinity	239	150	328	NA	ppm	Naturally occurring soluble mineral salts.
2014	Total Dissolved	375	278	472	1000	ppm	Total dissolved mineral constituents in water.
2014	Total Hardness	189	189	189	NA	ppm	Naturally occurring calcium and magnesium.
2014	Zinc	0.005	0.005	0.005	5	ppb	Moderately abundant naturally occurring element used in the metal industry.

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Inorganic Contaminants

Collection Date	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2012	Barium	0.130	0.130	0.130	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2012	Fluoride	0.24	0.24	0.24	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and
2012	Nitrate	0.04	0.03	0.04	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

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

Year or (Range)	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Level	Unit of Measure	Source of Constituent
2012	Calcium	9.13	9.13	9.13	NA	ppm	Abundant naturally occurring element.
2012	Chloride	23	23	23	300	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
2012	PH	8.1	8.1	8.1	7	units	Measure of corrosivity of water.
2012	Total Alkalinity	200	200	200	NA	ppm	Naturally occurring soluble mineral salts.
2012	Total Hardness as CaCO3	36.2	36.2	36	NA	ppm	Naturally occurring calcium.
2012	Total Dissolved Solids	257	257	257	1000	ppm	Total dissolved mineral constituents in water.
2012	Magnesium	3.25	3.25	3.25	NA	ppm	Abundant naturally occurring element.
2012	Manganese	0.0125	0.0125	0.0125	0.05	ppm	Abundant naturally occurring element.
2012	Sodium	83.4	83.4	83.4	NA	ppm	Erosion of natural deposits; byproducts of oil field activity.