PWS 1660013

# SALEM ELM RIDGE WSC
# 2016 Consumer Confidence Report

Annual Water Quality Report for the period of January 1, 2016 to December 31, 2016

For more information regarding this report contact Robert Jekel at (254) 697-4016.
This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. To learn about future public meetings (concerning your drinking water), or to request to schedule one, please contact us. The board of directors meets each month at 462 W. FM 485, Cameron. Please call our office for the next schedule monthly meeting at (254) 697-4016 or (800) 826-4322.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (254) 697-4016.

## Sources of 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 pickup 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 EPAs 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 Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww.tceq.texas.gov/DWW

SALEM ELM RIDGE WSC is Purchased Surface Water.

| Source Water Name | | Type of Water | Report Status | Location |
|---|---|---|---|---|
| SW FROM CENTRAL TEXAS WSC | CC FROM TX0140161 | SW | Active | Stillhouse Hollow Lake |

A Source Water Assessment for your drinking water source(s) is currently being conducted by the TCEQ and should be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information in this assessment will allow us to focus our source water protection strategies.

### Water Quality Test Results

| | |
|---|---|
| Definitions: | The following tables contain scientific terms and measures, some of which may require explanation. |
| 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 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 picograms per liter (pg/L) |

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2016, our system lost an estimated 5,567,615 gallons of water. That averages about 16.35% of water loss. If you have any questions about the water loss audit please call our office.

## 2016 Regulated Contaminants Detected

| **Maximum Residual Disinfectant Level** | Collection date | Average Level | Minimum Level | Maximum Level | MRDL | MRDLG | Units | Source of Disinfectant |
|---|---|---|---|---|---|---|---|---|
| **Chlorine Residual, Chloramines** | 2016 | 1.90 | 0.51 | 6.8 | 4 | 4 | ppm | Disinfectant used to control microbes. |

### Coliform Bacteria

| Maximum Contaminant Level Goal | Total Coliform Maximum Contaminant Level | Highest No. of Positive | Fecal Coliform or E. Coli Maximum Contaminant Level | Total No. of Positive E. Coli or Fecal Coliform Samples | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|
| 0 | 1 positive monthly sample. | 2 | Fecal Coliform or E. coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive. | 1 | N | Naturally present in the environment. |

### Lead and Copper

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 which a water system must follow.

| **Lead and Copper** | Date Sampled | MCLG | Action Level (AL) | 90th Percentile | # Sites Over AL | Units | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Copper** | 2015 | 1.3 | 1.3 | 0.14 | 0 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| **Lead** | 2015 | 0 | 15 | 2.1 | 0 | ppb | N | Corrosion of household plumbing systems; Erosion of natural deposits. |

### 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)*** | 2016 | 17 | 0 – 27.5 | No goal for the total | 60 | ppb | N | By-product of drinking water disinfection. |
| **Total Trihalomethanes (TTHM)** | 2016 | 37 | 24.1 – 56.4 | No goal for the 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 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Nitrate [measured as Nitrogen]** | 2016 | 0.45 | 0.45 – 0.45 | 10 | 10 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

### Violations Table

**Revised Total Coliform Rule (RTCR)**

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, the elderly, and people with severely-compromised immune systems.

| Violation Type | Violation Begin | Violation End | Violation Explanation |
|---|---|---|---|
| LEVEL 1 ASSESS, MULTIPLE TC POS (RTCR) | 09/03/2016 | 2016 | During the past year we were required to conduct one Level 1 assessment(s). one Level 1 assessment(s) were submitted after the due date. In addition, we were required to take 0 corrective actions and we completed 0 of these actions. |
| MCL, E. COLI, POS E COLI (RTCR) | 11/01/2016 | 11/30/2016 | We had an E. coli-positive (EC+) repeat (RP) or total coliform-positive (TC+) routine (RT) sample following a TC+ or EC+ RT sample, failed to take all required RP samples following an EC+ RT sample, or failed to test for EC for any RT or RP sample. |

## CENTRAL TEXAS WATER SUPPLY CORPORATION Contaminants for 2016

### Regulated Contaminants

| **Disinfectants and Disinfection By-Products** | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Chlorite** | 2016 | 0.85 | 0 - 0.85 | 0.8 | 1 | ppm | N | By-product of drinking water disinfection. |
| **Haloacetic Acids (HAA5)** | 2016 | 22 | 17.5 - 22.4 | No goal for the total | 60 | ppb | N | By-product of drinking water disinfection. |
| **Total Trihalomethanes (TTHM)** | 2016 | 32 | 19 - 57 | No goal for the 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** | 2016 | 0.053 | 0.0452 - 0.053 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| **Cyanide** | 2016 | 180 | 50 - 180 | 200 | 200 | ppb | N | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories. |
| **Fluoride** | 2016 | 0.5 | 0.19 - 0.45 | 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]** | 2016 | 0.4 | 0.35 - 0.4 | 10 | 10 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

| Radioactive Contaminants | Collection Date | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Units | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Combined Radium 226/228** | 02/02/2011 | 1 | 1 - 1 | 0 | 5 | pCi/L | N | Erosion of natural deposits. |

### Turbidity

| | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|---|---|---|---|---|
| **Highest single measurement** | 1 NTU | 0.45 NTU | N | Soil runoff. |
| **Lowest monthly % meeting limit** | 0.3 NTU | 98% | N | Soil runoff. |

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

### Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

### Violations Table

**Public Notification Rule**

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

| Violation Type | Violation Begin | Violation End | Violation Explanation |
|---|---|---|---|
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 01/10/2013 | 2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 05/12/2015 | 2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 07/31/2015 | 02/05/2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 12/08/2015 | 02/03/2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 12/31/2015 | 02/03/2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |

## CITY OF CAMERON Contaminants for 2016

### 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)** | 2016 | 20 | 5.6 - 34.3 | No goal for the total | 60 | ppb | N | By-product of drinking water disinfection. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Total Trihalomethanes (TTHM)** | 2016 | 68 | 52.9 - 101 | No goal for the 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** | 2016 | 0.0677 | 0.0677 - 0.0677 | 2 | 2 | ppm | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| **Cyanide** | 2016 | 20 | 20 - 20 | 200 | 200 | ppb | N | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories. |
| **Fluoride** | 2016 | 0.2 | 0.15 - 0.15 | 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]** | 2016 | 2 | 2.3 - 2.3 | 10 | 10 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; 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 |
| **Atrazine** | 2016 | 2 | 1.6 - 1.6 | 3 | 3 | ppb | N | Runoff from herbicide used on row crops. |

## Turbidity

| | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|---|---|---|---|---|
| **Highest single measurement** | 1 NTU | 0.99 NTU | N | Soil runoff. |
| **Lowest monthly % meeting limit** | 0.3 NTU | 99% | N | Soil runoff. |

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

## Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

## Violations Table

### Consumer Confidence Rule

The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.

| Violation Type | Violation Begin | Violation End | Violation Explanation |
|---|---|---|---|
| CCR REPORT | 07/01/2016 | 11/03/2016 | We failed to provide to you, our drinking water customers, an annual report that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water. |

## Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

| Violation Type | Violation Begin | Violation End | Violation Explanation |
|---|---|---|---|
| LEAD CONSUMER NOTICE (LCR) | 12/30/2013 | 10/18/2016 | We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results. |

## Public Notification Rule

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

| Violation Type | Violation Begin | Violation End | Violation Explanation |
|---|---|---|---|
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 03/03/2013 | 03/03/2017 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 03/31/2013 | 03/08/2017 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 05/01/2013 | 03/02/2017 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 07/11/2013 | 2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 06/30/2014 | 2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |
| PUBLIC NOTICE RULE LINKED TO VIOLATION | 09/26/2014 | 2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |