



Barton Springs Pool Tree Watering Plan 2-1-2012

Background: Due to the compounding factors of site use and several years of drought, many trees at Barton Springs Pool may become severely stressed. The lack of available water to the trees' fine absorbing roots remains a critical problem.

Goal: Using best management practices for tree care, the professional judgment of the Parks and Recreation Department (PAR) Forestry staff, volunteers and resources to provide supplemental water to trees to improve their health

Approach: Austin Parks and Recreation Department (PAR) Urban Forestry Program staff will address this issue by recommending supplemental watering practices to be applied by Aquatics Maintenance staff and enabling volunteer efforts. The City and its project partners intend to provide supplemental water to the outside portion of critical root zones of selected trees. Trees will be selected by a Certified Arborist based on the following priorities:

- 1) Have some drought stress symptoms such as dead branch tips or discolored leaves covering between 5-25% of the canopy. Healthy trees with no drought symptoms should not be watered, nor should those that will not respond substantially to treatment (more than 25% of the canopy is defoliated or dead)
- 2) Are large mature trees where declining health may increase the risk to public health and safety or site protection
- 3) Are newly planted trees where an investment of time and care needs to be protected
- 4) Are native species
- 5) Are within reach of an existing water source

Application method will be to supply a professionally established quantity to the outer ½ critical root zone (critical root zone is defined by the City of Austin Environmental Criteria Manual as 1 foot radius per inch of tree diameter) with a delivery method such as a soaker hose that allows deep infiltration and soil storage. The inner ½ critical root zone contains many structural roots and fewer fine absorbing roots, therefore should not be

watered. General quantity recommendations are contained in the Parks and Recreation Department guideline.

Watering Objectives (based on guidelines established by the Texas Forest Service and Texas A&M AgriLife Extension):

- 1) Water will be distributed to the trees by the best and most practical methods. This may include irrigation, temporary water tanks, watering trucks, or hand watering
- 2) Water amounts will be based on the individual needs of each tree. A PARD professional forester, or certified arborist employed by a partner group, will inspect trees on a weekly basis to observe soil moisture and tree health. Based on the results of the weekly inspections, the forester or arborist will determine the need for supplemental water
- 3) In determining watering amounts, PARD professional staff or arborist will use the guideline established by the Parks and Recreation Department. This amount will be adjusted based on tree health, precipitation, micro site conditions, and tree response to watering
- 4) Supplemental watering will continue until PARD foresters determine that a sufficient response from the tree has been achieved
- 5) Tree monitoring by staff will commence at recognized drought initial impact, proceed with an initial water application and will continue through the end of drought conditions, or December 1, 2012 (whichever comes first). At that time, the need to extend the monitoring and the watering plan will be evaluated
- 6) The City will utilize volunteers whenever possible to assist with the watering

www.cityofaustin.org/parks

www.ci.austin.tx.us/parks/forestry.htm



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