May 10, 2006

Urban Forest Advisory Committee
Urban Forest Inventory Study

I. Description

Develop a system by which field data can be collected, mapped, and accessed through the a database/GIS system. The study would have the following objectives:

A. Develop high-resolution cover maps of the area within the City of Dallas boundaries
B. Analyze street tree data collected in the neighborhoods (e.g., carbon storage, air pollution removal, tree values)
C. Provide tree analysis data in format that can be linked into GIS maps
D. Develop maps and data that can be used to analyze and select best locations to plant trees and calculate tree benefits/values

II. Objectives

A. Develop the basis of knowledge of the magnitude and quality of the Dallas Urban Forest to facilitate the proper management of this major asset.
B. Use of current technology to improve urban forest management, in a way that will reduce study time and costs, and result in a successful project.
C. Develop an analytical understanding of the impact of urban trees on property values, quality of life and environmental health;
D. Help close the loop among community residents who benefit directly from urban forests, resource managers and researchers responsible for maintaining the forests, and decision makers who develop policies that affect the forests; and

III. Benefits (an example of a previous similar study)

A. Major Findings & Conclusions from Houston's regional forest provides impressive value to its citizens:

1. The replacement cost of the region's 663 million trees is valued at over $205 billion.
2. Trees store $721 million worth of carbon.
3. Trees generate $456 million worth of environmental benefits annually - amounting to $109 per person per year.
4. Trees save $131 million in residential energy costs and avoided power plant emissions each year - almost $90 per household.
5. Houston's trees remove over 60,000 tons of air pollution per year.

B. Large trees and urban trees have greater roles in producing forest benefits:

1. Most trees are small. Only 30 percent of the region's trees are five inches in diameter or greater, but they generate over 60 percent of total environmental benefits.
2. Large trees are particularly valuable. Very large trees - 20 inches diameter or greater - contribute 90 percent of the $205 billion replacement value of the regional forest.
3. Urban trees work harder. The average urban tree stores 75% more carbon and has a 76% higher replacement value than the average rural tree.

C. Citizen Views of Trees from New York Study

1. *Help keep the environment clean:*
2. *Control soil erosion*
3. *Reduce global warming*
4. *Provide cleaner water*
5. *Provide clear economic benefits*
6. *Strong branching to minimize storm damage*
7. *Reduce energy bills for heating and cooling*
8. *Add value to the property*
9. *Provide personal comfort*
10. *Provide cool shade in the summer*
11. *Soften harsh glare from the sun*
12. *Have special social significance*
13. *Make your house look more special*
14. *Provide a feeling of privacy*
15. *Improve sense of neighborhood community*

IV. Costs

Houston Study approximately $700,000, funded about 3 years ago.
New York City study _____, funded about 5-6 years ago.
Estimated cost for Dallas Study at $1,000,000.