

# Consumer Confidence Report

Calendar Year: January 1, 2016 to December 31, 2016 Revision 1

Public Water System (PWS): City of Cottonwood

PWS #: AZ0413-104 (Verde Village 2, 4, 5),

*“ La información contendía en este informe tiene información importante con respecto a la calidad del agua proporcionada por la utilidad municipal del agua de la ciudad de Cottonwood. Si usted quisiera recibir una copia de este informe en español, por favor llame 928-634-0186 para solicitar una copia ”*

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. The language contained in this report is mandated by Arizona Department of Environmental Quality.

## General Information About Drinking Water

All 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 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 of 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.

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. Contaminants that may be present in source water include:

- **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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides that** may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic volatile organic chemicals, which are byproducts 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.

In order to ensure that tap water is safe to drink, the Arizona Department of Environmental Quality prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Where Does My Water Come From?

The City of Cottonwood's water service area for System 13-104 includes all areas in Verde Village 2, 4 and 5. Within this service area boundary, there are 5 wells and 5 storage tanks (combined total of 310,000 gallons). The City pumps all of its water from deep groundwater wells and uses chlorination for disinfection.

Well Site 2-1 ( EPDS001), Well Site 2-2 (EPDS002), Well Site 4-1 ( EPDS003), Well Site 4-2 ( EPDS004), Well Site 5-1- ( EPDS0050).

**Source Water Assessments** on file with the Arizona Department of Environmental Quality are available for public review. If a Source Water Assessment is available, you may obtain a copy of it by contacting the Arizona Source Water Coordinator at (602) 771-4641.

**Source Water Assessment (Low Risk)**

Based on the information currently available on the hydrogeologic settings and the adjacent land uses that are in the specified proximity of the drinking water source (s) of this public water system, the Arizona Department of Environmental Quality (ADEQ) 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.

Please contact Mike Traynor –Utilities Operations Manager (928) 634-0186 ext. 3306 to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

**Terms and Abbreviations:**

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- AL = Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
- DSMRT= Distribution Maximum Residence Time- a location that provides water to customers, where the water has been in the system the longest relative to the EPDS.
- 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.
- MCL = Maximum Contaminant Level - The “Maximum Allowed” is the highest level of a contaminant that is allowed in drinking water.
- MCLG = Maximum Contaminant Level Goal - The “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to health..
- MRDL = Maximum Residual Disinfectant Level.
- MRDLG = Maximum Residual Disinfectant Level Goal.
- ND= Non-Detected contaminant
- PCi/L = Picocuries per liter - picocuries per liter is a 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.
- PPQ = Parts per quadrillion or Picograms per liter.
- RAA= Running Annual Average, an average of monitoring results for the previous 12 calendar months.

ppm x 1000 = ppb
ppb x 1000 = ppt
ppt x 1000 = ppq

**Water Quality Data**

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 Chemical (SOC) including Pesticides, Volatile Organic Chemicals (VOC), Cadmium, Mercury, Selenium, Antimony, Beryllium, Cyanide, Nickel, Haloacetic Acids (HAA5), Total Trihalomethane (TTHM), Combined Radium, 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, 2016 unless otherwise noted.

<i>Disinfectants</i>	<i>Violation Y or N</i>	<i>Running Annual Average (RAA)</i>	<i>Range of All Samples (L-H)</i>	<i>MCL</i>	<i>MCLG</i>	<i>Sample Month &amp; Year</i>	<i>Likely Source of Contamination</i>
<i>Chlorine (ppm)</i>	<i>N</i>	<i>0.49</i>	<i>0.45-0.49</i>	<i>MRDL = 4</i>	<i>MRDLG = 4</i>	<i>Quarterly 2016</i>	<i>Water additive used to control microbes</i>

<b>Lead &amp; Copper</b>	<b>Violation Y or N</b>	<b>90<sup>th</sup> Percentile <u>AND</u> Number of Samples Over the AL</b>	<b>Range of All Samples (L-H)</b>	<b>AL</b>	<b>ALG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
<i>Copper (ppm)</i>	<i>N</i>	<i>90<sup>th</sup> Percentile = 0.196 and 0</i>	<i>0.102 -0.196</i>	<i>AL = 1.3</i>	<i>ALG = 1.3</i>	<i>Sept. 2016</i>	<i>Corrosion of household plumbing systems; erosion of natural deposits</i>
<i>Lead (ppb)</i>	<i>N</i>	<i>90<sup>th</sup> Percentile = 2.4 and 0</i>	<i>ND – 2.6</i>	<i>AL = 15</i>	<i>0</i>	<i>Sept. 2016</i>	<i>Corrosion of household plumbing systems; erosion of natural deposits</i>

<b>Radionuclides</b>	<b>Violation Y or N</b>	<b>Highest Level Detected</b>	<b>Range of All Samples (L-H)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
<i>Gross Alpha including Radon and Uranium (pCi/L)</i>	<i>N</i>	<i>0.8</i>	<i>ND -0.8</i>	<i>15</i>	<i>0</i>	<i>March 2016</i>	<i>Erosion of natural deposits</i>
<b>Inorganic Chemicals (IOC)</b>	<b>Violation Y or N</b>	<b>Highest Level Detected</b>	<b>Range of All Samples (L-H)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
<i>Arsenic(ppb)</i>	<i>N</i>	<i>5.1</i>	<i>ND-5.1</i>	<i>10</i>	<i>0</i>	<i>Qtrly 2016</i>	<i>Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste.</i>
<i>Barium (ppm)</i>	<i>N</i>	<i>0.49</i>	<i>0.49-0.49</i>	<i>2</i>	<i>2</i>	<i>March 2016</i>	<i>Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits</i>
<i>Chromium (ppb)</i>	<i>N</i>	<i>1.4</i>	<i>1.4-1.4</i>	<i>100</i>	<i>100</i>	<i>March 2016</i>	<i>Discharge from steel and pulp mills: erosion of natural deposits</i>
<i>Fluoride (ppm)</i>	<i>N</i>	<i>0.34</i>	<i>0.34-0.34</i>	<i>4</i>	<i>4</i>	<i>March 2016</i>	<i>Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories</i>
<i>Nitrate (ppm)</i>	<i>N</i>	<i>0.81</i>	<i>0.36 – 0.81</i>	<i>10</i>	<i>10</i>	<i>March 2016</i>	<i>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</i>
<i>Thallium (ppb)</i>	<i>Y</i>	<i>6</i>	<i>ND-11</i>	<i>2</i>	<i>0.5</i>	<i>March 2016</i>	<i>Discharge from electronics, glass and Leaching from ore-processing sites; drug factories.</i>

<i>Unregulated Secondary Contaminants*</i>	<i>Violation Y or N</i>	<i>Highest Level Detected</i>	<i>Range of All Samples (L-H)</i>	<i>MCL</i>	<i>MCLG</i>	<i>Sample Month &amp; Year</i>	<i>Likely Source of Contamination</i>
<i>Sodium (ppm)</i>	<i>N/A</i>	<i>42</i>	<i>42-42</i>	<i>N/A</i>	<i>N/A</i>	<i>March 2016</i>	<i>Erosion of natural deposits</i>

\*Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic or aesthetic effects in drinking water. EPA recommends these standards but does not require water systems to comply.

### **Health Effects Information About the Above Tables**

If **arsenic** is less than 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. 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

Infants and young children are typically more vulnerable to **lead** in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA *Safe Drinking Water Hotline* at 1-800-426-4791

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

Some people who drink water-containing **Thallium** in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines or liver.

### **Violations:**

Type/Description	Compliance Period	Corrective Actions taken by the City of Cottonwood
Report Sample Results/Fail Monitor RTCR	12/01/2016 – 12/31/2016	The microbiological samples were taken during the month of December 2016 and all samples were negative. However, the reports were sent to the regulatory agency outside of the required compliance period.
MCL, Average Thallium, Total EPDS 005	10/01/2016 -12/31/2016	The City of Cottonwood was in violation of the MCL of 2 ppb based on a Running Annual Average (RAA) for 4 consecutive quarters. After calculating the RAA the results was 2.75 ppb. Please see the Public Notice attached for further information.
Monitoring, Routine Major Thallium , Total EPDS 005	07/01/2016-09/30/2016	The City of Cottonwood did not complete the required monitoring for Thallium during the 3 <sup>rd</sup> Qtr. of 2016, for EPDS 005. Please see the Public Notice attached for further information.

## TIER 3 PUBLIC NOTICE

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### Monitoring Requirements Not Met for 13-104 (Verde Village 2, 4, and 5) – Well Site 5-1

Our water system violated drinking water standards over the past year. Although this is not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

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 3<sup>rd</sup> Quarter 2016 we did not complete all monitoring or testing at Well Site 5-1 EPDS005 for Thallium and therefore cannot be sure of the quality of our drinking water during that time. Some people who drink water-containing thallium in excess of the MCL over many years could experience hair loss, changes in the blood, or problems with their kidneys, intestines or liver.

#### What should I do?

There is nothing you need to do at this time. You may continue to drink the water.

The table below lists the contaminant(s) we did not properly test for during the last year; how often we are supposed to sample and how many samples we are supposed to take; how many samples we took; when samples should have been taken; and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When sample should have been taken	When sample was taken
Thallium	1 sample every quarter	0	July- September 2016	November 21, 2016

#### What is being done?

Testing results, we received show that our system exceeded the standard or maximum contaminant level (MCL) for Thallium in March 2016. The standard for Thallium is 2 parts per billion (ppb) a sample taken by the State contracted sampler was 11 ppb on 3/09/2016 and a confirmation sample was taken again by the State contractor on 4/6/2016 was non-detectable. Our system was required to sample quarterly until we could obtain results that were, reliability and consistently, less than the MCL with no less than two consecutive quarters of monitoring at the EPDS (Entry Point into the Distribution System). Sampling for thallium continued in 4<sup>th</sup> Qtr. 2016, 1<sup>st</sup> Qtr. 2017 and 2<sup>nd</sup> Qtr. 2017, all subsequent sample results were non-detectable.

For more information, please contact Debbie Breikreutz- Regulatory Compliance, Safety and Education Administrator at 928-340-2750 or 111 N Main Street, Cottonwood AZ 86326

*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 City of Cottonwood VV2  
State Water System ID#: AZ0413-104  
Date distributed: June 2017

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

### **Water System ID 13-104, Well Site 5-1 EPDS005, (Verde Village 2, 4 and 5) had Levels of Thallium above Drinking Water Standards 4<sup>th</sup> Qtr. 2016.**

Our water system violated a drinking water standard in the past year. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results, we received show that our system exceeded the standard or maximum contaminant level (MCL) for Thallium. The standard for Thallium is 2 parts per billion (ppb) a sample taken by the State contracted sampler was 11 ppb on 3/09/2016 a confirmation sample was taken again by the State contractor on 4/6/2016 was non-detectable. Those results are averaged together for a sample result of 5.5 (ppb) which was above the MCL standard for 2<sup>nd</sup> Qtr. 2016. A sample was taken on 11/21/2016 with a non-detect result, when averaged with the previous results was 2.75 (ppb) for the 4<sup>th</sup> Qtr. 2016.

#### **What should I do?**

- There is nothing you need to do. You can continue to drink the water. However, if you have specific health concerns, consult your doctor.

#### **What does this mean?**

This is not an immediate risk. If it had been, you would have been notified immediately. However, some people who drink water-containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

#### **What is being done?**

Our system is required to sample quarterly until we can obtain results that are, reliability and consistently, less than the MCL with no less than two consecutive quarters of monitoring at the EPDS (Entry Point into the Distribution System). Sampling for thallium continued in 4<sup>th</sup> Qtr. 2016, 1<sup>st</sup> Qtr. 2017 and 2<sup>nd</sup> Qtr. 2017, all subsequent sample results were non-detectable and compliance has been achieved.

For more information, please contact:

Regulatory Compliance, Safety and Education Administrator Debbie Breitreutz at (928) 634-0186 ext. 2750.

*Please share this information with all the 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.*

State Water System ID#: AZ0413-104.  
Date distributed: 2016 CCR