Avondale

2017 Annual Drinking Water Quality Report

Este informe contiene informacion muy importante sobre la calidad de su agua potable. Traduscalo o hable con alguien que lo entienda bien.

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.

City of Avondale Public Water System | Number: AZ 04 07088

Avondale is pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. We work closely with the U.S. Environmental Protection (EPA), the Arizona Department of Environmental Quality (ADEQ), the Maricopa County of Environmental Services to ensure we are meeting or surpassing all drinking water standards, and assuring you receive safe, high quality, and reliable drinking water.

Our Water Source(s)

Our water source is the West Salt River Valley Sub-Basin aquifer. The City of Avondale uses a series of wells throughout the city service area to pump water from the aquifer and deliver it to our customers.

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 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 and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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 EPA prescribes regulations limiting 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.

UCMR3 Unregulated Contaminants

Unregulated substances are those for which EPA has not established drinking water standards. Avondale monitors for these substances to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The EPA issues a new list of up to 30 unregulated substances for monitoring every five years. Avondale has tested for these contaminants in 2001, 2003, 2008, and 2013.

In May 2013, the City of Avondale began monitoring for the UCMR 3 contaminants and obtained confirmation samples in 2014. Any unregulated contaminants detected are reported in the following table. There is naturally occurring chromium deposit in several entry points. Water from these sites currently meets the EPA standard for total chromium. If the EPA determines that regulation is warranted for any of the monitored substances, Avondale will take whatever steps are necessary to comply with any new requirements.

Water Quality Data

The EPA and State of Arizona require us to monitor for certain contaminants at various locations throughout the city. Testing is done at six entry points to the distribution system that represent the treated source water. Some of our data, though representative, may be more than one year old. We also perform tests throughout the distribution system at over 90 different locations to ensure the water entering your home or business remains safe and reliable.

These tables show the results of our monitoring for the period of January 1 to December 31, 2017 for PWS 04-07088, unless otherwise noted.

Inorganic Contaminants	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
Arsenic	ppb	10	0	1.2	3.5	2	No	Erosion of natural deposits; runoff from orchards, glass and electronic production wastes
Barium *(2016)*	ppm	2	2	0.03	0.19	0.19	No	Discharge of drilling wastes; from metal refineries; erosion of natural deposits
Chromium *(2016)*	ppb	100	100	N/A	21	21	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride *(2016)*	ppm	4	4	0.12	1.14	1.14	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	ppm	10	10	1.61	7.98	5.11	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite	ppm	1	1	N/D	0	0	No	
Selenium *(2016)*	ppb	50	50	N/D	9	9	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (optional)	ppm	N/A	N/A	84	130	106	No	Erosion of natural deposits
Radionuclides								
Radium 226 & 228 *(2016)*	pCi/L	5	0	N/D	1.2	1.2	No	Erosion of natural deposits

Microbiological Contaminants	Unit	MCL	MCLG			Avg. Detected	Violation	Likely Source of Contamination
Revised Total Coliform Rule (RTCR) 1080 Annual routine samples	N/A	TT	N/A	N/A	N/A	N/A	No	Naturally present in the environment

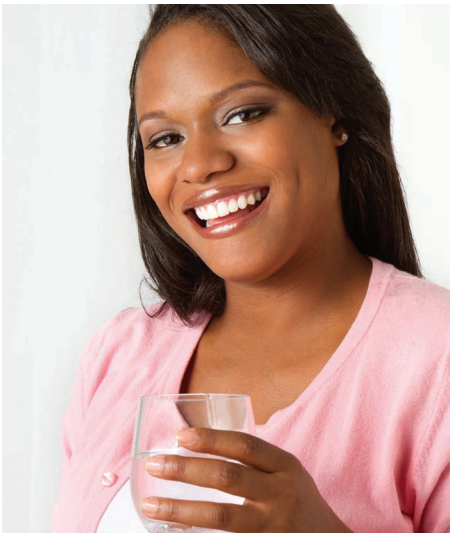
Disinfectants and Disinfection By-Products	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHMs)	ppb	80	N/A	15.5	16.1	15.8	No	By-product of drinking water disinfection
Total Halocetic Acids (HAAs)	ppb	60	N/A	N/A	0	0	No	By-product of drinking water chlorination

Compliance is based on a system wide locational running average, not the highest detected amount.

Chlorine Residual	Units	MRDL	MRDLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
	ppm	4	4	0.10	1.72	1.02	No	Water additive used to control microbes

Lead and Copper Sample 2016	Unit	AL	MCLG	90th Percentile Value	Sites Exceeding Action Level	Likely Source of Contamination
Lead	ppm	.015	0	1.1	0	Corrosion of household plumbing
Copper (30 Samples)	ppm	1.3	1.3	.211	0	Corrosion of household plumbing

Lead and Copper Rule Standard: 90% of homes tested must have lead and copper levels below the action level.



	pH (Field) in S.U.	Temp (Field) in °C	Calcium in mg/L	Magnesium in mg/L	Sodium in mg/L	Sulfate in mg/L	Total Hardness in mg/L	Total Alkalinity in mg/L	Total Dissolved Solids in mg/L
Secondary Standard MCL	6.5-8.5	None	None	None	None	250.0	None	None	500
Annual average	7.12	25.7	88	47.4	106	84.4	414	156	750
Avg Grains per Gallon							24		

Source Water Assessment

The Arizona Department of Environmental Quality (ADEQ) has performed an evaluation of the City of Avondale's sources of water to public water systems in Arizona. This evaluation determines the degree to which the source of water is protected. Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water sources, ADEQ has given a low risk designation for the degree to which this public water system drinking water source is 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.

Source Water Assessments are on file with the Arizona Department of Environmental Quality and available for public review at: ADEQ, 1110 W. Washington Street, Phoenix, AZ 85007 or by calling (602) 771-4641.

Terms & Abbreviations

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

- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL)** - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG)** - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Residual Disinfectant Level (MRDL)** - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** - The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **N/A** = not applicable; **N/D** = not detected
- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in $10,000.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Locational Running Annual Average (LRAA)** - An average of monitoring results for the previous 12 calendar months.

Health Effect Information

About The Water Quality Data Table

Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. 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.

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, you should ask advice from your health care provider.

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Avondale 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. If you are concerned about lead in your water, you may wish to have your water tested. 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 http://www.epa.gov/safewater/lead.

Please contact Jose Peña, Environmental Technician, or David Allred, Water Quality and Compliance Supervisor, at (623) 333-4400, for any questions about the annual drinking water quality report.

Third Unregulated Contaminant Monitoring Rule (UCMR3) Table

Substances	Units	MCL	Lowest Level	Highest Level	Avg.	Major Source in Drinking Water
Chromium (2014)	ppb	100	4.8	5.3	5.1	Naturally occurring element;used in making steeland other alloys; chromium-3 or chromium-6 forms are used for chromeplating, dyes and pigments, leather tanning and wood preservation.
Molybdenum (2014)	ppb	None	1.3	1.3	1.3	Naturally occurring element found in oresand present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical agent
Strontium (2014)	ppb	None	1500	1700	1600	Naturally occurring element;historically, commercial use of strontium has been in the faceplate glass of cathode ray tube televisions to block x ray emissions.
Vanadium (2014)	ppb	None	13	14	13.5	Naturally occurring elemental metal;used as a vanadium pentoxide which is a chemical intermediate and a catalyst
Chlorate (2013)	ppb	None	100	190	152	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.
Chromium-6 (2013)	ppb	None	1.2	11	6	Naturally occurring element; used in making steel and other alloys; used for chromeplating, dyes and pigments, leather tanning and wood preservation.
1,4-Dioxane (2013)	ppb	None	.08	0.33	0.21	A synthetic industrial chemical that is used as a solvent in products such as paints and lacquers, and in processes such as organic chemical manufacturing.

Avondale

Public Works Department
399 E. Lower Buckeye Road
Avondale, AZ 85323
www.AvondaleAZ.gov

INSIDE IS YOUR

2017 Annual Drinking Water Quality Report

Learn More About Water

Arizona Department of Environmental Quality
www.azdeq.gov

Arizona Department of Health Services
www.azdhs.gov

Arizona Department of Water Resources
www.azwater.gov

Centers for Disease Control
www.cdc.gov

Maricopa County Environmental Services Dept.
www.maricopa.gov/envsvc

U.S. EPA Safe Drinking Water Hotline
www.epa.gov/water

Avondale's Partnerships

The City of Avondale actively partners with other agencies and organizations to enhance the range of resources and information available to you.

Water, Use it Wisely

Learn how to make wise water decisions, visit **www.wateruseitwisely.com**.

Water Conservation Education Links & School Programs

For free presentations and conservation tips visit **www.avondaleaz.gov/water**
Visit the Arizona Project WET website longtime partner in water education. Also visit **http://arizonawet.arizona.edu**

Tap into Quality

Learn more about the safety, convenience and affordability of tap water, visit **www.tapintoquality.com**.

Water Sense Partner

To learn about water-efficient products and services visit **www.epa.gov/watersense**.

Get involved! Attend City Council meetings or other public forums. Public meetings notices are posted on the city's web site at **www.AvondaleAZ.gov**

Arizona Municipal Water Users Association (AMWUA)

A voluntary, non-profit corporation established by municipalities in Maricopa County for the development of urban water resources policy. To learn more, visit **www.amwua.org**.

SRP

Salt River Project (SRP) delivers about 800,000 acre-feet of water annually to a 375-square-mile service area using an extensive system of canals, laterals and wells. SRP water is recharged at the City of Avondale recharge basins located at Agua Fria and McDowell Road.
www.srpnet.com/savewater

CAP

Central Arizona Project is a 336-mile system of aqueducts, pumping plants and siphons designed to carry 1.5 million acre-feet of Colorado River water each year from Lake Havasu through Phoenix to south of Tucson. It is managed and maintained by the Central Arizona Water Conservation District.
www.cap-az.com