



Consumer Confidence Report for Calendar Year 2021

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

In an effort to ensure our valued customers are informed about the quality of their water, you are being provided a copy of this annual drinking water report for your information. 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 the source of your drinking water, please contact us at 928-634-0186 or visit: www.cottonwoodaz.gov/utilities

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 pick up 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 that limit the quantity of specific contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that provide the same protection for public health.

Our water source(s):	<p>The City of Cottonwood's (City) water service area for System 13-106 includes all areas in Verde Villages 6, 7 and 8 as well as Quail Canyon Units 1 & 2. Within this service area boundary, there are 6 wells and 4 water storage tanks with a combined total capacity of 320,000 gallons. The City pumps all of its water from the deep regional groundwater aquifer and uses chlorination for disinfection.</p> <p>The six wells in this system and their associated Entry Point to the Distribution System (EPDS) identification number are: Well 7-1 (EPDS003), Well 7-2 (EPDS004), Well 8-2 (EPDS006), Well 6-2 (EPDS002), Well Quail Canyon 1- (EPDS007) and Well Quail Canyon 2- (EPDS008).</p>
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Drinking Water Contaminants

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

Inorganic Contaminants: Such as salts and metals occur naturally in the environment and may also result from stormwater runoff, industrial and domestic 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 may be transported by urban stormwater runoff.

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 extremely low levels of some contaminants. The presence of any contaminants at the levels of concentration that may be present 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 from their health care providers about the sources and types of drinking water that may be acceptable.

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 currently available information related to the hydrogeology of the well sites within this public water system and the land use practices adjacent to or within a specified distance of the drinking water source(s), 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 that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures 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/1000 = ppb
ppb/1000 = ppt

ppt/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 water has been sitting for several hours in your pipes, 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- System AZ0413-106

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 these types of contamination. Some of the 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, Lead, Thallium, Chromium and Aroclor (PCB Screening test) were all “Non-Detect (ND)” and therefore were not included in this report. If 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, 2021 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	0.66	0.64 - 0.66	4	0	Qtrly 2021	Water additive used to control microbes
Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) <u>OR</u> Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Total Trihalomethanes (TTHM) (ppb)	N	2.7	0 – 2.7	80	No goal for the total	Aug. 2021	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	0.20	0	1.3	1.3	Sept. 2020	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) <u>OR</u> 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) <u>OR</u> Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Arsenic ¹ (ppb)	N	7.3	0 – 7.3	10	0	Qtrly 2021	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	0.60	0.18 – 0.60	10	10	June 2021	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.

Water Supply Change

Well 8-2 EPDS 006 was taken out of service in March 2020 and remained out of service until May of 2021, when a new arsenic treatment unit was installed. Drinking water to the customers in this service area, during the time Well 8-2 was out of service, was supplied by Water System AZ0413-025 Well 8/9 EPDS 008 and as required, the water quality data for System AZ0413-025 is included below:

Water Quality Data – Regulated Contaminants for System AZ0413-025

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 these types of contamination. Some of the City's data, although representative, may be more than one-year old. The test results for Total Coliform Bacteria, E.Coli, Haloacetic Acids (HAA5), Synthetic Organic Chemicals (SOC) including Pesticides, Volatile Organic Chemicals (VOC), Radionuclides except Alpha Emitters, Cadmium, Mercury, Nitrite, Selenium, Antimony, Beryllium, Cyanide, Nickel, Thallium, Lead and Aroclor (PCB Screening test), were all Non-Detect (ND) and therefore were not included in this report. If 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 of System AZ0413-025 for the period of January 1 to December 31, 2021 unless otherwise noted.

Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.85	0.44 – 0.85	4	0	Qtrly 2021	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	1	0 – 1.5	80	N/A	Aug. 2021	Byproduct 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	0.26	1	1.3	1.3	Aug. 2020	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	3 (EPDS005)	0-3	15	0	Nov. 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	11.4	0 - 18	10	0	Qtrly 2021	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	N	0.36	0.052-0.36	2	2	April 2021	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	N	12	5.4 - 12	100	100	April 2021	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	N	0.41	0.26 – 0.44	4	4	April 2021	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate ² (ppm)	N	0.63	0-0.63	10	10	April 2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	47 (EPDS005) 32 (EPDS007) 51 (EPDS008) 120 (EPDS010) 130 (EPDS011)	21-130	N/A	N/A	2021 2021 2021 2021 2020	Erosion of natural deposits

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Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement) AZ0413-106

Violation Type-Arsenic	Explanation, Health Effects:	Time Period	Corrective Actions
Monitoring, Routine Major (DBP)	We failed to report the Chlorine residual at one of the five sampling locations during the month of May 2021 in the service area.	2 nd Qtr. 2021 04/04/2021 to 06/30/2021	Retrained staff on proper sampling procedures and data reporting
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.			

Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement) AZ0413-025

Violation Type-Arsenic	Explanation, Health Effects:	Time Period	Corrective Actions
MCL, Average Arsenic EPDS008	Water samples showed the amount of arsenic in the drinking water was above the 10-ppb running annual average for the period indicated.	1st Qtr. 2021 01/01/2021 to 03/31/2021	Customers in the affected area were sent a Public Notice on April 21, 2021. A new arsenic treatment system for well 8-9 has been budgeted for fiscal year 2022, with completion in July 2022. The city also implemented an enhanced monitoring and testing protocol for this wellsite in an effort to be more proactive and to ensure the protection of its customers.
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.			

TIER 3 PUBLIC NOTICE

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Cottonwood Municipal Water VV6

The City of Cottonwood is required to monitor your drinking water for specific contaminants on a regular basis. The results of regular monitoring are an indicator of whether or not the drinking water meets health standards.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2nd Qtr. 2021 only 4 out of the required 5 samples for chlorine residual was reported. Even though this was not an emergency you have the right, as our customer, to know what happened and what we did to correct this situation.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant the city did not properly test for; the required sampling frequency, the number of samples actually taken, the month/quarter the samples should have been taken, and when the samples were taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
Chlorine Residual	5 samples per month every quarter	4	Only 4 of the 5 samples were taken in May 2021	Samples were taken in June 2021

What is being done?

The operators that conduct the sampling received a corrective action report and were retrained on the proper sampling procedures and data documentation.

For more information, please contact Tom Whitmer at 928-340-2737 or via email at twhitmer@cottonwoodaz.gov.

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.

This notice is being sent to you by Cottonwood Municipal Water VV6

State Water System ID#: AZ413106

Date distributed: July 1, 2022