Hickory Creek Special Utility District

2018 Annual Drinking Water Quality Report

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

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 the system's business office.

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).

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. We are responsible for providing high quality drinking water, but we 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.

En Español

HOLA

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en Español, favor de llamar al telefono (903) 568-4760.

Annual Drinking Water Quality Report

Reporting for the period of January 1 - 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 please contact Mike Wemhoener, General Manager 903-568-4760

Public Participation Opportunities

Date: 3rd Monday of the Month
Time: 7:00pm
Location: Hickory Creek SUD Office, 101 N. 1st Street, Celeste
Phone: 903-568-4760

To learn more about future public meetings concerning your drinking water or to request to schedule one please call us.

2019
Board of Directors

Frances Caplinger
903.408.9958

Tammy Cross
903.513.6852

Phillip George
972.342.1134

Brandon Lamm
903.450.3187

Boyd Roberts
972.529.8464

Kevin Richey
214.435.6590

Brad White
903.408.7272

OFFICE HOURS

Monday – Friday
8:00am 3:00pm

Office Phone
903-568-4760

Fax
903-568-4867

Emergency #s
903-456-0916
903-217-7902

JUST A REMINDER!!!!
You can pay your water bill online and subscribe to our alert system. If you subscribe to our alert system you will receive alerts and news via text and/or email.
www.hickorycreeksud.com

Information about Source Water Assessments

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 the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: http://www.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/DWW

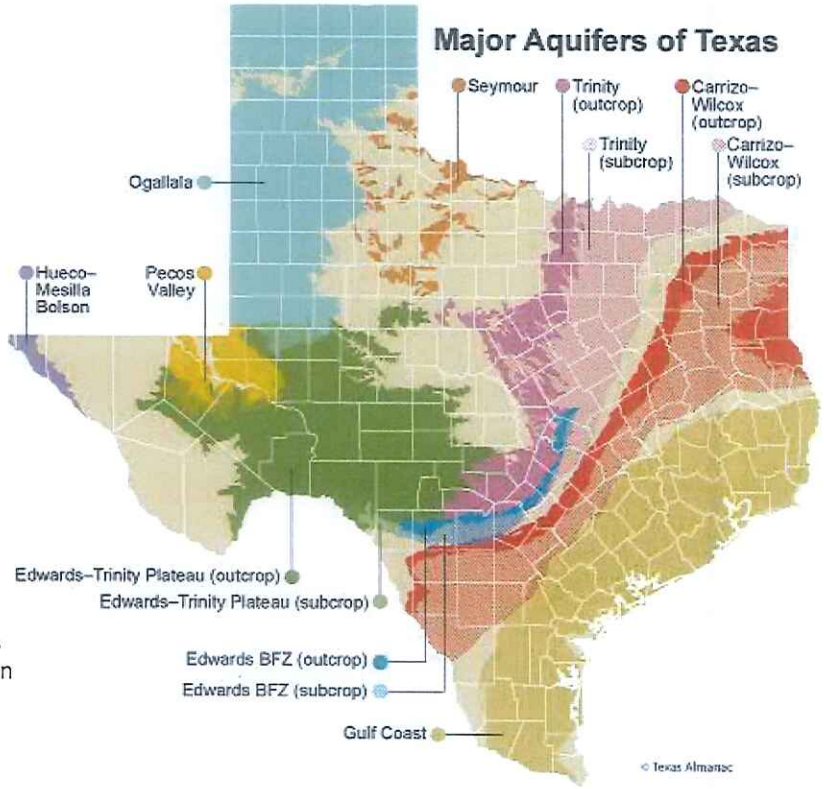
Source Water Name	Location	Type of Water	Aquifer
HOGEYE WELL	2470 FM 1566 W, Celeste	Ground Water	Minor-Woodbine / Major Trinity
LANE WELL	4290 FM 1562, Celeste	Ground Water	Minor-Woodbine / Major Trinity
PRAIRIE HILL WELL	8636 FM 1143, Leonard	Ground Water	Minor-Woodbine / Major Trinity
SABINE WELL	6803 CR 1145, Celeste	Ground Water	Minor-Woodbine / Major Trinity

WOODBINE AQUIFER - MINOR

The Woodbine aquifer consists of the Templeton, the Lewisville, the Red Branch, and the Dexter Members of the Upper Cretaceous Woodbine Formation, and is present in an area that extends from northern McLennan County in the south to the Red River in the north. The aquifer consists of fine to coarse ferruginous sand and sandstone, clay, shale, and sandy shale and some lignite and gypsum. The aquifer is hydraulically connected to overlying alluvium along the Red River. The thickness of the aquifer ranges from a few feet in outcrop areas to about 700 feet near the downdip limit of slightly saline water in Fannin County. Maximum depth to the top of the aquifer is about 2,000 feet below land surface. In downdip areas, the Woodbine aquifer is confined above by shales of the Upper Cretaceous Eagle Ford Group and below by the Buda Formation or the Grayson Marl and the Mainstreet Limestone, all of Cretaceous age.

Recharge to the aquifer is by precipitation that falls on aquifer outcrop areas and by seepage from lakes and streams where there is a downward gradient to the aquifer. Water moves through the aquifer from the outcrop in an east-southeast direction and generally follows the dip of the beds. Water from the aquifer in the outcrop area has an average dissolved-solids concentration of about 550 milligrams per liter; the concentration increases downdip to more than 3,000 milligrams per liter. Locally, the water has objectionable concentrations of iron, sodium, and chloride.

Wells completed in the Woodbine aquifer yield from about 100 to about 700 gallons per minute. A large cone of depression on the potentiometric surface of the aquifer is located near the middle of Grayson County and is the result of withdrawals for public supply. About 16 million gallons per day was withdrawn from the Woodbine aquifer during 1985. The principal use of the water was for public and domestic supply (49 percent), followed by withdrawal for agricultural (primarily irrigation) use (39 percent).



TRINITY AQUIFER - MAJOR

The Trinity Aquifer consists of basal Cretaceous-age Trinity Group formations extending through 61 counties from the Red River in North Texas to the Hill Country of Central Texas. The aquifer is comprised of the Twin Mountains, Glen Rose, Paluxy, Hosston, and Hensell formations. Where the Glen Rose thins or is absent, the Twin Mountains and Paluxy formations coalesce to form the Antlers Formation. In the south, the Trinity includes the Glen Rose and underlying Travis Peak formations. Water from the Antlers portion is used mainly for irrigation in the outcrop area of North and Central Texas.

Elsewhere, water from the Trinity Aquifer is used primarily for municipal and domestic supply. Municipal use accounted for 63 percent of the total aquifer use in 2008. Extensive development of the Trinity Aquifer in the Dallas-Fort Worth and Waco areas has resulted in water-level declines of 350 to more than 1,000 feet.

Information about Source Water

'TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact **Mike Wemhoener, General Manager 903-568-4760**

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 (is possible) why total coliform bacteria have been found in our water system.
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 a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MFL:	million fibers per liter (a measure of asbestos)
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.
ppq	Parts per quadrillion, or picograms per liter (pg/L)
ppt	Parts per trillion, or nanograms per liter (ng/L)
Treatment Technique or TT	A required process intended to reduce the level of a contaminant in drinking water.

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/13/2016	1.3	1.3	0.38	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

2018 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2018	8	7.9 - 7.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

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

Total Trihalomethanes (TTHM)	2018	29	29.3 - 29.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

'* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'

Cross-Connection Control & Backflow Prevention Program

THE GARDEN HOSE IS THE MOST COMMON CROSS-CONNECTION AND POTENTIAL HAZARD TO OUR DRINKING WATER

Ways a garden hose can cause contamination:

- Forcing it into a clogged gutter, downspout or sewer pipe to flush out the clog
- Connecting it directly to a hose-end sprayer to apply pesticide or fertilizer to your lawn
- Connecting it to a soap-and-brush attachment to wash your car, boat or siding
- Letting the end of the hose lie in a puddle of water or swimming pool while filling

If backflow or back siphon happens, your household's water lines could be contaminated and could leach back into the public water supply.

Ways to prevent garden hose cross-connection:

- Install a hose bibb vacuum breaker on ALL of your outside faucets. These inexpensive devices are designed to allow water to flow in only one direction. They are found at most home, plumbing and hardware stores or through your local plumbing service provider.
- Never submerge or connect the end of your garden hose to a non-potable water source or substance.

Additional resources:

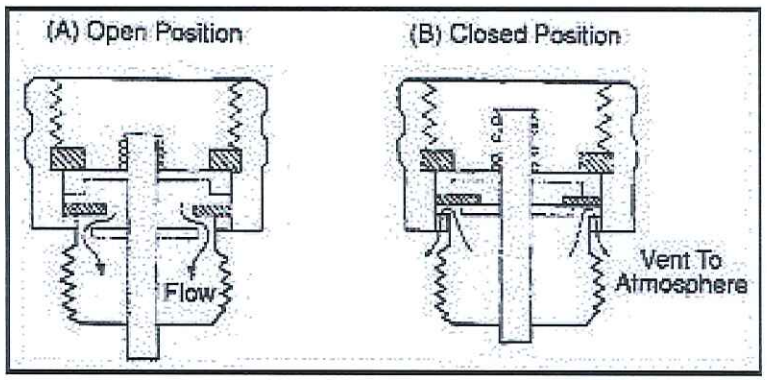
- American Backflow Prevention Association
- Texas Commission on Environmental Quality
- American Water Works Association

HOSE BIBB VACUUM BREAKERS

Without proper protection devices, something as useful as your garden hose has the potential to poison your home's water supply.

Without a backflow prevention device between your hose and hose bibb (spigot or outside faucet), the contents of the hose and anything it is connected to can backflow into the piping system and contaminate your drinking water and possibly, the public water supply.

Sickness or even death can occur due to cross-connections. However, they can be avoided by the simple installation of a hose bibb vacuum breaker. EVERY outside faucet on your home should have one.



Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2018	0.015	0.015 - 0.015	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2018	1.4	1.4 - 1.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2018	1.08	1.08 - 1.08	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2018	0.0934	0.0523 - 0.0934	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	2018	0.6	0 - 0.6	0	6	ppb	N	Discharge from rubber and chemical factories.

Disinfectant Residual

' A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).'

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
	2018			4	4		ppm	Water additive used to control microbes.

Violations

Lead and Copper Rule			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosively. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2011	04/17/2018	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	12/11/2014	08/06/2018	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.