



## **2020 Annual Water Quality Report**

**For Customers of the City of Phoenix-Hedgepeth Hills Water System**

**The city of Phoenix is responsible for delivering the attached city of Glendale Water Quality Report because the water delivered to this specific area is treated and delivered by Glendale, but billed by the City of Phoenix Water Services Department.**

**The specific service area for this water system is bounded by the Loop 101 on the south, Mohawk Drive on the north, 51<sup>st</sup> Avenue on the west, and 47<sup>th</sup> Avenue on the east.**

**Scroll down to view the report.**



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# 2020

## Water Quality Report

(Consumer Confidence Report)

[www.glendaleaz.com/2020ccr](http://www.glendaleaz.com/2020ccr)





## A Message from the Director of Water Services

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I am pleased to present our annual Water Quality Report summarizing the drinking water testing performed in 2020. Although this report is about water quality, I am happy to share with you the work and dedication of our employees to make certain you have high quality, reliable, and affordable drinking water every day.

As we review 2020, we cannot overlook the challenges the pandemic presented. The city quickly adopted the safety practices recommended by public health experts, including social distancing, mask wearing, and increased cleaning frequencies of work areas. Despite these changes, the Water Services team continued to provide the essential services necessary to protect public health and the environment.

Water is a vital resource for our desert community, now and for the future. We are committed to providing a secure and sustainable water supply. Over the last few years, the Water Services Department made significant investments in our water treatment and distribution systems. We continue to evaluate the condition of our infrastructure and plan for repairs and rehabilitation to ensure high quality and reliable water service to the residents and businesses we serve.

The quality of your drinking water is very important to us. The city tests, analyzes, and monitors water quality many times every day to ensure that the water provided is clean and safe to use.

If you have any questions about this report, your drinking water, or other questions regarding our water system, please contact our Water Services Department by telephone at 623-930-4177 or using the GlendaleOne interface at [www.GlendaleOne.com](http://www.GlendaleOne.com).

Craig Johnson, P.E.  
Director, city of Glendale Water Services

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This report contains important information about your drinking water. To request a copy of this report in Spanish, large print, braille or in electronic format, call 623-930-4100. Hearing impaired persons may use the Arizona Relay Services (800-367-8939).

Este informe contiene información importante sobre su agua potable. Para solicitar una copia de este informe en español, llame al 623-930-4100.



## Reliability, Quality & Value in Every Drop

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Water is essential to all life and sustains our natural environment. It touches nearly every aspect of our daily lives, from making coffee in the morning to cleaning the dishes at night.

The Water Services Department takes its responsibility of providing quality and reliable water, wastewater, environmental and stormwater services very seriously. This 24/7 operation consists of three water treatment plants, two water reclamation plants, 1,700 miles of pipes, 8,600 fire hydrants, 64,000 water meters, and a myriad of other assets.

### Reliability –

We maintain a highly-trained workforce, an extensive infrastructure and the appropriate investments to ensure the delivery of high-quality water today and every day into the future.

### Quality –

We test, analyze, and monitor water quality many times every day to ensure that your water exceeds the standards for high-quality drinking water.

### Value –

We continually look for ways to optimize our processes and the life-cycle costs of assets. We maintain a financial management system that ensures affordable rates.

The average single-family residence in Glendale uses 9,000 gallons of water and generates 6,800 gallons of wastewater a month. The city is able to provide water and wastewater services to such residential customers for approximately \$2 per day.



### A GALLON OF GLENDALE TAP WATER

On average, a gallon of Glendale tap water costs less than 1¢. When compared with the costs of other products we use every day, tap water is clearly one of the best deals around!



## Frequently Asked Questions

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### **How do I know that my water meets all water quality standards?**

The U.S. Environmental Protection Agency (EPA) places strict limits on the amount of contaminants and impurities allowed in drinking water to ensure that your water is safe to drink. The Food and Drug Administration 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 the water poses a health risk.

The city of Glendale uses modern treatment processes to comply with the EPA water standards. The city also has an extensive sampling and water quality testing program to ensure water quality standards are met.

More information about contaminants and their potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791. Information on bottled water can be obtained from the Food and Drug Administration (FDA).

### **If I have health problems, how will drinking tap water affect me?**

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. EPA and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### **Is it true that drinking water containing high nitrate levels is a health concern?**

Nitrate in drinking water at levels above 10 parts per million 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 for advice from your health care provider. **The nitrate level in Glendale's drinking water meets safe drinking water requirements.**



## Is a home water treatment system necessary?

The use of a home water treatment system is a personal decision. Some people invest in home water treatment systems to enhance the taste of water and to further remove impurities. Home water treatment systems are not needed to make water safer. In fact, if not properly maintained, home water treatment systems may cause water quality problems that may affect your health.

All home water treatment devices, including refrigerated water dispensers and ice makers, need regular maintenance to operate effectively and safely. Follow the operating manual that comes with the home water treatment system to ensure that your system is properly maintained and operated in accordance with the manufacturer's directions. Filter cartridges should be changed on a regular basis as recommended by the manufacturer.

## City of Glendale Drinking Water Quality

The following tables show regulated substances that were required to be tested and were detected in Glendale drinking water in 2020. The tables contain the name of each substance detected, the highest level allowed by regulation, the ideal goals for public health, the amount detected and the usual sources of such contamination. Certain contaminants are required to be monitored less than one time per year because concentrations of those contaminants are not expected to vary significantly from year to year. For those contaminants that were not required to be tested in 2020, this report includes data from the most recent required testing. The presence of contaminants does not indicate that the water poses a health threat, only that they were detected during routine compliance monitoring. Glendale monitored for many more substances which were not detected.



Oasis Water Treatment Plant

# 2020 Water Quality Analysis

*This table shows the results of our water quality analysis in 2020. Each substance that was detected in the water, even in the smallest traceable amount, is listed. The table contains the name of each substance; the highest substance level allowed by federal regulation; the highest level and range detected and the major sources of each substance.*

SUBSTANCE	FEDERAL MCL	MCLG	MAXIMUM	RANGE	AVERAGE	UNITS	SOURCES
Arsenic <sup>1</sup>	10	0	8.9	ND to 8.9	1.8	PPB	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes
Barium	2000	2000	142	ND to 142	54	PPB	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Total Chromium	100	100	39	2.7 to 39	11	PPB	Erosion of natural deposits; discharge from steel & pulp mills
Chlorite	1	0.8	0.58	0.05 to 0.58	0.55	PPM	Byproduct of drinking water disinfection
Chlorine Dioxide	MRDL = 800	MRDLG = 800	430	ND to 430	40	PPB	Water additive as an oxidant
Fluoride	4	4	0.7	ND to 0.7	0.3	PPM	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer & aluminum factories
Nitrate <sup>2</sup> as Nitrogen	10	10	6.6	ND to 6.6	1.2	PPM	Runoff from fertilizer use; leaching from septic tanks & sewage; erosion of natural deposits
Total Organic Carbon Removal Ratio	TT=1 or Greater Running Annual Avg.	N/A	4.9	1 to 4.9	2.4	NA	Naturally present in the environment
Total Coliforms	Presence in no more than 5% of monthly samples	0	Highest monthly percentage 0.5%	0% to 0.5%	0.1%	P/A	Naturally present in the environment
Chlorine	MRDL = 4	MRDLG = 4	1.4	0 to 1.4	0.6	PPM	Water additive used to control microbes
Gross Alpha (excluding Radon & Uranium) (2020)	15	0	4.3	ND to 4.3	1.2	pCi/L	Erosion of natural deposits
Combined Radium (2020)	5	0	0.7	ND to 0.7	ND	pCi/L	Erosion of natural deposits
Uranium (2020)	30	0	4.9	ND to 4.9	1.7	PPB	Erosion of natural deposits
Turbidity <sup>3</sup>	TT=1 NTU	N/A	0.28	0.02 to 0.28	0.06	NTU	Soil runoff
Turbidity <sup>3</sup>	TT =>95% of Samples ≤ 0.3 NTU	N/A	100% of Samples <0.3 NTU	0% to 100%	100%=TT	NTU	Soil runoff
Total Haloacetic Acids <sup>4</sup>	60 (LRAA)	N/A	14.0	8.6 to 14.0	12 (LRAA)	PPB	Byproduct of drinking water disinfection
Total Trihalomethanes <sup>5</sup>	80 (LRAA)	N/A	61	38.6 to 61.4	46 (LRAA)	PPB	Byproduct of drinking water disinfection
SUBSTANCE	AL	ALG	MAXIMUM	# OF SITES ABOVE THE AL	90TH PERCENTILE	UNITS	SOURCES
Copper (2018) <sup>6</sup>	1,300	1,300	307	0	235	PPB	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2018) <sup>6</sup>	15	0	7.82	0	1.5	PPB	Corrosion of household plumbing systems; erosion of natural deposits

# Key to Analysis Tables

**AL (Action Level)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**ALG (Action Level Goal)** - The "goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.

**LRAA (Locational Running Annual Average)** - Maximum running annual average at the compliance locations.

**MCL (Maximum Contaminant Level)** - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs 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.

**MRDL (Maximum Residual Disinfectant Level)** - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfection Level Goal)** - The level of disinfectant added to drinking water at which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

**Range** - The highest and lowest measurements reported during the year.

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

**mg/L** = Milligram Per Liter

**N/A** = Not Applicable

**ND** = Not Detectable at reporting limit

**NTU** = Nephelometric Turbidity Units  
(a measure of water clarity)

**NG** = No MCLG established

**pCi/L** = Picocuries Per Liter  
(a measure of radioactivity)

**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)

**P/A** = Presence / Absence

**Cryptosporidium** - 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, immuno-compromised people, infants and 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 percent removal. Monitoring indicates, although infrequent, these organisms are present in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

1. While your drinking water meets the Environmental Protection Agency's (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. The arsenic level for 2020 was well below the 10 PPB MCL.

2. While your drinking water meets EPA standards for nitrate-nitrogen, it does contain low levels of nitrate-nitrogen. The highest 2020 value for nitrate-nitrogen in the city of Glendale's water supply was 6.6 PPM. The average value for the year was 1.2 PPM.

3. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. 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.

4. Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is an indicator of the effectiveness of our filtration system.

5. Total Haloacetic Acids (HAA5): The sum of concentrations of mono-, di-, and trichloroacetic acids and mono- and dibromoacetic acids, which are byproducts of adding chlorine to water to kill harmful germs. The range of the results for Stage 2 HAA5 DBP monitoring for 2020 was 8.6 to 14 PPB. Water samples are collected for total haloacetic acids quarterly at 12 locations within the city. Stage 2 HAA5 DBP values are calculated as a locational running annual average.

6. Total Trihalomethanes (TTHM): The sum of concentrations of chloroform, bromodichloromethane, dibromochloromethane and bromoform, which are byproducts of adding chlorine to water to kill harmful germs. The range of the results for Stage 2 TTHM DBP monitoring for 2020 was 38.6 to 61.4 PPB. Water samples are collected for TTHMs quarterly at 12 locations within the city. Stage 2 TTHM DBP values are calculated as a locational running annual average.

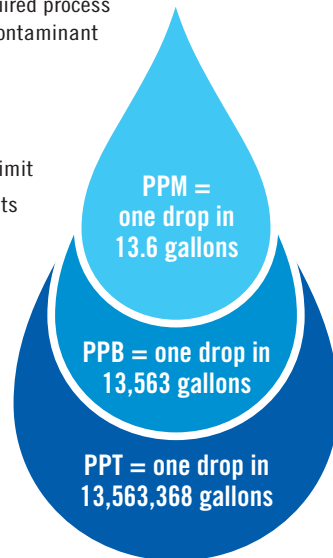
7. The EPA requires us to monitor for lead and copper every three years. There were 85 households tested for lead and copper in 2018. The next testing will be conducted in 2021.

**Copper:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress.

**Lead:** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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 Glendale 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

If you live in a house built between 1982 and 1986 and are interested in participating in the next Lead and Copper Rule sampling event in 2021, contact us at [waterqualitylab@glendaleaz.com](mailto:waterqualitylab@glendaleaz.com).







UCMR STUDY

METALS	MINIMUM	MAXIMUM	AVG.	UNITS	SOURCES
Germanium Total ICAP/MS	1.2	1.2	1.2	PPB	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 Total	0.4	0.4	0.4	PPB	Naturally-occurring element; commercially available in combination with other elements and minerals, used in steel production, fertilizer, batteries and fireworks, drinking water and wastewater treatment chemical; essential nutrient.

SUBSTANCES OF FREQUENT INTEREST

ANALYTE	UNITS	RANGE	AVG.
Alkalinity	PPM	69 – 226	147
Aluminum	PPB	ND – 169	1
Bromide	PPM	ND – 305	50
Calcium	PPM	26 – 76	61
Chloride	PPM	26 – 336	143
Iron	PPB	ND – 34	1
Magnesium	PPM	15 – 27	23
Manganese	PPB	ND – 30	1
Potassium	PPM	ND – 6	1
PFOS*	PPT	ND – 7	1
PFOA**	PPT	ND – 12	1
Sodium	PPM	44 – 210	116
Sulfate	PPM	25 – 289	151
Hardness	Grains/Gal.	10 – 16.9	14.2
Hardness	PPM	171 – 289	244
pH	Std. Units	7.0 – 8.0	7.6
TDS	PPM	344 – 774	591
Temperature	(°C)	12.8 – 32.2	22

\* Perfluoro octanesulfonic acid  
\*\* Perfluoro octanoic acid



Fourth Unregulated Contaminant Monitoring Rule (UCMR4)

Under the 1996 amendments to the federal Safe Drinking Water Act, the U.S. Environmental Protection Agency is required once every five years to issue a new list of up to 30 unregulated contaminants for which public water systems must monitor. The intent of this rule is to provide baseline occurrence data that the EPA can combine with toxicological research to make decisions about potential future drinking water regulations. We are currently going through the fourth round of this constituent testing.

The UCMR4 requires that each Public Water System conduct monitoring of their potable water systems during 2018-2020. The city of Glendale was required to begin monitoring for the UCMR 4 during the 4th quarter of 2018 and continued monitoring into 2021. Four (4) consecutive quarters of monitoring are required to meet the federal requirement. This includes monitoring for a total of 30 chemical contaminants: 10 cyanotoxins (nine cyanotoxins and one cyanotoxin group) and 20 additional contaminants (two metals, eight pesticides plus one pesticide manufacturing byproduct, three brominated haloacetic acid [HAA] disinfection byproducts groups, three alcohols, and three semi-volatile organic compounds [SVOCs]).



## Water Conservation

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The Water Services Department is committed to ensuring a reliable water supply for Glendale's future. The city's Conservation and Sustainable Living Division assists businesses and residents with improving their indoor and outdoor water efficiency through free programs and services:

- Commercial and Residential Water Audits
- Landscape Consultations, Water Budgets, and Rebates
- Water Waste Investigations
- Xeriscape Demonstration Garden
- Adult and Youth Education





New! Watch videos on simple ways to create a more water and energy efficient home and yard at <http://bit.ly/GlendaleGreenVids>.

For more information, visit [www.glendaleaz.com/waterconservation](http://www.glendaleaz.com/waterconservation) or call 623-930-3596.



## Cash for Removing Grass

Glendale water customers can receive a rebate for converting their thirsty grass into desert-friendly landscapes. Save time, water, energy and money by making the switch to a water-wise landscape.

Rebate Amount / Grass Removed	
	\$150 / 500-1500 ft. <sup>2</sup>
	\$300 / 1501-2500 ft. <sup>2</sup>
	\$450 / 2501-3500 ft. <sup>2</sup>
	\$600 / 3501-4500 ft. <sup>2</sup>
	\$750 / 4501+ ft. <sup>2</sup>
	

### Follow four easy steps to get started:

**1. Request free “how-to” information.**

Receive free publications on how to successfully convert grass to a water-smart landscape by calling 623-930-3760 or visiting [www.glendaleaz.com/waterconservation](http://www.glendaleaz.com/waterconservation).

**2. Sign up for a free consultation.**

Glendale Water Services Department staff provide free, on-site landscape consultations to Glendale water customers. We offer advice to help you install and maintain a sustainable landscape.

**3. Learn about landscape requirements.**

Single-family customers must remove at least 500 square feet of grass. Businesses, HOAs and multi-family customers must remove at least 1,000 square feet of grass and participate in the Landscape Water Budget Program. The converted area must be landscaped with Arizona-friendly plants (bare soil and artificial grass do not qualify).

**4. Call 623-930-3760 to schedule a landscape inspection.**

After the inspection, landscapes that meet the criteria will receive a rebate depending on the amount of grass removed.



# Water Source Information

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## Where does Glendale's water come from?

The city uses renewable water supplies from the Salt, Verde and Colorado rivers, and stored water credits that are earned through the city's recharge program. In addition, Glendale can pump a limited amount of groundwater when needed.

Runoff from the Salt/Verde River watershed is stored in a series of lakes operated by the Salt River Project (SRP). Runoff from the Colorado River watershed is stored in Lake Powell, Lake Mead, and Lake Pleasant and delivered through the Central Arizona Project (CAP) canal.

**Salt River Project (SRP)** – Snow and rain runoff from the Salt and Verde River watersheds.

**Central Arizona Project (CAP)** – Snow and rain runoff from the Colorado River watershed.

**Groundwater** – Underground water pumped from wells.

**Reclaimed Water** – Treated, recycled wastewater for non-potable use (landscape, industrial uses, etc.).

## Potential Source Water Impurities

The city of Glendale's raw water sources include rivers, lakes, reservoirs and wells. As water travels from these sources, it dissolves naturally-occurring minerals and, in some cases, radioactive material. Water can also pick up substances resulting from the presence of animals or people. Substances that may be present 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 a result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Organic chemical contaminants, including synthetic and volatile organics which are byproducts of industrial processes and petroleum production. These can also come from gas stations, urban stormwater runoff and septic systems.
- Pesticides and herbicides, which may come from agriculture, urban stormwater runoff and residential uses that may come from a variety of sources.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

The City treats and processes the water to improve quality and has an extensive water testing program to ensure water quality standards are met.



## Water Hardness

Hardness is a measure of the minerals calcium and magnesium that are present in water. As water moves through or over the earth, it picks up these naturally occurring minerals that make the water “hard.” Usage of the word “hard” in this case refers to the difficulty with which suds form when using soap. The harder the water, more soap is required to produce suds. The amount of hardness in the city of Glendale’s drinking water in 2020 ranged between 171 to 289 PPM or 10.0 to 16.9 grains per gallon. Hard water is not a primary water quality standard and is not considered to be a health concern. According to the National Research Council (National Academy of Sciences), hard water generally contributes a small amount toward the total human dietary need for calcium and magnesium.

## Source Water Assessment

In 2003, the Arizona Department of Environmental Quality (ADEQ) conducted source water assessments of surface water and groundwater sources for the city of Glendale public water system. The assessments included an evaluation of land uses, such as gas stations, landfills, dry cleaners, agricultural fields, wastewater treatment plants, and mining activities that may pose a potential water quality risk to the city’s water sources. ADEQ has given the city of Glendale public water system a high-risk designation for the degree to which its drinking water sources are protected.

ADEQ categorized all surface water sources as high risk because they are open to the atmosphere. The overall risk posed to surface water is addressed by EPA through its increased monitoring requirement for surface water sources. A designation of high-risk indicates there may be additional source water protection measures which can be implemented on a local level. This does not imply that the source water is contaminated, nor does it mean that contamination is imminent.

To ensure high quality water, the city regularly monitors and treats the water received from all sources prior to delivery. Glendale also conducts other monitoring and studies to assess water quality. If any contaminant approaches the drinking water Maximum Contaminant Level (MCL), treatment is installed or wells are removed from service. The city of Glendale’s top priority is to provide safe drinking water 24 hours a day, every day.

Information regarding source water assessments is available for inspection at ADEQ, 1110 W. Washington St., Phoenix, Arizona 85007, from 8 a.m. to 5 p.m. Email inquiries regarding source water assessments may be sent to ADEQ at [vs3@azdeq.gov](mailto:vs3@azdeq.gov).

*For more information, visit the ADEQ website at:*

<https://azdeq.gov/node/735> or contact the city of Glendale’s Water Services Department at 623-930-4100.



# Protecting the Environment

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## Only Rain in the Storm Drain

Originating from rain, snow or ice melt, stormwater is conveyed through washes and streams and is naturally stored in ponds, lakes or reservoirs. Natural environments are permeable surfaces allowing stormwater to seep into the soil providing water for plants, trees, wildlife, and humans.

Our roadways, sidewalks, paved areas and rooftops are impermeable surfaces that are managed to convey water in pipes, channels or canals before they discharge into waterways. This runoff can “pick up” trash, oils and chemicals that can be harmful to the environment. Maintenance and inspection of drainage features keeps sediment out of washes and streams. Identifying and stopping illicit discharges like pool water or paint disposal into streets or alleys ensures chemical pollutants do not enter the drainage system.

Federal and state laws have been established to reduce the amount of sediment and pollutants in stormwater. On construction projects, stormwater is temporarily managed using control measures or best management practices (BMP's). Examples include: erosion control logs, sediment control fences, and mesh blankets. Permanent BMP's are designed to remain in place. Examples include check dams, soil stabilizers, and revegetation.

In the United States, low impact development (LID) is an innovative approach to managing stormwater. Examples include: Permeable paving, rain gardens, and on-site retention designs. These practices provide benefits downstream and can also provide habitat for wildlife and humans in the urban environment.

## How can you reduce stormwater pollution?

- While walking your pets, pick up pet waste and dispose of it appropriately.
- Use pesticides according to the manufacturer's label and apply only when it's not raining.
- Sweep driveways and sidewalks and dispose of debris in the trash can.
- Remove debris from your rain gutters.
- Never dump anything in storm drains or in washes.
- Wash vehicles at the carwash, not in the driveway or street.
- Drain or backwash your pool water into the sanitary sewer, not into the street.
- Fix vehicle leaks and return used automotive fluids at an auto parts store.

For more information on keeping Glendale clean and green visit [www.glendaleaz.com/environmentalprotection](http://www.glendaleaz.com/environmentalprotection) or to learn more about the importance of stormwater, visit [www.azstorm.org](http://www.azstorm.org).



## Pain in the Drain

Discarding of unwanted medications down the toilet or sink is not acceptable because many medications cannot be broken down at a water reclamation facility.

**Option 1** – Keep medication in its container and place it into a MedReturn Drug Collection Unit\* at the following Glendale police stations:

**Foothills Station - 6255 W. Union Hills Dr.**

**Gateway Station - 6261 N. 83rd Ave.**

*\*Does not accept liquid medications or syringes.*

**Option 2** – Put medication into a sealable bag or container and mix with an undesirable substance (such as kitty litter or used coffee grounds). Dispose of it in the trash. Keep away from children and pets.

**Option 3** – Contact your pharmacy to see if they collect unused medications.

For more information, visit [www.glendaleazwater.com](http://www.glendaleazwater.com).

## Cease the Grease

Fats, oils and/or grease (FOG) have the potential to collect in drains and sewer pipes and can cause expensive and undesirable clogs. To prevent grease build-up in the sewer pipes, the City maintains an inspection program of commercial businesses including eating establishments, auto repair shops, commercial laundries and car washes.

**What you can do** – Do not put grease down your garbage disposal or sink. For tips on how to properly dispose of FOG in the sanitary sewer, visit [www.glendaleaz.com/environmentalprotection](http://www.glendaleaz.com/environmentalprotection)



### Are Water Leaks Draining Your Piggy Bank?

The average household loses more than 10,000 gallons of water each year through leaks. Finding and fixing leaks is now easier with the “Smart Home Water Guide.” This free step-by-step guide will help you find leaks that are draining your piggy bank and provide you with tips to improve your home water efficiency. Get a free copy by calling 623-930-3553 or access the online version at [www.smarthomewaterguide.org](http://www.smarthomewaterguide.org).



# Long Term Water Supply

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## Does Glendale have enough water resources for a growing community?

Strategic investments in securing long-term and renewable water resources have allowed the city of Glendale to earn and maintain a 100-year Designation of Assured Water Supply from the state of Arizona. The Designation of Assured Water Supply ensures residents, businesses and investors that there are sufficient water resources for land being considered for purchase or lease within the city's water service area.

Glendale has a 100-year water supply for all existing and planned developments within the city's water service area and is capable of building the necessary distribution and treatment facilities to deliver high quality water to a growing community.

Glendale's Drinking Water Distribution System is comprised of a vast network of more than 25,000 valves, 62,000 service lines, 8,600 fire hydrants, traveling through more than 1,700 miles of pipe, ranging in sizes from 4 inches to 60 inches. Water from Glendale's water treatment plants, wells, and reservoirs serve the population with high quality drinking water for all its potable water uses. The city of Glendale is committed to the maintenance and rehabilitation of its aging drinking water infrastructure through system enhancements and improvements to ensure consistent and reliable delivery of water to its constituents.

## Glendale is Prepared for Drought

The Western U.S. is in an ongoing 21-year drought. This has greatly impacted the Colorado River system including Lake Mead and Lake Powell. It is anticipated that if the drought continues, Arizona will see its Colorado River supplies reduced.

Even though we are in a drought, Glendale is well prepared to meet water demand during drought or water shortage conditions. The city's Drought Management Plan ensures that best management practices are in place to minimize the negative impacts of water shortages resulting from drought. Through careful planning and resource management, we are fortunate to have many water sources available to us – assuring us a long-term supply.

**To learn more about the city's Drought Management Plan visit: [www.glendaleazwater.com](http://www.glendaleazwater.com) and select the "Drought Information" tab.**





WATER SERVICES

## Want to Know More?

*Water-related topics may be discussed at the Citizens Utility Advisory Commission (CUAC) and City Council meetings. Please visit the following webpages for more information.*

**Glendale City Council Agendas and Meetings:**

[www.glendaleaz.com/your\\_government/city\\_council](http://www.glendaleaz.com/your_government/city_council)

**Citizens Utility Advisory Commission (CUAC) Meetings:**

[www.glendaleaz.com/your\\_government/connect/departments/city\\_clerk/boards\\_and\\_commissions/citizens\\_utility\\_advisory\\_commission](http://www.glendaleaz.com/your_government/connect/departments/city_clerk/boards_and_commissions/citizens_utility_advisory_commission)

**Contact Glendale Water Services Staff:**

Water Services Department: 623-930-4100 | [www.glendaleazwater.com](http://www.glendaleazwater.com)

Water Quality Laboratory: 623-930-3897 | [waterqualitylab@glendaleaz.com](mailto:waterqualitylab@glendaleaz.com)

Water Billing: 623-930-3190 | Water Conservation: 623-930-3596

**Visit the following resources to learn more:**

Tap Into Quality: [www.tapintoquality.com](http://www.tapintoquality.com)

Only Tap Water Delivers: [www.drinktap.org](http://www.drinktap.org)

Water Use It Wisely: [www.wateruseitwisely.com](http://www.wateruseitwisely.com)

Water Sense: [www.epa.gov/watersense](http://www.epa.gov/watersense)



**Tap Into Quality**

Tap water. You turn on the faucet, it's always there. It may be taken for granted, but tap water quality, convenience and value is not taken lightly by the people who ensure it is safe and available when you want it. The safety, convenience and affordability of tap water is the message being communicated by "Tap Into Quality," a public education campaign designed to keep citizens informed about the quality of their tap water. To learn more about your tap water, and check out an informative video, visit [www.tapintoquality.com](http://www.tapintoquality.com).