



3901 North Fairview Avenue – Tucson, Arizona 85705
www.fwid.org

The 1996 Safe Drinking Water Act Congress required all public water suppliers across the nation to share, on an annual basis, helpful information with customers about their drinking water.

The District's drinking water is groundwater from the Tucson Basin aquifer. Our eight active wells pump water from 205 feet to 400 feet below the earth's surface. Water from these wells is placed in storage tanks or reservoirs. The water is then pressurized to move underground through pipes to reach your home or business.

We are pleased to report that our drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means. We want our customers to be informed about their water utility. Regularly scheduled board meetings are held the first Tuesday of each month at 4:00pm in the conference room of the District's business office at 3901 N. Fairview Avenue. If you have any questions about this report or concerning your water utility, please contact our business office at (520) 887-4192.

2018 ANNUAL DRINKING WATER REPORT

District staff collects water samples from wells, storage tanks and the distribution system, which is your drinking water supply. Those samples are taken to a state-licensed laboratory for analysis. Test results are reported to the District and the Water Quality Division of the Arizona Department of Environmental Quality. The following table shows the results of our monitoring for the period of January 1, 2017 to December 31, 2017 using the most recent testing data.

The United States Environmental Protection Agency lists both a minimum detection level and a maximum contaminant level, which is the highest level of a contaminant that is allowed in the drinking water. A detection of a contaminant does not mean the same thing as a contaminant level violation, and a water sample can be above the minimum detection level and still be well within federal guidelines for water quality. Many detected contaminants occur naturally in the groundwater itself.

Detected Contaminants Table						
Regulated Contaminant	MCL	Levels detected by the District		MCL Goal	Major Source of Contaminant	Health Effects Language
		High	Low			
<u>Radioactive Contaminants</u> 01/2010 + and 07/2013 +						
Gross Alpha	15 pCi/l	4.4 pCi/l	0.5 pCi/l	0 pCi/l	Erosion of natural deposits.	N/A
<u>Inorganic Compounds</u> 01/2010 + and 07/2013 +						
Arsenic	10 ppb	3.8 ppb	0 ppb	0 ppb	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	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 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
Fluoride	4 ppm	<0.55 ppm	<0.50 ppm	0 ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

		Levels detected by the District				
Regulated Contaminant	MCL	High	Low	MCL Goal	Major Source of Contaminant	Health Effects Language

Inorganic Compounds
01/2017 **

Nitrate	10 ppm	2.84 ppm	0.64 ppm	0 ppm	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	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
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Regulated Contaminant	MCL	High	Low	MCL Goal	Major Source of Contaminant	Health Effects Language
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Volatile Organic Compounds +

Trichloroethylene (TCE)	5 ppm	0.53 ppm	<0.0005 ppm	0 ppm	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with the liver and may have an increased risk of getting cancer.
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+ Compliance reflective of one well only.

** Nitrate samples are taken annually.

		Levels detected by the District			
Disinfection By-Products 2017 Quarterly Sampling	MCL	High	Low	MCL Goal	
Trihalomethanes (TTHMs)	80 ppm	.0055 ppm	.0006 ppm	N/A	By-product of drinking water disinfection.
Haloacetic Acid-5 (HAA5)	60 ppm	0 ppm	0 ppm	N/A	By-product of drinking water disinfection.

The state allows us to monitor for some contaminants less than once per year because the concentrations of the contaminants do not change frequently. Some of our data, though representative, may be more than one year old.

Definitions:

MCL – Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCL Goals as feasible using the best available treatment technology.

MCLG – Maximum Contaminant Level Goal. 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. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level

for a lifetime to have a one-in-a-million chance of having the described health effect.

pCi/l – Picocuries per liter. This is a measure of the radioactivity in water.

ppb – Parts Per Billion. One part per billion is equal to one minute in 2,000 years or a single penny in \$10,000,000.

ppm – Parts Per Million. One step on a 568 mile walk.

As you can see by the table, our system had no violations. The EPA has determined your water IS SAFE at these levels. We're proud that your drinking water meets or exceeds all federal and state requirements.

If a constituent is found to be out of compliance with drinking water standards, the District is required by federal and state regulation to notify customers within the affected area. Notification may be made by a letter or through the media. The District works closely with the Arizona Department of Environmental Quality to ensure water quality.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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 infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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

Lead in Drinking Water

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

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 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, which 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 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, which can be naturally-occurring or be the result of oil and gas production and mining activities.

with service lines and home plumbing. Flowing Wells Irrigation District 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>.



Chlorination

Flowing Wells Irrigation District does treat its water with chlorine. Chlorine is the most commonly used disinfectant for water and saves lives daily by controlling waterborne diseases.

Water Hardness

Arizona water passes through soils that are rich in the minerals, calcium and magnesium. These harmless, tasteless minerals become completely dissolved in the water, which creates what is known as hard water. Water hardness poses no health risk to consumers; however, it can create challenges around the house, such as a reduction in the cleansing ability of laundry soap and deposits left behind on bath fixtures, dishes and glassware.

Water Conservation Tips

To promote water conservation the District has adopted a conservation based rate structure for summer water usage. Effective May through October, for each account using in excess of that account's Winter Average Plus 10%, the Summer Surcharge on that excess will be \$0.90 per thousand gallons in addition to the current Commodity Rate of \$2.45 per 1,000 gallons used in excess of the base rate. The Winter Average Plus 10% for each account will be computed using the months of November through April.

Because we live in a desert,

water is our most important and precious resource and we must all do our part to use water wisely and insure an adequate water supply for future generations. Water conservation will not only help save water; it will also save you money. The following tips can help you do your part to live a more water-wise lifestyle.

- ❖ On average, more than half of residential water use is for outdoors.
- ❖ 75% of indoor water usage occurs in your bathroom. Installing conservation devices, taking shorter showers, and turning off the faucet when it's not being directly used will save water.
- ❖ Your cooler may use from 50 to 200 gallons per day just to keep you and your family comfortable.
- ❖ 90% of leaks are found at the toilet tank, usually at the flapper plug. Flappers are commonly found at home improvement stores and can be easily replaced by the "do-it-yourselfer." Severe toilet leaks can silently waste 24-100 gallons of water per day, up to 3,000 gallons per month.

Water Loss in Gallons at 60 psi

<u>Leak Size</u>	<u>Loss per Day</u>	<u>Loss per Month</u>
1/16"	360	11,160
1/8"	3,096	95,976
3/16"	8,424	261,144
1/4"	12,720	394,320