



# Water Supply Reduction Management Plan

Updated 2021





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# Introduction

The Water Supply Reduction Management Plan has been prepared by the Town of Gilbert to provide a plan for a timely, appropriate, and effective response to shortages in water supplies. Gilbert has been proactive in developing a diverse and resilient water supply portfolio to meet the community's water needs both now and for the future. The diversity of the portfolio reduces the vulnerability of the supplies to potential shortages; however, shortages can still occur due to drought or infrastructure failure. An action plan for water demand management during these periods of reduced supply is a necessary component of water operations since these supply losses or system failures can seriously impact Gilbert's ability to deliver water to customers.

Shortage declaration may be necessitated by several factors impacting Gilbert's water supplies. The goal of the Water Supply Reduction Management Plan is to provide timely and effective implementation of demand reduction measures that:

- Protect public health and safety.
- Provide sufficient water to meet the needs of Gilbert's customers.
- Share the impacts and hardships equitably and in proportion to the magnitude of the event
- Minimize disruption of the economy so that jobs are protected, and regional economic stability is preserved.

The plan clearly establishes the criteria for action at each stage of a reduced water supply. The plan also has the flexibility to allow water managers to react quickly and to implement appropriate measures early in each event. Nothing in this plan shall prohibit Gilbert from imposing a moratorium pursuant to ARS Section 9-463.06.

# Water Supply and Demand

The Town of Gilbert has a diverse water resources portfolio consisting of surface water, groundwater, and reclaimed water sources. Gilbert combines these water resources to strategically meet the needs of the water service area (**Figure 1**).



Figure 1 Gilbert Water Service Area

Gilbert's water supplies are consistent with the State's regulatory requirements and have been developed to provide a continuous and sustainable water supply. The long-term strategic plan is to develop renewable surface water supplies and reduce reliance on local groundwater supplies. In a typical year, Gilbert's renewable supplies consist of a combination of sources as shown in **Figure 2**.



Figure 2 Gilbert Typical Annual Renewable Supply by Source

Gilbert acquires supplies before the demands occur, meaning that the Town hasn't yet grown into the full use of its supplies. This has allowed Gilbert to prepare for future shortages in supplies through recharging Colorado River water and reclaimed water available in excess of the annual demand. Recharge occurs in facilities within and surrounding Gilbert's water service area. The act of recharging helps maintain groundwater levels and provides a reserve supply that can be used during shortages.

Gilbert accrues Long-Term Storage Credits (LTSCs) for the renewable supplies that are recharged. Over the past three years, Gilbert has been able to recharge approximately 30% of the water supplies it has received (**Figure 3**). To date, Gilbert has accrued over 500,000 acre-feet of LTSCs through recharge and currently has the second largest balance of credits among cities within the Phoenix Active Management Area. However, this savings account can be quickly depleted if solely relied upon during ongoing times of shortage.



Figure 3 2018-2020 Average Water Use

More detail on each water supply is provided in the following sections. Each of these supply sources has its own set of delivery and use restrictions based on regulatory and contractual obligations that impact where and how they can be used to meet the community's needs.

# Surface Water

#### Colorado River Supply

Colorado River water is delivered to the Town of Gilbert through the Central Arizona Project (CAP) canal and is treated and delivered through Gilbert's water treatment facilities.

The CAP water supply is managed and delivered by the Central Arizona Water Conservation District (CAWCD). The CAP is designed to deliver approximately 1.5 million acre-feet of Colorado river water each year to the Arizona counties of Maricopa, Pinal, and Pima. The Town of Gilbert currently has long-term contracts and leases for 24,579 acre-feet per year of CAP supply, which comprises approximately 45-50% of the annual potable water supply utilized by Gilbert. The components of Gilbert's water resource portfolio derived from the CAP supply are varied and include a combination of a Municipal and Industrial (M&I) allocation, Indian Leases, and Non-Indian Agricultural (NIA) priority water.



Figure 4 Colorado River Basin

There is a specific priority system related to the use of Arizona Colorado River water numbered 1 through 6, with the first priority rights being the most senior (most protected). The CAP is primarily Fourth Priority. Priority of entitlement has a direct relationship to availability of this resource during periods of shortages within the Colorado River Basin.

Delivery priorities are also assigned within the CAP allocations. The highest priority water is associated with M&I and Indian water allocations. Agricultural allotments and CAP Excess Water supplies have lower priority assignments. Lower priority supplies are more susceptible to being affected by shortage conditions or drought conditions on the Colorado River system.

In years when excess CAP water has been available, Gilbert has purchased and recharged that water for future use. The recharged water accrues Long-Term Storage Credits (LTSCs) that can be recovered through pumping when surface supplies may be cut due to drought.

## Salt and Verde River Supply

Gilbert can receive Salt and Verde river water supply (**Figure 5**) from both the Salt River Project (SRP) and the Roosevelt Water Conservation District (RWCD).





SRP surface water supplies make up approximately 45-50% of Gilbert's annual potable water supply. The SRP surface water is treated and then delivered to SRP "On-Project" customers. SRP supplies are available for use only on lands that were originally committed to the Salt River Valley Water User's Association (SRVWUA) or otherwise known as "On-Project" lands. The On-Project lands are situated in the western portion of the Gilbert service area between the Eastern Canal and the western boundary of Gilbert Limits (**Figure 1**). This area makes up Zone 1 of the water system. The SRP supply mostly meets the demands of this zone.

SRP's available water supply for the eligible lands within Gilbert varies from year to year, sometimes significantly. SRP provides an annual Water Entitlement Report which identifies the availability of supply under the current hydrologic conditions. Contingent on approval by the SRVWUA's Board, the allocation for Member Lands is expected to be 3 acre-feet per acre (AF/ac) during a normal water year. The allocation is comprised of both a surface water and groundwater component. The apportionment of the two supplies is determined annually for the following year.

When shortages develop on the SRP system, allotment volumes are typically reduced corresponding to the shortage. Shortages have occurred within the Valley area several times

over the last 60 years. During the 2003/2004-time frame, SRP allotments were generally limited to 2 AF/ac to users.

RWCD supply can only be delivered to land situated east of the Eastern Canal and west of the Roosevelt Conservation District Canal. This area generally covers Zone 2 and Zone 4 of the water system. The available supply doesn't fully meet the demands of this area and therefore is supplemented by safe yield groundwater and CAP supplies.

# Groundwater

Gilbert has developed a strong portfolio of long-term renewable supplies complemented by the strategic use of groundwater. Today, Gilbert meets most of its customers' water demands with surface water. However, Gilbert still must utilize groundwater for operational performance, to meet peak demand, and as backup for surface water supply during shortage conditions or other surface water supply interruptions. Gilbert currently operates 20 groundwater wells throughout its service area.

Gilbert can use approximately five percent of groundwater each year that is considered Safe Yield groundwater. When withdrawn, Safe Yield groundwater does not contribute to loss of groundwater supplies. It is an amount of water that is recharged to the aquifer as a result of Gilbert's routine production and distribution of supply to their end users.

In addition to Safe Yield groundwater, there is a supply of physically available groundwater that can be used within Gilbert's water service area. Under normal conditions, this water must be replenished when pumped per Arizona's Assured Water Supply regulations. Typically, during surface water shortage Gilbert would offset this pumping by using its supply of LTSCs. However, under drought conditions the Arizona Department of Water Resources may allow Gilbert to pump groundwater to supplement up to 80 percent of the normal surface water supply without replenishment requirements.

# **Reclaimed Water Supply**

Reclaimed water is an important component of the portfolio of Gilbert's water resources. Gilbert has implemented strategic efforts to maximize its capability to locally reuse and recharge reclaimed water. This renewable resource can be utilized anywhere within Gilbert's service area. In addition, groundwater recharge efforts can result in the accumulation of LTSCs that can contribute to Gilbert's plans for meeting its long-term Assured Water Supply.

Reclaimed water, therefore, presents a very reliable and flexible component of Gilbert's available resources. Any available effluent above what is directly served to customers is delivered to Gilbert's local recharge facilities. Gilbert conducts the banking of surplus reclaimed water at the following local recharge spreading basins:

- The Neely Recharge Facility (referred to as Neely Recharge)
- The Riparian Preserve
- The South Recharge Site (SRS)

# Water Conservation

Water conservation is a key component of a sustainable water resources portfolio and is an effective tool for reducing water demand. In Gilbert, the philosophy of using water wisely is deeply embedded in all water management. Gilbert has strategically built up several water conservation programs that have reliable and predictable water savings. Because of this, Gilbert's water conservation programs are a significant asset in Gilbert's water resources portfolio. The adaptability and scalability of Gilbert's water conservation programs offers additional resiliency in managing Gilbert's water demands.

There are two distinct conservation mindsets utilized in this plan. The first is a long-term sustainable approach that focuses on stewardship and efficiency of water use. This has been and continues to be a guiding philosophy of water management. Stewardship and efficiency of water use are leveraged as much as possible in managing Gilbert's water supply; this maximizes the protection of our renewable resources and protects groundwater supplies for future use. The second mindset focuses more on immediate demand reductions and curtailments. These are acute adjustments intended to maintain a balance between supply and demand during times of extended water supply shortages or emergency situations. This latter mindset is utilized strategically in only the most severe situations.

#### Water Demand

The Town of Gilbert has developed its renewable water resource portfolio to meet future demands as development occurs. However, as prolonged drought occurs the ability to meet demand with renewable water supplies is threatened. The Water Supply Reduction Management Plan is developed to ensure that there are sufficient physical water supplies to meet the current system demands. In any given year, the physical water supplies can be made up of both renewable (i.e. surface water and reclaimed water) or non-renewable (i.e. groundwater) supplies.

Water demand management planning is important for Gilbert to meet the community's water requirements. The Gilbert Integrated Water Resources Master Plan (Master Plan) is updated every five years to forecast the water demands of Gilbert. The Master Plan addresses water demand management during periods of normal water supply and reduced water supply. However, predicting the available supply and the system demand requires ongoing monitoring especially given the significant changes that can occur due to drought conditions. Supply may be reduced in drought but can drastically change year to year with the increased variability in weather patterns due to climate change. Outdoor demand also tends to increase in drought periods to offset the reduced irrigation need provided by rainfall.

Figure 6 shows the demand projections from the 2018 Master Plan and the actual demand from 2016 and 2020. The 2020 demand far exceeded the projected Master Plan demands. There are many factors that may have influenced this change, but it clearly demonstrates the need to continually monitor the actual system demands. Five-year projections from the Master Plan can assist with predicting when to implement this Water Supply Reduction Management Plan but must be reviewed on at least an annual basis to capture deviations from the projections. Projected demands for purposes of this plan will be made each year and may include averages of previous years demand and the incorporation of a growth rate that reflects the anticipated conditions of the upcoming year.



Figure 6 Master Plan Projections vs Actual Demands

# Climate Impacts and Drought Monitoring

The western United States along with the state of Arizona have been in a prolonged drought for over twenty years. Sound water management on the regional, state, and local level have provided resiliency for Gilbert when facing supply reductions.



Figure 7 ADWR Drought Dashboard (<u>https://new.azwater.gov/drought/drought-dashboard</u>)

Since Gilbert's surface water supplies depend on watershed conditions many miles away, drought monitoring requires coordination with the outside entities who manage those watersheds, the infrastructure, and the contracts and agreements that convey those supplies to Gilbert. The main entities who provide drought monitoring for Gilbert's supplies include the Bureau of Reclamation (Reclamation), Central Arizona Water Conservation District (CAWCD), and the Salt River Project (SRP). Reclamation and the CAWCD monitor the conditions for the Colorado River supplies. The Salt River Project monitors the conditions within the Salt and Verde watersheds.

The annual availability of Gilbert's CAP supply is determined based on the water level in Lake Mead as projected in Reclamation's August 24-month study. The level in Lake Mead determines whether a shortage is declared based on the procedures set forth in the 2019 Lower Basin Drought Contingency Plan (DCP) (**Figure 8**). The DCP established five tiers of shortage – Tier 0, Tier 1, Tier 2A, Tier 2B, and Tier 3. Tier 0 was enacted in 2020 and resulted in a 192,000-acre-foot reduction to the total CAP supply. However, this did not impact Gilbert's supply.



Figure 8 DCP Shortage Tiers

SRP monitors the conditions of the Salt/Verde Watersheds and annually determines the availability of supply based on the hydrologic conditions. As stated previously, in a normal water year SRP can allocate 3.0 acre-feet per acre to Member Lands. Shortages could result in a reduction from 3.0 ac-ft/acre to 2.0 ac-ft/acre. This would significantly reduce the surface water component of the allocation to likely below 1.0 ac-ft per acre. SRP is able to deliver groundwater, however Gilbert must replenish any groundwater that is delivered and therefore large reductions in SRP supplies would require the use of LTSCs.

Climate change has shown that while the watersheds that supply water have experienced reductions in precipitation, the variability in precipitation year to year require water utilities to manage large fluctuations in water supply availability. Therefore, ongoing monitoring and coordination with outside agencies is key for the timely and effective implementation of this Water Supply Reduction Management Plan.

# Supply Management Guidelines

Normal operations of Gilbert's water system include direct use of surface water at treatment plants, storage of surface water for annual recovery or long-term savings, reclaimed water delivery to decrease potable water use, and groundwater pumping. These operational components allow Gilbert to maintain reliable water service while maximizing the use of renewable surface water supplies. During periods of diminished surface water supplies, Gilbert will necessarily change its operating routines to continue the maximization of the remaining surface water supplies. While these supply management techniques are essential during all stages of the Water Supply Reduction Management Plan, they are especially important in the earlier stages, as they are the main mechanism that Gilbert will use to continue to meet demand with minimal impact to water customers. Their proper use will ensure that the public would have no perceived changes in water delivery, if not for the voluntary requests for water use reductions, in the first two stages. The following list of supply management guidelines is not considered all inclusive, and can be amended as necessary to meet the service area needs:

- Shift deliveries of surface water from storage facilities for long term savings to treatment plants for direct use
- Continue the well maintenance program as a backup supply for the recovery of stored water
- Apply to the Arizona Department of Water Resources for a drought pumping exemption, if necessary
- Increase well pumping, accessing Gilbert's groundwater reserves and stored water reserves
- Drill additional wells to add physical capacity to the system
- Purchase excess CAP water, if available, if SRP supplies are reduced
- Reduce system operating pressure to reduce peak demand
- Closely monitor watershed conditions and communicate with water suppliers to ensure proper selection of water reduction stage implementation
- Increase supplies by utilizing emergency connections with other municipal partners, if available
- Enter into firming or exchange agreements that provide wet water to the treatment plants in times of shortage

# Shortage Declaration

# **Stage Triggers**

The Town Council has authorized the Town Manager to declare the stage of water supply deficiency and the appropriate level of response for the Gilbert water service area. The implementation of the plan is determined by four stage triggers according to the severity of the water supply reduction. Each stage includes a corresponding response that includes demand reduction measures. The guiding principles of the plan stages and demand management measures are informed by the American Water Works Association Drought Preparedness and Response Manual M60. They are based on matching the severity of water shortages with its impact to Gilbert.

Early stages are to be implemented to help preserve the long-term storage credits and the local groundwater supplies especially if shortages are prolonged. The later stages include more intensive demand reduction strategies to mitigate the potential of Gilbert not being able to physically meet system demands.

The response trigger points have been categorized into Stages 1 through 4. Each trigger is based on the relationship between water supply and demand. Stages 1 and 2 are based on the relationship between Gilbert's renewable supply and demand and the Stage 3 and 4 triggers are based on the relationship between physical supply and demand (**Figure 9**).



Figure 9 Stage Triggers

## Water Shortage Response Team

Gilbert has identified the departments who will be leading the response when a stage of this plan is enacted (**Figure 10**). Additional departments can be added by the Town Manager as needed. The level of staff involvement depends on the stage of the plan that is triggered. Early stages of the plan that focus on education will not require changes to water operations and therefore will not require the level of involvement that the later stages will require to reduce demand. However, all departments will need to be informed during enactment of any stage to ensure consistent messaging and participation both internally and with the public. The Water Shortage Response Team (Response Team) will provide recommendations on which measures and when, within each stage, a measure should be implemented. Additionally, the Response Team will track water conservation and efficiency program efforts employed through the Plan to provide recommendations on ongoing measures, as needed. The Response Team Leader will provide findings and recommendations to the Town Manager's Office and Town Council as needed.





<sup>&</sup>lt;sup>1</sup>Additional departments may be added as deemed necessary by the Town Manager

# Demand Reduction Implementation for All Stages

The Water Resources Manager will monitor the projected water supply and demand and will advise the Town Manager while a stage of this plan is active. The extent of the water demand reduction required and the level of implementation of use reduction measures to be placed in effect will also be monitored to assure Gilbert can prudently plan for and supply the necessary water. Demand reduction measures may be system-wide or confined to a segment or portion of the service area and may be year round or seasonal. The Response Team (Response Team) will be assembled prior to entering any stages to consult on the current situation and response.

Stage 1 and Stage 2 focus on protecting Gilbert's renewable water supplies through education and incentives. The responses in these stages match the mildness of the situation and support the community's desire to be a good steward. These stages request voluntary water use actions from Gilbert's water customers and puts a duty on Gilbert's Response Team to proactively increase internal conservation measures. The Response Team assumes the duty of communicating and assisting water customers in suggested voluntary measures as well as monitoring mandates in the latter stages.

Stage 3 and 4 focus on protecting Gilbert's ability to meet demand and require actions by all Gilbert customers to reduce demand. The responses in these stages match the severity of the situation and support the ability to meet water demands for health, safety, and essential operations. These stages may include water shortage surcharges, limits on non-essential landscape watering, limits on water use for new developments, and residential water allocations.

The Town Manager may order or recommend that the appropriate stage of water use reduction be implemented or terminated in accordance with the applicable provisions of this plan and the permitting codes of the Town of Gilbert. Implementation orders will be made public and are effective according to the notice provisions of Town Code Section 66-382.

Restrictions shall take effect and be enforceable upon publication of the notice. Restrictions due to a sudden or catastrophic water treatment or delivery system failure, or unforeseen sudden increases in demand for water, are enforceable immediately following the filing of intent with the office of the Town Clerk. Restrictions will remain in effect until they are rescinded.

# Shortage Management Stages

## Stage 1: Water Education

The Town Manager may initiate a Stage 1 shortage when there is a reduction to Gilbert's renewable water supply or the total projected demand is greater than the forecasted renewable supply. Gilbert may be recovering long-term storage credits to meet the customer demand. The demand reduction measures will be targeted to reduce the reliance on this reserve supply. Gilbert will be capable of providing water to meet current demands with the remaining physically available supplies.

In Stage 1 the main goal is to make sure that all citizens have a comprehensive understanding of current climatic conditions, Gilbert's preparedness, and what each citizen can do to help. This includes communicating to the public:

- 1. The current climatic conditions that are contributing to Stage 1 implementation.
- 2. That Gilbert's water system and water portfolio are prepared for this type of situation.
- 3. The important role that each user has in protecting Gilbert's water supply and how they can help.

The Town Manager is authorized to terminate Stage 1 upon the Water Resources Manager's or a designee's written determination that the conditions that prompted the stage initiation no longer exist, or when a more advanced stage of reduced water supply is declared.

#### Responses Triggered by Stage 1:

Municipal responsibilities and actions may include:

- 1. Implement intensive water resources and conservation education information program. This can be achieved by:
  - Collaborating with state and local water resources and conservation agencies on regional messaging.
  - Providing Water Resources Overview courses for the community.
  - Expanding online resources on the Water Conservation website.
  - Expanding water conservation messaging on Gilbert communications.
  - Providing printed media on water conservation to local libraries, plant nurseries, schools, etc.
- 2. Provide assistance and tools to support water conservation for all water customers. This can be achieved by:
  - Continuing current water conservation programs.
  - Providing hands-on workshops and tools to the residential community that focus on improving household water efficiency.
  - Creating virtual self-guided water auditing tools to identify leaks.
  - Participating in regional collaborations to provide data, tools, and resources for water efficiency efforts.

## Responses Triggered by Stage 1 Continued:

Municipal responsibilities and actions continued:

- 3. Amplify current Internal water conservation practices
  - This can be achieved by:
    - Highlighting Water Wise Gilbert sites, as well as other conservation features and practices.
    - Increasing communication between Water Conservation and significant water-using departments.
    - Increasing the frequency of audits of internal facilities and landscapes for water use efficiency.
    - Prioritizing the installation of water efficient technology in Gilbert managed facilities and landscapes.
    - Target and maintain all Gilbert managed landscape watering to be within 120% of suggested water budget for potable water sites and within 130% of suggested water budget for non-potable water sites.

Requested actions from all Gilbert water customers include:

1. Voluntary water use reductions are requested. Gilbert Water Conservation Offices can help identify areas to reduce through efficiency recommendations.

## Stage 2: Demand Reduction Facilitation

The Town Council may declare Stage 2 when the total projected demand is greater than 110% of the forecasted renewable supply for a duration that will significantly constrain water resources. Gilbert will be recovering long-term storage credits to meet the customer demand and the demand reduction measures will be targeted to reduce the reliance on this reserve supply. Gilbert will be capable of providing water to meet demands with the remaining physically available supplies.

In Stage 2 the main goal is to continue the widespread education of current climatic conditions and the importance of water conservation, as well as deploy water-saving, cost-effective incentives for all water customers. The incentives in this stage should focus on making water efficiency gains more practical for water customers. Upon declaration by the Town Council of a Stage 2, Stage 1 enacted responses will continue to apply. In addition, the responses set forth below will apply.

The Town Manager is authorized to terminate a Stage 2 upon the Water Resources Manager's or a designee's written determination that water allocation, deliveries, storage, or distribution system conditions are sufficient to meet demand, or when a more advanced stage of reduced water supply is declared.

## Responses Triggered by Stage 2:

Municipal responsibilities and actions may include:

- 1. Limit non-essential landscape watering practices.
  - This can be achieved by:
    - Reducing the total area of over-seeded turf.
    - Strategically removing turf in non-recreational areas.
    - Reducing the operational hours of aesthetic water features.
- 2. Provide cost-effective water saving incentives to water customers. This can be achieved by:
  - Issuing rebates or incentives for water efficient technology, landscape conversions, or other water saving actions.
  - Expanding current programs with promising growth.
  - Launching Pledges, Commitments, or Designation programs designed to connect the community around water conservation efforts.
- 3. Prohibit wasteful use of water.

This can be achieved by:

- Bringing awareness to waste of water violations and provide education, tools, or solutions for remedying the waste.
- Issuing notices of violations for repeated or excessive waste of water violations. Citations may be issued for eggregious or ongoing violations.

## Responses Triggered by Stage 2 Continued:

Municipal responsibilities and actions continued:

- 4. Increase Water Conservation internal funding to aid with water efficiency efforts. This can be achieved by:
  - Temporarily increasing staffing levels or program funding to assist with water conservation programs and initiatives.
  - Funding additional internal water efficiency projects that have high savings potential.
  - Seeking out applicable grants that could fund the expansion of conservation programs.

Requested Actions for All Water Customers may include:

- Voluntary water use reductions continue to be requested. All water customers are encouraged to conduct water efficiency audits. Gilbert Water Conservation Offices can help identify areas to reduce through efficiency recommendations and may be able to provide financial assistance.
- 2. Residential customers are encouraged to target their water consumption to be within 120% of Gilbert's Household Water Budget Calculator.
- 3. Non-residential customers are encouraged to target their potable landscape water use consumption to be within 120% of Gilbert's recommended Landscape Water Budget for their specific site. Sites using reclaimed water are encouraged to target their consumption to be within 130% of Gilbert's recommended Landscape Water Budget for their specific site.

## Stage 3: Demand Reduction Requirements

The Town Council may declare Stage 3 when the summer peak daily projected potable demand is greater than or equal to 92% of the daily physical supply availability of the upcoming year. The additional 8% of physical supply availability provides a buffer for unforeseen facility equipment failures or unforeseen demands on the system which reduce Gilbert's physical ability to meet demand.

In Stage 3, the main goal is to bring demand into balance with currently available physical water supplies. Demand reduction measures in this stage are now required for all customers and the goal is to keep Gilbert from entering Stage 4. This demand adjustment is accomplished through conservation mandates designed to reduce non-essential water uses and may also include water use surcharges. Any such surcharges shall be imposed pursuant to ARS Section 9-511.01 and may be adopted by the Town Council in accordance with ARS Section 9-511.01. In Stage 3, all measures from the previous stages will continue. Additional responsibilities and actions will be enacted and are listed below.

The Town Manager is authorized to terminate Stage 3 when upon the Water Resources Manager's or a designee's written determination, water allocation, deliveries, storage, or distribution system conditions are determined to be sufficient to meet demand without mandatory use reduction, or when a more advanced stage of reduced water supply is declared.

## Responses Triggered by Stage 3:

Municipal responsibilities and actions may include:

- 1. Further limit non-essential landscape watering practices.
  - This can be achieved by:
    - Further reducing the total amount of all seasonal turf, focusing on non-recreational areas first.
    - Eliminating the operation of aesthetic water features.
- 2. Limit construction water use.

This can be achieved by:

- Limiting construction water use for certain types of new developments or renovations.
- Limiting construction water use on a seasonal basis.
- Limiting the construction of new water features, including bodies of water primarily used for swimming or other recreational activities.
- 3. Implement shortage surcharge on water use.

This can be achieved by:

• Referencing the most recent water rates study or conducting a new study for recommendations on the appropriate shortage surcharge.

Required Actions for All Water Customers may include:

- 1. Limits on total area of over-seeded turf.
- 2. Limits on day and time of landscape watering.

## Stage 4: Demand Curtailment

The Town Council may declare Stage 4 when the summer peak daily projected potable demand is greater than or equal to 99% of the daily physical supply availability of the upcoming year. This condition provides Gilbert with minimal buffer capacity and is considered a critical stage. This stage can also be enacted when a catastrophic water supply failure occurs. Therefore, the demand reduction measures are focused on curtailing demand to maintain Gilbert's ability to protect human health and safety.

In Stage 4, the main goal continues to be balancing demand with currently available physical water supplies. This demand adjustment is accomplished through demand curtailment measures designed to protect human health and safety and maintain essential operations of the community. In Stage 4, all measures from the previous stages will continue. Additional responsibilities and actions will be enacted and are listed below.

The Town Manager is authorized to terminate Stage 4 when upon the Water Resources Manager's or a designee's written determination that water allocation, deliveries, storage, and distribution system conditions are sufficient to meet demand without mandatory use reduction.

#### Responses Triggered by Stage 4:

Municipal responsibilities and actions may include:

- 1. No turf watering; exceptions may apply for necessary non-potable water use discharge based on operations. Additional exceptions may apply for limited recreational areas, as approved by the Public Works Director.
  - This can be achieved by:
    - Eliminating the watering of all turf, unless needed for essential operations. If balance of supplies can be maintained, consider upholding select recreational areas for public health.
- 2. Implement flow restrictors for excessive water use. This can be achieved by:
  - Installing flow restrictors for exceedance of residential allocations.
  - Installing flow restrictors for continual waste of water violations.
- 3. No construction water use unless approved by the Public Works Director This can be achieved by:
  - Limiting construction water to uses deemed necessary for protecting health & safety, maintaining essential operations, or specifically approved by the Public Works Director.

#### Required Actions for All Water Customers may include:

- 1. Total residential water use consumption may be restricted to an efficiency-based allocation per household.
- 2. No lawn watering.