

# ARIZONA WATER COMPANY

– 2021 ANNUAL WATER QUALITY REPORT FOR CASA GRANDE-SOUTH, ARIZONA PWSID NO. 11-061-

This report contains important information about your drinking water.  
*Este informe contiene información importante sobre su agua potable.  
 Tradúzcalo o hable con alguien que lo entienda bien.*

Arizona Water Company provides groundwater to its Casa Grande-South customers from wells located throughout the Casa Grande and Coolidge areas.

All water samples are collected by state-certified employees of Arizona Water Company. Samples are analyzed by state-certified independent laboratories and the results are forwarded to the Arizona Department of Environmental Quality ("ADEQ"). The following report provides detailed information about the quality of the water delivered to customers. The water supplied by Arizona Water Company complies with all state and federal safe drinking water standards and regulations.

## DETECTED WATER QUALITY CONSTITUENTS - GROUNDWATER

<b>Primary Standards</b>							
Water Quality Constituent	Units	MCLG	MCL	Range of Levels Detected	Sample Year	Typical Source of Detected Constituent	
<b>Inorganics</b>							
Antimony	ppb	0	6	ND - 0.9	2014, 2020	Discharge from petroleum refineries, fire retardants; ceramics; electronics, solder	
Arsenic	ppb	0	10	1 - 7.3 Highest Running Annual Average - 6.8	2014, 2021 2021	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	
Barium	ppm	2	2	ND - 0.1	2014, 2020	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Chromium, Total	ppb	100	100	ND - 34	2014, 2020	Discharge from steel and pulp mills; erosion of natural deposits	
Fluoride	ppm	4	4	0.1 - 3.1	2014, 2020	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
Nitrate (as Nitrogen)	ppm	10	10	1 - 8	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Selenium	ppb	50	50	ND - 7	2014, 2020	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	
<b>Radiological</b>							
Alpha Emitters	pCi/L	0	15	ND - 8.1	2014, 2017, 2019, 2020, 2021	Erosion of natural deposits	
Combined Radium	pCi/L	0	5	ND - 0.8	2014, 2017, 2019, 2020, 2021	Erosion of natural deposits	
<b>Disinfectant / Disinfection Byproducts</b>							
Water Quality Constituent	Units	MCLG (MRDLG)	MCL (MRDL)	Average Level Detected	Range of Levels Detected	Sample Year	Typical Source of Detected Constituent
Chlorine Residual*	ppm	(4)	(4)	1.1	1.2 - 1.6	2021	Drinking water disinfection
Total Trihalomethanes*	ppb	NA	80	8	8	2020	Byproduct of drinking water disinfection
<b>Additional Constituents (Unregulated)</b>							
Sodium	ppm	NS	NS	157	27 - 210	2020, 2021	Unknown
<b>Lead and Copper Monitoring</b>							
Water Quality Constituent	Units	MCLG	Action Level	90 <sup>th</sup> Percentile of Sample Results	Number of Samples That Exceeded the Action Level	Sample Year	Typical Source of Detected Constituent
Copper*	ppm	1.3	1.3	0.04	0	2020	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead*	ppb	0	15	2.8	1	2020	Internal corrosion of household water plumbing systems; erosion of natural deposits

*\* Results are from samples taken in Casa Grande-South's distribution system.  
 All other results are from samples taken in Arizona Water Company's Pinal Valley system.*

Your drinking water complies with the United States Environmental Protection Agency's ("USEPA") safe drinking water standard for arsenic, though it contains low levels of arsenic. USEPA's safe drinking water standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA 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.

Note: In addition to the constituents listed in this report, Arizona Water Company conducted monitoring for over 80 additional constituents and the results show none of those constituents were detected in the water. Data presented are from the most recent testing done in accordance with applicable regulations. Some constituents are monitored less frequently than once a year because either their concentrations do not change frequently or they are not likely to be detected. Therefore, some of the water quality testing data contained herein, although representative, may be more than one year old. If you have questions about this water quality report, please contact Regina Lynde, Environmental Compliance Manager, Arizona Water Company, P.O. Box 29006, Phoenix, Arizona 85038-9006; telephone (602) 240-6860 or email mail@azwater.com.

In 2003 and 2004, the ADEQ completed a Source Water Assessment of Arizona Water Company's Pinal Valley water system's water sources, which provide water to Casa Grande - South Water System. ADEQ reviewed the adjacent land uses that may pose a potential risk to the water sources. The result of the Assessment was a low risk to the water sources.

The complete Assessment is available for inspection at ADEQ, 1110 West Washington Street, Phoenix, Arizona 85007, between the hours of 8:00 a.m. and 5:00 p.m. Electronic copies are available from ADEQ at recordscenter@azdeq.gov. For more information visit ADEQ's Source Water Assessment and Protection Unit website at: www.azdeq.gov/node/735.

**The USEPA and ADEQ require Arizona Water Company to provide the following information:**

The quarterly compliance chlorine reports must be submitted to ADEQ by the tenth of the following quarter per the Revised Total Coliform Rule. The Company correctly and timely took the necessary compliance samples. However, the Company submitted the second quarter chlorine reports past the deadline of July 10. The Company submitted the second quarter chlorine reports to ADEQ on August 11. Despite the late submittal, all samples were taken timely, and in compliance with safe drinking water standards.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system has a fluoride level ranging from 0.1 to 3.1 mg/l.

Dental fluorosis in its moderate or severe forms may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the USEPA's drinking water standard) can increase your risk of developing bone disease. Your drinking water **does not contain more than 4 mg/l of fluoride**, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic problem.

Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of constituents does not necessarily indicate that water poses a health risk. More information about constituents and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to constituents 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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial constituents are available from the Safe Drinking Water Hotline (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, radiological material, and can pick up substances resulting from the presence of animals or from human activity.

Constituents that may be present in source water include:

- Microbials, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganics, 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 such as agriculture, urban stormwater runoff, and residential uses.
- Organics, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.
- Radiological material, which 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, USEPA prescribes regulations which limit the amount of certain constituents in water provided by public water systems. FDA regulations establish limits for constituents in bottled water which must provide the same protection for public health.

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. Arizona Water Company 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 USEPA's Safe Drinking Water Hotline or at <http://www.epa.gov/lead>.

**DEFINITIONS, ABBREVIATIONS, AND UNIT DESCRIPTIONS:**

Action Level	=	The concentration of a constituent which, if exceeded, triggers treatment or other requirements which a water system must follow.
CDC	=	United States Centers for Disease Control and Prevention
FDA	=	United States Food and Drug Administration
MCL	=	Maximum Contaminant Level, the highest level of a constituent that is allowed in drinking water. MCLs are set as close to the MCLGs using the best available treatment technology as is economically and technologically feasible.
MCLG	=	Maximum Contaminant Level Goal, the level of a constituent in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL	=	Maximum Residual Disinfection Level, the highest level of a drinking water disinfectant that is allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	=	Maximum Residual Disinfection Level Goal, 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 the disinfectants to control microbial constituents.
NA	=	None adopted
ND	=	None detected
NS	=	No standard
pCi/L	=	Picocuries per liter
ppb	=	Parts per billion, or micrograms per liter (µg/L)
ppm	=	Parts per million, or milligrams per liter (mg/L)
ppt	=	Parts per trillion, or nanograms per liter (ng/L)
PWSID	=	Public Water System Identification