Consumer Confidence Report for Calendar Year 2018

Este informe contiene informactión muy importante sobre el aqua 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 Utilities Operations Manager	928-634-0186 ext. 3306	mtraynor@cottonwoodaz.gov

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

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 315,000 gallons). The City pumps all of its water from deep groundwater wells 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).

Drinking Water Contaminants

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 that 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: Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources

Organic Chemical Contaminants: Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants: That can be naturally occurring or be the result of 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 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.
- Further 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

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The State of Arizona requires us to monitor for certain contaminants less than once per year because 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 our data, though representative, may be more than one year old. We did not include the results for Total Coliform Bacteria, E.Coli, Synthetic Organic Chemicals (SOC) including Pesticides, Volatile Organic Chemicals (VOC), Haloacetic Acids (HAA5), Trihalomethanes (TTHM), Cadmium, Mercury, Selenium, Nitrite, Antimony, Beryllium, Cyanide, Nickel, Thallium, Chromium and Aroclor (PCB Screening test) in this report, as the results were **non-detect** (ND). If you have questions on a particular contaminant, please contact Mike Traynor –Utilities 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, 2018 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	0.62	0.58 - 0.62	4	0	Qtrly 2018	Water additive used to control microbes
Lead & Copper	**MCL Violation Y or N**	**90th 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	2.3	1.6-2.3	15	0	3/2016	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	0.4	0-0.4	5	0	3/2016	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]	13	0-53	10	0	Qtrly 2018	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes

Barium (ppm)	N	0.67	0.45 -0.67	2	2	5/2018	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	N	0.32	0.28 – 0.32	4	4	5/2018	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate[2] (ppm)	N	1	0 – 0.82	10	10	5/2018	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	130	12 (EPDS004) 15 (EPDS002) 130 (EPDS006)	N/A	N/A	5/2018	Erosion of natural deposits

[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 002

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

Violation Type-Arsenic	**Explanation** **Health Effects:** *Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory systems and may have an increased risk of cancer.*	**Time Period**	**Corrective Actions**
Reporting Failure- 1st Qtr. 2018 EPDS 002, EPDS 004, EPDS 006	Test result reports were sent in after the due date.	Report due April 10, 2018 Report sent in May 4, 2018	Staff revised the reporting schedule and included numerous automated notification to ensure compliance with this reporting requirement.
MCL, Average- 2nd Qtr. 2018 EPDS 002, EPDS 006	EPDS 006 violated a drinking water standard. The quarterly monitoring result was 11 ppb, which caused the running annual average to exceed 10 ppb, the calculated average was 14 ppb. EPDS 002 violated a drinking water standard. The running annual average for the 2nd Qtr. exceeded 10 ppb standard, the calculated average was 11.7 ppb	April 2018 – June 2018	Customers in the affected areas were sent a Public Notice on July 16, 2018 for both EPDS violations. 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 found that the resin bead media for the arsenic treatment system needed replaced. (In November 2018 a public notice for customer in the area was sent explaining the timeline of repairs and what steps the City took to remediate the issues). In response to the violation for EPDS 002 the public notice explains that the calculated running annual average was above 10 ppb standard and staff was investigating the cause of the exceedance.

MCL Average- 3rd Qtr. 2018 EPDS 002	EPDS 002 violated a drinking water standard. The running annual average for the 3rd Qtr. exceeded 10 ppb standard, the calculated average was 11.4 ppb	July 2018 – September 2018	Customers in the affected area were sent a Public Notice on November 1, 2018. The notice explained that although the test results for the quarter were under the 10 ppb standard, the calculated running annual average was still above the limit. The public notices are sent out until the running annual average is reliably and consistently under the 10 ppb standard.
MCL Average- 4th Qtr. 2018 EPDS 002	EPDS 002 violated a drinking water standard. The running annual average for the 4th Qtr. exceeded the 10 ppb standard, the calculated average was 13.26 ppb.	October 2018- December 2018	Customers in the affected area were sent a Public Notice on February 8, 2019. The notice explains the sample result for the quarter was 14 ppb, which caused the running annual average to exceed the 10 ppb standard. In response to the violation staff investigated and determined that the resin bead medias for the arsenic treatment units needed replaced. The media was replaced at the end of January 2019.
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.			