

Drought Resiliency and Preparedness Update

Terry Piekarz, Municipal Utilities Director, 480-350-2660, terrance_piekarz@tempe.gov

Arizona has a long history of effectively managing drought. Locally, the City of Tempe maintains a robust and resilient water resources portfolio that is sufficient to meet the water needs of the community now and into the future.

In 1999, the Governor of Arizona declared a drought emergency. In response, the City of Tempe developed a drought management plan. By 2002, the drought had resulted in a shortage to a portion of Tempe's surface water supplies, which led the City to implement measures in the drought plan. These measures successfully reduced the water demand of Tempe's water service area.



Since that time, Tempe has continued its investment in infrastructure that will ensure drought resiliency, continued to monitor and plan for conditions that may lead to shortages and update the drought plan.

The Water Utilities Division of the Municipal Utilities Department (Water Utility) continuously strives to advance numerous initiatives and activities related to drought resiliency and preparedness. As part of this

effort, the Water Utility is currently updating the Water Resources Master Plan and the Drought Management Plan, has updated City Council Performance Measure 4.03 and has created a new communications tool. These efforts are described in further detail below.

Water Resources Master Plan

The Water Resources Master Plan describes Tempe's water supplies and infrastructure, outlines strategies utilized to forecast demands and ensures sufficient supplies for Tempe's water service area. The Water Resources Plan is currently being updated, retitled to the Water Resources Master Plan and expected to be complete by the end of 2020.

Drought Resiliency and Preparedness Plan

All community water systems operating in Arizona that serve more than 1,850 people must maintain a drought prevention plan that meets the needs of their water service area. The Drought Plan is contained within the Water Resources Plan and was last approved by Tempe City Council in September 2004.

As part of the current effort to update and expand the Drought Plan, it will be removed from the Water Resources Plan and renamed the *Drought Resiliency and Preparedness Plan*. This plan ensures that Tempe has strategies in place to maintain sufficient supplies to meet the demands of the water service area and prepares for potential water shortages. The plan outlines how Tempe's Water Utility monitors drought conditions in order to understand the impact of water shortages on Tempe's supplies, while maintaining the ability to adjust operations to meet demands.

The process of updating the drought plan is as follows:

- 1. Document Review: Industry standard guidance documents such as American Water Works Association M60 Drought Preparedness and Response Manual, and existing drought resiliency plans, have been reviewed by staff. These reference materials were utilized to identify elements to be incorporated into the new version.
- 2. Draft Update of Plan: The updated plan will become a standalone document that will focus on shortages caused by drought and include additional sections relevant to resiliency and preparedness, shortage indicators, the formation of a Water Shortage Response Team and suggested language for a Water Shortage Ordinance. The revised plan has been drafted and is going through the internal review process.
- 3. Stakeholder Outreach and Review: Once drafted, the plan will be available for public review and comment. Stakeholder outreach will be conducted in two phases. The first phase will be an internal review with staff from Municipal Utilities, Sustainability, Parks and Recreation, Engineering and Transportation and Internal Services. Phase one is expected to be completed in late 2020. The second phase, which is expected to be completed in early 2021, may include large commercial, industrial and institutional customers, residential customers and/or other stakeholders as needed.
- 4. Council Approval: After the public review process, the Drought Resiliency and Preparedness Plan will be provided to City Council for approval, tentatively in July 2021.

Water Conservation Performance Measure Update

In 2014, Tempe City Council approved Performance Measure 4.03, which established a water use goal of less than or equal to 110 gallons of residential water use per capita per day (GPCD). Tempe achieved this goal in 2018 and maintains a current residential water use average of 104 GPCD. City staff proposed an innovative new goal that utilizes sector-based demand tracking GPCD goals, combined with a long-term city-wide water savings goal. This revised performance measure and goal was presented to Council and approved in November 2020.

Drought Resiliency and Preparedness Communications Tool

In an effort to further advance community outreach efforts and ensure transparency in communicating information regarding ongoing investments in drought preparation and resiliency strategies, the Water Utility is developing Fact Sheets as a tool to streamline these efforts. These Fact Sheets provide details and updates regarding ongoing and future activities related to Tempe's drought resiliency and preparedness. The first Fact Sheet was presented in July 2020, and an updated Fact Sheet was published in November 2020.

Projected Schedule

Completion dates (anticipated) of various Drought Resiliency and Preparedness activities are outlined in the following table:

Anticipated Date	Completed Date	Item
July 2020	July 2020	First Drought Resiliency and Preparedness Fact Sheet
July 2020 -		Draft Water Resources Master Plan
December 2020		Didit Water Resources Master Fidir
July 2020 -		Draft Drought Resiliency and Preparedness Plan
December 2020		Drait Drought Resiliency and Frepareuness Flan
December 2020	November 2020	New Conservation Performance Measure to Council for
		Approval
January 2021 -		Drought Resiliency and Preparedness Plan Stakeholder
June 2021		Outreach
July 2021		Drought Resiliency and Preparedness Plan to Council
		for Approval

Water is a critical driver of Tempe's economy and makes life in Tempe possible. Cost-effective, secure water provision provides an essential foundation for economic growth. Without water, the quality of life for residents, business owners and others will greatly suffer. The City recognizes that it plays a central role in ensuring that this fundamental need is met. The Municipal Utilities Department is committed to providing the quality of water services necessary to all of Tempe and managing our urban water environment to ensure the quality of life in Tempe is sustained.

To view the most current fact sheet and find additional information about drought activities, please visit the <u>Water Utilities webpage</u>.