



REPORTING YEAR 2023

ANNUAL WATER QUALITY REPORT

PRESENTED BY



PWS ID#: AZ 04-07-089

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.



OUR MISSION CONTINUES

We are pleased to present our annual water quality report between January 1 and December 31, 2023.

Our primary goal is consistently provide drinking water that meets all state and federal regulations. We continuously strive to improve our methods of delivering the best quality water to our community and remain vigilant in addressing any new challenges to water safety. Our commitment to source water protection, water conservation, and community education is unwavering.

WHERE DOES MY WATER COME FROM?

Our water source is supplied by groundwater pumped from the West Salt River Valley and Hassayampa Sub-Basins. This water is treated, disinfected, and stored in reservoirs in various locations and elevations within the City of Buckeye's ten service areas. Production facilities within these service areas operate 24 hours a day, seven days a week. The Water Production Division continually monitors the treatment process, making any necessary adjustments for the changing water supply. The treated water then leaves the storage reservoirs and is distributed to the City's many customers through its extensive distribution systems within those areas. The Environmental Compliance Division performs over 1,000 tests per year to monitor the quality of the water sent to the customers within the City's service areas. Through this continuous process, the goal of the Water Resources Department is to deliver drinking water that is in full regulatory compliance.

WATER TREATMENT PROCESS

The treatment process depends on the source of the water being treated. Some water sources require the addition of Ferric Chloride, a coagulant chemical that causes the small particles to cling together and form larger bunches known as "floc." The floc settles and separates from the water removing any remaining turbidity. Water flows through a media bed and the pH and alkalinity are adjusted, as needed. It is disinfected with Chlorine before being stored in reservoirs and sent out to your home or business. Other water sources only require the addition of Chlorine disinfectant prior to being pumped through our distribution system to your tap.

BUCKEYE WATER FACTS

600
OVER 600 MILES OF WATER LINES

Water portfolio is almost entirely groundwater.



35 WELLS
25 RESERVOIRS



20
BOOSTER STATIONS



10,000+ VALVES

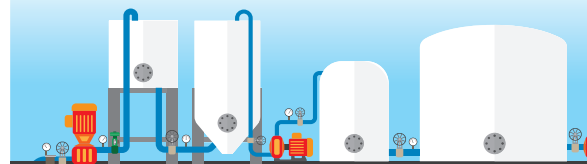


3,500 FIRE HYDRANTS



3.3 BILLION
Pump/produce an average of 3.3 billion gallons of water annually

Store an average of 15.5 million gallons



QUESTIONS?

For more information about this report or any questions relating to your drinking water, please contact Elsa Varela by phone (623) 349-6145 or via email evarela@buckeyeaz.gov.

IMPORTANT HEALTH INFORMATION

Buckeye relies almost entirely on groundwater. The Total Dissolved Solids (TDS) concentrations (typically calcium, sodium and magnesium) that occur naturally in our water, are not aesthetically (smell, taste, hardness) pleasing to customers. TDS is not considered a risk to human health so the EPA has only established a secondary standard as a guideline to assist public water systems with managing their drinking water for these aesthetic considerations.

Some other naturally occurring minerals, such as arsenic, fluoride and nitrates (nitrates can be naturally occurring or man-made) have a standard set by the EPA. Despite these challenges, Buckeye's drinking water meets or surpasses all standards set by the EPA.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 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.

While your drinking water meets U.S. EPA's standard for arsenic, it does contain low levels of arsenic. U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. U.S. 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 maybe particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or online at: <http://water.epa.gov/drink/hotline>.

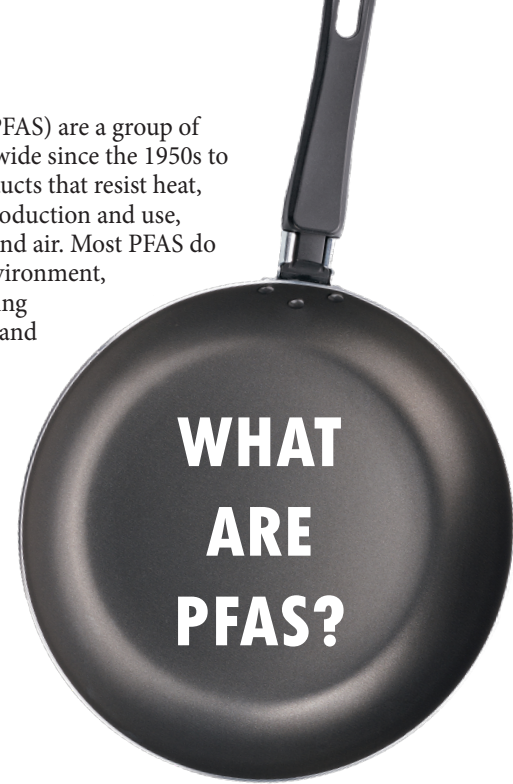
Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit: <http://bit.ly/3Z5AMm8>.



LEAD IN HOME PLUMBING

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. The City of Buckeye discontinued the use of lead pipes in 1986. However, individual property owners may have utilized lead in their plumbing without the city's knowledge. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When water has been sitting in pipes 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or online at (<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>)

The Environmental Protection Agency (EPA) has introduced the revised Lead and Copper Rule (LCRR) to safeguard public health and reduce exposure to lead and copper in drinking water. This rule aims to address the effects of lead on children, particularly in care and education facilities, through a partnership between the EPA and the U.S. Department of Health and Human Services (HHS). You can visit their page [HERE](https://www.epa.gov/ground-water-and-drinking-water/proposed-lead-and-copper-rule-improvements) for more details on the EPA's directives. (<https://www.epa.gov/ground-water-and-drinking-water/proposed-lead-and-copper-rule-improvements>)

SOURCE WATER TESTING

Water Quality and Source Water

To ensure that tap water is safe to drink, the Arizona Department of Environmental Quality (ADEQ) prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water. Drinking water, including bottled water, may contain at least small amounts of some contaminants. These contaminants do not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material; and 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

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

More information about contaminants in tap water and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800)426-4791 or online at: www.epa.gov/safewater/hotline.

Source Water Assessment

The Source Water Assessment Program (SWAP) is part of a nationwide effort initiated in 1996 by amendments to the Safe Drinking Water Act (SDWA). The intent of the program is to complete an evaluation of all sources of water (wells, surfacewater intakes, and springs) that provide drinking water to public water systems in Arizona. This evaluation determines the degree to which the source of water is protected. Arizona's SWAP was approved by the U.S. EPA in November 1999. The goal of the SWAP is to promote community awareness and to facilitate and encourage source water protection at the community level. These sources are currently protected by well construction and system operations and management.

SWAP provides detailed information on public water system drinking water sources by evaluating the hydrogeologic setting in which the source is located and any adjacent land uses that are in a specified proximity of the drinking water source. Once this information is gathered, it is evaluated to determine the extent to which the drinking water sources are protected from future natural or human-made contamination. Water sources are then categorized as either high risk or low risk. A designation of high risk indicates there are additional source water protection measures that can be implemented at the local level. A low risk designation indicates that most source water protection measures are either already implemented, and/or the hydrogeologic setting is such that it is protective of the source water.

All public water systems are required to comply with the federal and state laws for monitoring and reporting to ensure the water they serve to the public meets national drinking water standards. Regardless of the risk rating, ADEQ encourages local communities to actively engage in source water protection activities. If you have any questions regarding the Source Water Assessments, please contact ADEQ at (602) 771-4644 or go online to ADEQ's SourceWater Assessment and Protection Unit website at: www.azdeq.gov/environ/-water/dw/swap/html or the EPA's website at: www.epa.gov.

Water system City of Buckeye 0407089

The SWA was conducted in 2003. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The results of the assessment were that the wells had a high risk of contamination due to adjacent land use. This does not imply that the source water is contaminated; nor does it mean that contamination is imminent. Rather it simply means that land use activities or hydrogeologic conditions exist that make the source water susceptible to possible contamination.





GET RID OF YOUR FOG PROPERLY!

FOG (fats, oils, and grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future.

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

WATER CONSERVATION REBATES

The Water Resources Director may issue rebates according to Ordinance 14-09 which are required to be budgeted annually. Up to \$10,000 in rebates are available for a fiscal year and are offered on a first come, first served basis until funds are exhausted. Current rebates are as follows:

Smart Irrigation Controller Rebate

- Smart irrigation controllers that connect to Wi-Fi and include a phone app (up to \$100 rebate, limited to actual cost of controller plus tax. Installation fees not included).
- Qualifying smart irrigation controllers must be WaterSense labeled and listed on EPA's WaterSense website. Visit EPA WaterSense for a complete list of qualifying smart irrigation controllers.
- Check Weather Data Source information to see if additional components are required, such as weather sensors or collection units. Typically, residential irrigation systems use irrigation controllers with two to nine stations.
- The purchase and install of a smart irrigation controller must fall within the current fiscal year, July - June.
- To be considered, customers must be city of Buckeye water customers.

For more information about these programs visit www.buckeyeaz.gov/-community/residents/water-resources/water-conservation/rebates or contact Water Resources Education and Conservation Coordinator, Mdgouhs Ali, at 623-349-6195 with any additional questions.

Residential and Commercial Turf Removal Rebate Program

The turf removal rebates will be awarded to turf removals and to turf removals replaced with artificial turf or desert landscaping as provided in the Arizona Municipal Water Users Association (AMWUA) Plant List or the Arizona Department of Water Resources (ADWR) Phoenix AMA Low Water Use Plant List. A minimum of 200 square feet of natural grass replaced with xeriscape or artificial/synthetic turf.

The city will provide customers with a rebate equal to 50% of their total removal cost, or a max amount based on the rate of \$1.75 per square foot, whichever is lower. For example:

- A customer wishing to remove 1,180 square feet of natural turf can receive a rebate up to \$1,032.50. If the customer's cost was \$.95 per square foot (less than the model rate), then their total bill would be \$1,121 and their rebate would equal \$560.5.
- If the same customer removes 1,180 square feet of natural turf and their removal cost is \$3,127 (a rate of \$2.65 per square foot), then their rebate amount would be for the preset max amount of 50% based on the average rate of \$1.75 per square foot, \$1,032.50.

All city of Buckeye water service area customers who participate in this turf rebate program would be required to have one-year of water consumption monitoring by water conservation coordinator to compare pre and post conversion water consumption/savings.

WATER QUALITY TEST RESULTS

CITY OF BUCKEYE 0407089

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water. Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The SDWA allows monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2023	1.04	0.69-1.04	MRDLG=4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM) and Total Haloacetic Acids (HAA5) not detected	2023	16.3	9.2-16.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants								
Arsenic	3/3/2021	5.5	5.1-5.5	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2/23/2021	.21	0.052-0.21	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2/23/2021	40	6.4-40	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride (One Sample Required)	7/6/2022	1.3	1.3	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	2023	6.1	5.5-6.1	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants								
Combined Radium 226/228 (One Sample Required)	2/23/2021	0.6	0.6	0	5	pCi/L	N	Erosion of natural deposits.
Lead and Copper Sampled, No Lead Detected.	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/31/2021	1.3	1.3	0.17	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

DEFINITIONS

The previous tables contain scientific terms and measures, some of which may require explanation.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level or MCL: 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. Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level Goal or MCLG: 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 or 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 or 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.

mrem: millirems per year (a measure of radiation absorbed by the body)

na: not applicable.

pCi/L: Picocuries per Liter. A measure of radioactivity.

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

****:** The reported result is the highest Locational Running Annual Average. The MCL is determined by the average of the last four quarterly results.



BUCKEYE, AZ
WATER RESOURCES

buckeyeaz.gov/water

