



# UTC Fact Sheet

The Louisville 2012 urban tree canopy (UTC) cover is **37%** (just over 94,000 acres). Within the neighborhoods of the old city boundaries of Louisville (considered the urban core), tree canopy cover is **26%**. If the large parks like Jefferson Memorial Forest, the Parklands of Floyd's Fork, Iroquois, and Cherokee Park are excluded, urban tree canopy across all of Louisville may be closer to **30%**.

**Entire City /  
County UTC**

**37%**

**Old City Louisville  
Boundary UTC**

**26%**

**Entire City / County UTC  
Excluding Large Parks**

**est. ~30%**

## Finding Highlights

This study examined a large amount of data and trends related to Louisville's canopy and land use. Data are now available to Louisville for future use and analysis in planning and fundraising efforts. Highlights of the findings from the written report follow:

- The largest and most predominant land use in Louisville is single-family residential (34% of the entire area) which has a canopy of 42% (down from 46% in 2004). This land use group accounted for over half of all acreage of canopy lost (3,295 acres) between 2004 and 2012.
- Heat-stressed areas within Louisville encompass approximately 31,000 acres (12%) of the study area. These areas have a combined canopy coverage of only 8%, and 66% impervious land cover.
- Canopy has decreased in more than two-thirds of the sewersheds, ranging from 3–35% lost per sewershed.
- Canopy cover tends to be higher in wealthier areas, areas with higher concentration of older residents, predominance of owner-occupied residences, higher value homes, newer homes, and higher-educated residents. It was also shown to decrease as population density increased, as household incomes decreased, and

## City Comparisons

How does Louisville/Jefferson County's overall urban tree canopy coverage compare regionally?

Charlotte, NC	49%
Nashville, TN	47%
Pittsburgh, PA	42%
Knoxville, TN	40%
<b>Recommended</b>	<b>40%*</b>
Cincinnati, OH	38%
<b>Louisville, KY</b>	<b>37%</b>
Evansville, IN	26%
St. Louis, MO	26%
Lexington, KY	25%

\*Recommended canopy by American Forests

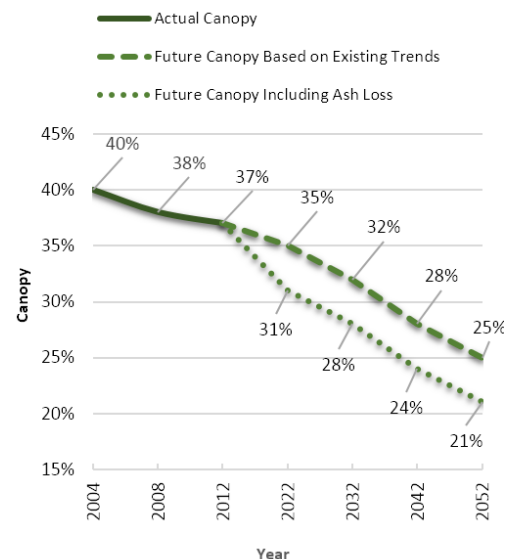
## Falling Canopy Levels



Analysis of UTC since 2004 has shown a steady decrease in canopy cover, declining by 7% over the eight-year period.(2004 to 2012). This equates to a loss of over 6,500 acres of canopy, averaging to 820 acres of canopy or 54,000 trees lost per year. At the same time, impervious surfaces like roads, buildings, parking lots, and sidewalks have grown steadily, increasing by 9% between 2004 and 2012.



**If current trends hold, and factoring in loss of ash trees from EAB, Louisville canopy is projected to decrease to 31-35% in the next ten years, dropping to as low as 21% over the next forty years.**



**CITY OF LOUISVILLE**

# UTC Fact Sheet (continued)

## Challenges Facing Louisville

**Urban Heat Island**  
Louisville has been identified as one of the fastest growing and most intense heat islands in the country.

**Water Quality/Pollution**  
Increasing amounts of stormwater overwhelming sewers are causing sewage overflows and waterway pollution.

**Future Loss of Trees**  
Loss of ash trees is on the horizon. Ash represent anywhere from 10-17% of existing tree canopy.

## Benefits from Louisville Trees

Louisville trees provide \$560 million in benefits through stormwater interception, temperature moderation and energy savings, increases in property values, air quality improvements, and carbon mitigation. These benefits have a direct impact on urban heat island and stormwater challenges, so as canopy decreases, so, too, do the benefits it provides, affecting urban issues like heat island effects, stormwater management, and more.

	Stormwater Intercepted	Energy Savings	Property Value Increase	Air Pollution Removed (NO <sub>2</sub> , CO, O <sub>3</sub> , SO <sub>2</sub> , PM <sub>10</sub> )	Carbon Sequestered
Annual Amount	18,835,266,390 gallons	67,649,325 kWhs	-	6,898,400 lbs. of pollutants	444,112 tons
Annual Benefit Value	\$62,909,790	\$5,463,356	\$239,969,791	\$12,209,844	\$8,599,490

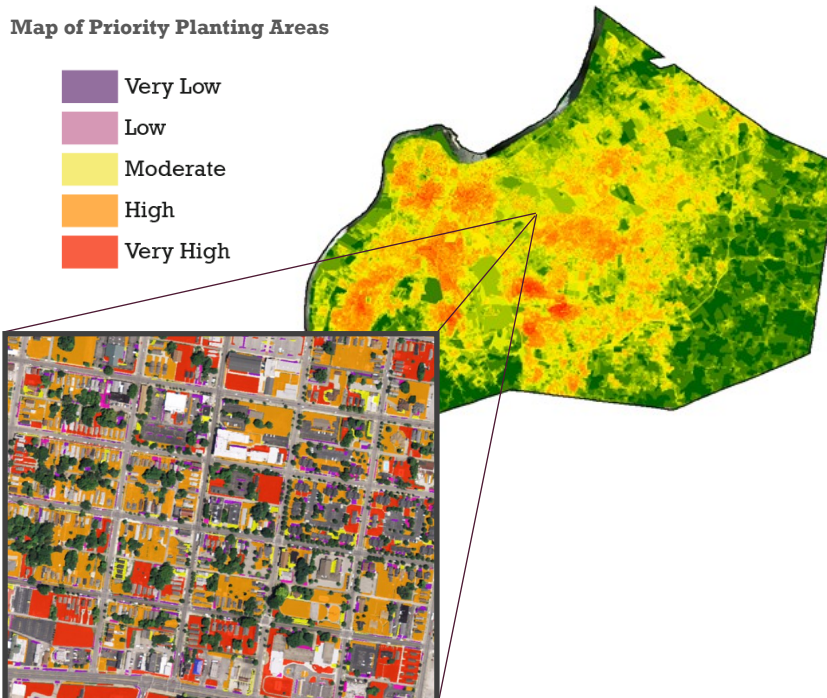
**Total Annual Benefits = \$389,152,271**

+ Carbon: Storage Over Canopy's Lifetime (11,941,333 tons, \$231,224,066) = **\$560,376,337 in total benefits**

## Priority Planting Areas Identified

Based on the results of this canopy study, and in an effort to reverse canopy loss, all potential realistically plantable areas across the county were prioritized based on a number of factors: urban heat Island effects, stormwater priorities, floodplain protection, soil types, slope, proximity to impervious surfaces, canopy fragmentation, and road and population density. All areas were then ranked on a scale from very low to very high in terms the each area's needs.

Map of Priority Planting Areas



Priority Level	Realistically Plantable Acres County-Wide
Very Low	1,891 acres
Low	11,435 acres
Moderate	9,314 acres
High	31,336 acres
Very High	11,761 acres