REPORTING YEAR 2024

ANNUAL WATER QUALITY REPORT

PRESENTED BY

BUCKEYE, AZ

PWS ID#: AZ 04-07-078

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, 2024.

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.

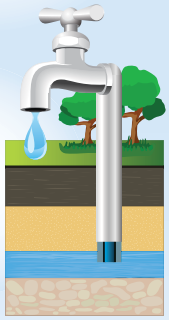
WATER TREATMENT PROCESS

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

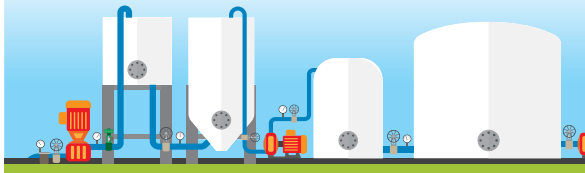
10,000+ VALVES

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

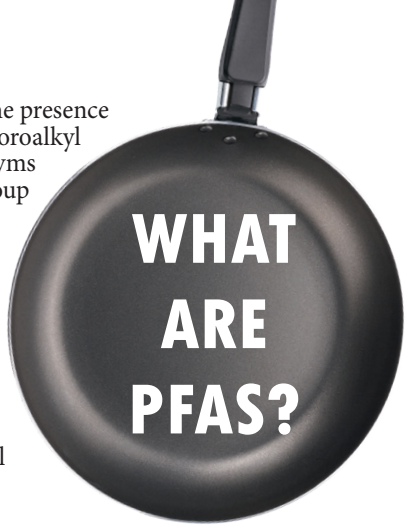
Buckeye relies almost entirely on groundwater. The Total Dissolved Solids (TDS) concentrations (typically calcium, sodium and magnesium) that occur naturally in our water, are not aesthetically (smell, taste, hardness) pleasing to customers. TDS is not considered a risk to human health so the EPA has 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.



Your drinking water was sampled on 11/2024 for the presence and concentration of 29 different per- and polyfluoroalkyl substances and UCMR 5, some known by the acronyms PFAS, PFOA, PFNA, PFHxS, PFBS, and GenX, a group of contaminants in the final stages of becoming regulated by the EPA. PFAS are man-made chemicals resistant to heat, water, and oil. They have been used since the 1940s to manufacture various consumer products, including fire-fighting foam and stain-resistant, water-resistant, and nonstick items. Many PFAS do not break down easily and can build up in people, animals, and the environment over time. Scientific studies have shown that exposure to certain PFAS can be harmful to people and animals, depending on the level and duration of exposure.

To learn more about this group of chemicals, we encourage you to visit the ADEQ website at www.azdeq.gov/pfasresources. You may also read the ADEQ-provided "PFAS 101 Fact Sheet" or view ADEQ's Introduction to PFAS video on YouTube.

Per- and Polyfluoroalkyl Substances	Highest Level Detected	Range of All Samples	Proposed MCL
PFOA (in parts per trillion)	ND	ND	4.0 ppt
PFOS (in parts per trillion)	ND	ND	4.0 ppt
PFNA (in parts per trillion)	ND	ND	10 ppt
PFHxS (in parts per trillion)	ND	ND	10 ppt
PFBS (in parts per trillion)	ND	ND	N/A*
GenX (in parts per trillion)	ND	ND	10 ppt
Calculated Hazard Index (HI)	NA		1 (no units)
Lithium* in parts per billion (ug/l) The EPA has not established a non-regulatory drinking water Health Advisory or any regulatory standard for lithium in public drinking water supplies.	424		N/A*

* Hazard Index or HI: The Hazard Index is an approach that determines the health concerns associated with mixtures of certain PFAS in finished drinking water. Low levels of multiple PFAS that individually would not likely result in adverse health effects may pose health concerns when combined in a mixture. The Hazard Index MCL represents the maximum level for mixtures of PFHxS, PFNA, HFPO-DA, and/or PFBS allowed in water delivered by a public water system. A Hazard Index greater than 1 requires a system to take action.

- Lithium is a naturally occurring element and may be found at higher concentrations in certain parts of the country, particularly in groundwater sources in arid locations in the Western U.S. where geologic formations contain lithium salts (EPA, 2008; Lindsey et al., 2021).
- Lithium, in various formulations, has numerous commercial uses including as a pharmaceutical drug, an industrial chemical catalyst, a sanitizing agent for swimming pools and hot tubs, and increasingly, as a component of lithium-ion batteries for electronics and electric vehicles (EPA, 2008; Agusdinata et al., 2018).
- Lithium is likely present in a variety of foods (such as cereal grains, leafy vegetables, and root crops), but it is not clear which foods may be significant sources of dietary lithium (EPA, 2008). There are differing perspectives on whether lithium is beneficial in small amounts (e.g., a micronutrient) (Szklarska and Rzymski, 2019). The U.S. has no current recommended dietary allowance.

LEAD IN HOME PLUMBING

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.

Valencia Town Divison is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk.

Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by Oct 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be viewed online at: https://lead-service-line-inventory-1-buckeyearizona.hub.arcgis.com/. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

If you are concerned about lead in your water and wish to have your water tested, contact the Valencia Town Division, Elsa Varela at 623-349-6145. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

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 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's 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, 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, surface water 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 Valencia 0407078

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

VALENCIA 0407078

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	2024	1	0.9-1	MRDLG=4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2024	5	0-5.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2024	31	7.4-31.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants								
Arsenic	2024	1.2	0-1.2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	1/11/2021	0.23	0.23-0.23	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	1/11/2021	23	23-23	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	1/11/2021	1.7	1.7-1.7	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (Measured as Nitrogen)	2024	6	5.7-6.13	10	10	ppm		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants								
Gross alpha excluding radon and uranium	2024	4.1	4.1-4.1	0	15	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	2024	1.3	1.3	0.098	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Non-Detect Contaminants (ND)

All contaminants listed below were tested for and were NOT found in our water. These contaminants are considered non-detect or not present:

Synthetic Organic Compounds (Last Tested: 10/24/2023): 2,4-D, 2,4,5-TP (a.k.a. Silvex), Acrylamide, Alachlor, Atrazine, Benzo (a) pyrene (PAH), Carbofuran, Chlordane, Dalapon, Di (2-ethylhexyl) adipate, Di (2-ethylhexyl) phthalate, Dibromochloropropane, Dinoseb, Diquat, Dioxin [a.k.a. 2,3,7,8-TCDD], Endothall, Endrin, Epichlorohydrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclo pentadiene, Lindane, Methoxychlor, Oxamyl (a.k.a. Vydate), PCBs (Polychlorinated biphenyls), Pentachlorophenol, Picloram, Simazine, Toxaphene

Volatile Organic Compounds (Last tested: 01/06/2021): Benzene, Carbon tetrachloride, Chlorobenzene, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1,2 Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Toluene, Vinyl Chloride, Xylenes

Inorganic Chemicals (Last Tested: 10/24/2023): Antimony, Asbestos, Beryllium, Cadmium, Cyanide, Mercury, Selenium, Thallium

Microbiological RTCR (Last tested: 2024 Monthly) Total Coliform Bacteria, E. Coli Bacteria

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 levelof 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.

Treatment Technique or TT: A required process intended to reduce level of contamination in drinking water.

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VIOLATIONS SUMMARY

Lead and Copper Rule: The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water primarily by reducing water corrosivity. Lead and copper enter the drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation	Corrective Action
Follow-Up Or Routine Tap M/R (LCR)	10/1/2024	2024	We tested our drinking water for Lead and Copper. We failed to provide customers with personalized results within the allotted timeframe of 30 days.	All personalized results were mailed on 9/12/204. Our staff has been retrained on the proper process for resident notification, specifically for mailing individual results within 30 days of receiving the results from the lab.

BUCKEYE, AZ

WATER RESOURCES

buckeyeaz.gov/water