CITY OF GOODYEAR WATER

2023 WATER QUALITY REPORT

CITY OF GOODYEAR WATER

The City of Goodyear Water Services Department is dedicated to safety, reliability and improvement as we treat and deliver drinking water; collect and reclaim (treat) wastewater, manage stormwater, and promote water conservation.

This Consumer Confidence Report, also known as a Water Quality Report, summarizes the results of hundreds of tests and measurements performed for Goodyear's water treatment plants and throughout the water distribution system. **In 2023, tap water delivered to residents served by the Goodyear's Utilities Department met or surpassed all federal and state drinking water standards.**

Your Water Sources

The City of Goodyear's drinking water source is both groundwater and water from the Colorado River that is allocated through the Salt River Project (SRP) canal system and treated at the Goodyear Surface Water Treatment Plant (GSWTP). The City has production wells, storage facilities, and pressure booster stations. The underground aquifer from which the City receives its water is called the West Salt Valley Sub-Basin. With 12 well sites and ten booster stations, Goodyear's operating system has a capacity of 25 million gallons per day.

Source Water Assessment

Based on the information currently available on the hydrogeological settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the Arizona Department of Environmental Quality has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ, 1110 W. Washington St., Phoenix, AZ 85007, or an electronic copy may be requested by phone: (602) 771-4597. For more information visit the ADEQ website at: azdeq.gov/source-water-protection.

Drinking Water and Health – A Message from the EPA

To ensure that tap water is safe to drink, The Environmental Protection Agency (EPA) sets standards for public water systems that limit the amounts of certain contaminants. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public 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.

DEFINITIONS AND ABBREVATIONS

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria was present

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

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

Minimum Reporting Limit (MRL): The smallest measured concentration of a substance that can be reliably measured by a given analytical method

Millirems per year (MREM): A measure of radiation absorbed by the body

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

Not Detected (ND or <): Not detectable at reporting limit

Nephelometric Turbidity Units (NTU): A measure of water clarity

Million fibers per liter (MFL)

Picocuries per liter (pCi/L): Measure of the radioactivity in water

ppm: Parts per million or Milligrams per liter (mg/L)

ppb: Parts per billion or Micrograms per liter (µg/L)

ppt: Parts per trillion or Nanograms per liter (ng/L)

ppq: Parts per quadrillion or Picograms per liter (pg/L)

ppm x 1000 = ppb	ppb x 1000 = ppt	ppt x 1000 = ppq

Water Quality and Substances Contained in Source Water

The sources of drinking water (both tap 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 material, and can pick up substances resulting from the presence of animals or from human activity.

Drinking Water Contaminants that might be present in source water:

- 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 that 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: Such as agriculture, urban stormwater runoff, and residential uses that may come from a variety of sources.

- Organic Chemical Contaminants: Such as 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.

Your Water Quality

Goodyear Water Services Department monitors contaminants in your drinking water as specified in the National Primary Drinking Water Standards. Monitoring results for the period of January 1 to December 31, 2023, or from the most recent period, are included in the table. Certain contaminants are monitored less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination.

Violations in 2023

We are pleased to report that Goodyear had no reportable water quality violations in 2023

For more information, please call Josh Hall, Water Compliance Supervisor at 623-882-7565.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien. Para español llame al 623-932-3010.

TESTS SHOW NO CRYPTOSPORIDIUM IN OUR DRINKING WATER

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants, small children and the elderly are at greater risk of developing life-threatening illness. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring indicates these organisms are not present in Goodyear's source water. Current test methods do not identify if the organisms are dead or if they are capable of causing disease. Cryptosporidium is a protozoan parasite that is common in surface waters. Cryptosporidium is introduced into our source waters via wild animal populations. In January 2022, the GSWTP began a two-year study to determine the average Cryptosporidium concentration in source water entering the facility. The sampling portion of the study will be completed in December 2024. The study was part of the requirements contained in the 2006 EPA Long-Term Enhanced Surface Water Treatment Rule.

Cryptosporidium has not been detected in a single untreated water sample entering the GSWTP.

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Regulated Substances	units	MCL or MRDL	MCLG or MRDLG	City of Goodyear PWS 07-094 year sampled	running average OR highest value	range low	range high	violation
Disinfectants & Disinfectant By-Products								
Chlorine (as Cl2)	ppm	4	4	2023	1.73	0.20	1.73	no
Haloacetic Acid (HAA5)	ppb	60	n/a	2023	23	ND	23	no
TTHM's (total trihalomethanes)	ppb	80	n/a	2023	101	0.7	101	no
Bromate	ppm	0.01	0	2023	0.019	ND	0.019	no
Metals and Inorganic Compounds								
Arsenic	ppb	10	0	2023	5	ND	5	no
Nitrate	ppm	10	10	2023	10	0.4	10	no
Barium	ppm	2	2	2023	0.21	ND	0.21	no
Sodium (optional)	ppm	n/a	n/a	2023	140	51	140	no
*Fluoride	ppm	4	4	2023	1.34	ND	1.34	no
Selenium	ppb	50	50	2023	3	ND	3	no
Chromium	ppb	100	100	2023	19	ND	19	no
*Goodyear does not fluoridate the drinking water; it is naturally occuring in the groundwater.								
Microbiological								
Total Coliforms	# of positive samples	5% positive monthly samples	0	2023	0%	0%	0%	no
Volatile Organic Chemicals (VOC)								
Trichloroethylene	ppb	5	0	2023	1.4	ND	1.4	no
Synthetic Organic Chemicals (SOC)								
2,4-D	ppb	70	70	2019	0.12	ND	0.12	no
Radionuclides*								
Gross Alpha	pCi/l	15	0	2022	1.2	ND	1.2	no
Combined Radium 226 & 228	pCi/l	5	0	2019	0.5	ND	0.5	no
Uranium	ug/L	30	0	2019	6.9	ND	6.9	no

	units	Violation	High	Low	MCL
Surface Water Treatment Rule					
Total Organic Carbon	ppm	No	6.1	1.3	TT
Turbidity	NTU	No	0.65 NTU	99.96%	TT

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. We monitor it because it is a good indicator of the quality of water. High turbidity can hinder the effectiveness of disinfectants. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

2023 Water Quality Data

Who is my water company?

Did you know that there is more than one provider of water in the city of Goodyear? If you are unsure about which company is your water provider, call the city at 623-882-7887.

	Water additive used to control microbes
	By-product of drinking water chlorination
	By-product of drinking water chlorination
	By-product of drinking water chlorination
	Erosion of natural deposits; Runoffs from orchards; Runoffs from glass and electronics production wastes
	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
	Erosion of natural deposits; Leaching
	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
	Discharge from steel and pulp mills; Erosion of natural deposits
	Discharge from metal degreasing sites and other factories
	Runoff from herbicide used on row crops
	Erosion of natural deposits
	Erosion of natural deposits
	Erosion of natural deposits
	Naturally present in the environment
	Soil Runoff

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Meeting Lead and Copper Standards

Lead and copper usually enter our drinking water from corrosion of household plumbing, pipes and fixtures that contain these metals, such as copper piping, lead solder or brass fixtures. EPA requires water suppliers to perform periodic tests for lead and copper in the tap water from inside consumers' homes. Tests show levels in Goodyear household tap water met the Action Level required by federal drinking water standards for lead and copper. While Goodyear meets the Action Level, lead and copper levels at some consumer's homes may be elevated due to leaching of the metals into the water from materials used in the household plumbing or fixtures. 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. The city of Goodyear 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 the steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at epa.gov/lead.

2023 Results of Lead and Copper Sampling from Residential Water Taps

SUBSTANCE	ACTION LEVEL (AL) APPLIES INSTEAD OF MCL	MCLG	90% OF TAPS WERE LESS THAN OR EQUAL TO THIS VALUE	NUMBER OF SITES ABOVE THE AL	MAJOR SOURCE IN DRINKING WATER
Copper	90% of taps tested must not exceed 1.3 ppm	1.3	0.19 ppm	Zero (0) out of 31 taps sampled	Corrosion of household plumbing systems
Lead	90% of taps tested must not exceed 15ppb	0	Non Detect	Zero (0) out of 31 taps sampled	Corrosion of household plumbing systems

Goodyear's Lead Service Line Inventory Program

Lead water service lines can be a key source of lead in tap water. In 2021, EPA revised the Lead and Copper Rule to improve public health protection by reducing exposure to lead and copper in drinking water. Goodyear Water Services Department has been evaluating service lines within our drinking water service area to determine whether any contain lead. A water service line is the pipe that delivers water from the water main to your meter and the pipe that delivers water from your meter to the first outside water tap at your residence or business. This study is still in progress. Early results suggest that none or few of the lines in Goodyear contain lead. Once finalized, we will notify the public of our system's results.

Special Health Information

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 U.S. Environmental Protection Agency (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 visit the EPA Safe Drinking Water website at epa.gov/sdwa.

Health information about lead, arsenic, nitrates and fluoride

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. City of Goodyear 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 epa.gov/safewater/lead.

Arsenic While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. 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.

Nitrate In drinking water at levels above 10 ppm is a health risk for infants 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.

Fluoride The following is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. This alert also has concern with bone disease. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease. Older children and adults may safely drink the water. Drinking water containing more than 4 mg/l of fluoride (the US Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. The city of Goodyear does not add fluoride to drinking water. 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). In 2024, a water sample had a result of 3.46. Average results are below 2.0 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. 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 dental problem. For more information, please call Josh Hall, Water Compliance Supervisor at 623-882-7565. 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 Consumer Information Office at 1-800-673-6275.

Goodyear Monitors for Unregulated Contaminants

Per- and polyfluoroalkyl substances – UCMR 5 (PFAS)

Your drinking water was sampled for the presence and concentration of 29 different per- and polyfluoroalkyl substances, 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 that are 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.

		City of Goodyear PWS 07-094				
	units	year sampled	Highest Level Detected	Range low	Range high	Proposed MCL
Per- and Polyfluoroalky Substances and Lithium						
PFOA	ppt	2023	4	ND	4	4.0 ppt
PFOS	ppt	2023	7	N/D	7	4.0 ppt
PFNA	ppt	2023	4	N/D	4	10
PFHxS	ppt	2023	5	N/D	5	10
PFBS	ppt	2023	13	N/D	13	10
PFHpA	ppt	2023	5	N/D	5	N/A
PFPeA	ppt	2023	3	N/D	3	N/A
Calculated Hazard Index (HI)*		2023	0.9015			1
Lithium	ppb	2023	196	56.3	196	N/A
UCMR4						
Germanium ●	ppt	2019	483	390	690	
Manganese ○	ppt	2019	190	50	410	
1-butanol ◊	ppb	2019	5.6	5.6	5.6	

● Germanium is a naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications

○ Manganese is a naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications

◊ Used as a solvent, food additive and in production of other chemicals

For more PFAS information from ADEQ: static.azdeq.gov/wqd/pfas/pfas101.pdf

* EPA has enacted a Hazard Index MCL to limit any mixture containing one or more of PFNA, PFHxS, PFBS, and/or GenX Chemicals. The Hazard Index considers the different toxicities of PFNA, GenX Chemicals, PFHxS, and PFBS. For these PFAS, water systems would use a hazard index calculation to determine if the combined levels of these PFAS in the drinking water at that system pose a potential risk and require action (Source: EPA Fact Sheet: Understanding the PFAS National Primary Drinking Water Proposal Hazard Index).

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Unregulated Contaminants Monitoring Rule (UCMR)

Unregulated substances are those for which EPA has not established drinking water standards. Goodyear monitors for these substances to assist the EPA to determine the occurrence of unregulated contaminants in drinking water and whether they should be regulated in the future. EPA issues a new list of substances for monitoring every five years. For 2023-2024, EPA identified 30 PFAS substance and lithium for the UCMR 5 cycle. Most of the lab analyses were non-detect for PFAS, and those with results are summarized in the table on the left. For UCMR 4 (conducted in 2018-2020) Goodyear's monitoring found geranium, manganese and 1-butanol to be present, and details about these are in the table on the left.

Water Efficient Upgrades Make a Difference

Discover all the ways your home can become better at making **Every Drop Count**, visit goodyearaz.gov/water.

WATER CONSERVATION TIPS

1 WATER TREATMENT AND CONSERVATION
Set your softener hardness to **14 - 20 grains per gallon** for best water efficiency.

Reverse Osmosis units can use up to 5 gallons of water to purify 1 gallon!

2 HOME WATER CHECK
Schedule a **FREE** visit with a Conservation Specialist if your water consumption seems higher than expected.

3 CONSERVATION AND LEAK KITS
Save water and money through **FREE** water-efficient equipment and leak detection tips.

Visit goodyearaz.gov/water

You can address the Goodyear City Counsel during regularly scheduled meetings. Meetings and schedules can be found online at: goodyearaz.gov/council-calendar.

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