

# Department of Public Works Annual Water Quality Report 2019



This report is a snapshot of your water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies.

## Do I Need to Take Special Precautions?

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 care providers. The Environmental Protection Agency (EPA) and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## Water Quality Table

The table below lists all of the drinking water contaminants detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Public Water System #090400047 Sacaton – 2019 Water Quality Table								
Your water comes from 3 ground water sources. Community Districts served are Districts 1, 2 & 3.								
Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfection By-Product:</b>								
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	10	N/A	N/A	2019	No	By-product of drinking water chlorination
<b>Inorganic Contaminants:</b>								
Arsenic Units: ppb	0	10	3.7	2.9	3.7	2017 - 2019	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Fluoride Units: ppm	4	4	1.5	0.53	1.5	2017 - 2019	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [reported as Nitrogen] Units: ppm	10	10	6.4	3.3	6.4	2019	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			180	130	180	2017 - 2019	N/A	Erosion of natural deposits; salt water intrusion
<b>Radiological Contaminants:</b>								
Uranium (combined) Units: ppb	0	30	26	6.8	26	2017 - 2019	No	Erosion of natural deposits
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
<b>Lead and Copper Rule:</b>								
Copper Units: ppm-90 <sup>th</sup> Percentile	1.3	1.3	0.16	0 site over action level		2017	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 <sup>th</sup> Percentile	0	15	0.86	0 site over action level		2017	No	Corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Microbiological Testing:				
We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.				
Sampling Requirements	Sampling Conducted (months)	Total E. coli Positive	Assessment Triggers	Assessments Conducted
7 Samples due monthly	12 out of 12	0	0	0

Unit Description:	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or microgram per liter (ug/L)
positives samples	positive samples/yr.: the number of positive samples taken that year
% positive samples/month	% positive samples/month: % of samples taken monthly that were positive
N/A	N/A: Not Applicable
ND	ND: Not Detected
mrem/yr.	mrem/yr.: Millirem per year
MCLG	MCLG: Maximum Contaminant Level Goal: 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.

## Why Are There Contaminants in My 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 including:

microbial contaminants, such as viruses and bacteria, that 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 stormwater 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 stormwater 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 stormwater runoff, and septic systems; and 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Public Water System #090400692 Wild Horse Pass – 2019 Water Quality Table								
Your water comes from 4 ground water sources. Community Districts served are Wild Horse Pass, Dist. 6 & 7.								
Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfection By-Product:</b>								
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	1.7	1.6	1.7	2019	No	By-product of drinking water chlorination
<b>Inorganic Contaminants:</b>								
Arsenic Units: ppb	0	10	6.4	ND	6.4	2019	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium Units: ppm	2	2	0.077	N/A	N/A	2019	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Cadmium Units: ppb	5	5	0.16	N/A	N/A	2019	No	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories and metal refineries; runoff from waste
Chromium Units: ppb	100	100	8.8	N/A	N/A	2019	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride Units: ppm	4	4	0.61	N/A	N/A	2019	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [reported as Nitrogen] Units: ppm	10	10	1.9	0.99	1.9	2019	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium Units: ppb	50	50	1.4	N/A	N/A	2019	No	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff
Sodium Units: ppm			290	N/A	N/A	2019	N/A	Erosion of natural deposits; salt water intrusion
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
<b>Lead and Copper Rule:</b>								
Copper Units: ppm-90 <sup>th</sup> Percentile	1.3	1.3	0.144	0 site over action level		2017	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 <sup>th</sup> Percentile	0	15	1.132	0 site over action level		2017	No	Corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Microbiological Testing:				
We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.				
Sampling Requirements	Sampling Conducted (months)	Total E. coli Positive	Assessment Triggers	Assessments Conducted
25 Samples due monthly	12 out of 12	0	0	0

Unit Description:	
Term	Definition
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, Triggers treatment or other requirements which a water system must follow.

Public Water System #090400691 Aerodyne – 2019 Water Quality Table								
Your water comes from 1 ground water source which served the Aerodyne Subdivision.								
The ground water source is from Public Water System #090400345 (Lone Butte Industrial Park).								
Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfection By-Product:</b>								
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	1.9	N/A	N/A	2017	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	4.5	N/A	N/A	2017	No	By-product of drinking water chlorination
<b>Inorganic Contaminants:</b>								
Arsenic Units: ppb	0	10	5.9	N/A	N/A	2019	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium Units: ppm	2	2	0.11	N/A	N/A	2019	No	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium Units: ppb	100	100	9	N/A	N/A	2019	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Nitrate [reported as Nitrogen] Units: ppm	10	10	3.8	N/A	N/A	2019	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium Units: ppb	50	50	3.1	N/A	N/A	2019	No	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff
Sodium Units: ppm			190	N/A	N/A	2019	190	Erosion of natural deposits; salt water intrusion
<b>Radiological Contaminants:</b>								
Combined Radium 226/228 Units: pCi/L	0	5	0.7	N/A	N/A	2018	No	Erosion of natural deposits
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
<b>Lead and Copper Rule:</b>								
Copper Units: ppm-90 <sup>th</sup> Percentile	1.3	1.3	0.102	0 site over action level		2017	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Microbiological Testing:				
We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.				
Sampling Requirements	Sampling Conducted (months)	Total E. coli Positive	Assessment Triggers	Assessments Conducted
1 Sample due monthly	12 out of 12	0	0	0

Public Water System #090400092 Casa Blanca – 2019 Water Quality Table								
Your water comes from 2 ground water sources. Community Districts served are Districts 5.								
Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfection By-Product:</b>								
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	2.6	N/A	N/A	2019	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	12	N/A	N/A	2019	No	By-product of drinking water chlorination
<b>Inorganic Contaminants:</b>								
Arsenic Units: ppb	0	10	6	5.8	6	2017	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Fluoride Units: ppm	4	4	1.2	0.83	1.2	2017	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [reported as Nitrogen] Units: ppm	10	10	8.6	1.2	8.6	2019	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			180	140	180	2017	N/A	Erosion of natural deposits; salt water intrusion
<b>Radiological Contaminants:</b>								
Uranium (combined) Units: ppb	0	30	11.9	7.897	11.92	2017	No	Erosion of natural deposits
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
<b>Lead and Copper Rule:</b>								
Copper Units: ppm-90 <sup>th</sup> Percentile	1.3	1.3	0.188	0 site over action level		2017	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Microbiological Testing:				
We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.				
Sampling Requirements	Sampling Conducted (months)	Total E. coli Positive	Assessment Triggers	Assessments Conducted
3 Samples due monthly	12 out of 12	0	0	0

Public Water System #090400096 Stotonic – 2019 Water Quality Table								
Your water comes from 2 ground water sources. Community District served is District 4.								
The two ground water sources are from Public Water System #090400047 & #090400092.								
Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfection By-Product:</b>								
Five Haloacetic Acids (HAA5) Units: ppb	N/A	60	2.6	N/A	N/A	2019	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	53	N/A	N/A	2019	No	By-product of drinking water chlorination
<b>Inorganic Contaminants:</b>								
Arsenic Units: ppb	0	10	6	2.9	6	2017 - 2019	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Fluoride Units: ppm	4	4	1.5	0.53	1.5	2017 - 2019	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [reported as Nitrogen] Units: ppm	10	10	8.6	1.2	8.6	2019	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			180	130	180	2017 - 2019	N/A	Erosion of natural deposits; salt water intrusion
<b>Radiological Contaminants:</b>								
Uranium (combined) Units: ppb	0	30	26	6.8	26	2017 - 2019	No	Erosion of natural deposits
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
<b>Lead and Copper Rule:</b>								
Copper Units: ppm-90 <sup>th</sup> Percentile	1.3	1.3	0.36	0 site over action level		2017	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 <sup>th</sup> Percentile	0	15	1.1	0 site over action level		2017	No	Corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

Microbiological Testing:				
We are required to test your water regularly for signs of microbial contamination. Positive test results could lead to follow-up investigations called assessments and potentially the issuance of public health advisories. Assessments could lead to required corrective actions. The information below summarizes the results of those tests.				
Sampling Requirements	Sampling Conducted (months)	Total E. coli Positive	Assessment Triggers	Assessments Conducted
3 Samples due monthly	12 out of 12	0	0	0

#### Significant Deficiencies

Sanitary deficiencies are defects in a water system's infrastructure, design, operation, maintenance, or management that cause, or may cause interruptions to the "multiple barrier" protection system and adversely affect the system's ability to produce safe and reliable drinking water in adequate quantities.

The following is a listing of significant deficiencies that have yet to be corrected. Your public water system is still working to correct these deficiencies and interim milestones are shown, as applicable.

#### Deficiency Title: Cross-Connection Control Program (CCCP)

Date Identified: 3/6/2019 Overall Due Date: 12/31/2020

Deficiency Description: When drinking water piping connects to various plumbing fixtures, contamination may occur if the connections are improperly protected. For example, when a backflow event occurs, it may allow contaminants to reverse flow from the fixture/equipment back into the drinking water piping. Your water system has several service connections that could be considered high risk in terms of backflow. These connections are separated from the water system by backflow prevention assemblies. However, the assemblies are not reliable unless tested annually and, when necessary, repaired. To provide an additional level of sanitary protection for your water system, a formal written program should be developed and implemented.

Corrective Action Plan: Cross-connections and backflow into the distribution system present a significant threat to the public's health. We are in the process of developing and implementing the cross-connection control program to protect public water systems from the hazards originating on the premises of our customers & from temporary connections that may impair or alter the water in the public water system. The program will include annual inspection and testing of all backflow prevention assemblies by facilities owner.

#### Special Education Statements:

##### Additional Information for Arsenic

While your drinking water meets the EPA standard for arsenic, it does contain low levels of arsenic. The EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

##### Additional Information for Nitrate

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 for advice from your health care provider.

##### Additional 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. PWS system 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 at 1-800-426-4791 or at <http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>.

#### How Can I Get Involved?

Please feel free to contact the number provided below for more information or for a translated copy of the report if you need it in another language.

\* Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. \*

#### For more information please contact:

Department of Public Works, Chris Huang, Water/Wastewater Operations Manager  
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Phone: (520) 796-4532 Fax: (520) 796-4539