

City of Charlotte Tree Canopy Goal

Charlotte's Urban Forest Master Plan (UFMP), adopted by City Council in 2017, provides the blueprint for the engagement and purposeful action of community leaders, residents and organizations in sustaining Charlotte's tree canopy. The plan envisions that,

"By 2050, and for generations after, residents will benefit from a resilient, diverse, robust urban forest supported by broad-based community partnerships and informed residents. The entire Charlotte community will recognize our urban forest as a treasured natural resource and be active, enthusiastic participants in its preservation." Charlotte Urban Forest Master Plan, adopted by Charlotte City Council, September 25, 2017

The vision ensures that all players and stakeholders are in synch when planting and preserving land to ensure Charlotte remains "The City of Trees" for future generations.



"The City of Trees"

The City of Charlotte is known as "The City of Trees", a title earned as Charlotte's citizens and Council have made wise decisions through the years to invest in, maintain and protect the tree canopy. Significant public investment and protection decisions are reflected in the City's achievements:

- Staffed with a full-time City Arborist since 1974.
- Designated a "Tree City USA" from the Arbor Day Foundation every year since 1980.
- Nationally recognized for an exemplary tree ordinance and Tree Canopy Preservation Program.
- Manages a strong street tree program and tracks street tree location, species, age and condition.
- Incorporates the design and installation of landscaping and trees into Capital Improvement Projects.
- Development of TreesCharlotte non-profit, for whom the City provides both financial and technical support.

Charlotte residents have affirmed that the trees in Charlotte are an important resource to the city in terms of aesthetics, health, and environmental benefits. In the Urban Forest Master Plan survey citizens repeatedly indicated that the trees help define the city, make it a more inviting place to live, provide many health benefits to residents, and create a positive environment for wildlife.

"During the assessment of Charlotte's urban forest, one of the critical findings was that the community must be more effectively engaged to ensure future progress. This is especially true since over 80% of Charlotte's tree canopy is privately owned. Therefore, the ability to preserve and sustain the city's urban forest over time depends on actions taken not just by the city, but also by community organizations, businesses, and individuals." Charlotte Urban Forest Master Plan, adopted by Charlotte City Council, September, 25, 2017

Studies of The Urban Forest and its Benefits

Charlotte has conducted studies of its tree canopy since 1985. Beginning with the 2002 study, high-resolution aerial photography has given the City some indication of the changes in canopy coverage. In 2016, tree canopy coverage in the City, was measured at 46.8 percent of total land area, with a .9 percent margin of error in the analysis. Therefore, the canopy coverage can be estimated at between 46 percent and 48 percent.

The Urban Forest Master Plan used iTree software to calculate the value Charlotte's trees provide to residents, including:

- sequester 470,000 tons of carbon each year, valued at 17 million annually.
- provide 15.4 million a year in energy savings.
- provide an increase in property values, totaling 286 million annually.

From the analysis of Charlotte's tree canopy in 2017, the UFMP valued the benefits provided by Charlotte's tree canopy at over \$335 million each year.

Establishing a Tree Canopy Goal

Current urban forestry industry recommendations are to avoid setting broad quantitative goals that if not reached, may be construed as failure. Instead the trend is toward creating qualitative and quantitative goals that measure the benefits the trees provide and engage communities to increase canopy awareness.

In its 2017 Urban Forest Master Plan for the City of Charlotte, Davey Resource Group indicated that with 2017 zoning designations, at build out Charlotte's canopy may be approximately 41 percent. Informal staff research conducted in 2018 indicates Charlotte's tree canopy coverage is high in comparison to other communities that have published their canopy information.

Charlotte's recently adopted Strategic Energy Action Plan states that Charlotte's trees provide a cooling effect to the City, helping to drop temperatures caused by the Urban Heat Island Effect. The canopy also acts as a carbon sink; this means it helps to reduce emissions of CO₂ globally. The tree canopy therefore has a significant impact on both mitigating and adapting to climate change. Maintaining excellent tree canopy coverage of Charlotte will enable the City to demonstrate global leadership over the long term.

The Tree Canopy Goal

Charlotte's tree canopy goal will be a benefits-driven approach, utilizing place-specific and other complementary strategies to provide the highest level of tree benefits possible to the Charlotte community. The goal will be implemented in four strategy areas: Tree preservation, planting, engagement/education, and celebration.

Additional focus will be placed on providing opportunities for citizen involvement to preserve and experience tree canopy for generations. Recognizing that the tree canopy is organic, dynamic and ever-changing, a benefits-driven approach will provide the opportunity to ensure tree canopy equity throughout Charlotte. Trees mature and grow to their full canopy over a 30-to 40-year period, and the benefits associated with the trees will continuously change as trees are preserved, planted, pruned and removed.

Benefits Focus

- *Shade*: reduction of urban heat island effect, cooling, energy savings
- *Air Quality*: pollution reduction and carbon sequestration and emission reduction
- *Neighborhood character & property value*: create strong, safe, beautiful neighborhoods for all
- *Quality of Life*: quality of canopy, public health and stress reduction
- *Wildlife Habitat*: urban forests are more than just trees, wildlife habitat is an important component

Place-Specific Focus

- *Community Engagement*: create opportunities for citizen involvement in the preservation of tree canopy
- *Urban Arboreta*: create opportunities for citizens to experience canopy-themed urban arboreta
- *Place Types*: tree canopy policies will be implemented in the Unified Development Ordinance (UDO)

"Fifty by 2050" will still reflect an overall city-wide tree canopy aspiration. However, this iteration will focus on "Fifty-themed" initiatives that will include community involvement in the creation of tree canopy for future generations as well as provide easily understood reporting. The following list of initiatives will be implemented and is not meant to be exhaustive, additional fifty-themed initiatives will be developed and implemented to support the goal as directed by Council's Urban Forest Master Plan.

Fifty-Themed Initiatives

- *Re-plant at least fifty percent of quantity of street trees removed annually*
- *Provide 5,000 trees and 5,000 seedlings for neighborhood planting annually*
- *Celebrate and recognize neighborhoods with fifty percent or greater canopy*
- *Conduct fifty engagement/outreach events annually such as:*
 - o *Neighborhood-level urban forest plans*
 - o *"Tree ordinance academy"*

- *TreesCharlotte engagement events*
- *Continue updating urban tree canopy analysis every 5 years*
- *Create fifty Urban Arboreta by 2030*
- *Add 5 or more acres to Tree Canopy Preservation program annually*

Land use is still a significant factor affecting existing and potential canopy coverage. Different types of urban development provide differing amounts of available space for trees to be added. Canopy coverage percentage goals for specific place types will be established in conjunction with completion of Charlotte's new Comprehensive Plan and (UDO).

Tracking Progress: The goal will be reviewed and updated at minimum every 5 years. An urban tree canopy analysis will also be completed at minimum every 5 years to obtain data to inform goal review/revision.