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2017 Annual Drinking Water Quality Report Bridlegate Subdivision

June 27, 2018

The following pages contain the information on the annual Water Quality Report from TCEQ for Bridlegate Ranch Subdivision for the period of January 1, to December 31, 2017. The report in its entirety can be accessed at <http://www.beutility.net/water-quality-report>

Office hours are Monday-Friday, 8 a.m. - 5 p.m. The general manager is available during office hours for questions pertaining to this report, or to discuss decisions that may affect the quality of the drinking water.

SPECIAL NOTICE

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791 or <http://www.epa.gov/safewater>

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (830)249.4174.

2017 Regulated Contaminants

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>.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by Bandera East Utility has a fluoride concentration of 2.22 mg/L which is below the action level.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

For more information, please call Bandera East Utility at 830.249.4174. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Where do we get our drinking water?

Our water is supplied by groundwater from the Middle and Lower Trinity Aquifer, which is the source of drinking water for the counties that make up the Texas “Hill Country”.

Source Water Susceptibility Assessment:

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at: <https://gisweb.tceq.texas.gov/swav/Controller/index.jsp?wtrsrc>

Further details about sources and source-water assessments are available in Drinking Water Watch at <http://dww2.tceq.texas.gov/DWW/>

Water Quality Test Results

Definitions:

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

Maximum Contaminant Level (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 (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL)

The highest level of 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 (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.

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.

mrem

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

Action Level (AL) the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow

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.

Avg

Regulatory compliance with some MCLs are based on running annual average or monthly samples.

NA Not applicable

NTU Nephelometric Turbidity Units (a measure of turbidity)

MFL million fibers per liter (a measure of asbestos)

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

ppm—parts per million, or milligrams per liter, or one ounce in 7,350 gallons of water

ppb—parts per billion, or micrograms per liter, or one ounce in 7,350,000 gallons of water

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

ppq parts per quadrillion, or picograms per liter (p g/L)

MFL million fibers per liter (a measure of asbestos)

Treatment Technique or TT

A required process intended to reduce the level of a contaminant in drinking water

2017 Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	3	2.8-2.8	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)	2017	11	10.6-10.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection
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Inorganic Contaminates	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
*Fluoride	06/15/2016	2.22	2.22-2.22	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	0.12	0.12-0.12	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

*Fluoride compounds are salts that form when the element, fluorine, combines with the minerals in soil or rocks. Bandera East Utility does not add fluoride to its drinking water.

Radioactive contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
*Beta/photon emitters	04/29/2013	11.4	11.4-11.4	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.

Combined Radium 226/228	04/29/2013	2.1	2.1-2.1	0	5	pCiL	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	04/29/2013	7.3	7.3-7.3	0	15	pCiL	N	Erosion of natural deposits.
Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	06/15/2016	2.6	2.6-2.6	0	6	ppb	N	Discharge from rubber and chemical factories

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

Maximum Residual Disinfection Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	UNIT OF MEASURE	SOURCE OF CHEMICAL
2017	Chlorine (free)	2.25	.70	3.20	4.0	<4.0	ppm	Disinfectant used to control microbes.

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected health 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)	90 th Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination
Copper	10/28/2015	1.3	1.3	0.0714	0	ppm	N	Erosion of Natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
*Lead	10/28/2015	0	15	2.5	0	ppb	N	Corrosion of household plumbing systems. Erosion of natural deposits.

*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. BEU is responsible for providing drinking water that meets all federal and state standards, 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 until the water is noticeably colder before using the water, and using only cold 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 and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. When replacing your bathroom or kitchen faucet, consider a “lead-free” faucet that meets NSF/ANSI Standard 61 Annex G, which is less than 0.25% lead by weight.