

# 2015 Water Quality Report

## Apache Junction Water District

PWS ID: AZ04-11-039

The Apache Junction Water District (AJWD) is pleased to present the annual drinking water quality report (Consumer Confidence Report) for calendar year 2015. This report contains important information about the quality of your drinking water.

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

### Why Provide a Water Quality Report?

To ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) prescribes regulations which 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.

Apache Junction Water District proudly produces a water quality report each year, so residents can learn about the health information of our water.

### Where Does AJWD Water Come From?

AJWD supplies well water (groundwater) pumped from the Eastern Salt River Sub-Basin Aquifer which flows southwesterly under Apache Junction and its surrounding areas. The groundwater is treated for arsenic removal where necessary, disinfected with chlorine, pumped into storage tanks and blended with Colorado River water transported through the Central Arizona Project (CAP) canal system and treated at the City of Mesa's Brown Road Treatment Plant before being introduced into the distribution system.

***The water supplied by AJWD meets all State and Federal safe drinking water standards.***

Please contact Frank Blanco, District Director, at (480) 982-6030 to learn more about what you can do to help protect your drinking water sources, with any questions about the annual drinking water quality report, to learn more about our system, or to attend scheduled public meetings. We want our valued customers to be informed about the services we provide and the quality water we deliver to you every day.



### Source Water Assessment

In 2004, the Arizona Department of Environmental Quality (ADEQ) completed a source water assessment (SWA) of our water system to identify potential sources of contaminants to our drinking water. In this assessment, ADEQ reviewed the adjacent land use that may pose a potential risk to our water sources.

Based on the SWA, ADEQ has given AJWD a low risk designation for our source water. A low risk designation indicates that most source water protection measures are either already implemented or the hydrogeological setting is such that it protects the source water. This assessment report provides a one time evaluation of our source water. Further source water assessment documentation can be obtained by contacting ADEQ at (602) 771-4641.

### What Could Be in Sources of Drinking Water?

The sources of drinking water (both tap and bottled water) includes rivers, lakes, streams, ponds, reservoirs, 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 materials, 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**, which may come from a variety of sources, like agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may 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.

## Should I Take Special Precautions for My Health?

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 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 (800) 426-4791.

## Additional Health Information about Nitrate, Arsenic, and Lead

- **Nitrate:** 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.
- **Arsenic:** 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. EPA continues to research the 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.
- **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. AJWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential plumbing components. When your water has been sitting for several hours, you can reduce 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

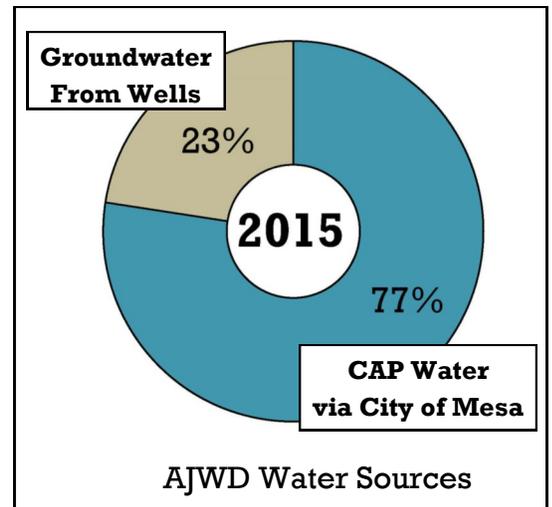


## AJWD Drinking Water Quality

AJWD routinely monitors for contaminants in your drinking water according to State and Federal standards. Samples are tested by a third party Arizona Department of Health Services Certified Laboratory.

### Monitoring (Sampling) Results

The following tables show regulated substances that were required to be tested and were detected in very low levels in AJWD drinking water in 2015. AJWD monitored for many more substances which were not detected. The State of Arizona requires us to monitor certain contaminants less than once a year because concentrations of these contaminants are not expected to vary significantly from year to year or our system is not considered vulnerable to this type of contamination.



### Total Coliform Bacteria

	MCL	MCLG	Highest Monthly #	Highest Monthly %	Sample Year	Violation	Likely Source of Contamination
<b>Apache Junction Water District</b>	< 1 Monthly	0	2*	NA	2015	Yes*	Naturally present in environment
<b>City of Mesa Distribution System</b>	< 5% Monthly	0	3	0.9%	2015	No	Naturally present in environment

#### \* Violation

During the month of March 2015, AJWD experienced a Non-Acute Monthly MCL violation for total coliform. Field staff took 15 routine samples to test for the presence of coliform bacteria. Two of these samples preliminarily showed presence of total coliform bacteria. Confirmation samples were taken and confirmed **no presence of any bacteria was found in subsequent testing.**

Since the standard was that no more than one routine sample result per month may be positive for the presence of total coliforms, we were required to inform our customers through public notice, which was sent out in April 2015.

### Unregulated Contaminant Monitoring Rule Part 3 (UCMR3)

From March 2015 through December 2015, we also monitored for unregulated substances. The Safe Drinking Water Act requires water systems to periodically assess the occurrence of unregulated contaminants in drinking water. A new list of contaminants is issued about every five years. Monitoring is performed at every location where source water enters the distribution system. Some contaminants are also measured at points within the distribution system, where the water is consumed. The EPA uses this occurrence data, along with health effects studies, to determine if regulations are needed.

Substance (Units)	MCL	Entry Point		Distribution System		Sample Year	Likely Source of Contamination
		Range (Low-High)	Avg	Range (Low-High)	Avg		
<b>Chlorate</b> (ppb)	NA	230 - 450	308	250 - 410	331	2015	Disinfection byproduct; Agricultural defoliant or desiccant
<b>Chromium</b> (ppb)	100	ND - 1.8	1.2	.2 - 2	1.4	2015	Erosion of natural deposits; Discharge from steel and pulp mills
<b>Chromium, Hexavalent</b> (ppb)	NA	.04 - 1.9	0.6	.13 - 1.9	1.4	2015	Naturally Occurring; Used in making steel and other alloys
<b>Molybdenum</b> (ppb)	NA	4.3 - 8.2	5.3	4.5 - 6.5	6	2015	Naturally Occurring
<b>Strontium</b> (ppb)	NA	970 - 1500	1096	880 - 1100	968	2015	Naturally Occurring
<b>Vanadium</b> (ppb)	NA	1.9 - 4.1	2.6	2.2 - 3.1	2.9	2015	Naturally Occurring

# Regulated Drinking Water Contaminants

All Following Results Meet Regulatory Standards

Parameter	MCL	MCLG	AJWD Range (Avg)	Sample Year	City of Mesa Range (Avg)	Sample Year	Likely Source in Drinking Water
<b>INORGANIC CHEMICALS</b>							
Arsenic (ppb)	10	0	1.5 - 3.7	2015	ND - 7.3 (4.2)	2015	Erosion of natural deposits; Runoff from orchards
Barium (ppb)	2000	2000	110	2013	2.0 - 118 (12)	2015	Erosion of natural deposits; Discharge of drilling wastes
Chromium, Total (ppb)	100	100	ND—2 (1.3)	2015	ND - 19 (12)	2015	Erosion of natural deposits; Discharge from steel mills
Fluoride (Naturally Occurring) (ppm)	4	4	0.42 - 0.43	2013	0.29 - 1.2 (0.50)	2015	Erosion of natural deposits; Discharge from fertilizer factories
Nitrate (measured as Nitrogen) (ppm)	10	10	0.26 - 0.26	2015	0.24 - 3.8	2015	Runoff from fertilizer use; Leaking from septic tanks
Selenium (ppb)	50	50	3	2013	ND - 2	2015	Erosion of natural deposits; Discharge from mines
<b>ORGANIC CHEMICALS</b>							
Toluene (ppm)	1	1	0 - 0.0006	2015	ND	2015	Discharge from petroleum factories
Xylene (ppm)	10	10	0.0005 - 0.0008	2015	ND	2015	Discharge from chemical factories
<b>RADIONUCLIDES</b>							
Alpha Particles (pCi/L)	15	0	2.4 - 2.4	2014	ND - 4.4 (1.8)	2012	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	ND	2014	ND	2012	Erosion of natural deposits
<b>DISINFECTANTS &amp; DISINFECTANT BYPRODUCTS</b>							
Parameter	MCL	MCLG	Range (Highest Level)	Sample Year	Range (Highest Level)	Sample Year	Likely Source in Drinking Water
Free Chlorine Residual (ppm)	MRDL = 4	MRDLG = 4	0.78-1.14 (0.92)	2015	ND - 2.6 (1.0)	2015	Water additive used to control microbes
Chlorine Dioxide (ppb)	MRDL = 800	MRDLG = 800	NA	2015	<10 - 26 (NA)	2015	Water additive used to control microbes
Chlorite (ppm)	1	0.8	NA	2015	0.08 - 0.6 (0.2)	2015	Byproduct of chlorine dioxide disinfection
Haloacetic Acids (HAA5) (ppb)	LRAA = 60	NA	5.7 - 11.1 (9)	2015	ND - 27 (22)	2015	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs) (ppb)	LRAA = 60	NA	12.8 - 39.9 (30)	2015	1.5 - 98 (75)	2015	Byproduct of drinking water disinfection
<b>LEAD &amp; COPPER</b>							
Parameter	AL	ALG	Range (90th Percentile)	Sample Year	Range (90th Percentile)	Sample Year	Likely Source in Drinking Water
Lead (ppb)	15	0	ND - 8.6 (2.4)	2013	ND - 7.6 (4.2)	2015	Erosion; Corrosion of household plumbing systems
Copper (ppb)	1300	1300	1 - 270 (220)	2013	7.5 - 163 (90)	2015	Erosion; Corrosion of household plumbing systems

## Definitions and Acronyms

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

**Action Level Goal (ALG)**

**Average (Avg)**

**Locational Running Annual Average (LRAA):** Average of sample analytical results samples taken at a specific monitoring location during the previous 4 calendar quarters.

**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.

**Milligrams per Liter (mg/L)**

**Not Applicable (NA):** Sampling was not completed by regulation or was not required.

**Not Detected (ND)**

**Not Required (NR):** Monitoring not required.

**Parts Per Million (ppm)**

**Parts Per Billion (ppb):** ppm x 1000

**Pico Curies per Liter (pCi/L)**