



Department of Public Works Annual Water Quality Report 2016



Gila River Indian Community

2016



Is My Water Safe?

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 provider. 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).

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 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; 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.



Water Quality Table

The tables in the report list 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.

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. **For more information please contact:** Department of Public Works, Chris Huang, Acting Water/Wastewater Plant O&M Supervisor, PO Box G, Sacaton, Arizona 85147 - Phone: (520) 796-4532 Fax: (520) 796-4539.

Public Water System #090400047 Sacaton – 2016 Water Quality Table
Your water comes from 4 ground water sources. Community Districts served are Districts 1, 2 & 3.

Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Product:								
Five Haloacetic Acids (TTHMs) Units: ppb	N/A	60	2	N/A	N/A	2016	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	9.5	N/A	N/A	2016	No	By-product of drinking water chlorination
Inorganic Contaminants:								
Arsenic Units: ppb	0	10	4	N/A	4	2014-2016	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium Units: ppm	2	2	0.061	N/A	N/A	2013	No	Discharge of oil drilling wastes and from metal refineries; erosion of nature deposits
Chromium Units: ppb	100	100	3.4	N/A	N/A	2013	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride Units: ppm	4	4	1.4	0.55	1.4	2014-2016	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	7.2	3.5	7.2	2016	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			200	140	200	2014-2016	N/A	Erosion of natural deposits; salt water intrusion
Radiological Contaminants:								
Uranium (combined) Units: ppb	0	30	18.6	N/A	N/A	2015	No	Erosion of natural deposits
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
Lead and Copper Rule:								
Copper Units: ppm-90 th Percentile	1.3	1.3	0.336	0 site over action level		2014	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 th Percentile	0	15	1.48	0 site over action level		2014	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
6 Samples due monthly	12 out of 12	0	0	0



Public Water System #090400096 Stotonic – 2016 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			
Inorganic Contaminants:								
Arsenic Units: ppb	0	10	6	N/A	6	2014-2016	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium Units: ppm	2	2	0.061	N/A	N/A	2013	No	Discharge of oil drilling wastes and from metal refineries; erosion of nature deposits
Chromium Units: ppb	100	100	3.4	N/A	N/A	2013	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride Units: ppm	4	4	1.4	0.55	1.4	2014-2016	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	8.15	1.2	9.1	2016	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			200	140	200	2014-2016	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
Lead and Copper Rule:								
Copper Units: ppm-90 th Percentile	1.3	1.3	0.342	0 site over action level		2014	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 th Percentile	0	15	1.82	0 site over action level		2014	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
2 Samples due monthly	12 out of 12	0	0	0

Public Water System #090400691 Aerodyne – 2016 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			
Disinfection By-Products:								
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	3.04	N/A	N/A	2016	No	By-product of drinking water chlorination
Inorganic Contaminants:								
Arsenic Units: ppb	0	10	4.6	N/A	N/A	2016	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium Units: ppm	2	2	0.071	N/A	N/A	2016	No	Discharge of oil drilling wastes and from metal refineries; erosion of nature deposits
Chromium Units: ppb	100	100	12	N/A	N/A	2016	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Nitrate [reported as Nitrogen] Units: ppm	10	10	2.4	N/A	N/A	2016	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			170	N/A	N/A	2016	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
Lead and Copper Rule:								
Copper Units: ppm-90 th Percentile	1.3	1.3	0.0912	0 site over action level		2014	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/Bapchule – 2016 Water Quality Table
Your water comes from 2 ground water sources. Community District served is District 5.

Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Product:								
Five Haloacetic Acids (THMs) Units: ppb	N/A	60	1.1	N/A	N/A	2016	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	5	N/A	N/A	2016	No	By-product of drinking water chlorination
Inorganic Contaminants:								
Arsenic Units: ppb	0	10	6	4.8	6	2014	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Fluoride Units: ppm	4	4	1.3	0.94	1.3	2014	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	9.1	1.2	9.1	2016	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			190	160	190	2014	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
Lead and Copper Rule:								
Copper Units: ppm-90 th Percentile	1.3	1.3	0.157	0 site over action level		2014	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 th Percentile	0	15	1.89	0 site over action level		2014	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
2 Samples due monthly	12 out of 12	0	0	0



Public Water System #090400692 Wild Horse Pass – 2016 Water Quality Table
Your water comes from 4 ground water sources. Community Districts served are Wild Horse Pass, Districts 6 and 7.

Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Products:								
Total Trihalomethanes (TTHMs) Units: ppb	N/A	80	2.8	ND	2.8	2016	No	By-product of drinking water chlorination
Inorganic Contaminants:								
Arsenic Units: ppb	0	10	7.6	4.6	7.6	2016	No	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium Units: ppm	2	2	0.046	N/A	N/A	2016	No	Discharge of oil drilling wastes and from metal refineries; erosion of nature deposits
Chromium Units: ppb	100	100	17	N/A	N/A	2016	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride Units: ppm	4	4	0.99	0.51	0.99	2015-2016	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	0.92	0.75	0.92	2016	No	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium Units: ppm			240	130	240	2015-2016	N/A	Erosion of natural deposits; salt water intrusion
Radiological Contaminants:								
Adjusted Alpha (Excl. Radon & U) Units: pCi/L	0	15	3.5	N/A	3.5	2012-2014	No	Erosion of natural deposits
Uranium (combined) Units: ppb	0	30	9	N/A	9	2012-2014	No	Erosion of natural deposits
Contaminants	MCLG	Action Level	Your Water	Number of Sites Over A.L.		Sample Date	A.L. Exceeded	Typical Source
Lead and Copper Rule:								
Copper Units: ppm-90 th Percentile	1.3	1.3	0.167	0 site over action level		2014	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Units: ppb-90 th Percentile	0	15	1	0 site over action level		2014	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

Health Effects Language:
<u>Total Coliform</u> Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
<u>Fecal coliform/E. Coli</u> Fecal coliforms and 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 special health risk for infants, young children, and people with severely-compromised immune systems.
<u>Arsenic</u> Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, may have an increased risk of getting cancer. 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.
Special Education Statements:
<u>Additional Information for Arsenic</u> 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.
<u>Additional Information for Nitrate</u> 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.
<u>Additional Information for Lead</u> 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 .

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
NR	NR: Monitoring not required, but recommended
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.
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.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
mrem/yr	mrem/yr: Millirem per year