Annual Drinking Water Quality Report

TX1770002 CITY OF SWEETWATER

Annual Water Quality Report for the period of 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 Eddy Campbell

Phone 325-235-4166

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (325)235-4166.

PUBLIC PARTICIPATION OPPORTUNITIES

Date: 2ND Tuesday of the Month
Time: 9 am
Location: City Hall
Phone No: (325) 236-6313

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

Source Water Assessment Protection

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Eddy Campbell @ 325-235-4166.

Sources of Drinking Water

The CITY OF SWEETWATER is both a Surface Water and Ground Water system.
We get our water from a combination of water sources. The groundwater comes from the Dockum Aquifer, located in Nolan County, and the Surface Water comes from Oak Creek Reservoir located in Coke County.

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 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).

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 157,881,666 gallons of water. If you have any questions about the water loss audit please call 325.235.4166.

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	Type of Water	Report Status	Location
FULLWOOD EAST 1	GW	Y	Champion Well Field
FULLWOOD EAST 2	GW	Y	Champion Well Field
FULLWOOD EAST 3	GW	Y	Champion Well Field
FULLWOOD EAST 4	GW	Y	Champion Well Field
FULLWOOD HOMEPLACE 1	GW	Y	Champion Well Field
FULLWOOD HOMEPLACE 2	GW	Y	Champion Well Field
FULLWOOD HOMEPLACE 3	GW	Y	Champion Well Field
FULLWOOD HOMEPLACE 4	GW	Y	Champion Well Field
FULLWOOD NORTH 1	GW	Y	Champion Well Field
FULLWOOD NORTH 2	GW	Y	Champion Well Field
FULLWOOD NORTH 3	GW	Y	Champion Well Field
FULLWOOD NORTH 4	GW	Y	Champion Well Field
FULLWOOD NORTH 5	GW	Y	Champion Well Field
FULLWOOD NORTH 6	GW	Y	Champion Well Field
NATIONS 1	GW	Y	Champion Well Field
NATIONS 2	GW	Y	Champion Well Field
NATIONS 3	GW	Y	Champion Well Field

NATIONS 4	GW	Y	Champion Well Field
NATIONS 5	GW	Y	Champion Well Field
NATIONS 6	GW	Y	Champion Well Field
SASIN 1 NORTH	GW	Y	Champion Well Field
SASIN 1 SOUTH	GW	Y	Champion Well Field
SASIN 2 NORTH	GW	Y	Champion Well Field
SASIN 2 SOUTH	GW	Y	Champion Well Field
SASIN 3 NORTH	GW	Y	Champion Well Field
SASIN 3 SOUTH	GW	Y	Champion Well Field
SASIN 4 NORTH	GW	Y	Champion Well Field
SASIN 4 SOUTH	GW	Y	Champion Well Field
WILSON 1	GW	Y	Champion Well Field
WILSON 2	GW	Y	Champion Well Field
WILSON 3	GW	Y	Champion Well Field
WILSON 4	GW	Y	Champion Well Field
WILSON 5	GW	Y	Champion Well Field
WILSON 6	GW	Y	Champion Well Field
HUNTER 1	GW	Y	Champion Well Field
HUNTER 4	GW	Y	Champion Well Field
HUNTER 5	GW	Y	Champion Well Field
HUNTER 6	GW	Y	Champion Well Field
HUNTER 7	GW	Y	Champion Well Field
HUNTER 8	GW	Y	Champion Well Field
Oak Creek Intake	SW	Y	Coke County
Oak Creek Booster A & B	SW	Y	Nolan County
Lake Trammell Intake	SW	N	Nolan County

Definitions

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

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 were found.

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 Escherichia coli (E. coli) maximum contaminant level (MCL) violation has occurred and/or why total coliform bacteria were found on multiple occasions.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples

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 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 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.

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.

MFL: million fibers per liter (a measure of asbestos)

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

na: not applicable

NTU: nephelometric turbidity units (a measure of turbidity)

pCi/L: picocuries per liter (a measure of radioactivity)

ppb: micrograms per liter (µg/L) or parts per billion - or one ounce in 7,350,000 gallons

of water

ppm: parts per million, or milligrams per liter (mg/L) – or one ounce in 7,350 gallons

of water

ppt: parts per trillion, or nanograms per liter (ng/L)

ppq: parts per quadrillion, or pictograms per liter (pg/L)

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

2018 Regulated Contaminants Detected

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. The City of Sweetwater is 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.

Lead and Copper

Definitions:
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.
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	8/24/2016	1.3	1.3	0.116	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	8/24/2016	0	15	2.26	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Turbidity

	Limit (for Treatment Technique Being Used)	Level Detected	Explanation of Reasons for Measuring Turbidity	Was this a violation?	Likely Source of Contamination
Highest Single Measurement	1 NTU	0.10 NTU	Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.	N	Soil runoff.
Lowest Monthly % of Samples Meeting Turbidity Limit	0.3 NTU	100 %	Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.	N	Soil runoff.

Disinfection By-Products

Name of Disinfection By-Products	Collection Date	Highest Level Detected	Highest Locational Running Annual Average	Range of Levels Detected	MCLG	MCL	Units	Was This a Violation?	Likely Source of Contamination.
Haloacetic Acids	2018	11	8	0 – 11	n/a	60	ppb	N	By-product of drinking water disinfection.
TTHMs (Total trihalomethanes	2018	29.6	14	0 –29.6	n/a	80	ppb	N	By-product of drinking water disinfection.
Chlorite	2018	0.17	n/a	0 – 0.17	0.8	1	ppm	N	By-product of drinking water disinfection.

Disinfectant Residual Table

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Was This a Violation?	Likely Source of Contamination
Chloramines	2018	2.96	1.78	3.70	4	4	ppm	N	Water additive used to control microbes
Chlorine Dioxide	2018	36	0	210	800	800	ppb	N	Water additive used to control microbes

Inorganic Contaminants

Name of Inorganic Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL (unless treatment technique or action level is specified)	Unit of MCLG and MCL	Was This a Violation?	Likely Source of Contamination
Antimony	3/7/2018	Levels lower than detect level	0-0	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	3/7/2018	Levels lower than detect level	0-0	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics wastes.
Barium	3/7/2018	0.14	0.14 – 0.14	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	3/7/2018	Levels lower than detect level	0 - 0	4	4	ppb	N	Discharge from metal refineries and coal burning factories; Discharge from electrical, aerospace, and defense industries.
Cadmium	3/7/2018	Levels lower than detect level	0 - 0	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints.
Chromium	3/7/2018	2.1	2.1 – 2.1	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.

Cyanide	9/13/2018	82.8	82.8 – 82.8	200	200	ppb	N	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
Fluoride	3/7/2018	0.482	0.482 – 0.482	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Mercury	3/7/2018	Levels lower than detect level	0 - 0	2	2	ppb	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Nickel	3/7/2018	1.0	1.0 –1. 0	100	100	ppb	N	Corrosion of pipes; Erosion of natural deposits; Discharge from metal refineries;
Nitrate (measured as Nitrogen)	2018	2.17	2.17 – 2.17	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (measured as Nitrogen)	6/4/2013	Levels lower than detect level	0 - 0	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	3/7/2018	Levels lower than detect level	0 – 0	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	3/7/2018	Levels lower than detect level	0 - 0	0.5	2	ppb	N	Leaching from ore processing sites; Discharge from electronics, glass, and drug factories.

Synthetic Organic Contaminants including Pesticides and Herbicides

Name of Organic Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL (unless treatment technique or action level is specified)	Unit of MCLG and MCL	Was This a Violation?	Likely Source of Contamination

2,4-D	2/3/2016	Levels lower than detect level	0 - 0	70	70	ppb	N	Runoff from herbicide used on row crops.
2,4,5-TP (Silvex)	2/3/2016	Levels lower than detect level	0 - 0	50	50	ppb	N	Residue of banned herbicide.
Alachlor	3/7/2018	Levels lower than detect level	N/A	0	2	ppb	N	Runoff from herbicide used on row crops.
Atrazine	3/7/2018	Levels lower than detect level	N/A	3	3	ppb	N	Runoff from herbicide used on row crops.
BHC-Gamma	3/7/2018	Levels lower than detect level	0 - 0	200	200	ppt	N	Residue of banned insecticide
Chlordane	3/7/2018	Levels lower than detect level	N/A	0	2	ppb	N	Residue of banned termiticide.
Dalapon	2/3/2016	Levels lower than detect level	N/A	200	200	ppb	N	Runoff from herbicide used on rights of way.
Dinoseb	2/3/2016	Levels lower than detect level	0 - 0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
Endrin	3/7/2018	Levels lower than detect level	0 - 0	2	2	ppb	N	Residue of banned insecticide.
Heptachlor	3/7/2018	Levels lower than detect level	N/A	0	400	ppt	N	Residue of banned termiticide.
Heptachlor epoxide	3/7/2018	Levels lower than detect level	N/A	0	200	ppt	N	Breakdown of heptachlor.
Methoxychlor	3/7/2018	Levels lower than detect level	0 – 0	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Pentachlorophenol	2/3/2016	Levels lower than detect level	N/A	0	1	ppb	N	Discharge from wood preserving factories.

Picloram	2/3/2016	Levels lower than detect level	0 – 0	500	500	ppb	N	Herbicide runoff.
Simazine	3/7/2018	Levels lower than detect level	N/A	4	4	ppb	N	Herbicide runoff.
Toxaphene	3/7/2018	Levels lower than detect level	N/A	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.

Volatile Organic Contaminants

Name of Organic Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL (unless treatment technique or action level is specified)	Unit of MCLG and MCL	Was This a Violation?	Likely Source of Contamination
Benzene	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Discharge from factories; Leaching from gas storage tanks and landfills.
Carbon tetrachloride	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
Chlorobenzene	9/13/2018	Levels lower than detect level	N/A	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
o-Dichlorobenzene	9/13/2018	Levels lower than detect level	N/A	600	600	ppb	N	Discharge from industrial chemical factories.
p-Dichlorobenzene	9/13/2018	Levels lower than detect level	0 – 0	75	75	ppb	N	Discharge from industrial chemical factories.
1,2-Dichloroethane	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Discharge from industrial chemical factories.

1,1-Dichloroethylene	9/13/2018	Levels lower than detect level	0 – 0	**7**	**7**	ppb	N	Discharge from industrial chemical factories.
Cis-1,2-Dichloroethylene	9/13/2018	Levels lower than detect level	N/A	70	70	ppb	N	Discharge from industrial chemical factories.
Trans-1,2-Dichloroethylene	9/13/2018	Levels lower than detect level	N/A	100	100	ppb	N	Discharge from industrial chemical factories.
Dichloromethane	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
1,2-Dichloropropane	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Discharge from industrial chemical factories.
Ethylbenzene	9/13/2018	Levels lower than detect level	N/A	700	700	ppb	N	Discharge from petroleum refineries.
Styrene	9/13/2018	Levels lower than detect level	N/A	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills.
Tetrachloroethylene	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Leaching from PVC pipes; Discharge from factories and dry cleaners.
1,2,4-Trichlorobenzene	9/13/2018	Levels lower than detect level	N/A	70	70	ppb	N	Discharge from textile finishing factories.
1,1,1-Trichloroethane	9/13/2018	Levels lower than detect level	N/A	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
1,1,2-Trichloroethane	9/13/2018	Levels lower than detect level	N/A	3	5	ppb	N	Discharge from industrial chemical factories.
Trichloroethylene	9/13/2018	Levels lower than detect level	N/A	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
Toluene	9/13/2018	Levels lower than detect level	N/A	1	1	ppm	N	Discharge from petroleum factories.

Vinyl Chloride	9/13/2018	Levels lower than detect level	N/A	0	2	ppb	N	Leaching from PVC piping; Discharge from plastics factories.
Xylenes	9/13/2018	Levels lower than detect level	N/A	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.

Radioactive Contaminants

Name of Radioactive Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL (unless treatment technique or action level is specified)	Unit of MCLG and MCL	Was This a Violation?	Likely Source of Contamination
Beta/photon Emitters	2/21/2017	Levels lower than detect level	0 – 0	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2/21/2017	1.08	1.08 – 1.08	0	5	pCi/L	N	Erosion of natural deposits.
Gross Alpha Excluding Radon and Uranium	2/21/2017	5.9	3 – 5.9	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2/21/2017	4.7	4.7 - 4.7	0	30	ug/l	N	Erosion of natural deposits.

Unregulated Contaminants

Unregulated Contaminant	Collection Date	Average	Highest Level Detected	Range of Levels Detected	MCLG	MCL (unless treatment technique or action level is specified)	Unit of MCLG and MCL	Was This a Violation?	Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.
Bromodichloromethane	9/13/2018	Levels lower than detect level	Levels lower than detect level	N/A	n/a	100	ppb	N	
Bromoform	9/13/2018	Levels lower than detect level	Levels lower than detect level	N/A	n/a	100	ppb	N	

Violations

Chlorite

Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	02/01/2018	02/28/2018	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.
Monitoring, Routine (DBP), Major	05/01/2018	05/31/2018	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.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Notice of Monitoring Violation by the City of Sweetwater

February 2018 and May 2018

In February and May 2018, the City of Sweetwater (City) (PWSID TX1770002) violated the monitoring and reporting requirements set forth by the Texas Commission on Environmental Quality (TCEQ) in Title 30, Texas Administrative code (30 TAC), Section 290, Subchapter F. Public water systems are required to collect and submit chemical samples of water provided to their customers and report the results of those samples to the TCEQ on a regular basis. The requirement for water systems that use chlorine dioxide is that the monthly chlorite sample set be collected on a day during the month when chlorine dioxide is being used at the water treatment plant. During February and May 2018 the City collected the monthly three part chlorite sample set on a day during each month when chlorine dioxide was not being used at the water treatment plant.

Results of regular monitoring are an indicator of whether or not your drinking water is safe from chemical contamination. We did not complete the monitoring and/or reporting for chlorite on a day during February 2018 and May 2018 when chlorine dioxide was being used at the water treatment plant, and therefore TCEQ cannot be sure of the safety of your drinking water during that time.

We are taking the following actions to address this issue:

The City has implemented standard operating procedures to ensure that monthly chlorite samples are collected and reported when required on a day during each month when chlorine dioxide is being used.

Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). If you want more information about the nature and significance of this violation, you may contact Eddy Campbell at 325-235-4166.