



Consumer Confidence Report TCEQ Certificate of Delivery  
Texas Commission on Environmental Quality

For Calendar year: 2019  
PWS ID Number: Tx 0990001

Date Distributed to Customers: 6-15-2020  
PWS Name: City of Chillicothe

**You must use at least one direct delivery and at least one good faith delivery method. If your system is under 500 population, please use Small System Certificate of Delivery form.**

**Direct Delivery Methods**

- Mail a paper copy of the CCR
- Mail notification that CCR is available on-line at http:// \_\_\_\_\_  
\*The Internet link (url) you insert above must take customers directly to the open CCR.
- Email direct web address of the CCR, available at http:// \_\_\_\_\_
- Email CCR as an attachment to or an embedded image in an email.
- Other direct delivery (for example, door hangers or additional electronic delivery method).  
Please specify: \_\_\_\_\_

**Systems serving 100,000 or more people are required to post the CCR on a publicly available web site and provide the direct URL here: http:// \_\_\_\_\_**

**Good faith delivery methods (To reach people who do not receive bills)**

- Posting the CCR on the Internet at http:// chillicothe.tx.com
- Mailing the CCR to people who receive mail, but who do not receive bills.
- Advertising the availability of the CCR in news media.
- Posting the CCR in public places.
- Delivering multiple copies to single billing addresses serving multiple persons.
- Delivering multiple copies of the CCR to community organizations.

I certify that the community water system named above has distributed the Consumer Confidence Report (CCR) for the calendar year of 2019 and that the information in the report is correct and consistent with the compliance monitoring data previously submitted to the TCEQ. Systems serving 100,000 or more people are required to post the CCR on a publicly available web site and provide the direct URL.

**Certified By:**

Name (print): Michelle Stovall Title: City Secretary Phone Number: 940 852 5211  
Signature: Michelle Stovall Date: 6-15-2020

All systems are required to mail by July 1 the Certificate of Delivery and Consumer Confidence Report to:

Sending by certified mail:	Sending by regular mail:
TCEQ DWSF, MC-155, Attn: CCR, 12100 Park 35 Circle Austin, TX 78753	TCEQ DWSF, MC-155, Attn: CCR, PO Box 13087 Austin, TX 78711-3087

## 2019 Consumer Confidence Report for Public Water System CITY OF CHILLICOTHE

This is your water quality report for January 1 to December 31, 2019

CITY OF CHILLICOTHE provides surface water and ground water from [Seymour Aquifer] located in [Hardeman County]. We purchase surface water from (Greenbelt MIWA) located in (Donley County).

For more information regarding this report contact:

Name \_\_\_\_\_ Nicky Richter \_\_\_\_\_

Phone \_\_\_\_\_ 940-852-5211 \_\_\_\_\_

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (940)852-5211.

### Definitions and Abbreviations

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The following tables contain scientific terms and measures, some of which may require explanation.

Action Level:

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 are 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 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 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)

mrem:

millirems per year (a measure of radiation absorbed by the body)

na:

not applicable.

NTU

nephelometric turbidity units (a measure of turbidity)

pCi/L

picrouries per liter (a measure of radioactivity)

## Definitions and Abbreviations

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.

## Information about your 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.

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>.

### Information about Source Water

CITY OF CHILLICOTHE purchases water from GREENBELT MIWA. GREENBELT MIWA provides purchase surface water from [insert source name of aquifer, reservoir, and/or river] located in [insert name of County or City]. '[insert a table containing any contaminant that was detected in the provider's water for this calendar year, unless that contaminant has been separately monitored in your water system (i.e. TTHM, HAA5, Lead and Copper, Coliforms)].'

'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 [insert water system contact][insert phone number]'

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2019	1.3	1.3	0.12	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2019	0	15	1.3	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

### 2019 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
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Haloacetic Acids (HAA5)	2019	36	20.3 - 47.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
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\*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)	2019	85	60 - 87.1	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.
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\*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'

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2019	1.9	1.2 - 1.9	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2019	0.22	0.13 - 0.22	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	02/20/2018	0.689	0.606 - 0.689	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]	2019	13	2.72 - 12.9	10	10	ppm	Y	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	06/05/2018	6.1	0 - 6.1	0	50	pCi/L*	N	Decay of natural and man-made deposits.

\*EPA considers 50 pCi/L to be the level of concern for beta particles.

Gross alpha excluding radon and uranium	06/05/2018	3	3 - 3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	06/05/2018	3	2.6 - 3	0	30	ug/l	N	Erosion of natural deposits.

### 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).'

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Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
	2019	2.09	6.8 - .26	4	4	MG/L	ppm	Water additive used to control microbes.

## Violations

### Chlorine

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Violation Type	Violation Begin	Violation End	Violation Explanation
Disinfectant Level Quarterly Operating Report (DLQOR).	01/01/2019	03/31/2019	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.

### 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 corrosivity. 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)	10/01/2017	01/08/2019	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.
LEAD CONSUMER NOTICE (LCR)	12/30/2018	03/26/2020	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.
LEAD CONSUMER NOTICE (LCR)	12/30/2019	03/26/2020	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

### Nitrate [measured as Nitrogen]

Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Violation Type	Violation Begin	Violation End	Violation Explanation
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## Violations

MCL, SINGLE SAMPLE	01/01/2019	03/31/2019	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	07/01/2019	09/30/2019	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, SINGLE SAMPLE	10/01/2019	12/31/2019	A water sample showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for 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	01/04/2019	02/12/2019	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

## Total Trihalomethanes (TTHM)

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, LRAA	01/01/2019	03/31/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	04/01/2019	06/30/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	07/01/2019	09/30/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

## GREENBELT MIWA TX0650013

<b>Combined Filter Effluent Turbidity Summary</b>							
MP	# Required	# Collected	M&R Comp	Highest Msr.	# Exceed	Analyte Code	Analyte Name
12-01-2019 12-31-2019	186	186	YES	0.29	0	0100	TURBIDITY
11-01-2019 11-30-2019	180	180	YES	0.29	0	0100	TURBIDITY
10-01-2019 10-31-2019	186	186	YES	0.3	0	0100	TURBIDITY
09-01-2019 09-30-2019	180	180	YES	0.3	0	0100	TURBIDITY
08-01-2019 08-31-2019	186	186	YES	0.26	0	0100	TURBIDITY
07-01-2019 07-31-2019	186	186	YES	0.24	0	0100	TURBIDITY
06-01-2019 06-30-2019	180	180	YES	0.23	0	0100	TURBIDITY
05-01-2019 05-31-2019	186	186	YES	0.3	0	0100	TURBIDITY
04-01-2019 04-30-2019	180	180	YES	0.7	0	0100	TURBIDITY
03-01-2019 03-31-2019	186	186	YES	0.3	0	0100	TURBIDITY
02-01-2019 02-28-2019	168	168	YES	0.29	0	0100	TURBIDITY
01-01-2019 01-31-2019	186	186	YES	0.3	0	0100	TURBIDITY

<b>Recent Primary/Secondary Sample Results</b>							
Fac./ Site	Sample No.	Date	An. Code	Analyte	Result	Unit	Method
EP001- TRT-TAP	Q1961475003	09-03- 2019	1074	ANTIMONY, TOTAL	ND		200.8
EP001- TRT-TAP	Q1961475003	09-03- 2019	1005	ARSENIC	0.0031	MG/L	200.8
EP001- TRT-TAP	Q1961475003	09-03- 2019	1010	BARIUM	0.21	MG/L	200.8
EP001- TRT-TAP	Q1961475003	09-03- 2019	1075	BERYLLIUM, TOTAL	ND		200.8
EP001- TRT-TAP	Q1961475003	09-03- 2019	1015	CADMIUM	ND		200.8



EP001-TRT-TAP	Q1961475003	09-03-2019	1020	CHROMIUM	0.0017	MG/L	200.8
EP001-TRT-TAP	Q1961475008	09-03-2019	1024	CYANIDE	ND		335.4
EP001-TRT-TAP	Q1961475004	09-03-2019	1025	FLUORIDE	0.743	MG/L	300.0
EP001-TRT-TAP	Q1961475003	09-03-2019	1035	MERCURY	ND		245.1
EP001-TRT-TAP	Q1961475003	09-03-2019	1036	NICKEL	ND		200.8
EP001-TRT-TAP	Q1961475003	09-03-2019	1045	SELENIUM	ND		200.8
EP001-TRT-TAP	Q1961475003	09-03-2019	1085	THALLIUM, TOTAL	ND		200.8

Recent SOC Sample Results							
Fac./ Site	Sample No.	Date	An. Code	Analyte	Result	Unit	Method
EP001-TRT-TAP	Q1961475006	09-03-2019	2110	2,4,5-TP	ND		515.4
EP001-TRT-TAP	Q1961475006	09-03-2019	2105	2,4-D	ND		515.4
EP001-TRT-TAP	Q1961475002	09-03-2019	2051	ALACHLOR	ND		525.2
EP001-TRT-TAP	Q1961475002	09-03-2019	2050	ATRAZINE	ND		525.2
EP001-TRT-TAP	Q1961475002	09-03-2019	2010	BHC-GAMMA	ND		525.2
EP001-TRT-TAP	Q1961475002	09-03-2019	2959	CHLORDANE	ND		508.1
EP001-TRT-TAP	Q1961475006	09-03-2019	2031	DALAPON	ND		515.4
EP001-TRT-TAP	Q1961475006	09-03-2019	2041	DINOSEB	ND		515.4
EP001-TRT-TAP	Q1961475002	09-03-2019	2005	ENDRIN	ND		525.2
EP001-TRT-TAP	Q1961475002	09-03-2019	2065	HEPTACHLOR	ND		525.2

EP001-TRT-TAP	Q1961475002	09-03-2019	2067	HEPTACHLOR EPOXIDE	ND		525.2
EP001-TRT-TAP	Q1961475002	09-03-2019	2015	METHOXYCHLOR	ND		525.2
EP001-TRT-TAP	Q1961475006	09-03-2019	2326	PENTACHLOROPHENOL	ND		515.4
EP001-TRT-TAP	Q1961475006	09-03-2019	2040	PICLORAM	ND		515.4
EP001-TRT-TAP	Q1961475002	09-03-2019	2037	SIMAZINE	ND		525.2
EP001-TRT-TAP	Q1961475002	09-03-2019	2020	TOXAPHENE	ND		508.1

Recent RVOC Sample Results							
Fac./ Site	Sample No.	Date	An. Code	Analyte	Result	Unit	Method
EP001-TRT-TAP	Q1961475010	09-03-2019	2981	1,1,1-TRICHLOROETHANE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2985	1,1,2-TRICHLOROETHANE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2977	1,1-DICHLOROETHYLENE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2378	1,2,4-TRICHLOROBENZENE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2980	1,2-DICHLOROETHANE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2983	1,2-DICHLOROPROPANE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2990	BENZENE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2982	CARBON TETRACHLORIDE	ND		524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2989	CHLOROBENZENE	ND		524.2

EP001-TRT-TAP	Q1961475010	09-03-2019	2380	CIS-1,2-DICHLOROETHYLENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2964	DICHLOROMETHANE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2992	ETHYLBENZENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2968	O-DICHLOROBENZENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2969	P-DICHLOROBENZENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2996	STYRENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2987	TETRACHLOROETHYLENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2991	TOLUENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2979	TRANS-1,2-DICHLOROETHYLENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2984	TRICHLOROETHYLENE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2976	VINYL CHLORIDE	ND	524.2
EP001-TRT-TAP	Q1961475010	09-03-2019	2955	XYLENES, TOTAL	ND	524.2