



**URBAN FOREST ADVISORY COMMITTEE (UFAC)  
Urgent Advisory - Drought Recommendations for Trees**

**TO:** City Council, Assistant City Managers, and Department Directors  
**FROM:** Robert Curry, Chair, Urban Forest Advisory Committee, [info@dallastrees.org](mailto:info@dallastrees.org)

Despite recent rains, Texas is in one of the worst droughts on record and Dallas has just exited its worst heat wave in history. The National Weather Service reports that according to Texas tree-ring records, 2011 was the second worst summer drought in nearly 500 years.

**Dallas: Hottest place in Texas?**

Among Texas cities, Dallas and its trees may be the hardest hit from the summer due to the urban heat island effect whereby concrete retains high heat overnight. This heat island placed intense stress on existing trees which require cooler temperatures at night. An informal survey of July and August temperatures at Love Field and Addison Airport (which borders Dallas) showed the City of Dallas had the hottest night-time temperatures in Texas. (See appendix)

**How can we protect our trees right now?**

Dallas' urban forest is showing signs of stress from drought and extreme heat. While it may be too soon to know how many trees have actually been lost, it is important to begin implementing measures now to prevent further loss. To protect Dallas' tree canopy, UFAC recommends:

1. Water trees, not grass.
2. Water trucks should be utilized to irrigate the city's most critical trees.
3. Water funds: Redirect mowing and other landscape funds to watering trees.

**How can Dallas prepare to address drought-damaged trees?**

It may take years before we see the full effect of this year's weather on our trees. Even more daunting is the probability of continued drought into next year. To prepare, UFAC recommends:

1. City departments should develop drought response plans, including appropriate budgets, to prepare for increased limb breakages and tree removals.
2. Coordinate to ensure additional tree maintenance activities, chipping and hauling while utilizing debris mulch on existing trees nearby.

**How can we protect our tree canopy in future summers?**

Because trees can cool a neighborhood by up to 10 degrees they are one of our best defenses against a hot, dry summer. The more trees we lose – the hotter it will be. To protect our canopy and cool our city, UFAC recommends:

1. Plan for the replacement of lost trees, once the drought abates; and establish a continual tree planting policy for the renewal and expansion of the urban forest.
2. Appropriate city departments should investigate methods to reduce the urban heat islands throughout the city, including the hottest areas near Love Field and the Galleria.

Immediate measures and policies can save our city valuable resources in the future, and ensure our urban forest continues to provide the great benefits that enhance our quality of life.

**UFAC can help**

UFAC is comprised of tree, environment, and development professionals who can serve as a resource to council members and city departments as they develop tree-related policies.

APPENDIX: Informal Summer 2011 Overnight Temperature Summary.

**Nights at or above 80 degrees (July 1- Aug 31):**

North Texas

Addison Airport	62
Love Field	56
DFW Airport	49
Dallas Exec. Apt	45
Ft Worth Meacham	45
Ft. Worth Alliance	37
Arlington	32
Denton	25
McKinney	15

Texas/Oklahoma

Waco	38
Tulsa	23
Houston (Bush)	19
Houston (Hobby)	9
Austin-Mabry	5
San Antonio	4

(Source: National Weather Service – Fort Worth, online climate data, <http://www.srh.noaa.gov/fwd>)

**Nights at or above 85 degrees (July 1 – Aug 31):**

North Texas

Love Field	21
Addison Airport	19
DFW Airport	10
Dallas Exec. Apt.	9
Ft. Worth Meacham	3
Ft. Worth Alliance	2
Arlington	1
Waco	1

Texas

Houston (Bush/Hobby)	0
Austin-Mabry	0
San Antonio	0

(Source: National Weather Service – Fort Worth, online climate data, <http://www.srh.noaa.gov/fwd>)

**2011 vs. 1980:**

Note: Love Field's 80 degree nights quadrupled from the 1980 heat-wave. Furthermore, no 85 degree nights occurred during summer 1980.

Nights above 80 degrees (June - August)		
	<u>2011</u>	<u>1980</u>
Dallas Love Field	64	16
DFW Airport	53	22

Nights above 85 degrees (June - August)		
	<u>2011</u>	<u>1980</u>
Dallas Love Field	21	0
DFW Airport	10	0

(Source: National Weather Service – Fort Worth, online climate data, <http://www.srh.noaa.gov/fwd>; and Daily Climate Weather Records, <http://www.geodata.us>)