

2018 Consumer Confidence Report

for Public Water System CITY OF CIBOLO

From January 1 to December 31, 2018

Phone: (210) 658-9900

Este reporte incluye información importante sobre el agua para tomar.
Para asistencia en español, favor de llamar al telefono (210) 658-9900.

Information about Source Water

The **CITY OF CIBOLO** purchases water from **CRWA Wells Ranch** and **CRWA Lake Dunlap WTP**. **CRWA Wells Ranch** provides purchase ground water from Carrizo and Wilcox Aquifers located in Guadalupe and Gonzalez County. **CRWA Lake Dunlap WTP** provides purchase surface water from Guadalupe River located in Guadalupe County. For those in the Cibolo Crossing development and Mesa at Turning Stone Units 6 and 7, their drinking water is purchased from the City of Schertz. The City of Schertz drinking water is obtained from two ground water sources: The Schertz Seguin Well Field water comes from the CARRIZO-WILCOX Aquifer and the Naco Well 1 & 2 water comes from the EDWARDS Aquifer. The Naco Wells are only used when water supply from the Schertz Seguin Well is limited.

Definitions and Abbreviations

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Action Level:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system follows.
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 a margin of safety.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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.
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 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)
mrem:	millirems per year (a measure of radiation absorbed by the body)
NA:	not applicable.
NTU	nephelometric turbidity units (a measure of turbidity)
ND	Non-detects – laboratory analysis indicates that the constituent is not present.
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)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

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>.

'TCEQ completed a Source Water Susceptibility for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system contact **CRWA 210-609-0092.**'

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/31/2016	1.3	1.3	0.33	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/31/2016	0	15	4.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2018	12	6.2 - 18.1	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	47	14.7 - 65.4	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 Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2018	1	1.17 - 1.17	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual

' A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).'

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2018	1.15	.23 – 2.09	4	4	mg/L	N	Water additive used to control microbes.

Violations

Chlorine

Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Violation Type	Violation Begin	Violation End	Violation Explanation
Disinfectant Level Quarterly Operating Report (DLQOR).	04/01/2018	06/30/2018	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.

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 ADEQUACY/AVAILABILITY/CONTENT	07/01/2018	01/30/2019	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.

TX0940096 CRWA WELLS RANCH WTP

Microbiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Coliform Bacteria	2018	Present	Absent or Present	0	MCL: (systems that collect 40 or more samples per month) 5% of monthly samples are positive. (Systems that collect <40 samples/month- 1 positive monthly sample.	N/A	N	Naturally present in the environment.
Fecal coliform and <i>E.coli</i>	2018	Absent	Absent or Present	0	0	N/A	N	Human and animal fecal waste

TOC	2018	0	N/A	N/A	TT	Mg/L	N	Naturally present in the environment.
Turbidity	2018	N/A	N/A	N/A	TT	NTU	N	Soil runoff, Bacteria, organic material, suspended particles
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/Photon emitters	2018	5.5	0-50	0	50	pCi/L	N	Decay of natural and man-made deposits
Alpha emitters	2018	<3.0	0-15	0	No MCL	pCi/L	N	Erosion of natural deposits
Combined radium (-226 & 228)	2018	<1.0	0-5	0	5	pCi/L	N	Erosion of natural deposits
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2016	0	0-6	6	6	Ppb	N	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder
Arsenic	2016	0	0-10	N/A	10	Ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Asbestos	2018	<0.197	0-7	7	7	MFL	N	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2016	0.103	0-2	2	2	Mg/L	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Beryllium	2016	0	0-4	4	4	Ppb	N	Discharge from metal refineries and coal burning factories; discharge from electrical aerospace and defense industries
Cadmium	2016	0	0-5	5	5	Ppb	N	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	2016	0	0-100	100	100	Ppb	N	Discharge from steel and pulp mills; erosion of natural deposits
Copper	2016	0.0033	0-1.3	1.3	AL=1.3	Ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Cyanide	2017	0	0-200	200	200	Ppm	N	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	2016	0	0-4	4	4	Ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	2016	0	0-15	0	AL=15	Ppb	N	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	2016	0	0-2	2	2	Ppb	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	2018	0.1	0-10	10	10	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	2015	0	0-1	1	1	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Selenium	2016	0	0-50	50	50	Ppm	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2016	0	0.5-2	0.5	2	Ppb	N	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Synthetic Organic Contaminants Including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2, 4, -D	2016	0	0-70	70	70	Ppb	N	Runoff from herbicide used on row crops
2, 4, 5-TP (Silvex)	2016	0	0-50	50	50	Ppb	N	Residue of banned herbicide
Acrylamide	2018	0	0-10	0	TT	Ppb	N	Added to water during sewage/wastewater treatment
Alachlor	2016	0	0-2	0	2	Ppb	N	Runoff from herbicide used on row crops
Atrazine	2016	0	0-3	3	3	Ppb	N	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	2016	0	0-200	0	200	Nanograms/L	N	Leaching from linings of water storage tanks and distribution lines
Carbofuran	2016	0	0-40	40	40	Ppb	N	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2016	0	0-2	0	2	Ppb	N	Residue of banned termiticide
Dalapon	2016	0	0-200	200	200	Ppb	N	Runoff from herbicide used on the rights of way
Di(2-ethylhexyl) adipate	2016	0	0-400	400	400	Ppb	N	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	2016	0	0-6	0	6	Ppb	N	Discharge from rubber and chemical factories.

Dinoseb	2016	0	0-7	7	7	Ppb	N	Runoff from herbicide used on soybeans and vegetables
Diquat	N/A	N/A	N/A	20	20	Ppb	N/A	Runoff from herbicide use
Synthetic Organic Contaminants Including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Dioxin[2,3,7,8-TCDD]	N/A	N/A	N/A	0	30	Picograms/L	N/A	Emissions from waste incineration and other combustion; discharge from chemical factories
Dibromochloropropane	2018	0	0-200	0	200	Nanograms/L	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards
Endothall	N/A	N/A	N/A	100	100	Ppb	N/A	Runoff from herbicide use
Endrin	2016	0	0-2	2	2	Ppb	N	Residue of banned insecticide
Epichlorohydrin	N/A	N/A	N/A	0	TT	N/A	N/A	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	2016	0	0-50	0	50	Nanograms/L	N	Discharge from petroleum refineries
Glyphosate	N/A	N/A	N/A	700	700	Ppb	N/A	Runoff from herbicide use
Heptachlor	2016	0	0-400	0	400	Nanograms/L	N	Residue from banned termiticide
Heptachlor epoxide	2016	0	0-200	0	200	Nanograms/L	N	Breakdown of heptachlor
Hexachlorobenzene	2016	0	0-1	0	1	Ppb	N	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	2016	0	0-50	50	50	Ppb	N	Discharge from chemical factories
Lindane	N/A	N/A	N/A	200	200	Nanograms/L	N/A	Runoff/leaching from insecticide used on cattle, lumber, gardens

Methoxychlor	2016	0	0-40	40	40	Ppb	N	Runoff/leaching from insecticides used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	2016	0	0-200	200	200	Ppb	N	Runoff from landfills of waste chemicals
PCBs [Polychlorinated biphenyls]	N/A	N/A	N/A	0	500	Nanograms/L	N/A	Runoff from landfills; discharge of waste chemicals
Pentachlorophe-nol	2016	0	0-1	0	1	Ppb	N	Discharge from wood preserving factories
Picloram	2016	0	0-500	500	500	Ppb	N	Herbicide runoff
Simazine	2016	0	0-4	4	4	Ppb	N	Herbicide runoff
Toxaphene	2016	0	0-3	0	3	Ppb	N	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Benzene	2018	0	0-5	0	5	Ppb	N	Discharge from factories; leaching from gas storage tanks and landfills
Bromate	2016	0	0-10	0	10	Ppb		By-product of drinking water chlorination
Carbon Tetrachloride	2018	0	0-5	0	5	Ppb	N	Discharge from chemical plants and other industrial activities
Chloramines	2016	N/A	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorine	2018	2.27	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorite	2016	0	0.0-1.0	0.8	1.0	Ppm	N	By-product of drinking water chlorination

Chlorine Dioxide	N/A	N/A	0-800	MRDLG = 800	MRDL = 800	Ppb	N	Water additive used to control microbes
Chlorobenzene	2018	0	0-100	100	100	Ppb	N	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	2018	0	0-600	600	600	Ppb	N	Discharge from industrial chemical factories
p-Dichlorobenzene	2018	0	0-75	75	75	Ppb	N	Discharge from industrial chemical factories
1,2-Dichloroethene	2018	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories
1,1-Dichloroethylene	2018	0	0-7	7	7	Ppb	N	Discharge from industrial chemical factories
Cis-1,2-Dichloroethylene	2018	0	0-70	70	70	Ppb	N	Discharge from industrial chemical factories
Trans-1,2-Dichloroethylene	2018	0	0-100	100	100	Ppb	N	Discharge from industrial chemical factories
Dichloromethane	2018	0	0-5	0	5	Ppb	N	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	2018	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories
Ethylbenzene	2018	0	0-700	700	700	Ppb	N	Discharge from petroleum refineries
Haloacetic Acids (HAA)	2018	11	0-60	N/A	60	Ppb	N	By-product of disinfection
Styrene	2018	0	0-100	100	100	Ppb	N	Discharge from rubber and plastic factories; leaching from landfills

Tetrachloroethylene	2018	0	0-5	0	5	Ppb	N	Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	2018	0	0-70	70	70	Ppb	N	Discharge from textile-finishing factories
1,1,1-Trichloroethane	2018	0	0-200	200	200	Ppb	N	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	2018	0	0-5	3	5	Ppb	N	Discharge from industrial chemical factories
Trichloroethylene	2018	0	0-5	0	5	Ppb	N	Discharge from metal degreasing sites and other factories
TTHM [Total trihalomethanes]	2018	27.0	0-100	0	100/80	Ppb	N	By-product of drinking water chlorination
Toluene	2018	0	0-1	1	1	Ppm	N	Discharge from petroleum factories
Vinyl Chloride	2018	0	0-2	0	2	Ppb	N	Leaching from PVC piping; discharge from plastics factories
Xylenes	2018	0	0-10	10	10	Ppm	N	Discharge from petroleum factories; discharge from chemical factories

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

Violations Table

Canyon Regional Water Authority Wells Ranch Water Treatment Plant did not receive violations for the year 2018.			
Violation Type	Violation Begin	Violation End	Violation Explanation
N/A	2018	2018	N/A

TX0940091 CRWA LAKE DUNLAP WTP

Microbiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Coliform Bacteria	2018	Present	Absent or Present	0	MCL: (systems that collect 40 or more samples per month) 5% of monthly samples are positive. (Systems that collect <40 samples/month- 1 positive monthly sample.	N/A	N	Naturally present in the environment.
Fecal coliform and <i>E.coli</i>	2018	Absent	Absent	0	0	N/A	N	Human and animal fecal waste
TOC	2018	2.89	0 – 4.38	N/A	TT	Mg/L	N	Naturally present in the environment.
Turbidity	2018	.88	0 – 0.88	N/A	TT	NTU	N	Soil runoff, Bacteria, organic material, suspended particles
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/Photon emitters	2017	ND	0-4	0	4	pCi/L	N	Decay of natural and man-made deposits
Alpha emitters	2017	ND	0-15	0	15	pCi/L	N	Erosion of natural deposits

Combined radium (-226 & 228)	2017	ND	0-5	0	5	pCi/L	N	Erosion of natural deposits
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2018	ND	0-6	6	6	Ppb	N	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder
Arsenic	2018	ND	0-10	N/A	10	Ppb	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Asbestos	2013	ND	0-7	7	7	MFL	N	Decay of asbestos cement water mains; erosion of natural deposits
Barium	2018	0.0475	0-2	2	2	Ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium	2018	ND	0-4	4	4	Ppb	N	Discharge from metal refineries and coal burning factories; discharge from electrical aerospace and defense industries
Cadmium	2018	ND	0-5	5	5	Ppb	N	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	2018	ND	0-100	100	100	Ppb	N	Discharge from steel and pulp mills; erosion of natural deposits
Copper	2017	0.0565	0-1.3	1.3	AL=1.3	Ppm	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Cyanide	2018	ND	0-200	200	200	Ppm	N	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	2018	0.23	0-4	4	4	Ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	2017	ND	0-15	0	AL=15	Ppb	N	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	2018	ND	0-2	2	2	Ppb	N	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	2018	2.01	0-10	10	10	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	2013	ND	0-1	1	1	Ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2018	ND	0-50	50	50	Ppm	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2018	ND	0.5-2	0.5	2	Ppb	N	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Synthetic Organic Contaminants Including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
2, 4, -D	2016	0	0-70	70	70	Ppb	N	Runoff from herbicide used on row crops
2, 4, 5-TP (Silvex)	2016	0	0-50	50	50	Ppb	N	Residue of banned herbicide

Acrylamide	2018	0	0-10	0	TT	Ppb	N	Added to water during sewage/wastewater treatment
Alachlor	2018	0	0-2	0	2	Ppb	N	Runoff from herbicide used on row crops
Atrazine	2018	0	0-3	3	3	Ppb	N	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	2018	0	0-200	0	200	Nanograms/L	N	Leaching from linings of water storage tanks and distribution lines
Carbofuran	2016	0	0-40	40	40	Ppb	N	Leaching of soil fumigant used on rice and alfalfa
Chlordane	2018	0	0-2	0	2	Ppb	N	Residue of banned termiticide
Dalapon	2018	0	0-200	200	200	Ppb	N	Runoff from herbicide used on the rights of way
Di(2-ethylhexyl) adipate	2018	0	0-400	400	400	Ppb	N	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	2018	0	0-6	0	6	Ppb	N	Discharge from rubber and chemical factories.
Dinoseb	2016	0	0-7	7	7	Ppb	N	Runoff from herbicide used on soybeans and vegetables
Diquat	N/A	N/A	N/A	20	20	Ppb	N/A	Runoff from herbicide use
Synthetic Organic Contaminants Including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Dioxin[2,3,7,8-TCDD]	N/A	N/A	N/A	0	30	Picograms/L	N/A	Emissions from waste incineration and other combustion; discharge from chemical factories
Dibromochloropropane	2018	0	0-200	0	200	Nanograms/L	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards

Endothall	N/A	N/A	N/A	100	100	Ppb	N/A	Runoff from herbicide use
Endrin	2018	0	0-2	2	2	Ppb	N	Residue of banned insecticide
Epichlorohydrin	N/A	N/A	N/A	0	TT	N/A	N/A	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	2016	0	0-50	0	50	Nanograms/L	N	Discharge from petroleum refineries
Glyphosate	N/A	N/A	N/A	700	700	Ppb	N/A	Runoff from herbicide use
Heptachlor	2018	0	0-400	0	400	Nanograms/L	N	Residue from banned termiticide
Heptachlor epoxide	2018	0	0-200	0	200	Nanograms/L	N	Breakdown of heptachlor
Hexachlorobenzene	2018	0	0-1	0	1	Ppb	N	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	2018	0	0-50	50	50	Ppb	N	Discharge from chemical factories
Lindane	N/A	N/A	N/A	200	200	Nanograms/L	N/A	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	2018	0	0-40	40	40	Ppb	N	Runoff/leaching from insecticides used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	2016	0	0-200	200	200	Ppb	N	Runoff from landfills of waste chemicals
PCBs [Polychlorinated biphenyls]	N/A	N/A	N/A	0	500	Nanograms/L	N/A	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	2016	0	0-1	0	1	Ppb	N	Discharge from wood preserving factories
Picloram	2016	0	0-500	500	500	Ppb	N	Herbicide runoff
Simazine	2018	0	0-4	4	4	Ppb	N	Herbicide runoff
Toxaphene	2018	0	0-3	0	3	Ppb	N	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Benzene	2018	0	0-5	0	5	Ppb	N	Discharge from factories; leaching from gas storage tanks and landfills
Bromate	2018	8.74	0- 35.1	0	10	Ppb		By-product of drinking water chlorination
Carbon Tetrachloride	2018	0	0-5	0	5	Ppb	N	Discharge from chemical plants and other industrial activities
Chloramines	2017	N/A	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorine	2018	4	0-4	MRDLG = 4	MRDL = 4	Ppm	N	Water additive used to control microbes
Chlorite	2018	0.867	0.0-1.0	0.8	1.0	Ppm	N	By-product of drinking water chlorination
Chlorine Dioxide	2018	0.1	0.0-5.0	MRDLG = 800	MRDL = 800	Ppb	N	Water additive used to control microbes
Chlorobenzene	2018	0	0-100	100	100	Ppb	N	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	2018	0	0-600	600	600	Ppb	N	Discharge from industrial chemical factories
p-Dichlorobenzene	2018	0	0-75	75	75	Ppb	N	Discharge from industrial chemical factories
1,2-Dichloroethene	2018	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories

1,1-Dichloroethylene	2018	0	0-7	7	7	Ppb	N	Discharge from industrial chemical factories
Cis-1,2-Dichloroethylene	2018	0	0-70	70	70	Ppb	N	Discharge from industrial chemical factories
Trans-1,2-Dichloroethylene	2018	0	0-100	100	100	Ppb	N	Discharge from industrial chemical factories
Dichloromethane	2018	0	0-5	0	5	Ppb	N	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	2018	0	0-5	0	5	Ppb	N	Discharge from industrial chemical factories
Ethylbenzene	2018	0	0-700	700	700	Ppb	N	Discharge from petroleum refineries
Haloacetic Acids (HAA)	2018	38	0-60	N/A	60	Ppb	N	By-product of disinfection
Styrene	2018	0	0-100	100	100	Ppb	N	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	2018	0	0-5	0	5	Ppb	N	Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4-Trichlorobenzene	2018	0	0-70	70	70	Ppb	N	Discharge from textile-finishing factories
1,1,1-Trichloroethane	2018	0	0-200	200	200	Ppb	N	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	2018	0	0-5	3	5	Ppb	N	Discharge from industrial chemical factories
Trichloroethylene	2018	0	0-5	0	5	Ppb	N	Discharge from metal degreasing sites and other factories

TTTHM [Total trihalomethanes]	2018	95.7	0-100	0	100/80	Ppb	Y	By-product of drinking water chlorination
Toluene	2018	0	0-1	1	1	Ppm	N	Discharge from petroleum factories
Vinyl Chloride	2018	0	0-2	0	2	Ppb	N	Leaching from PVC piping; discharge from plastics factories
Xylenes	2018	0	0-10	10	10	Ppm	N	Discharge from petroleum factories; discharge from chemical factories

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

Violations Table

Canyon Regional Water Authority Lake Dunlap Water Treatment Plant did receive a violation for the year 2018.			
Violation Type	Violation Begin	Violation End	Violation Explanation
TTTHM [Total trihalomethanes]	2018	2018	Exceeded the TTTHM level.

Inorganic Contaminants

Collection Date	Contaminant	Violation	Level Found	MCL	MCLG	Unit of Measure	Source of Contaminant
2017	Barium	No	0.1	2	2	ppm	Discharge of drilling wasters; discharge from metal refineries; erosion of natural deposits.
2017	Fluoride	No	0.13	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2018	Nitrate	No	0.1	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
2011	Combined Radium 226 & 228	No	1	5	0	pCi/L	Erosion of natural deposits.
2017	Beta/Photon Emitters	No	6.7	4	0	pCi/L	Decay of natural and man-made deposits

Nitrate Advisory- Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Organic Contaminants TESTING WAIVED, NOT REPORTED, OR NONE DETECTED.**Maximum Residual Disinfectant Level**

Systems must complete and submit disinfection data on the Disinfection Level Quarterly Operating Report (DLQOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

Year Tested	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2017	Chlorine	1.69	1.11	2.1	4.0	4.0	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

Year	Contaminant	Average Level	Highest Level	Range of Levels	MCL	Unit of Measure	Source of Tested Contaminant
2018	Total Haloacetic Acids	2.0	2.0	0 – 2.9	60	ppb	Byproduct of drinking water disinfection
2018	Total Trihalomethanes	14.0	14.0	5.7 – 25.0	80	ppb	Byproduct of drinking water disinfection

“This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acids in the system for future regulations. The samples are not used for compliance, and have been collected under non-standard conditions. EPA requires the data to be reported here. Please contact your water representative if you have any questions”.

Coliform Bacteria

Total Coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease causing organism; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

*5% of monthly samples are positive-no more than 2 positive samples allowed

=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

Year	Contaminant	Highest Monthly # of Positive Samples	Total Coliform MCL	MCLG	Total # of E.Coli or Fecal Coliform Samples	Unit of Measure	Violation	Source of Contaminant
2018	Total Coliform	2.3	*	0	0	Presence	N	Naturally present in the environment
2018	Fecal Coliform	0	=	0	0	Presence	N	Naturally present in the environment

Fecal coliform bacteria and, in particular, E. coli, are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a health risk for infants, young children, some elderly, and people with severely compromised immune systems.

Turbidity NOT REQUIRED

Unregulated Contaminant Monitoring Rule 2 (UCMR2)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data visit: <http://www.epa.gov/safewater/ucmr/ucmr2/index.html>, or call the Safe Drinking Water Hotline at (800) 426-4791.

Lead and Copper

Year Tested	Contaminant	The 90 th Percentile	# of Sites Exceeding Action Level	Violation	MCLG	Action Level	Unit of Measure	Source of Contaminant
2016	Lead	0	0	No	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits
2016	Copper	0.077	0	No	1.3	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Required 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 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>.”

Carrizo-Wilcox Aquifer Water Data- Taken from Schertz Seguin Local Government Corporation Records (#TX0940094)

Secondary and Other Constituents Not Regulated (No associated adverse health effects)

Year Tested	Constituent	Violation	Highest Level Found	Unit of Measure	MCL (mg/l)	Source of Constituent
2016	Bicarbonate	No	132	mg/l	N/A	Corrosion of carbonate rock such as limestone
2016	Calcium	No	33.3	mg/l	N/A	Abundant naturally occurring element
2016	Chloride	No	31	mg/l	300	Abundant naturally occurring element, used in water purification; byproduct of oil field activity
2016	Hardness as CaCO ₃	No	108	mg/l	N/A	Naturally occurring calcium and
2016	Magnesium	No	6.02	mg/l	N/A	Abundant naturally occurring element
2016	Manganese	No	0.001	mg/l	0.05	Abundant naturally occurring element
2016	Nickel	No	0.0011	ppm	0.1	Erosion on natural deposits
2018	pH	No	7.9	units	>7.0	Measure of corrosivity of water
2016	Sodium	No	31.5	ppm	N/A	Erosion of natural deposits; byproduct of oil field activity
2016	Sulfate	No	35	ppm	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity
2016	Total Alkalinity As CaCO ₃	No	108	ppm	N/A	Naturally occurring soluble mineral
2016	Zinc	No	0.0236	ppm	5.0	Moderately abundant naturally occurring element used in metal industry