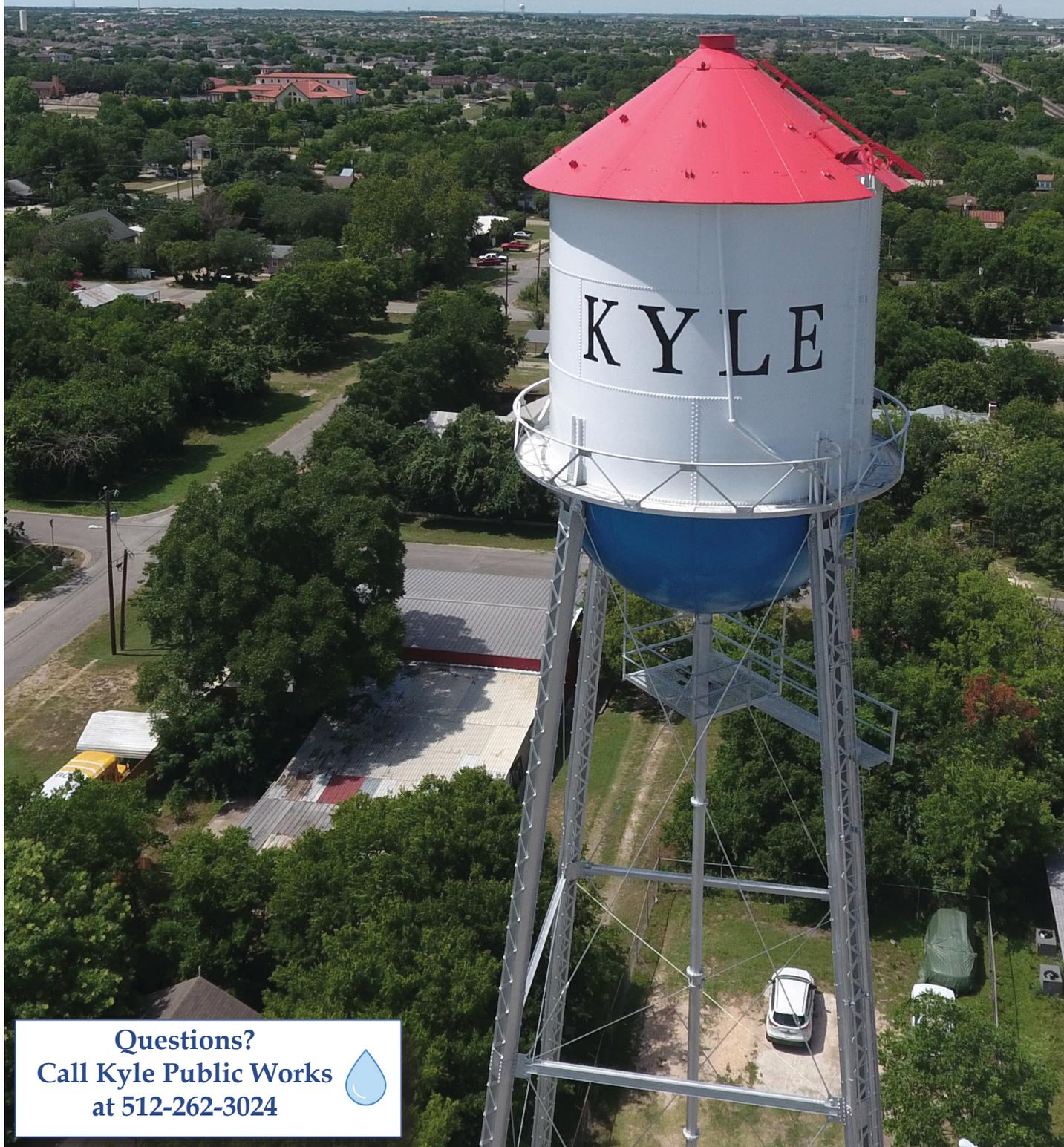




**2017 Calendar
Year Report**

Drinking Water CUSTOMER CONFIDENCE REPORT

Public Works Department
Water Treatment Division



Questions?
Call Kyle Public Works
at 512-262-3024



City of Kyle Annual Drinking Water Quality Report

PWS ID# TX1050002
CITY OF KYLE, TEXAS

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 this water system to provide safe drinking water.

CITY OF KYLE

USES PURCHASED SURFACE WATER AND TREATED
GROUNDWATER

SURFACE WATER COMES FROM:

1) CANYON LAKE VIA LAKE DUNLAP,
GUADALUPE COUNTY

GROUNDWATER COMES FROM:

1) SAN ANTONIO SEGMENT - EDWARDS AQUIFER,
HAYS COUNTY AND
2) BARTON SPRINGS SEGMENT - EDWARDS AQUIFER,
HAYS COUNTY



For more information
about this report
contact: Jason Biemer,
Division Manager
Treatment Operations
Phone # 512-262-3024.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 512-262-3024.

NOTICE: This customer confidence report is only applicable to persons who receive their water from the City of Kyle. If you do not receive your water service from the City of Kyle, please contact your water provider to obtain your confidence report.

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Sources of Drinking Water

NOTE: All public and private water systems are required to include this and other regulatory information in their annual water quality reports.



The sources of drinking water (including 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.

Contaminants that MAY be present in source water include:

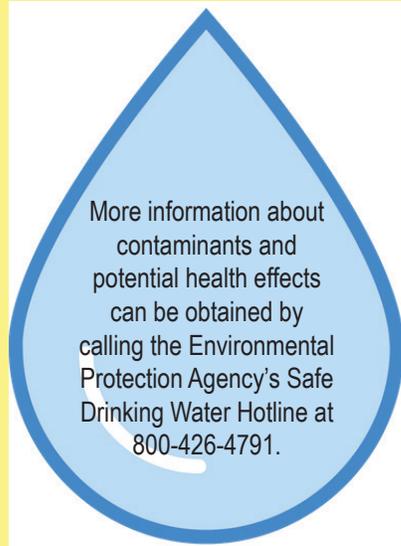
- * Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- * Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- * 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.



More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

Federal and State Regulations

NOTE: All public and private water systems are required to include this and other regulatory information in their annual water quality reports.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

The Federal Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Contaminants may be found in all drinking water that may cause taste, color or odor problems.*



***It's important to note that these types of issues 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.

The Texas Commission on Environmental Quality (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 Confidence Report (Water Quality Results) beginning on page 10.



For more information on source water assessments and protection efforts at the City of Kyle, contact Jason Biemer at 512-262-3024.

Regulations Continued (1)

NOTE: All public and private water systems are required to include this and other regulatory information in their annual water quality reports.

Some people 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.

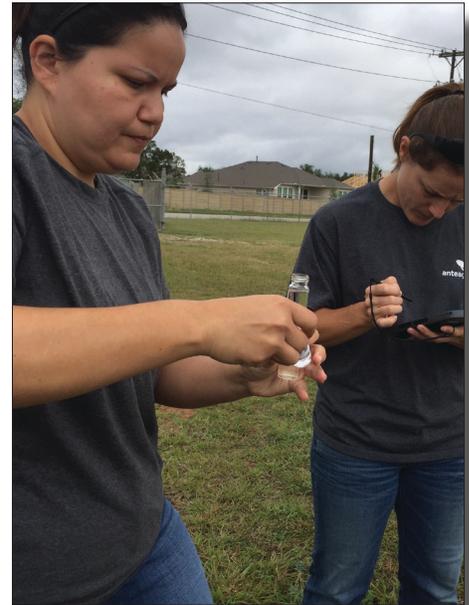
If you or family members are at risk, you should seek advice about drinking water from your physician or health care provider.

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. The City of Kyle 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 the water inside your home tested.

**See page 10 of this report for lead test results.*



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>.

Regulations Continued (2)

NOTE: All public and private water systems are required to include this and other regulatory information in their annual water quality reports.

While **Kyle does not add fluoride to its drinking water**, TCEQ requires this report include an alert about drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities. However, children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth, called dental fluorosis.

For 2017, the drinking water provided by the City of Kyle water system had a naturally occurring fluoride concentration of **2.9 mg/L**.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of permanent teeth. This 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.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. **The drinking water in Kyle's municipal water system does not contain more than 4 mg/L of fluoride**, but we are required to notify you when testing shows that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.



For more information, please call City of Kyle Public Works Department at 512-262-3024. 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 Assessments

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

<https://www.tceq.texas.gov/gis/swaview>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL:

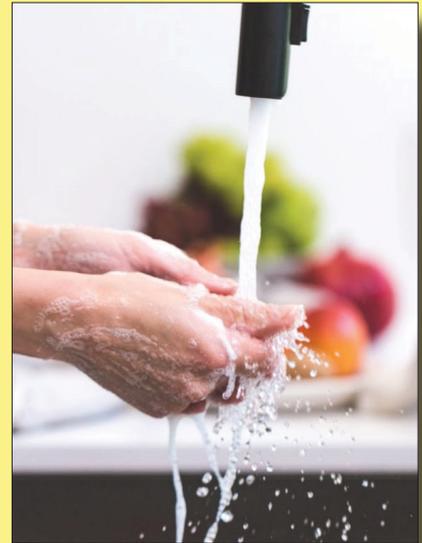
<http://dww2.tceq.texas.gov/DWW/>

Additional Information:

Hardness:

The hardness of Kyle's municipal drinking water can vary considerably depending on several factors, including the time of year. This is a result of the amount of groundwater we are using in the system at any given time. Our groundwater resources are the primary contributors of hardness in our system.

The average range of hardness is 260-310 mg/L of total hardness (as CaCO₃). This is approximately equal to 15-18 grains per gallon in range.



Fluoride / Fluoridation:

Kyle's water supply **does not have fluoride added to it;** the fluoride in our groundwater sources are naturally occurring.

Water Loss

Water loss is a concern for all water utilities. Here in the City of Kyle, our water loss goal is 15 percent or less. The water loss for the reporting period (January-December, 2017) was 13.0 percent.

Public Input:

The Kyle City Council meets on the first and third Tuesdays of each month at Kyle City Hall, located at 100 W. Center Street in Kyle, TX. Occasionally, the council discusses business that pertains to drinking water quality, supply and infrastructure. For more information, agendas and meeting details, please call 512-262-1010 or visit our website at www.cityofkyle.com. Agendas are posted 72 hours prior to meetings and are available on the city's website.

Definitions of Water Quality Test Results

The tables on the last two pages of this report contain scientific terms and measures, some of which may require explanation. See the list below for what these terms mean.

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

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 the 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)

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.

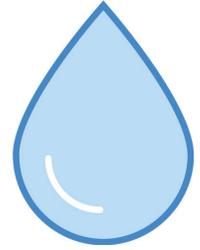
ppm: milligrams per liter or parts per million – or one ounce in 7,350 gallons of water.

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

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



City of Kyle 2017 Water Quality Results



Regulated Contaminants Detection

Lead and Copper [The City of Kyle's water system is required to have lead and copper tests every three (3) years.]

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 that a water system must follow.

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Contamination Source
Copper	2016	1.3	1.3	0.094	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2016	0	15	2.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

Regulated Contaminants

Disinfectants / Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	21	3.3 - 20.2	No goal for total	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2017	60	14.7 - 56.1	No goal for total	80	ppb	N	By-product of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2017	0.0561	0.0478 - 0.0561	2.0	2.0	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2017	2.9	2.9 - 2.9	4.0	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	2.0	0.02 - 1.87	10	10	ppm	N	Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits

Water Quality Test Results (continued)

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2017	1.55	1.09 - 1.55	0	5	pCi/L	N	Erosion of natural deposits
Gross alpha excluding radon and uranium	2017	11.1	7.9 - 11.1	0	15	pCi/L	N	Erosion of natural deposits
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Ethylbenzene	2017	4.3	0 - 4.3	700	700	ppb	N	Discharge from petroleum factories; from chemical factories
Xylenes	2017	0.018	0 - 0.018	10	10	ppm	N	Discharge from petroleum factories; from chemical factories

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Max. Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination:
0	1 positive monthly sample	1 (out of 360 tests)	2 consecutive positives	0	N	Naturally present in environment

Surface Water Quality Results

Below are the turbidity results:

Min	0.01 NTU	MCL 0.3 NTU
Max	0.09 NTU	
Avg	0.03 NTU	

Below are the nitrate results:

Nitrate	1.56 mg/L	MCL 10.0 mg/L
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Appendix D-Unregulated Contaminants

Figure: 30 TAC §290.275(4)

Note: only items on the table that were detected are listed here.

(1) Chloroform	12.6 ug/L	No MCL listed
(2) Bromodichloromethane	19.8 ug/L	No MCL listed
(3) Bromoform	7.1 ug/L	No MCL listed

Disinfection Results (Free chlorine residual*)

	Min	Max	Avg
Annual	0.84	2.13	1.53

* TCEQ regulations require a free chlorine residual of 0.2 m/L to 4.0 m/L

Violations Table

None.