



# Create a Forestry Plan and Tree Cover Goal

## WHAT IS IT?

Urban forestry plans are strategic goal-setting documents that address urban tree counts and a city's urban canopy. The urban tree canopy describes trees, including leaves, branches, and stems, that provide ground coverage when viewed from above. Urban tree canopy also includes urban forests, such as "urban parks, street trees, landscaped boulevards, gardens, river and coastal promenades, greenways, river corridors, wetlands, and nature preserves." The US Forest Service recommends different urban tree canopy goals as baseline targets depending on the city's ecosystem: 40-60% for forested areas, 20% for grassland areas, and 15% for desert areas.

Unfortunately, in the United States, tree coverage in urban areas is declining by approximately 4 million trees annually. Cities can work to bolster their urban tree canopy by creating forestry plans and tree cover goals.

The City of Columbus has achieved a tree canopy coverage of approximately 22%. In 2019, the City created the Columbus Urban Forestry Master Plan, with a goal to achieve 40% tree coverage by 2040. This Forestry Plan is one of the methods to address the urban heat island effect, community health, and climate change goals. Columbus has the fastest growing urban heat island effect and has the 8th highest summer urban heat island out of the 60 largest cities in the United States.

In Cleveland, the tree coverage is lower, at around 19%, and without action, it is anticipated to decrease to 14% by 2040. In response, the City of Cleveland has partnered with public, private, and community stakeholders to create the Cleveland Tree Coalition. The Coalition has collaborated to implement the Cleveland Tree Plan, which has the goal to increase the canopy coverage to 30% by 2040. In its current state, the urban tree canopy still provides over \$28 million in services annually. Every year, trees capture 1.8 billion gallons of rainwater (valued at \$11 million), removes 415 tons of air pollution (valued at \$1.8 million), reduces energy costs by \$3.5 million, and increases property values by \$4.5 million.

## WHY IS IT IMPORTANT?

- Each year, one urban tree can sequester 13 pounds of carbon, equating to approximately 2.6 tons per acre.
- Each year, one tree can also remove 120-240 lbs of particulate pollution.
- Trees also provide shade which can decrease energy use; shaded surfaces can be up to 20-45°F cooler than unshaded materials. Further, the evapotranspiration from trees can reduce peak temperatures by 2-9°F during the summer.
- Urban trees can reduce noise pollution by up to 50%.
- Additionally, healthy trees can increase residential property values by up to 15%. Greenery in shopping districts can also increase a consumer's willingness to buy goods by 12%.

## BENEFITS



**Increase carbon offsetting**



**Decrease urban air pollution**



**Reduce the urban heat island effect and lower peak summer temperatures**



**Reduce the risk of premature deaths related to extreme heat**



**Increase local property value**



**Decrease the impact of noise pollution, particularly for residential areas near highways**

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## HOW CAN COMMUNITIES IMPLEMENT THIS POLICY?

Cities can begin to improve the health of their urban forests and increase the tree canopy through an assessment of its existing assets and an inclusive planning process.

- **Conduct an Urban Tree Canopy Assessment.** Cities can leverage existing canopy inventories conducted by local, regional, or national groups. Vibrant Cities, a partner of the US Forest Service, offers tools to conduct urban tree canopy assessments and street tree inventories. i-Tree offers forestry analysis and benefits assessment tools that utilize aerial imagery and volunteers to categorize urban tree canopies. Finally, regional planning agencies and academic institutions can provide forestry resources or volunteer hours to complete the assessment.
- **Explore LiDAR technology to assess and monitor the health of the urban tree canopy.** LiDAR, or Light Detection and Ranging, is a remote sensing method that uses aerial imagery to examine surfaces. LiDAR is commonly used to yield information about the health of the urban forest and progress in increasing tree canopy coverage.
- **Create an Urban Forestry Master Plan.** Cities should solidify their commitment to the urban forest by creating a goal-setting document. This should include the Urban Tree Canopy Assessment, as well as specific goals for expanding the urban tree canopy.
- **Partner with diverse stakeholders to achieve tree cover goals.** Cities should engage private businesses, non-profits organizations, environmental groups, and other community-based organizations to encourage participation in tree planting and tree maintenance.
- **Engage residents in the creation of the Forestry Plan.** Cities should conduct thorough community engagement while creating the Forestry Plan. Historically, urban trees and public green spaces have been disproportionately absent from low-income and underserved neighborhoods. By engaging citizens, cities can prioritize communities where the benefits of urban trees could be the most impactful.