

To: Austin Water Resource Planning Task Force

From: Daryl Slusher, Assistant Director, Austin Water

Date: June 5, 2014

Subject: Remaining measures from 2007 and 2010 water conservation plans and an additional measure for consideration

The task force asked earlier for a list of the conservation measures from the 2007 and 2010 water conservation plans, their stages of implementation, and estimates of the potential savings achieved and the potential savings remaining from the unimplemented or partially implemented measures. As noted in an earlier transmission, the last part of that request involves considerable detail work by staff, and we were not able to provide all the answers at once. Staff has now estimated potential savings from the remaining quantifiable measures. Those have been added to the COA Drought Response Decision Matrix, and there are also short summaries of assumptions in a separate format. Those documents are attached

I also thought it might be helpful to provide some history and context regarding the two previous water conservation task forces. And, with the seriousness of the drought in mind, I want to offer another measure for consideration that could be quicker to implement than the remaining measures from the previous water conservation plans, while also providing significant reductions in water use during Stage 3.

As noted, the previous water conservation plans were:

- **The 2007 Water Conservation Task Force (WCTF) Plan**, adopted by Council in the spring of 2007, which focused on peak day use, but implementation of the measures led also to overall savings.
- **The '140 Plan'** (or the 140 GPCD (Gallons per Capita per Day), developed by staff in 2010 per Council resolution and based on the report delivered to Council earlier that year from the Citizens Water Conservation Implementation Task Force (CWCITF). Those strategies focused on average day use. The Council adopted the 140 GPCD goal, but did not take action on the plan.

Both the WCTF Plan and the 140 Plan are 10-year plans.

### **The 2007 WCTF Plan**

The 2007 WCTF plan had a goal of saving 25 million gallons per peak day by 2017. The full set of measures in the plan, however, amounted to 32 million gallons per day (MGD) of savings. Due to strong citizen response, both the 25 mgd goal and the 32 mgd figure were met within four years.

In an attempt to meet the conservation goals as soon as possible, Austin Water prioritized the biggest savings measures first: the mandatory watering restrictions, expansion of the reclaimed water system, rates (instituting a fifth tier to the residential rate structure), and water loss reduction.

Austin Water simultaneously moved forward on numerous other measures in the plan, which were estimated to yield smaller savings. As has been discussed at the meeting and detailed in a previous chart given to this task force, there are still measures remaining which have not been implemented yet or have not been fully implemented – although the total savings goals have been achieved because some of the other measures yielded more savings than predicted.

### **The 2010 Citizens Water Conservation Implementation Task Force and AWU's 140 Plan**

The process surrounding the 140 goal was somewhat different than that of the 2007 Water Conservation Task Force. The CWCITF proposed the 140 goal, which Council adopted. The CWCITF then identified over 100 conservation measures that could be implemented to meet that goal. The Council then directed the City Manager to finalize technical and cost-benefit evaluations of the CWCITF's recommendations and develop a 10-year action/implementation plan. That proposed plan, the 140 Plan, was presented to Council in January 2011. The Council did not take action on the plan, but left the 140 GPCD goal in place.

After the Council briefing, Austin Water prioritized implementation of the CWCITF's recommendations based on the largest potential savings and what was considered most practical and cost effective. The utility did not move forward on measures to which individual Council Members objected when the plan was brought forward, specifically, for example, limiting the portion of a property which can be irrigated.

As to reaching the 140 GPCD goal, the current five-year rolling average is 149, which is ahead of where the city needs to be in order to reach a five-year rolling average of 140 GPCD by the target of 2020. Also, annual GPCD has been below 140 twice since the 140 Goal was adopted in 2010 (in fiscal years 2010 and 2013), and it is expected to be below 140 this year as well. This is due in part to the Stage 2 measures implemented during the drought, particularly those limiting outdoor irrigation to one day per week.

### **Another potential short-term water savings**

Staff is very open to all recommendations from this task force regarding implementation of additional demand side measures, whether new or from the two previous task forces. However, given the immediate challenges brought on by the historic drought, staff continues to feel a need to focus on short-term savings and supply issues. It is also clearly understood by staff that this task force wants to do more on the demand side of the

equation. Staff also senses that the task force would like to develop plans to delay or avoid entering Stage 4 if at all possible – and staff shares that desire.

In that spirit I would like to put another measure on the table for discussion. That is an interim measure within Stage 3 that would prohibit outdoor watering except for watering by hand. This would be reasonably inexpensive to implement (although there would certainly be revenue losses for the utility and impacts to the community) and could be implemented much quicker than the measures remaining from the previous two water conservation plans. Additionally, it would yield significant short-term water savings in addition to any other demand side measures recommended by this task force.

As the task force is aware, outdoor watering is still permitted one day per week during Stage 3, though watering hours are reduced as compared to during Stage 2. In Stage 4, all outdoor watering is prohibited, including watering by hand.

Creating an interim measure within Stage 3 that would prohibit outdoor watering except by hand would give citizens an opportunity to give care to plants and the tree canopy, but would prevent irrigation of lawns, except for watering by hand. Staff estimates that this could save approximately 12,000 to 15,500 acre-feet per year over Stage 3. To be clear, if adopted, this measure should be used to generate further savings and put off Stage 4 but it should not be a substitute for Stage 4.

Stage 3 is triggered when combined lake storage falls below 600,000 acre-feet. However, there is no quantitative trigger that prescribes when we move into Stage 4. Per the City's Drought Contingency Plan, Stage 4 is triggered when determined by the City Manager when there is a system outage, equipment failure, contamination of our water source or other emergency – such as severely low reservoir levels. Therefore, staff has discussed 400,000 acre-feet as a possible combined storage drought trigger for Stage 4 – although, again, this would eventually be determined by the City Manager.

If the task force were interested in an interim hand watering only step, staff would encourage the task force to discuss at what lake level it should be implemented. For example though, 500,000 acre-feet could be the trigger.

If this task force were to recommend this measure Austin Water would seek additional public input in a limited timeframe, as the current drought stages were the result of an extensive public participation process in 2012.

Thank you for your work on the task force and your consideration of the points herein.

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