Consumer Confidence Report for Calendar Year 2020

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

City of Cottonwood

Public Water System ID Number	Public Water System Name
AZ04-13025	Cottonwood Municipal Water CW1

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 lakes, ponds, reservoirs, rivers, streams, springs, and wells. As water travels over the surface of the land or through the ground, it can dissolve 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, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The 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 13-025 includes all areas in the City of Cottonwood. Within this service area boundary, there are 8 wells and 5 storage tanks (combined total of 2,150,000 gallons). The City pumps all of its water from the deep regional groundwater aquifer and uses chlorination for disinfection. The eight well sites in this system and their associated Entry Point to the Distribution System (EPDS) identification number are Well Sites 1 and 2 (EPDS010), Well Sites 4 and 7 (EPDS007), Well Site 5 (EPDS005), Well Sites 8 and 9 (EPDS008), and Well Site 12 (EPDS011)

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, agricultural and 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 from urban storm water runoff, which may come from a variety of sources

Organic Chemical Contaminants: Such as plastics, dyes, polishes, solvents, oil, varnishes, paints, petroleum byproducts, pharmaceuticals, degreasers, etc., may enter the environment from improper waste disposal, urban storm water runoff, leaking storage tanks, industrial runoff and septic systems.

Radioactive Contaminants: Occur naturally in the environment and may also occur as a result of improper industrial waste disposal 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 the 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 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 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, 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 for the period of January 1 to December 31, 2020 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	0.60	0.47-0.73	4	0	Qtrly 2020	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	5	0-10.3	80	N/A	Aug. 2020	Byproduct of drinking water disinfection
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	0.26	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	1.2-16	10	0	Qtrly 2020	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	N	0.048	0.048-0.048	2	2	Feb 2020	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	N	6.2	6.2-6.2	100	100	Feb. 2020	Discharge from steel and pulp mills; Erosion of natural deposits

Fluoride (ppm) (EPDS011)	N	0.44	0.44-0.44	4	4	Feb. 2020	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate[2] (ppm) (EPDS011)	N	0.53	0-0.53	10	10	Feb. 2020	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	49 (EPDS005) 33 (EPDS007) 49 (EPDS008) 21 (EPDS010) 130 (EPDS011)	21-130	N/A	N/A	2018 2018 2018 2018 2020	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.

Water Quality Table - Unregulated Contaminant Monitoring Rule *EPA uses the Unregulated Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health based standards currently under the Safe Drinking Water Act (SDWA). The UCMR program runs every five years and monitors no more than 30 contaminants each cycle. The inclusion of the data below is required to be reported detected UCMR contaminants for the calendar year tested.*

Indicator Compounds	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL**	**Likely Source of Contamination**
Total Organic Carbon (mg/L)	**Y**	< 1	< 1	1	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer
Bromate (Bromide) (ppb)	**Y**	**100.6**	**76-130**	10	Byproduct of drinking water disinfection using ozone
Brominated Haloacetic Acid Groups	**Detected (Y/N)**	**Average**	**Range of All Samples (Low-High)**	**MRL**	**Likely Source of Contamination**
Haloacetic Acids (HAA5) (ppb)	**Y**	**0.71**	**0-1.42**	60	Byproduct of drinking water disinfection
HAA6Br[1]	**Y**	**0.90**	**0-1.79**	N/A	Byproduct of drinking water disinfection
HAA9[2]	**Y**	**1.18**	**0-2.35**	N/A	Byproduct of drinking water disinfection

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

Violation Type	**Explanation, Health Effects**	**Time Period**	**Corrective Actions**
MCL, Average	Water samples showed the amount of arsenic in the drinking water was above its standard for the period indicated.	4th Qtr. 2020 10/01/2020 to 12/31/2020	Customers in the affected area were sent a Public Notice on February 8, 2021. A new arsenic treatment system for well 8-9 has been budgeted for fiscal year 2022, which begins July 1, 2021. The city is also implementing 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.

[1] HAA6Br = Bromochloroacetic Acid, Bromodichloroacetic Acid, Dibromoacetic Acid, Dibromochloroacetic Acid, Monobromoacetic Acid, and Tribromoacetic Acid.

[2] HAA9 = Bromochloroacetic Acid, Bromodichloroacetic Acid, Chlorodibromoacetic Acid, Dibromoacetic Acid, Dichloroacetic Acid, Monobromoacetic Acid, Monochloroacetic Acid, Tribromoacetic Acid, and Trichloroacetic Acid