

**CITY OF GLENDALE
DROUGHT MANAGEMENT PLAN**

Updated December 14, 2016

I. INTRODUCTION

The City of Glendale is a leader in water resources planning and is committed to providing quality water and wastewater services to its residents and businesses. A major challenge facing nearly all water providers, including Glendale, is the possibility of temporary water shortages caused by droughts.

The City's drought management plan ensures that best management practices are in place to minimize the negative impacts of temporary water shortages resulting from droughts. These best management practices include ordinances, policies, plans and procedures that are recognized by water providers as being effective and practical in dealing with drought conditions and potential water shortages.

A. GLENDALE'S WATER RESOURCES GOALS AND PRINCIPLES

The City bases its drought management plan on five fundamental public policy goals/principles:

1. To provide water in an amount that will protect the safety, health, and welfare of the public;
2. To minimize the disruption of normal economic, business, and residential activities;
3. To maintain public trust through effective communication with residents and businesses in implementing the plan;
4. To provide a balanced and equitable plan, in which all water customers share the hardships and responsibilities in proportion to the amount of water used and the magnitude of the water shortage, and;
5. To provide a comprehensive, logical, and coordinated plan that is effective, practical and flexible.

B. HOW TO USE THIS PLAN

This plan is organized into six sections and an appendix:

Section I. Presents an introduction to the overall goals and objectives of the plan and provides an overview of the plan content and structure.

Section II. Contains key definitions and concepts used in the plan.

Section III. Provides a general discussion on the City’s water resources planning efforts and describes each source of water supply and its associated drought susceptibility/risk.

Section IV. Describes the steps the City will take during an emergency water shortage due to non-drought causes, such as infrastructure failure, water contamination, or a water-borne disease outbreak.

Section V. Presents the four distinct and progressive stages of drought management and responses that the City may declare. Guidelines are provided to aid in determining the severity of the drought and/or the targeted response. The initial drought management stages focus primarily on municipal efforts. Therefore, declaration and termination of the first two drought stages is made by the City Manager.

The latter stages of this plan incorporate mandatory residential, commercial, and industrial restrictions and response measures. Therefore, declaration and termination of the third and fourth drought stages is made by the City Council.

Implementation procedures and processes are covered in this section.

Section VI. Describes the array of best management practices that the City may utilize to offset any reductions in the available water supply. These best practices were identified through a review and evaluation of drought management plans in the Phoenix metropolitan area.

Appendix 1. Includes a table of the recommended demand reduction measures for each drought stage.

II. KEY DEFINITIONS AND DROUGHT CONCEPTS

A. DROUGHT

Drought is defined as an extended period of below normal precipitation on a watershed. Cycles of drought and surplus conditions on regional water supplies are a normal occurrence. No one can accurately predict how long a specific drought will last, its geographical extent, nor the magnitude or severity of a drought. When an area experiences a drought, it does not necessarily mean that the area will need to curb water use. The key issue is drought susceptibility.

B. DROUGHT SUSCEPTIBILITY

Drought susceptibility is the extent to which an area may be subject to the negative effects of a drought. High susceptibility means that an area is more prone to experiencing a drought and is vulnerable to the negative effects of a drought, such as insufficient water to meet customer needs.

Cities have different drought susceptibility levels even though they appear to be similar in other ways, such as size, climate, precipitation pattern, and growth. From a municipal water providers' perspective, drought susceptibility directly relates to the ability to provide normal water service to residents, businesses, and visitors during different levels of droughts. The three factors that affect drought susceptibility are surface water reservoir storage capacity, availability of alternative water resources to replace drought-affected supplies, and water system infrastructure capability.

The availability of several sources of water, particularly groundwater and stored water credits, and the infrastructure (i.e. well capacity) to utilize those resources during a drought are important factors in reducing drought susceptibility. In fact, the Salt River Project (SRP) minimizes the impact of droughts on its water system by using groundwater to replace drought impacted surface water supplies. Similarly, a substantial volume of groundwater and stored water credits are available to the City during droughts.

Groundwater (i.e. well) production capacity can be a limiting factor for a municipal water provider, especially when surface water supplies are reduced due to drought. In 2007, the City constructed the Oasis Water Treatment Plant to enhance groundwater capacity and to utilize related stored water credits.

C. DROUGHT MANAGEMENT

While the terms drought management and water conservation are sometimes used interchangeably, there is a notable and important difference. Drought management refers to the plans and actions a city or water provider will implement to reduce the impact of drought on its water system. This includes switching to alternative water supplies and using measures to temporarily curtail water demand. Demand management measures are intended to significantly reduce water demand over a short period of time, specifically in response to a drought.

D. EMERGENCY WATER SHORTAGE

Temporary water emergencies and disruptions that occur due to infrastructure failure, water contamination, or a water-borne disease outbreak are covered under various plans developed by the City. When extraordinary water conservation is warranted due to an emergency, the Drought Management Plan will work in conjunction with these plans by outlining the mandatory demand reduction measures for water customers.

E. WATER CONSERVATION

Water conservation programs are intended to be on-going and designed to reduce the amount of water wasted, regardless of drought. Water conservation programs change water use behavior of water customers through information, education, and incentives that encourage wise water use, low-water-use landscaping, and water-efficient technologies. It is important to keep drought management and water conservation separate to avoid sending a mixed message after a drought has ended. While the end of a drought will result in business as usual, business as usual should not mean that it is acceptable to waste water.

F. WASTE OF WATER

Waste of water means to allow water supplied by the City to escape from any property onto a street, sidewalk, gutter, alley, public utility easement, right-of-way, or parking area. Water waste occurs when the flow of water travels at least two hundred fifty (250) feet from the origin or accumulates in an area at least two hundred (200) square feet.

There are some water waste exceptions, including the use of water for fire suppression, dust control, and public health and safety purposes. Also exempt are maintenance of irrigation systems and the City's water supply system and water supply system failures that are fixed within seventy-two (72) hours of notification.

III. GLENDALE'S WATER RESOURCES PLANNING PROGRAM

The City has reduced its drought susceptibility through management of its water resources and water system. Unlike most areas of the country, the City has access to several sources of water, including surface water, groundwater, effluent/reclaimed water, and stored water credits. The City continues to develop its water system to optimize the efficient use of each of these supplies. In addition, the City has access to long-term water supplies and has demonstrated to the Arizona Department of Water Resources (ADWR) that it has a 100-year assured water supply for its entire water service area.

While the City's water planning efforts have significantly reduced its risk of drought-related impacts, severe drought conditions on the Salt/Verde watershed and/or the Colorado River watershed can result in a reduction of available surface water supplies. These reductions could potentially affect the City's ability to provide normal water services, thus requiring additional drought-related responses from both the City and its water customers.

It is important to note that it would take an extremely severe or prolonged drought to cause the City to suspend normal water services and mandate demand reduction measures. Nonetheless, deep and prolonged droughts can occur and the City needs to be prepared.

The City has five sources of water: supplies from SRP and Central Arizona Water Conservation District (CAWCD), groundwater, effluent/reclaimed water, and stored water credits.

It is the City's philosophy to first utilize surface water to the extent available and practical, and then rely on a combination of groundwater, stored water credits, and reclaimed water to meet the City's total water demand. The City places a high priority on surface water use to comply with Arizona's Groundwater Management Act and to utilize more sustainable, renewable water resources. Unfortunately, surface water supplies are subject to shortages during droughts.

A. SALT RIVER PROJECT (SRP)

SRP surface water supply comes from the Salt and Verde River systems. The water from the Salt and Verde rivers originates from the springtime melt of the snow pack and from monsoon rains originating in northeastern and central Arizona. This water is stored in a series of reservoirs and is delivered to the City's Cholla and Oasis water treatment facilities via SRP's canal system.

In normal, non-drought years, SRP provides sufficient water supplies to meet water demand on the City's SRP eligible lands. The water demand on SRP eligible land is about 2.3 acre-feet per acre per year. SRP is capable of providing surface water from the Salt/Verde River system and groundwater from SRP wells. In normal years, nearly all of the City's SRP supply is surface water; only a small amount is groundwater.

During drought years, SRP may cut back on the total amount of water delivered and/or can change the type of water it delivers depending on the severity of the drought. During 2003, the worst drought of record on the Salt and Verde watershed, SRP cut its allocation to 2 acre-feet per acre, of which 1.3 acre-feet per acre was groundwater and 0.7 acre-feet per acre was surface water.

SRP is capable of providing about 1.3 to 1.5 acre-feet per acre to its water customers even during the most severe droughts because of its ability to provide groundwater.

B. CENTRAL ARIZONA WATER CONSERVATION DISTRICT (CAWCD)

The City is entitled to several sources of Colorado River water delivered by the CAWCD, of which the largest supply is Central Arizona Project (CAP) water. During normal, non-drought years the City is entitled to receive a total of 22,582 acre-feet from the Colorado River.

The various sources of Colorado River water have different delivery priorities that may be a concern during droughts on the Colorado River watershed. There are 3 tiers of shortage reductions that are triggered by the water elevation in Lake Mead, a reservoir on the Colorado

River that delivers water to Arizona, California, Nevada, and Mexico. CAP water has a lower priority than all other Colorado River water rights. Of CAP water delivered to Arizona, agricultural supply has the lowest priority and would be the first type subject to water reductions during a Tier 1 shortage reduction. The City has the right to use 682 acre-feet of this low priority water through the Roosevelt Water Conservation District agreement until a Tier 3 shortage reduction occurs. The City's Colorado River supply has a high priority and is not subject to shortage reductions until the most severe stage.

The Colorado River system has a large reservoir capacity and can withstand moderate droughts without cutting back water supplies. Nonetheless, extremely severe droughts could negatively impact the City's higher priority Colorado River water resources.

Arizona has taken action to reduce the impact of potential water shortages on the Colorado River. The Arizona Water Banking Authority (AWBA) was established in 1996 to store Arizona's unused Colorado River entitlements. To date, 3.2 million acre-feet of water have been stored underground in central Arizona. This stored water can be used to replace shortages of CAP water during droughts. CAP, ADWR, and AWBA have planned to recover and deliver that stored water should the need arise.

C. CITY GROUNDWATER

Groundwater availability is not typically affected by drought. The City has the right to utilize a limited amount of groundwater, which is pumped from wells connected to either a treatment facility or directly to the City's water system. The City received a one-time volume of 294,204 acre-feet of groundwater that could be used over a 100-year period starting in 1998. This limited amount of groundwater may be pumped out of the aquifer without being replenished.

In addition to groundwater, the City receives an annual credit for incidental recharge equal to 4.69% of the previous year's total water demand.

Under drought conditions that cause a reduction of over 20% of surface water supplies from a source, the City will consult with ADWR to determine the applicability of a provision in the Assured Water Supply regulations that allow a certain amount of groundwater use to be exempted from a replenishment obligation.

D. EFFLUENT/RECLAIMED WATER

The newest type of water supply developed by the City is effluent/reclaimed water. Reclaimed water is wastewater that has been treated for non-potable purposes. Reclaimed water is used directly on landscaping, such as at Arrowhead Ranch, and stored in aquifer storage facilities.

Direct use of reclaimed water benefits the City by fulfilling a water demand that would otherwise be met with potable water. The normal rate of reclaimed water direct use is expected to continue even during droughts, because of the limited number and locations of underground aquifer storage facilities.

Reclaimed water that is recharged in underground aquifers is a stored water credit that can be used in the future. These credits are recovered through groundwater wells or can be exchanged for other water. Currently, the City stores approximately 6,000 acre-feet of reclaimed water a year. Reclaimed water availability is not significantly impacted by droughts.

E. OTHER STORED WATER CREDITS

To date, the City has acquired 124,479 acre-feet of long-term storage credits through the following qualifying water sources:

- 26,379 acre-feet of water by purchasing and storing excess CAP water through the Groundwater Savings Facility;
- 14,715 acre-feet of water from “Plan 6,” including construction of the New Waddell Dam and expansion at Roosevelt Dam; and
- 83,384 acre-feet of reclaimed water.

In addition, the City earned 45,789 acre-feet of water by extinguishing irrigation rights within the City. These credits are one-time credits that are not subject to drought restrictions. Stored water credits can be recovered through wells.

IV. EMERGENCY WATER SHORTAGE

Within 24 hours after the City becomes aware of an emergency water shortage, notification must be made to all water customers. The City’s Water Services Department will work with the City’s Public Affairs and Finance Department to notify the public about an emergency water shortage through a diversity of communication channels, including robocalls, the City’s website, the City’s cable TV station, e-blasts to the subscription lists (Neighborhood Services, Library, Parks and Recreation, etc.) social media (Twitter/Facebook), partner stakeholder communications (Glendale Elementary School District, Luke Air Force Base, Glendale Chamber of Commerce, etc.) and news releases to all media outlets.

In the event of an emergency water shortage, all water customers will be required to rapidly reduce demand for essential water usage. As the largest customer within its water service area, the City will demonstrate leadership by following the demand reduction measures listed under a Stage 4 Drought Emergency. Residential, commercial, and industrial customers will follow the demand reduction measures, which are restrictions on outdoor water use, listed under a Stage 4 Drought Emergency.

V. DROUGHT STAGES AND MANAGEMENT PLAN

The City's drought management plan is comprised of four stages. Each stage is progressively more stringent. More restrictive declarations are made when the current stage is insufficient to meet water demand or when the situation changes significantly. Suggested best management practices are provided for each stage. Details regarding each drought stage and the corresponding demand reduction measures are provided in Section VI and Appendix 1. The trigger for each drought stage is intended as guidance. Under City Code, the City Manager is authorized to implement the plan, conduct necessary public outreach, and take enforcement actions to minimize the impact of the drought.

A. DROUGHT STAGES

Stage 1. Drought Watch. Declared by the City Manager when the watershed or watersheds that the City relies on for surface water experience drought conditions and the respective water district (CAP or SRP) cuts total water allocations. The City is still capable of providing adequate water service throughout the system. All available water resources and facilities (conveyance and production) that are necessary to meet normal water demand are utilized.

To demonstrate leadership, the City reduces water consumption by targeting a 5% reduction in overall water use at City facilities using the demand reduction measures documented in Section VI and Appendix 1.

The City asks businesses and residents to use water wisely. Demand reduction measures are voluntary.

The list of recommended demand reduction measures for a Stage 1 Drought Watch, documented in Section VI and Appendix 1, may be implemented selectively and/or progressively by the City Manager at the time of an initial Stage 1 Drought Watch, or any time during a Stage 1 Drought Watch.

Stage 2. Drought Alert. Declared by the City Manager when total water allocations are cut and the City anticipates that it may not have sufficient water resources to meet normal water demand. This can occur when the City projects a 5% water supply reduction due to the cut in total water allocations.

The City reduces water consumption by targeting a 10% reduction in overall water use at City facilities using the demand reduction measures documented in Section VI and Appendix 1.

Businesses and the public are asked to voluntarily curb water use by 5%. Businesses and the public are put on notice that if conditions worsen, the City may not be able to provide enough

water to meet all demand. Consequently, mandatory demand reduction measures may be put into place if voluntary measures do not adequately reduce water consumption.

The list of recommended demand reduction measures for a Stage 2 Drought Alert, documented in Section VI and Appendix 1, may be implemented selectively and/or progressively by the City Manager at a time of an initial Stage 2 Drought Alert, or any time during a Stage 2 Drought Alert.

Stage 3. Drought Declaration. Declared by the City Council when total water allocations are cut and mandatory drought/water restrictions need to be enacted. This can occur when the City projects a 10% water supply reduction due to the cut in total water allocations.

The City reduces water consumption by targeting a 15% reduction in overall water use at City facilities using the demand reduction measures documented in Section VI and Appendix 1. City parks, right-of-way, and facilities with significant landscaped areas must not exceed a month-to-month water budget determined by using historic evapotranspiration rates.

Businesses and the public are asked to curb water use by 10%. The list of mandatory demand reduction measures for a Stage 3 Drought Declaration, documented in Section VI and Appendix 1, may be implemented selectively and/or progressively by the City Council at the time of an initial Stage 3 Drought Declaration, or any time during a Stage 3 Drought Declaration.

Mandatory drought measures will include restrictions on outdoor water use. The City will consider strengthening and/or requiring additional drought management measures for Stage 3 if deemed necessary. These measures will be presented to City Council for consideration prior to the declaration of a Stage 3 Drought Declaration.

Stage 4. Drought Emergency. Declared by the City Council when the City projects a 20% or greater water supply reduction. Mandatory water conservation and/or drought management measures are required in order for the City to meet water demand.

The City reduces water consumption by targeting a 20% reduction in overall water use at City facilities using the demand reduction measures documented in Section VI and Appendix 1. City parks, right-of-way, and facilities with significant landscaped areas must not exceed a month-to-month water budget (for the non-turf areas) determined by using historic evapotranspiration rates. City parks, right-of-way, and facilities that do not receive SRP urban irrigation will be required to significantly reduce all turf watering and develop a plan to maintain trees within those turf areas.

Businesses and the public will be asked to curb water use by 20%. The list of mandatory demand reduction measures for a Stage 4 Drought Emergency, documented in Section VI and Appendix 1, may be implemented selectively and/or progressively by the City Council at the time of an initial Stage 4 Drought Emergency, or any time during a Stage 4 Drought Emergency.

Mandatory drought measures will include restrictions on outdoor water use. The City will consider strengthening and/or requiring additional drought management measures for Stage 4 if deemed necessary. These measures will be presented to City Council for consideration prior to the declaration of a Stage 4 Drought Emergency.

B. DROUGHT MANAGEMENT PLAN IMPLEMENTATION

Annual Water Supply Assessment. Each year in October, the City can predict with a great degree of certainty if a drought on either the Salt River Project system or the Colorado River system will affect the City's water supply in the next calendar year.

The City prepares a water production plan in September for the next calendar year based on anticipated supplies, available water system infrastructure (e.g. water treatment capacity and well capacity), and projected demand. The City uses water supply availability projections from SRP and the CAWCD in preparing this plan. The SRP water allocation is provided to the City in September. The City is required to submit its annual Colorado River water order by October 1.

When the City projects a potential water shortage resulting from drought conditions, the Water Services Department will be responsible for making recommendations to the City Manager/Council on the appropriate response.

Drought Management Team. A drought declaration by the City Manager or Council will require teamwork, communication, cooperation, and coordination among City departments and our private and public stakeholder partners to reduce water usage and raise awareness in the community. A drought management team will be assembled to help implement components of the City's drought management plan.

The team will be led by the Conservation and Sustainable Living Division of the Water Services Department and include key staff from the following city departments: City Attorney's Office; Budget and Finance; Development Services; Public Affairs; Public Works; Public Facilities, Recreation, and Special Events; and other departments as needed. The team will establish clear communication channels with internal (i.e. City) and external (i.e. residential/business) water service customers throughout the duration of the drought and provide up-to-date information on demand reduction measures.

The Conservation and Sustainable Living (CSL) Division will work closely with affected City departments to provide technical assistance and ensure City operations comply with municipal water use restrictions and targeted water use reduction goals.

VI. BEST MANAGEMENT PRACTICES

There are a number of best management practices that may be used by the City to deal with droughts. These practices include both supply management and demand management strategies.

A. SUPPLY MANAGEMENT

The City's first line of defense in facing a drought is to fully utilize the water resources that are available to replace water supplies affected by the drought. Supply management strategies are generally preferred over demand management strategies because they have minimal impact on water users. In many cases, residents and businesses may not even realize that the City has implemented supply management measures to deal with the drought. A minor downside to this measure is that the public may think the City is not taking the drought seriously enough. It is important that the City develop a comprehensive communication plan to raise residents' awareness about drought and water conservation practices.

Glendale is fortunate because it is not reliant on a single source of water and it has several options to secure water for use during a drought, including surface water and groundwater. In the event of a drought that causes a cutback in the City's surface water supply, the City will consider using all existing wells that can produce drinking water prior to asking water users to curb water consumption. City wells would be used to access the City's groundwater and stored water credits. The City will apply to ADWR for drought groundwater pumping exemption if necessary.

B. DEMAND MANAGEMENT

The second level of response when faced with a drought is implementation of demand reduction measures. A number of best management practices are designed to reduce water demand. The list of recommended drought mitigation measures is discussed below. Each measure can be designed to match the level of severity of water shortage and the type of water user.

Generally, the implementation of measures will begin with a public information and drought awareness communications plan encouraging voluntary water use reductions. As the drought impact becomes more severe, mandatory demand reduction measures may be implemented.

Water use curtailments focus primarily on outdoor water use because water savings can be achieved without compromising public health and safety. Outdoor water use mainly affects aesthetics, while indoor water use directly impacts hygiene and sanitary conditions.

1. Recommended Measures.

Public Information and Drought Awareness Communications Plan. The City will develop a comprehensive communications plan to provide timely information explaining the drought situation to raise awareness and solicit cooperation from the public and business community. This plan may include City water bill inserts, press releases, Glendale Channel 11 programming, interviews, informational brochures, community presentations, City webpage and social media, and an online water waste reporting form.

The City will also work cooperatively and in conjunction with SRP, CAWCD, and members of the Arizona Municipal Water Users Association (AMWUA) to coordinate appropriate public information and drought awareness communications.

Water Conservation Technical Assistance. The City's Conservation and Sustainable Living Division provides technical assistance to residents, businesses, and City departments. Services offered include the following: water efficiency classes, landscape consultations and budgets, water use audits, leak detection, incentives, rebates, and plant care demonstrations in the Glendale Xeriscape Garden. Click [here](#) for a summary of the City of Glendale Water Conservation Programs.

Municipal/City Operations Water Use Restrictions. Municipal water use restrictions are those imposed on City operations. The public and business community will look to the City for leadership. The City will demonstrate leadership through the implementation of municipal water use restrictions prior to implementing mandatory water use restrictions on businesses and residents. The following is a list of measures that can be selected for implementation to reduce municipal water use:

- 1. Provide water conservation technical assistance.** The CSL Division will work closely with affected City departments to provide technical assistance and ensure City operations comply with municipal water use restrictions and targeted water use reduction goals.
- 2. Track and monitor water use at City facilities.** The City has multiple facilities, including parks, golf courses, a cemetery, and rights-of-way that use mostly potable water for irrigation. Water use will be tracked on a monthly basis and monthly landscape water budgets will be established and monitored where feasible.

- 3. Issuance of a high water use alert.** A high water use alert will be sent to City facilities with above average water use. This courtesy service is designed to notify customers of significant water leaks or unusually high usage.
- 4. Prohibit water wasting.** Prohibit the escape of water from any City property onto the street, gutter, alley, sidewalk, public utility easement, right-of-way, or parking area that travels more than 250 feet from the original water source or accumulates in an area 200 square feet or more.
- 5. Restrict turf watering/landscape irrigation.** Limit landscape irrigation at City facilities to the night and early morning hours (9 p.m. to 6 a.m.) to reduce evaporation losses. If conditions worsen, limit landscape irrigation and outdoor water use to selected days determined by the City. Further restrict irrigation on turf landscaping if drought conditions worsen and warrant such action. Irrigated areas using 100% direct-use reclaimed water are exempt.
- 6. Prohibit winter grass.** Restrict over-seeding of winter grass at City facilities, except in high-use areas or for special/priority events. Prohibit all over-seeding with winter grass if drought conditions worsen and warrant such action. Irrigated areas using 100% direct-use reclaimed water are exempt.
- 7. Prohibit the operation of public ornamental fountains and other water features.** Turn off municipally-owned and operated fountains and water features, such as splash/play fountains. Prohibit any operation of fountains and water features, if drought conditions worsen and warrant such action. Fountains and water features using 100% direct-use reclaimed water are exempt. Fountains and water features deemed by the City to be of high importance may be exempted on a case-by-case basis.
- 8. Prohibit vehicle washing.** Prohibit vehicle washing unless conducted at a facility equipped with wash water recycling.
- 9. Prohibit the washing of paved areas.** Prohibit the washing of sidewalks, driveways, and walkways unless deemed to be a health or safety risk and a high-pressure cleaning system is used.
- 10. Implement a drought surcharge on water bill.** Establish a temporary drought surcharge to be implemented when drought conditions worsen and warrant such action. The drought surcharge is designed to encourage efficient water use and to make up the water utility funding gap caused by lower than normal water sales caused by drought.

The drought pricing structure is a surcharge on the cost of each unit or block of water used beyond an established baseline amount. This surcharge would be implemented as a percentage of the baseline cost of each unit or block of water for a particular meter size.

The need for a drought surcharge will be presented to the City Council at the time of a Stage 3 Drought Declaration or a Stage 4 Drought Emergency. The exact structure and amount of a drought surcharge will be determined by the City Council and based on staff recommendations.

11. When possible, utilize reclaimed water for dust control at City parks. Reclaimed water would be used for dust mitigation at City parks, in lieu of potable water, to maintain Clean Air Act compliance. Construction of the necessary reclaimed water distribution for water hauling would be required. A Type 3 reclaimed water permit will be required by the Arizona Department of Environmental Quality.

12. When possible, utilize reclaimed water for mechanical street-sweeping activities. Reclaimed water would be used for street sweeping purposes in lieu of potable water. Construction of the necessary reclaimed water distribution system for water hauling would be required. A Type 3 reclaimed water permit will be required by the Arizona Department of Environmental Quality.

13. Consideration of additional measures. In a worst case situation whereby the City is experiencing a severe drought and is unable to provide sufficient water supplies after implementing other best management measures, the City will consider requiring additional demand reduction measures approved by the City Council and based on staff recommendations.

Granting of exemption. The City's drought management plan provisions may be exempted at the written request of the applicant and approval of the City Manager. The exemption may be granted if the applicant can demonstrate that the granting of such exemption is for the protection of public health and welfare.

Residential and Business Water Use Restrictions. Residential and businesses water use restrictions apply to all non-city government water use. Under its police power as a municipal corporation and water service provider, the City has the authority to implement mandatory restrictions on water use for parties connected to its water system to protect public health and welfare. This authority does not extend over other governmental jurisdictions, such as tribal, county, state, or federal facilities, which may be connected to and served by the City's water system. It is the City's intent to request voluntary cooperation from these jurisdictions during drought.

Water users receiving SRP urban irrigation or other private water service are not required to adhere to the irrigation restrictions, unless the water provider imposes their own water restrictions. SRP may reduce the amount of water delivered to these lands during drought conditions if SRP water availability is impacted.

The following is a list of measures that can be selected to reduce residential, commercial, and industrial water use:

- 1. Provide water conservation technical assistance.** The City will provide water conservation technical assistance to residents and business. Services offered include the following: water efficiency classes, landscape consultations and budgets, water use audits, leak detection, incentives, rebates, and plant care demonstrations in the Glendale Xeriscape Garden.
- 2. Provide the public with information about drought and water saving practices.** The City will develop a comprehensive communications plan to provide timely information explaining the drought situation to raise awareness and solicit cooperation from the public and business community.
- 3. Issuance of a high water use alert.** A high water use alert will be sent to residential and commercial customers with above average use. This courtesy service is designed to notify customers of significant water leaks or unusually high usage.
- 4. Prohibit water wasting.** Prohibit the escape of water from any private property onto the street, gutter, alley, sidewalk, public utility easement, right-of-way, or parking area that travels more than 250 feet from the original water source or accumulates in an area 200 square feet or more.
- 5. Restrict turf watering/landscape irrigation.** Limit landscape irrigation to the night and early morning hours (9 p.m. to 6 a.m.) to reduce evaporation losses. If conditions worsen, limit landscape irrigation and outdoor water use to selected days determined by the City. Further restrict irrigation on turf landscaping if drought conditions worsen and warrant such action. Irrigated areas using 100% direct-use reclaimed water are exempt.
- 6. Prohibit winter grass.** Discourage over-seeding of winter grass. Prohibit any over-seeding with winter grass if drought conditions worsen and warrant such action. Irrigated areas using 100% direct-use reclaimed water are exempt.
- 7. Prohibit the operation of private ornamental water fountains and other water features.** Prohibit any use of fountains and water features, if drought conditions worsen and warrant such action. Fountains and water features using 100% direct-use reclaimed water are exempt.

Fishponds are exempt. Private fountains and water features deemed by the City to be of high importance may be exempted on a case-by-case basis.

- 8. Prohibit vehicle/boat washing.** Prohibit vehicle and boat washing unless conducted at a commercial car washing facility or with a hose equipped with a shutoff nozzle.
- 9. Prohibit the washing of paved areas.** Prohibit the washing of sidewalks, driveways, and walkways, unless deemed to be a health or safety risk and a high-pressure cleaning system is used.
- 10. Implement a drought surcharge on water bill.** Establish a temporary drought surcharge to be implemented when drought conditions worsen and warrant such action. The drought surcharge is designed to encourage efficient water use and to make up the water utility funding gap caused by lower than normal water sales caused by drought.

The drought pricing structure is a surcharge on the cost of each unit or block of water used beyond an established baseline amount. This surcharge would be implemented as a percentage of the baseline cost of each unit or block of water for a particular meter size.

Residential water users that use water above the lifeline 6,000 gallons per month will be subject to the drought surcharge. All non-residential water users will be subject to the drought surcharge.

The need for a drought surcharge will be presented to the City Council at the time of a Stage 3 Drought Declaration or a Stage 4 Drought Emergency. The exact structure and amount of a drought surcharge will be determined by the City Council and based on staff recommendations.

- 11. Prohibit water misting system use.** Prohibit the use of outdoor misting systems.
- 12. Consideration of additional measures.** In a worst case situation whereby the City is experiencing a severe drought and is unable to provide sufficient water supplies after implementing other best management measures, the City will consider requiring additional demand reduction measures as approved by the City Council and based on staff recommendations.

Granting of exemption. The City's drought management plan provisions may be exempted at the written request of the applicant and approval of the City Manager. The exemption may be granted if the applicant can demonstrate that the granting of such exemption is for the protection of public health and welfare.

C. MONITORING AND ENFORCEMENT OF RESTRICTED WATER USE

The first two drought stages encourage and promote voluntary water use reductions by residential and business water users. Therefore, there is no need for active enforcement until the enactment of a Stage 3 Drought Declaration.

The City will implement a more active enforcement program when residential and business water use restrictions are mandated. The enforcement program will include routine staff patrols and prompt investigations of customer complaints of improper water use. Staff from the City of Glendale Code Compliance Department will be empowered to issue civil citations, which can result in fines.

For a first violation of any provision of this division, the City shall issue a written notice of first violation and provide educational materials on water conservation, including a copy of the relevant provisions of this chapter, to the Customer violating the provisions of this division. The City shall give the Customer a reasonable period of time to correct the violation.

For a second violation of any provision of this division, the City shall issue a written notice of second violation to the Customer and impose fines set by the drought stage. The fine shall be added to the Customer's account. Failure to pay any portion of a Customer's account, including any fines imposed pursuant to this section, shall subject said account to termination of water service in accordance with the provisions of this chapter.

For a third or subsequent violation of this division, the City shall impose a fine equal to twice the previous fine. The fine shall be added to the Customer's account. Failure to pay any portion of a Customer's account, including any fines imposed pursuant to this section, shall subject said account to termination of water service in accordance with the provisions of this chapter.

Enforcement of the Drought Management Plan shall be conducted by the City Manager or his designee.

Any person against whom a penalty is levied under this section shall have a right to a hearing before the City Manager or his designee in accordance with section 33-11.

Appendix 1 – Demand Reduction Measures

Demand Reduction Measures for Municipal Customers		Stage 1 Drought Watch 5% Mandatory Reduction	Stage 2 Drought Alert 10% Mandatory Reduction	Stage 3 Drought Declaration 15% Mandatory Reduction	Stage 4 Drought Emergency 20% Mandatory Reduction
1	Provide water conservation technical assistance.	X	X	X	X
2	Track and monitor water use at city facilities.	X	X	X	X
3	Issuance of a high water use alert.	X	X	X	X
4	Prohibit water wasting.	X	X	X	X
5	Restrict turf watering/landscape irrigation to selected days determined by the City.		X	X	X
6	Prohibit winter grass unless 100% reclaimed water is used.		X	X	X
7	Prohibit the operation of public ornamental fountains and other water features unless 100% reclaimed water is used.		X	X	X
8	Prohibit vehicle washing unless conducted at a facility equipped with wash water recycling.		X	X	X
9	Prohibit the washing of paved areas unless the area is determined to be a public health/safety problem and a high pressure cleaning system is used.		X	X	X
10	Implement a drought surcharge.			X	X
11	When possible, utilize reclaimed water for dust control at city parks.				X
12	When possible, utilize reclaimed water for mechanical street-sweeping activities.				X
13	Consideration of additional drought management measures as determined necessary and approved by City Council.				X
Demand Reduction Measures for Residential, Commercial, & Industrial Customers		Stage 1 Drought Watch Voluntary Reduction	Stage 2 Drought Alert 5% Voluntary Reduction	Stage 3 Drought Declaration 10% Mandatory Reduction	Stage 4 Drought Emergency 20% Mandatory Reduction
1	Provide water conservation technical assistance.	X	X	X	X
2	Provide the public with information about drought and water saving practices.	X	X	X	X
3	Issuance of a high water use alert.	X	X	X	X
4	Prohibit water wasting.			X	X
5	Restrict turf watering/landscape irrigation to selected days determined by the City.			X	X
6	Prohibit winter grass unless 100% reclaimed water is used.			X	X
7	Prohibit the operation of ornamental fountains and other water features unless 100% reclaimed water is used.			X	X
8	Prohibit vehicle/boat washing unless conducted at a commercial facility equipped with wash water recycling or with a hose equipped with a shut off nozzle.			X	X
9	Prohibit the washing of paved areas unless the area is determined to be a public health/safety problem and a high pressure cleaning system is used.			X	X
10	Implement a drought surcharge.			X	X
11	Prohibit water misting system use.			X	X
12	Consideration of additional drought management measures as determined necessary and approved by City Council.				X

This list of demand reduction measures is not all-inclusive and may be amended as necessary, excluding implementation of non-voluntary water use restrictions on businesses and the public.