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2018 Consumer Confidence Report Annual Drinking Water Quality Report

July 1, 2019

The following pages contain the information on the annual Water Quality Report from TCEQ for Kendall West Utility for the period of January 1, to December 31, 2018. The report in its entirety can be accessed at www.kwutility.com/water-quality-report.

Kendall West Utility 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

Immunocompromised 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 información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (830) 537-5755

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>.

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 Kendall West Utility has a fluoride concentration of 2.62 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 Kendall West Utility at 830.537.5755. 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.

Information about Source Water

In 2018, about 78% of our water was purchased from the GBRA Western Canyon Water Supply located in Comal County. The source of water for the GBRA WCWSP is Canyon Lake. The remaining 22% of our water came from groundwater wells in the Trinity group aquifers, known locally as the Cow Creek, Lower Glen Rose and Upper Glen Rose aquifers.

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 detections 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 Jim Becker, Operations Manager.

Water Quality Test Results Definitions

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

<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>mrem millirems per year (a measure of radiation absorbed by the body)</p> <p>Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.</p>	<p>Action Level Goal 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.</p> <p>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.</p> <p>Avg Regulatory compliance with some MCLs are based on running annual average or monthly samples.</p> <p>NA Not applicable</p> <p>NTU Nephelometric Turbidity Units (a measure of turbidity)</p> <p>MFL million fibers per liter (a measure of asbestos)</p> <p>pCi/L picocuries per liter (a measure of radioactivity)</p> <p>ppm—parts per million, or milligrams per liter, or one ounce in 7,350 gallons of water</p> <p>ppb—parts per billion, or micrograms per liter, or one ounce in 7,350,000 gallons of water</p> <p>ppt parts per trillion, or nanograms per liter (ng/L)</p> <p>ppq parts per quadrillion, or picograms per liter (p g/L)</p> <p>MFL million fibers per liter (a measure of asbestos)</p> <p>Treatment Technique or TT A required process intended to reduce the level of a contaminant in drinking water</p>
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2018 Water Quality Test Results

Disinfectants/ Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2018	3	2.9-2.9	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	5	5.3-5.3	No goal for the total	80	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 TTHM sample results collected at a location over a year

Inorganic Contaminates	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2018	0.021	0.021-0.021	2	2	ppm	N	Discharge of drilling wastes and/or metal refineries; Erosion of natural deposits
*Fluoride	2018	2.62	0.71-2.62	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	0.29	0.06-0.29	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. Kendall West 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	2018	13.7	4.8-13.7	0	50	pCi/L	N	Decay of natural and man-made deposits
Combined Radium 226/228	2018	3.1	0-3.1	0	5	pCi/L	N	Erosion of natural deposits
Gross alpha excluding radon and uranium	2018	5.1	3.1-5.1	0	15	pCi/L	N	Erosion of natural deposits

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

Disinfection Residual

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	UNIT OF MEASURE	SOURCE OF CHEMICAL
2018	Chlorine (Free)	1.71	.48	2.68	4	4	ppm	Water additive used to control microbes

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# sites over AL	Units	Violation	Likely Source of Contamination
Copper	8/24/2016	1.3	1.3	0.125	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	8/24/2016	0	15	1.2	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. KWU 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.

GBRA

The following is data from GBRA which provides water to our system

All Minerals

Analyte	Result	Unit	Date
Diluted Conductance @25.0C	408	umho/cm	03/13/2018
Total Alkalinity as CaCO ₃	149	mg/L	03/20/2018
Carbonate	<2	mg/L	03/20/2018
Chloride	23	mg/L	03/23/2018
Total Dissolved Solids	222	mg/L	03/13/2018
Field pH result	8.5	pH	03/13/2018

Analyte	Result	Unit	Date
Phenolphthalein Alkalinity as CaCO ₃	<2	mg/L	03/20/2018
Bicarbonate	182	mg/L	03/20/2018
Fluoride	0.21	mg/L	03/23/2018
Sulfate	22	mg/L	03/23/2018
Nitrate as N	0.13	mg/L	03/23/2018

All Metals

Analyte	Result	Unit	Date
Acidification	Completed		03/13/2018
Turbidity Screen	Completed		03/14/2018
Total Hardness as CaCO ₃ by Calculation	183	mg/L	03/19/2018
Antimony	<0.0010	mg/L	03/15/2018
Barium	0.0275	mg/L	03/15/2018

Analyte	Result	Unit	Date
pH Check	Completed		03/14/2018
Visible Particles	Completed		03/14/2018
Aluminum	<0.0200	mg/L	03/15/2018
Arsenic	<0.0020	mg/L	03/15/2018
Beryllium	<0.00080	mg/L	03/15/2018

All Metals (continued)

Analyte	Result	Unit	Date
Cadmium	<0.0010	mg/L	03/15/2018
Chromium	<0.0100	mg/L	03/15/2018
Iron	<0.010	mg/L	03/19/2018
Magnesium	18.0	mg/L	03/19/2018
Mercury	<0.00040	mg/L	03/21/2018
Potassium	1.99	mg/L	03/19/2018
Silver	<0.0100	mg/L	03/15/2018
Thallium	<0.00040	mg/L	03/15/2018

Analyte	Result	Unit	Date
Calcium	43.7	mg/L	03/19/2018
Copper	<0.0020	mg/L	03/15/2019
Lead	<0.0010	mg/L	03/15/2018
Manganesa	<0.0010	mg/L	03/15/2018
Nickle	0.0014	mg/L	03/15/2018
Selenium	<0.0030	mg/L	03/15/2018
Sodium	10.9	mg/L	03/19/2018
Zinc	<0.0050	mg/L	03/15/2018

Herbicides

Regulated Compounds	Result	Date
2,4-D	<0.1	03/22/2018
2,4,5-TP (Silvex)	<0.2	03/22/2018
Pentachlorophenol	<0.04	03/22/2018
Dalapon	<1	03/22/2018
Dinoseb	<0.2	03/22/2018
Picloram	<0.1	03/22/2018

Non Regulated Compounds	Result	Date
Acifluofen	<1.0	03/22/2018
Bentazon	<2.0	03/22/2018
Chloramben	<1.0	03/22/2018
2,4-DB	<2.0	03/22/2018
Dicamba	<1.0	03/22/2018
3,5-Dichlorobenzoic acid	<1.0	03/22/2018
Dichlorprop	<2.0	03/22/2018
Quinclorac	<1.0	03/22/2018
2,4,5-T	<0.5	03/22/2018

Semivolatiles Organic Analysis

Regulated Compounds	Result	Date
Alachlor	<0.2	03/21/2018
Atrazine	<0.1	03/21/2018
Benzo[a]pyrene	<0.02	03/21/2018
alpha-Chlordane	<0.2	03/21/2018

Monitored Compounds	Result	Date
Acenaphthene	<0.20	03/21/2018
Acenaphthylene	<0.20	03/21/2018
Aldrin	<0.20	03/21/2018
Anthracene	<0.20	03/21/2018

**Semivolatiles Organic
Analysis (continued)**

Regulated Compounds	Result	Date
gamma-Chlordane	<0.2	03/21/2018
trans-Nonachlor	<0.2	03/21/2018
Di(2-ethylhexy) adipate	<0.6	03/21/2018
Di(2-ethylhexy) phthalate	<0.6	03/21/2018
Heptachlor	<0.04	03/21/2018
Hexachlorobenzene	<0.1	03/21/2018
Hexachlorocyclopentadiene	<0.1	03/21/2018
Lindane	<0.02	03/21/2018
Methoxychlor	<0.1	03/21/2018
Simazine	<0.07	03/21/2018
Monitored Compounds	Result	Date
Di-n-butylphthalate	<2.0	03/21/2018
Dieldrin	<0.20	03/21/2018
Dimethylphthalate	<2.0	03/21/2018
2,2',3,3',4,4',6-Heptachlorobiphenyl	<0.50	03/21/2018
Indeno[1,2,3-cd]pyrene	<0.20	03/21/2018
Metribuzin	<0.20	03/21/2018
2,2',3,3',4,5',6,6'-Octachlorobiphenyl	<0.50	03/21/2018
Phenanthrene	<0.20	03/21/2018
Pyrene	<0.20	03/21/2018
2,4,5-Trichlorobiphenyl	<0.20	03/21/2018

Monitored Compounds	Result	Date
Benzo(a)anthracene	<0.20	03/21/2018
Benzo[b]fluoranthene	<0.20	03/21/2018
Benzo[g,h,i]perylene	<0.20	03/21/2018
Benzo[k]fluoranthene	<0.20	03/21/2018
Bromacil	<0.20	03/21/2018
Butachlor	<0.20	03/21/2018
Butylbenzylphthalate	<2.0	03/21/2018
2-Chlorobiphenyl	<0.20	03/21/2018
Chrysene	<0.20	03/21/2018
Dibenz[a,h]anthracene	<0.20	03/21/2018
2,3-Dichlorobiphenyl	<0.20	03/21/2018
Diethylphthalate	<2.0	03/21/2018
Fluorene	<0.20	03/21/2018
2,2',4,4',5,6'-Hexachlorobiphenyl	<0.20	03/21/2018
Metolachlor	<0.20	03/21/2018
Naphthalene	<0.20	03/21/2018
2,2',3',4,6-Pentachlorobiphenyl	<0.20	03/21/2018
Propachlor	<0.20	03/21/2018
2,2',4,4'-Tetrachlorobiphenyl	<0.20	03/21/2018
Trifluralin	<0.20	03/21/2018

Pesticides by Method 508.1

Regulated Compounds	Result	Date
Chlordane	<0.20	3/27/2018
Heptachlor epoxide	<0.02	3/27/2018

Regulated Compounds	Result	Date
Endrin	<0.01	3/27/2018
Toxaphene	<1.0	3/27/2018

Haloacetic Acids

Regulated Compounds	Result	Date
Monochloroacetic acid	<2.0	06/08/2018
Dichloroacetic acid	4.5	06/08/2018
Trichloroacetic acid	<1.0	06/08/2018
Monobromoacetic acid	<1.0	06/08/2018
Dibromoacetic acid	7.7	06/08/2018
Total HAA5	12.2	06/08/2018

Monitored Compounds	Result	Date
Bromochloroacetic acid	5.6	06/08/2018
Dalapon	<1.0	06/08/2018

Trihalomethanes by GC/MS

Trihalomethanes	Result	Date
Chloroform	6.8	06/07/2018
Dibromochloromethane	19.9	06/07/2018
Total Trihalomethanes	48.6	06/07/2018

Trihalomethanes	Result	Date
Bromodichloromethane	12.4	06/07/2018
Bromoform	9.5	06/07/2018

Turbidity Data

Date	Highest Single Measurement	Samples Meeting Limits	Lowest Monthly % of Turbidity Limits	Unit of Measure	Source of Contaminant
2018	0.094	100	0.3	NTU	Soil Runoff

Single Mineral

Analyte	Result/Unit	Date
Total Cyanide	<0.01 mg/L	03/15/2018