

CRYSTAL CLEAR SUD

PWS #TX0940015

2016 ANNUAL DRINKING WATER QUALITY REPORT

CONSUMER CONFIDENCE REPORT (CCR)

JUNE 9, 2017

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

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.

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.

For more information regarding this report contact: Crystal Clear Special Utility District (830) 372-1031.

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

Immune-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.

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 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 ON SOURCES OF 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 contaminants that may be present in source - microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations,

and 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 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.

Information about Secondary Contaminants

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

Crystal Clear Special Utility District customers are fortunate because we enjoy an abundant water supply from our sources. Our drinking water is obtained from SURFACE AND GROUND water sources. It comes from the following Lake/River/Reservoir/Aquifers: Edwards Aquifer, Carrizo Aquifer, Leona Aquifer, Lake Dunlap from the Guadalupe River and the San Marcos River. We are in the process of adding additional water sources from the Trinity Aquifer and the Wilcox Aquifer. Our source water is from the following:

<i>Hunter</i>	<i>Ground Water</i>	<i>Active</i>	<i>Edwards Aquifer</i>
<i>Longcope</i>	<i>Ground Water</i>	<i>In-Active</i>	<i>Edwards Aquifer</i>
<i>McCarty Lane #1</i>	<i>Ground Water</i>	<i>Active</i>	<i>Edwards Aquifer</i>
<i>McCarty Lane #2</i>	<i>Ground Water</i>	<i>Active</i>	<i>Edwards Aquifer</i>
<i>Nelson</i>	<i>Ground Water</i>	<i>Active</i>	<i>Edwards Aquifer</i>
<i>Willow Creek</i>	<i>Ground Water</i>	<i>In-Active</i>	<i>Edwards Aquifer</i>
<i>Springs Hill</i>	<i>Ground Water</i>	<i>Active</i>	<i>Carrizo/Wilcox Aquifer</i>
<i>(Thru T'Bird Standpipe)</i>			
<i>CRWA</i>	<i>Ground Water</i>	<i>In-Active</i>	<i>Carrizo/Wilcox Aquifer</i>
<i>(Treated Ground Water Inter-Connect with Wells)</i>			
<i>CRWA</i>	<i>Surface Water</i>	<i>Active</i>	<i>San Marcos & Guadalupe Rivers</i>
<i>(Hays Caldwell Water Treatment Plant)</i>			
<i>CRWA</i>	<i>Surface Water</i>	<i>Active</i>	<i>Guadalupe River</i>
<i>(Lake Dunlap Water Treatment Plant)</i>			
<i>McDonald Well</i>	<i>Ground Water</i>	<i>In-Active</i>	<i>Leona Aquifer</i>

Maximum Contaminant Level Goal 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 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 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 contaminants.

Maximum Residual Disinfectant Level 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.

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

PPM Milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

PPB Micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

NA Not applicable.

The 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 the Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Mike Taylor.

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

URL: <http://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/>

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telephone 830-372-1031.

For more information regarding this report contact:

Mike Taylor, General Manager

830-372-1031

miket@crystalclearsud.org

Disinfectant Residual Table

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)
Chloramines & Free Chlorine	2016	1.74	0.60	3.56	4.00	4.00	ppm	N

2016 Regulated Contaminants Detected

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	2016	1.3	1.3	0.18	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	15	3.2	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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.
- 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 water system
- 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.
- 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.
- 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

Mrem:	millirems per year (a measure of radiation absorbed by the body)
NTU:	Nephelometric turbidity units (a measure of turbidity)
pCi/L:	picocuries per liter (a measure of radioactivity)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water
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)

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	9	0 - 22	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2016	33	1 – 75.1	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	0.0458	0.0365 - 0.0458	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	7/30/2015	0.18	0.18 - 0.18	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	0.2 - 1.86	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	09/04/2014	1	1 - 1	0	5	pCi/L	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	2016	0.62	0 – 0.62	0	6	ppb	N	Discharge from rubber and chemical factories.

Violations Table

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
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2015	07/08/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Surface Water Treatment Rule (SWTR)			
The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE TO FILTER (SWTR)	04/01/2012	2016	We are required to filter the water we supply for your consumption. However, we have not yet installed a filtration system.

* The old Staples Well was replaced by an interconnect to the Crystal Clear system. Therefore, this does not apply to the water we have been supplying.