



Consumer Confidence Report for Calendar Year 2019

Este informe contiene información muy importante sobre el agua usted bebe.
Tradúscalo ó hable con alguien que lo entienda bien.

Verde Village 6,7,8 & Quail Canyon

Public Water System ID Number		Public Water System Name	
AZ04-13106		Cottonwood Municipal Water VV6	
Contact Name and Title		Phone Number	E-mail Address
Mike Traynor Water Operations Manager		928-634-0186 ext. 3306	mtraynor@cottonwoodaz.gov
<p>We want our valued customers to be informed about their water quality. If you have any questions about the annual drinking water report, or if you would like to learn more about your drinking water system and what you can do to protect your drinking water sources, please contact us at 928-634-0186 or visit www.cottonwoodaz.gov/utilities</p>			

Drinking Water Sources

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source(s):	The City of Cottonwood's water service area for System 13-106 includes all areas in Verde Village 6, 7 and 8 as well as Quail Canyon Units 1 & 2. Within this service area boundary, there are 6 wells and 4 storage tanks (combined total of 320,000 gallons). The City pumps all of its water from the deep regional groundwater aquifer and uses chlorination for disinfection. The six well sites in this system are 7-1 (EPDS003), 7-2 (EPDS004), 8-2 (EPDS006), 6-2 (EPDS002), QC1- (EPDS007), QC2- (EPDS008).
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Drinking Water Contaminants

Microbial Contaminants: Such as viruses, bacteria and parasites occur naturally in the environment and may also occur from the discharge of wastes from sewage treatment plants, septic systems, livestock operations and wildlife

Inorganic Contaminants: Such as salts and metals occur naturally in the environment and may also result from urban stormwater runoff, industrial and domestic waste and wastewater discharges, oil and gas production, mining and farming.

Pesticides and Herbicides: Occur as a result of their use in residential, commercial, industrial and agriculture operations and from urban storm water runoff, which may come from a variety of sources.

Organic Chemical Contaminants: Such as plastics, dyes polishes, solvents, oil, insecticides, varnishes, paints, gasoline byproducts, pharmaceuticals, degreasers, etc., may enter the environment from improper waste disposal, urban stormwater runoff and septic systems.

Radioactive Contaminants: Occur naturally in the environment and may also occur as a result of improper industrial waste disposal, oil and gas production and mining activities.

Vulnerable Population

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. 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.

For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

Source Water Assessment

- **LOW RISK:** Based on the information currently available on the hydrogeology and the land uses adjacent to or within the specified distance of the drinking water source(s) for this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates the measures taken to protect the source water have either already been implemented, or the hydrogeology is such that the measures taken to protect the water source will have little impact on protection.
- Additional source water assessment documentation can be obtained by contacting ADEQ.

Definitions

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present

Level 2 Assessment: 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 was present

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health

Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur

EPDS: Entry Point Into Distribution System- the point at which water is discharged into the distribution system from a well, storage tank, pressure tank or water treatment plant.

DSMRT: Distribution Maximum Residence Time- A location that provides water to customers, where the water has been in the system longest relative to the EPDS.

RAA: Running Annual Average- an average of monitoring results for the previous 12 calendar months or previous 4 quarters.

Minimum Reporting Limit (MRL): The smallest measured concentration of a substance that can be reliably measured by a given analytical method

Millirems per year (MREM): A measure of radiation absorbed by the body

Not Applicable (NA): Sampling was not completed by regulation or was not required

Not Detected (ND or <): Not detectable at reporting limit

Nephelometric Turbidity Units (NTU): A measure of water clarity

Million fibers per liter (MFL)

Picocuries per liter (pCi/L): Measure of the radioactivity in water

ppm: Parts per million or Milligrams per liter (mg/L)

ppb: Parts per billion or Micrograms per liter (µg/L)

ppt: Parts per trillion or Nanograms per liter (ng/L)

ppq: Parts per quadrillion or Picograms per liter (pg/L)

ppm x 1000 = ppb

ppb x 1000 = ppt

ppt x 1000 = ppq

Lead Informational Statement:

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. **Cottonwood Municipal Water** 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. 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 www.epa.gov/safewater/lead.

Water Quality Data – Regulated Contaminants

The City routinely monitors for contaminants in your drinking water in accordance with Federal and State laws. The State of Arizona requires the City to monitor for certain contaminants less than once per year because either the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of City's data, although representative, may be more than one year old. The test results for Total Coliform Bacteria, E.Coli, Synthetic Organic Chemicals (SOC) including Pesticides, Volatile Organic Chemicals (VOC) except xylenes, Radionuclides (combined Radium, Radium-226 and Radium-228), Haloacetic Acids (HAA5), Cadmium, Mercury, Selenium, Nitrite, Antimony, Beryllium, Cyanide, Nickel, Thallium, Chromium and Aroclor (PCB Screening test) were all "**Non-Detect (ND)**" and therefore were not included in this report. . Should you have questions pertaining to this report or on a particular contaminant, please contact Mike Traynor –Water Operations Manager at (928) 634-0186 ext. 3306

These tables show the results of our monitoring for the period of January 1 to December 31, 2019 unless otherwise noted.

Disinfectants	MCL Violation Y or N	Highest Level Detected	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine (ppm)	N	0.72	0.64 - 0.72	4	0	Qtrly 2019	Water additive used to control microbes
Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Total Trihalomethanes (TTHM) (ppb)	N	0.5	0.0- 0.5	80	No goal for the total	Oct. 2019	By-product of drinking water disinfection
Lead & Copper	MCL Violation Y or N	90 th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.23	0	1.3	1.3	8/2018	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	4	0	15	0	8/2018	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Alpha Emitters (pCi/L)	N	5.7	0.0- 5.7 (EPDS003)	15	0	Feb. 2019	Erosion of natural deposits

Inorganic Chemicals (IOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Arsenic ¹ (ppb)	Y ³	11.6	0-27	10	0	Qtrly 2019	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	N	0.61	0.46 -0.61	2	2	Feb. 2019	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	N	0.31	0.30 – 0.31	4	4	Feb. 2019	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate ² (ppm)	N	0.92	0.18 – 0.92	10	10	Feb. 2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	130	11 (EPDS004) 14 (EPDS002) 63 (EPDS006)	N/A	N/A	Feb. 2019	Erosion of natural deposits
Volatile Organic Chemicals (VOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low- High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Xylenes	N	0.0009	0.0 -0.0009	10	10	Feb. 2019	Discharge from petroleum factories; Discharge from chemical factories

¹ **Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water, and continues to research the health effects of low levels of arsenic.

² **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, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

³ **MCL Violation** is for EPDS 006

Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement)

Violation Type- Arsenic	Explanation, Health Effects: <i>Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or problems with their circulatory systems and may have an increased risk of cancer.</i>	Time Period	Corrective Actions
MCL, Average-3rd Qtr. 2019 EPDS 006	EPDS 006 violated a drinking water standard. The quarterly monitoring combined testing results were 14 ppb, which caused the running annual average to exceed 10 ppb, the calculated average was 11 ppb.	July 2019-September 2019	Customers in the affected area were sent a Public Notice on July 30, 2019. In response to the violation for EPDS 006 staff shut off the well and fed the area by another well site until further investigation could be conducted. Staff inspected the of the treatment vessels and removed a portion of the resin media per the manufacturer's recommendation. During the inspection it was noted the well pump was damaged and required replacement. This was completed in the last week of July 2019.

MCL, Average-4th Qtr. 2019 EPDS 006	EPDS 006 violated a drinking water standard. The quarterly monitoring result was 5.1 ppb, which is well below the standard. The running annual average of the samples collected in the 4 quarters of 2019 however was 11 ppb which is above the 10 ppb standard.	October 2019-December 2019	Customers in the affected areas were sent a Public Notice on November 26, 2019. In response to the violation for EPDS 006 in the 3 rd Qtr. of 2019 staff shut the well off in order to investigate the cause of the previous exceedances. In the 4 th Qtr. 2019, after working closely with the manufacturer to identify and implement solutions, staff was able to put the well back in-service.
Violation Type- Trihalomethanes	Explanation, Health Effects	Time Period	Corrective Actions
Monitoring, Routine (DBP)	This violation is for failing to collect an annual monitoring sample within the required time period for Disinfection by Products (DBP) consisting of total haloacetic acids (HAA5) and total trihalomethanes (TTHMs). The results of the two samples collected late at locations 01-A and 02-A were as follows: Sample Location 01-A was non-detect for both HAA5 and TTHMs. Sample location 02-A was non-detect for HAA5 and the total trihalomethanes result was 0.05 ppb which is well below the MCL of 80 ppb. There were no health effects.	1/1/2019 – 12/31-2019	The two samples for this monitoring site were collected 1 day later than the required monitoring period Due to a laboratory error, which prevented us from collecting the samples by Sept. 30, 2019. The samples were collected on October 1, 2019. No other corrective actions were required.
Please share this information with 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.			