2019 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, 51st Avenue on the west, and 47th Avenue on the east.
A Message from the Director of Water Services

We are pleased to present our annual Water Quality Report summarizing the drinking water testing performed in 2019. Although this report is about water quality, we are happy to share the work and dedication of our employees. Every day, staff make certain to deliver high quality, reliable and affordable drinking water. We are dedicated to providing a secure and sustainable water supply for years to come.

Water is a vital resource for our desert community and the quality of your drinking water is very important to us. The City tests, analyzes and monitors water quality many times each day to ensure that the water provided is clean and safe to use.

The Glendale Water Services Department provides essential services that protect public health and the environment. Our municipal water system is a unique community asset to every business and home in the community we serve.

If you have any questions regarding this report, your drinking water, or other questions related to our water system, please contact the Water Services Department by telephone at 623-930-4177 or visit our new GlendaleOne interface at www.GlendaleOne.com.

Craig Johnson, P.E.
Director, Water Services

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

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 four water treatment plants, two water reclamation plants, 1,100 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 each day to ensure that your water exceeds high-quality drinking water standards.

Value
We continually look for ways to optimize our processes and the life-cycle cost 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 each month. The City can provide water and wastewater services to residential customers for approximately $2 per day.

<table>
<thead>
<tr>
<th>A Gallon of</th>
<th>A Gallon of</th>
<th>A Gallon of</th>
<th>A Gallon of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine</td>
<td>Coffee</td>
<td>Bottled Water</td>
<td>Milk</td>
</tr>
<tr>
<td>$45.00</td>
<td>$36.00</td>
<td>$5.48</td>
<td>$3.59</td>
</tr>
</tbody>
</table>

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

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 public health protections.

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 programs 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. 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and the 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 standards.
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 safe. In fact, if not properly maintained, home water treatment systems may cause water quality problems that could 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 your home water treatment system to ensure the system is properly maintained and operating 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 2019. 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 2019, 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 monitors for many more substances that were not detected in 2019.
## 2019 Water Quality Analysis

This table shows the results of our water quality analysis in 2019. 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.

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>FEDERAL MCL</th>
<th>MCLG</th>
<th>MAXIMUM</th>
<th>RANGE</th>
<th>AVERAGE</th>
<th>UNITS</th>
<th>SOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic $^1$</td>
<td>10</td>
<td>0</td>
<td>7.9</td>
<td>ND to 7.9</td>
<td>2.9</td>
<td>PPB</td>
<td>Erosion of natural deposits; runoff from orchards; runoff from glass &amp; electronics production wastes</td>
</tr>
<tr>
<td>Barium</td>
<td>2000</td>
<td>2000</td>
<td>149</td>
<td>15 to 149</td>
<td>70</td>
<td>PPB</td>
<td>Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries</td>
</tr>
<tr>
<td>Total Chromium</td>
<td>100</td>
<td>100</td>
<td>39</td>
<td>ND to 39</td>
<td>10</td>
<td>PPB</td>
<td>Erosion of natural deposits; discharge from steel &amp; pulp mills</td>
</tr>
<tr>
<td>Chlorite</td>
<td>1</td>
<td>0.8</td>
<td>0.46</td>
<td>ND to 0.46</td>
<td>0.3</td>
<td>PPM</td>
<td>Byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorine Dioxide</td>
<td>MRDL = 800</td>
<td>MRDLG = 800</td>
<td>750</td>
<td>ND to 750</td>
<td>49</td>
<td>PPB</td>
<td>Water additive as an oxidant</td>
</tr>
<tr>
<td>Fluoride</td>
<td>4</td>
<td>4</td>
<td>0.7</td>
<td>ND to 0.7</td>
<td>0.4</td>
<td>PPM</td>
<td>Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer &amp; aluminum factories</td>
</tr>
<tr>
<td>Nitrate $^2$ as Nitrogen</td>
<td>10</td>
<td>10</td>
<td>8.0</td>
<td>ND to 8.0</td>
<td>1.4</td>
<td>PPM</td>
<td>Runoff from fertilizer use; leaching from septic tanks &amp; sewage; erosion of natural deposits</td>
</tr>
<tr>
<td>Total Organic Carbon $^3$ Removal Ratio</td>
<td>TT=1 or Greater Running Annual Avg.</td>
<td>N/A</td>
<td>4.4</td>
<td>1 to 4.4</td>
<td>2.8</td>
<td>NA</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Total Coliforms</td>
<td>Presence in no more than 5% of monthly samples</td>
<td>0</td>
<td>Highest monthly percentage 0.5%</td>
<td>0% to 0.5%</td>
<td>0.0004%</td>
<td>P/A</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Chlorine</td>
<td>MRDL = 4</td>
<td>MRDLG = 4</td>
<td>1.5</td>
<td>0.07 to 1.5</td>
<td>0.6</td>
<td>PPM</td>
<td>Water additive used to control microbes</td>
</tr>
<tr>
<td>Gross Alpha (excluding Radon &amp; Uranium) (2017)</td>
<td>15</td>
<td>0</td>
<td>2.1</td>
<td>ND to 2.1</td>
<td>0.8</td>
<td>pCi/L</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Combined Radium (2017)</td>
<td>5</td>
<td>0</td>
<td>0.7</td>
<td>ND to 0.7</td>
<td>ND</td>
<td>pCi/L</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Uranium (2017)</td>
<td>30</td>
<td>0</td>
<td>4.9</td>
<td>ND to 4.9</td>
<td>1.5</td>
<td>PPB</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Turbidity $^4$</td>
<td>TT=1 NTU</td>
<td>N/A</td>
<td>0.532</td>
<td>0.007 to 0.532</td>
<td>0.07</td>
<td>NTU</td>
<td>Soil runoff</td>
</tr>
<tr>
<td>Turbidity $^4$</td>
<td>TT = &gt;95% of Samples ≤ 0.3 NTU</td>
<td>N/A</td>
<td>100% of Samples &lt;0.3 NTU</td>
<td>0% to 100%</td>
<td>100%=TT</td>
<td>NTU</td>
<td>Soil runoff</td>
</tr>
<tr>
<td>Total Haloacetic Acids $^5$</td>
<td>60 (LRAA)</td>
<td>N/A</td>
<td>18.0</td>
<td>5.2 to 18.0</td>
<td>14.0 (LRAA)</td>
<td>PPB</td>
<td>Byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>Total Trihalomethanes $^6$</td>
<td>80 (LRAA)</td>
<td>N/A</td>
<td>69.4</td>
<td>31.4 to 69.4</td>
<td>60 (LRAA)</td>
<td>PPB</td>
<td>Byproduct of drinking water disinfection</td>
</tr>
</tbody>
</table>

### Copper (2018)$^7$

- **AL**: 1,300
- **ALG**: 1,300
- **MAXIMUM**: 307
- **# OF SITES ABOVE THE AL**: 0
- **90TH PERCENTILE**: 235
- **UNITS**: PPB
- **SOURCES**: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

### Lead (2018)$^7$

- **AL**: 15
- **ALG**: 0
- **MAXIMUM**: 7.82
- **# OF SITES ABOVE THE AL**: 0
- **90TH PERCENTILE**: 1.51
- **UNITS**: PPB
- **SOURCES**: 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.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPM</td>
<td>Milligram Per Liter</td>
</tr>
<tr>
<td>PPT</td>
<td>Parts Per Million</td>
</tr>
<tr>
<td>PPB</td>
<td>Parts Per Billion</td>
</tr>
<tr>
<td>NG</td>
<td>Nephelometric Turbidity Units</td>
</tr>
<tr>
<td>pCi/L</td>
<td>Picocuries Per Liter</td>
</tr>
<tr>
<td>N/A</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>ND</td>
<td>Not Detectable at reporting limit</td>
</tr>
<tr>
<td>NTU</td>
<td>Nephelometric Turbidity Units</td>
</tr>
</tbody>
</table>

- **Distribution System**: All household plumbing.
- **Cryptosporidium**: The city of Glendale did not detect any Cryptosporidium in its source water during tests conducted in 2019. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. 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, 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. **Total Residual Disinfectant (TRD)**: The highest level of residual disinfectant allowed in drinking water. The EPA requires us to monitor for residual disinfectant every three years. Total residual disinfectant is used to control microbial contamination.

2. **Total Trihalomethanes (TTHM)**: 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 HAAS DBP monitoring for 2019 was 5.2 to 18 PPB. Water samples are collected for total haloacetic acids quarterly at 12 locations within the city. Stage 2 HAAS DBP values are calculated as a locational running average annual average.

3. **Total Haloacetic Acids (HAAs)**: 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 2019 was 31.4 to 69.4 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.

4. **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.

5. **Total Organic Carbon (TOC)**: This is a measure of the strength of the water's natural organic compounds. There is no health effect due to organic carbon. 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.

6. **Lead**: 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. If 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.

7. **Arsenic**: The arsenic level for 2019 was well below the 10 PPB MCL. The arsenic level for 2019 was well below the 10 PPB MCL. Link to other health effects such as skin damage and circulatory problems. The 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 2019 was well below the 10 PPB MCL.

8. **Nitrate-Nitrogen**: The nitrate-nitrogen in the city of Glendale’s water supply was 8.0 PPM. The average value for the year was 1.4 PPM. It is important to note that nitrate-nitrogen can be harmful to infants and children who drink water containing lead in excess of the action level over a relatively short amount of time could experience gastrointestinal distress.

9. **Total Organic Carbon (TOC)**: This is a measure of the strength of the water's natural organic compounds. There is no health effect due to organic carbon. 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.

10. **Total Trihalomethanes (TTHM)**: The sum of concentrations of chlorine, 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 2019 was 31.4 to 69.4 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.

11. **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.

12. **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.

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.
### SUBSTANCES OF FREQUENT INTEREST

<table>
<thead>
<tr>
<th>ANALYTE</th>
<th>UNITS</th>
<th>RANGE</th>
<th>AVG.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkalinity</td>
<td>PPM</td>
<td>66 – 233</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>PPB</td>
<td>ND – 252</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td>Bromide</td>
<td>PPM</td>
<td>ND – ND</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td>PPM</td>
<td>26.5 – 83.5</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Chloride</td>
<td>PPM</td>
<td>29 – 267</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>PPB</td>
<td>ND – 60</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Magnesium</td>
<td>PPM</td>
<td>12.1 – 50.4</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td>Total ICAP/MS</td>
<td>ND</td>
<td>0.45</td>
<td>0.32</td>
</tr>
<tr>
<td>Bromide</td>
<td>51</td>
<td>140</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>Total Organic Carbon (TOC)</td>
<td>2.0</td>
<td>4.4</td>
<td>3.19</td>
<td>PPM</td>
</tr>
<tr>
<td>Total HAA6Br</td>
<td>8.6</td>
<td>22</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Total HAA9</td>
<td>12</td>
<td>35</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

### UCMR STUDY

<table>
<thead>
<tr>
<th>METALS</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
<th>AVG.</th>
<th>UNITS</th>
<th>SOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germanium Total ICAP/MS</td>
<td>ND</td>
<td>0.45</td>
<td>0.32</td>
<td>PPB</td>
<td>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.</td>
</tr>
<tr>
<td>Manganese Total ICAP/MS</td>
<td>ND</td>
<td>9.1</td>
<td>2.32</td>
<td>PPB</td>
<td>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.</td>
</tr>
<tr>
<td>Bromide</td>
<td>51</td>
<td>140</td>
<td>89</td>
<td>PPB</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>Total Organic Carbon (TOC)</td>
<td>2.0</td>
<td>4.4</td>
<td>3.19</td>
<td>PPM</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>Total HAA6Br</td>
<td>8.6</td>
<td>22</td>
<td>16</td>
<td>PPB</td>
<td>Byproduct of drinking water disinfection.</td>
</tr>
<tr>
<td>Total HAA9</td>
<td>12</td>
<td>35</td>
<td>26</td>
<td>PPB</td>
<td>Byproduct of drinking water disinfection.</td>
</tr>
</tbody>
</table>

### 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 UCMR4 during the 4th quarter of 2018 and continued monitoring into 2019. Four (4) consecutive quarters of monitoring are required to meet the federal requirement. This includes monitoring for a total of 30 chemical contaminants: ten 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 chemicals (SVOCs)).
Water Conservation

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 indoor and outdoor water efficiency.

For more information about the City’s free green-living classes, landscape consultations and water conservation incentives visit www.glendaleaz.com/waterconservation or call 623-930-3596.

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

1. Get 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.

2. Request 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.

### Rebate Amount / Grass Removed

<table>
<thead>
<tr>
<th>Amount</th>
<th>Grass Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>$150</td>
<td>500–1500 ft.²</td>
</tr>
<tr>
<td>$300</td>
<td>1501–2500 ft.²</td>
</tr>
<tr>
<td>$450</td>
<td>2501–3500 ft.²</td>
</tr>
<tr>
<td>$600</td>
<td>3501–4500 ft.²</td>
</tr>
<tr>
<td>$750</td>
<td>4501+ ft.²</td>
</tr>
</tbody>
</table>

The average conversion to Xeriscape can save 50% or more on your outdoor water use!

105 gallons per watering! (that’s 7900 gallons per year!)
Water Source Information

Where does Glendale's water come from?
Glendale 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 then delivered to Arizona 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 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, the more soap is required to produce suds. The amount of hardness in the city of Glendale’s drinking water in 2019 ranged between 116 to 290 PPM or 6.8 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 city 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 the EPA through its increased monitoring requirement for surface water sources. A designation of high-risk indicates there may be additional source water protection measures that 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.

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

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 with no ground disturbance 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 collect trash, oils and chemicals that can be harmful to the environment. Maintenance and inspection of drainage features keep 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 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/Live/City_Services/environmental_protection or to learn more about the importance of stormwater, visit www.azstorm.org.
Pain in the Drain
Avoid discarding unwanted medications down the toilet or sink. 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.

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/cms/one.aspx?pageld=15330007

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.
Long Term Water Supply

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 over 1,100 miles of pipe, ranging in size 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 20-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
Failure to Report Compliance Monitoring
(Tier 3 Violations Public Notice)

The city of Glendale is required to monitor your drinking water for specific contaminants on a regular basis. Title 40, Code of Federal Regulations (CFR) 141.31 and the Arizona Administrative Code (A.A.C) R18-4-106 require results to be reported to ADEQ no later than 10 days after the end of the monitoring period.

On May 2nd, 2019, ADEQ contacted the city of Glendale to report that the results for the Nitrate samples taken at EPDS027 and EPDS030 for 4th Quarter 2018 were filed instead of the Nitrate results taken at EPDS027 and EPDS030 from 1st Quarter 2019. The correct results were submitted the same day; however, they were reported after ADEQ's 10-day reporting window resulting in a flag in the Safe Drinking Water Information System (SDWIS) database. There were no adverse health risks or effects related to the situation since all Nitrate-N results were below the 10 ppm MCL.

On February 18, 2020, ADEQ contacted the city of Glendale to report that the results for the Asbestos samples taken at EPDS030 for the 2011-2019 compliance period were not filed. The results were submitted on 2/25/2020; however, they were reported after ADEQ’s 10-day reporting window resulting in a flag in the SDWIS database. There were no adverse health risks or effects related to the situation since the asbestos results were < 0.2 Million Fibers per Liter, well below the 7 Million Fibers per Liter MCL.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.
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

Citizens Utility Advisory Commission (CUAC) Meetings:
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
Water Quality Laboratory: 623-930-3897 | waterqualitylab@glendaleaz.com

Visit the following resources to learn more:
Tap Into Quality: www.tapintoquality.com
Only Tap Water Delivers: www.drinktap.org
Water Use It Wisely: www.wateruseitwisely.com
Water Sense: www.epa.gov/watersense

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**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.