TO: **Citizens of San Augustine** **June 19, 2017**

SUBJECT: **Publication of Calendar Year 2016 Water Quality Report**

Dear Citizens:

The Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) require annual reports regarding the public water supply furnished by the City of San Augustine. I have attached the report and data sheet to this letter.

Our drinking water is regulated by the Texas Commission on Environment Quality (TCEQ) and they have determined that our water has had no issues' that prevents it from meeting or exceeding water quality standards and requirements as stated in the Federal Drinking Water Standards.

We are having an open meeting concerning our water quality report on MONDAY, July 10, 2017 at 10:00 A.M. at City Hall, 301 South Harrison. Please come join us if you have questions.

Thank you for your interest.

Chris Anding
Superintendant

ATTACHMENT a/s

2016 DRINKING WATER QUALITY REPORT
CITY OF SAN AUGUSTINE AND RURAL WATER CUSTOMERS

Phone No. 936-275-2121

CONSUMER CONFIDENCE REPORT 2016

OUR DRINKING WATER IS REGULATED

By the Texas Commission on Environmental Quality (TCEQ) and they have determined that certain water quality issues exist .The City Of San Augustine has met all of the requirements as stated in the Federal Drinking water standards.

This report is a summary of the quality of the water we provide to our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

En Espanol

Este informe incluye informacion importante sobre el aqua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar al tel. (936) 275-2121.

Our drinking water is obtained from SURFACE water sources. It comes from Lake / River / Reservoir / Aquifer: San Augustine City Lake.

WATER SOURCES: The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of 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. Contaminants that may be present in source water before treatment includes: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

SPECIAL NOTICE for ELDERLY, INFANTS, CANCER PATIENTS, people with HIV / AIDS or other immune problems:

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 providers. EPA / Centers for Disease Control and Prevention (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).

ALL drinking water may contain contaminates:

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of service devices. Drinking water, including bottled water, may reasonably be expected to contain a least small amounts of some contaminates. 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 EPA Safe Drinking Water HOTLINE (800-426-4791).

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, odor, and color problems. The taste and color constitutes are called secondary constituents and are regulated by State of Texas, not EPA. **These constituents are not causes for health concerns.** Therefore, secondaries are not required to be reported in this document but may greatly affect the appearance and taste of your water.

About The Following Pages

The pages attached and below listed definitions provide all of the federally regulated or minitored constituents which have been found in your drinking water. U.S. EPA requires water systems to test up to 97 contaminants. The tables below contain all of the chemical constituents, which have been found in your drinking water. The City of San Augustine tested our water quality over 2,400 times in calendar year 2016.

DEFINITIONS

Maximum Contaminant Level (MCL) – The highest level of contaminant 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 not 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 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 contamination.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

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

ABBREVIATIONS

NTU - Nephelometric Turbidity Units – Terbidity is the amount of particles in the water. **Our source is from soil (Red Dirt) runoff into the City Lake.**
MFL – million fibers per liter (a measure of asbestos)
pCi/l – pecocuries per liter (a measure of radioactivity)
ppm – parts per million, or milligrams per liter (mg/l)
ppb – parts per billion, or micrograms per liter (ug/l)
ppt – parts per trillion, or nanograms per liter
ppq – part per quadrillion, or picograms per liter

Public Participation Opportunities:

DATE: July ,10 2017 **TIME:** 10:00 A.M.

LOCATION: City Hall Council Chambers **PHONE:** 936-275-2121

Chris Anding
Superintendant

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity	Unit of Limits	Source of Contaminant
2016	Turbidity	0.61	100.00%	0.3	NTU	Soil Runoff

Organic Contaminants **TESTED IN 2010**

Cryptosporidium Monitoring Information

"We monitored for Cryptosporidium. a microbial parasite that mav be commonly found in surface water. Cryptosporidium may come from animal and human feces in the watershed. The result of our monitoring indicated that there may be Cryptosporidium in the raw water and/or treated finished water. Although treatment by filtration removes Cryptosporidium, it cannot guarantee 100 percent removal. The testing methods used cannot determine if the organisms are alive and capable of causing cryptosporidiosis. an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water."

Total Coliform **NOT DETECTED**

Fecal Coliform **NOT DETECTED**

Disinfection Byproducts

Year	Contaminant	Average Level Measurement	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2016	Total Haloacetic Acids	51	44.3	60.3	60	ppb	Byproducts
							of Drinking Water
2016	Total Trihalomethanes	77	38.5	102	80	ppb	Disinfection

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for nature regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

Year	Contaminant	Average Level Measurement	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2016	Total Haloacetic Acids	51	44.3	60.3	60	ppb	Byproducts
							of Drinking Water
2016	Total Trihalomethanes	77	38.5	102	80	ppb	Disinfection

Inorganic Contaminates

Year	Contaminant	Average Level Measurement	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2016	Gross Alpha	1.2	1.2	1.2	1.5	0	pCi/L	Erosion of Natural Deposits
2016	Barium	0.0211	0.0211	0.0211	2	2	ppm	discharge of drilling waste,
2016	Chromium	0.001	0.001	0.001	0.1	0.1	ppb	discharge from steel mills
2016	Nitrate (measured as Nitrogen)	0.11	0.11	0.11	10	10	ppm	runoff from fertilizer use.
2016	Floride	0.0554	0.0554	0.0554	4	4	ppm	Erosion of Natural Deposits; Runoff from fertilizer use.

Maximum Residual Disinfection Level

Systems must complete and submit disinfection data on the Surface Water Monthly Operating Report (SWMOR). On the CCR report, the system must provide disinfection type. Minimum, maximum, and average levels.

Year	Disinfectant Used	Average Level Quarterly Avg.	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Contaminant
2016	Chlorine	1.33	0.54	2.79	4.0	<4.0	ppm	Chlorine Gas

Unregulated Initial Distribution System Evaluation for Disinfective Byproducts WAIVED OR NOT YET SAMPLED

Total Organic Carbon (TOC)

Total Organic Carbon (TOC) no helath effects. The disinfectant can combine with TOC to form disinfectant byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include Trihalomethanes (THM's) and Haloacetic Acids (HAA) which are reported elsewhere in this report.

Year	Contaminant	Average Level Measurement	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2016	Lake Water	2.16	1.80	3.00	ppm	Naturally Present in Lake
2016	Drinking Water	1.55	1.20	2.40	ppm	Naturally Present in Lake
2016	Removal Ratio	1	1	1		

We used alternative calculations

Removal Ratio is the percent of TOC removed by the treatment processs divided by the percent of TOC required by TCEQ to be removed.

Unregulated Contaminants

Bromoform, Chloroform, dichlorobromomethane, and dibromochloromethane are disinfectant byproducts. There is no maximum contiminant level for these chemicals at the entry point to distribution.

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measurement	Source of Contimant
2016	Bromodichromomethane	11.1	11	11.3	ppb	Byproduct of drinking water disinfection
2016	Dibromochloromethane	3.02	2.96	3.08	ppb	Byproduct of drinking water disinfection
2016	Chloroform	38.8	36.9	40.8	ppb	Byproduct of drinking water disinfection

Lead and Copper

Year	Contiminate	The 90th Percentile	Number of Sights Exceeding Action Level	Action Level	Unit of Measurement	Source of Contaminant
2016	Lead	1.02	0	15	ppb	Erosion of Natural Deposits
2016	Copper	0.032	0	1.3	ppm	Erosion of Natural Deposits; Leaching from Wood Preservatives, crossion household plumbing.

ADDITIONAL HEALTH INFORMATION FOR LEAD

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. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been siting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two 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.

VIOLATIONS

VIOLATION TYPE	Health Effects	Duration	Explanation	Steps to Correct
DISTRIBUTION: MCL VIOLATION - TOTAL TRIHALOMETHANES	Some people who drink water containing trihalomethanes in excess of the MCL OVER MANY YEARS may experience problems problems with their liver, kidneys, or central nervious systems, and may have an incresed risk of getting cancer. Proper notices have been made	1/1/2016 to 3/31/2016	water samples showed that the amount of this contaminant in our drinking water was above its MCL for the period indicated	The City Of San Augustine has obtained a grant through EDA to build two 300 thousand gallon ground storage tank,s,once the tanks are built the City can go to chlormine disinfection.

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