

ANNUAL DRINKING WATER QUALITY REPORT

TX0220035 STUDY BUTTE WATER SUPPLY CORPORATION

Annual Water Quality Report for the period of January 1 to December 31, 2017

This report is intended to provide you with important information about your drinking water and the efforts made by STUDY BUTTE WSC to provide safe drinking water. It summarizes information that is collected by the system to comply with Federal and State (TCEQ) regulations and includes information about the source of water used, chemical contaminants, bacteriological contaminants, compliance with drinking water rules, educational information, water system contact information and public participation opportunities.

Este reporte incluye informacion importante sobre el agua para tomar.
Para asistencia en espanol, favor de llamar al telefono (432) 371-2933.

For more information regarding this report, contact:

Timothy Q. LaFever, Operator
(432) 371-2933

**The Study Butte WSC Board of Directors holds a public meeting each month.
Please contact the SBWSC office at (432) 371-2933 for time and location.**

2017 Consumer Confidence Report for Public Water System STUDY BUTTE TERLINGUA WATER SYSTEM

This is your water quality report for January 1 to December 31, 2017

STUDY BUTTE TERLINGUA WATER SYSTEM provides ground water from the Santa Elena Aquifer located in Brewster County.

Definitions and Abbreviations

Definitions and Abbreviations	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	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)

Definitions and Abbreviations

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

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 Timothy Q LaFever at (432) 371-2933.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/20/2016	1.3	1.3	0.203	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	09/20/2016	0	15	0.9	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2017 Water Quality Test Results

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	05/13/2015	1	1 - 1	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	05/13/2015	0.02	0.02 - 0.02	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Chromium	05/13/2015	0.62	0.62 - 0.62	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	05/13/2015	1.4	1.4 - 1.4	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]	2017	0.0207	0.0207 - 0.0207	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	05/13/2015	1.9	1.9 - 1.9	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	05/13/2015	0.28	0.28 - 0.28	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.

Radioactive Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/ photon emitters	2017	9.1	5 - 9.1	0	4	mrem/yr	N	Decay of natural and man-made deposits.

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

Combined Radium 226/228	2017	5	2.08 - 4.21	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2017	14	5.1 - 10.9	0	15	pCi/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).'

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Free Chlorine	2017	1.03	.2 – 2.2	4	4	Ppm	N	Water additive used to control microbes.

Violations

Revised Total Coliform Rule (RTCR)

The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children,

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE, MAJOR (RTCR)	12/01/2017	12/31/2017	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.