



MEMORANDUM

TO: Mayor and Council Members

THROUGH: Robert Goode, P.E., Assistant City Manager 

FROM: Shay Ralls Roalson, P.E., Director, Austin Water 

DATE: April 15, 2024

SUBJECT: Water Conservation and Drought Contingency Plan Updates

We would like to share an overview of Austin Water's upcoming Recommendations for Council Action, which update both the Water Conservation Plan (WCP) and Drought Contingency Plan (DCP), along with related amendments to the City Code to enforce the plans.

The Texas Commission on Environmental Quality (TCEQ) requires the City's WCP and DCP to be updated every five years. Staff have coordinated revisions with changes being made to the Lower Colorado River Authority's (LCRA) DCP.

RECOMMENDED COUNCIL ACTIONS

On May 2, 2024, Austin Water is requesting consideration of the following:

- Approve a resolution adopting the Water Conservation Plan, as required by the TCEQ, and repeal the resolution for the 2019 Water Conservation Plan.
- Approve a resolution adopting the Drought Contingency Plan, as required by the TCEQ, and repeal the resolution for the 2016 Drought Contingency Plan.
- Approve an ordinance amending Austin City Code Chapter 2-13, Chapter 6-4, and Chapter 15-9 to codify necessary changes to enact the updated 2024 Water Conservation Plan and Drought Contingency Plan.

BACKGROUND

The City of Austin's 100-year Integrated Water Resources Plan, known as Water Forward, includes a number of strategies to provide for a sustainable water future for Austin, including water conservation and water use efficiency, reclaimed water use, like that of the recently adopted GoPurple Program, and strengthening the diversity of Austin's water supply.

While these plans have always served as an important element to water conservation and water supply planning, they are increasingly important tools as Austin continues to grow and as our region faces a prolonged drought. Current drought conditions have reduced the combined storage of the Highland Lakes to 43% of the available storage when full. The updated WCP and DCP describe current and additional activities to increase water efficiency and reduce water use.

WATER CONSERVATION PLAN

The WCP provides a description of the activities by Austin Water to conserve water, both in times of plenty and in scarcity. Activities include customer education, incentives, and enforcement; water loss reduction activities; and water reuse, both centralized reclaimed and onsite. In addition to current and expanded conservation activities, the WCP includes goals for 5- and 10-year per-person water use (Gallons Per Capita per Day or GPCD), per-person water loss, and an infrastructure leakage index. The historic baseline and proposed goals are shown in the following table:

Index	Historic 5-year Average (Baseline)	2029 Goal	2034 Goal
Total GPCD ¹	127	123	116
Residential GPCD ²	64	62	58
Water Loss GPCD ³	21	19	17
Infrastructure Leakage Index ⁴	4.07	3.57	3.31

¹ Total Gallons Per Capita per Day = Total Gallons in System ÷ Permanent Population ÷ 365

² Residential Gallons Per Capita per Day = Gallons Used for Residential Use ÷ Residential Population ÷ 365

³ Water Loss Gallons Per Capita Daily = Total Water Loss ÷ Permanent Population ÷ 365

⁴ Infrastructure Leak Index is a performance measure that expresses system real losses as a multiple of the calculated Unavoidable Real Losses

To achieve these goals, Austin Water will implement both existing and new activities, including:

- Refine customer incentive programs to improve participation and water savings.
- Continue to utilize Austin's new My ATX Water smart water meter system to engage customers with information regarding their usage, promote conservation, and notify them of leaks.
- Incorporate water saving practices into new residential developments.
- Expand the number of commercial buildings using reclaimed water and/or onsite water reuse.

DROUGHT CONTINGENCY PLAN

Austin's DCP focuses on activities to mitigate water use during times of drought. As an LCRA customer, the City of Austin's DCP must be at least as stringent as the LCRA's DCP, most recently updated on March 26, 2024. The LCRA's DCP requires the inclusion of a new inflow-based trigger for Drought Stage 2. Inflow is the physical movement of water into the lake system, primarily through rainfall. As an example of an inflow trigger, when LCRA Drought Stage 1 is in effect, the LCRA will evaluate the amount of water flowing into the lakes on March 1 and July 1. If inflows for the prior three months are less than the 25th percentile of historical inflows, then Drought Stage 2 is triggered. In addition, a new water-supply drought stage is engaged when the combined storage reaches 750,000 acre-feet of water.

These changes have now been incorporated into the City of Austin DCP. Each stage includes water use restrictions and discretionary actions that Austin Water can take to address the increased water use that accompanies drought conditions. The current and proposed stages are shown in the following table.

Current Drought Stages		Updated Drought Stages		
Drought Stage	Supply Trigger (acre feet)*	Drought Stage	Supply Trigger (acre feet)*	Inflow Trigger
1	1,400,000	1	1,400,000	n/a
2	900,000	2	900,000	25th percentile of historic inflows**
3	600,000	3	750,000	n/a
4	Emergency	4	600,000	n/a
		5	Emergency	n/a

* Volume of combined storage in Lakes Buchanan and Travis. Storage when full is approximately 2 million acre-feet.

** On March 1 or July 1, combined storage in Lakes Buchanan and Travis is below 1.1 million acre feet and the cumulative prior three months of inflows is less than the 25th percentile of historic inflows for the three-month periods.

The most significant conservation activity in Austin's DCP is the one day per week watering schedule for automatic irrigation systems that is always in effect, regardless of drought. As the drought stages increase, the plan calls for reduced irrigation time in a day for both residents and businesses. Proposed additions to the current DCP include:

- Discretionary and temporary actions to progressively reduce water use as drought stages advance (Drought Stages 1-4), such as:
 - Enhanced public outreach,
 - Increased incentives, such as rebates for existing residential and commercial/multi-family conservation programs,
 - Expanded temporary enforcement of watering schedules, and
 - Outreach to other City departments to implement water saving projects.
- Changing the automatic exemption from watering restrictions of athletic field irrigation to a requested administrative variance in Drought Stage 3 and 4. The variance process will allow those who operate athletic fields to continue to irrigate to protect participant's safety but will provide additional information to AW staff to document their irrigation schedules and conservation practices.
- Instituting a temporary moratorium on new irrigation permits and single-family pool permits in Drought Stage 4.
- Not allowing irrigation of turfgrass unless that grass is used for community purposes such as events, recreation, or sports using automatic, manual, drip, or hose-end sprinklers in Drought Stage 4, as mandated by the LCRA's DCP.

For more information, please contact Shay Ralls Roalson at 512-972-0108, shay.roalson@austintexas.gov.

cc: Jesús Garza, Interim City Manager