Regional Strategic Tree Canopy Plan

City of Spartanburg & Spartanburg County

SOUTH CAROLINA

FEBRUARY 2026

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Green Infrastructure Center

Plan by the Green Infrastructure Center Inc. for the City of Spartanburg and Spartanburg County.
gicinc.org

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Prepared by the Green Infrastructure Center Inc.
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A Big Thank You to the local and regional partners that contributed to the development of this plan.

SPARTANBURG

Regional Strategic Tree Canopy Plan

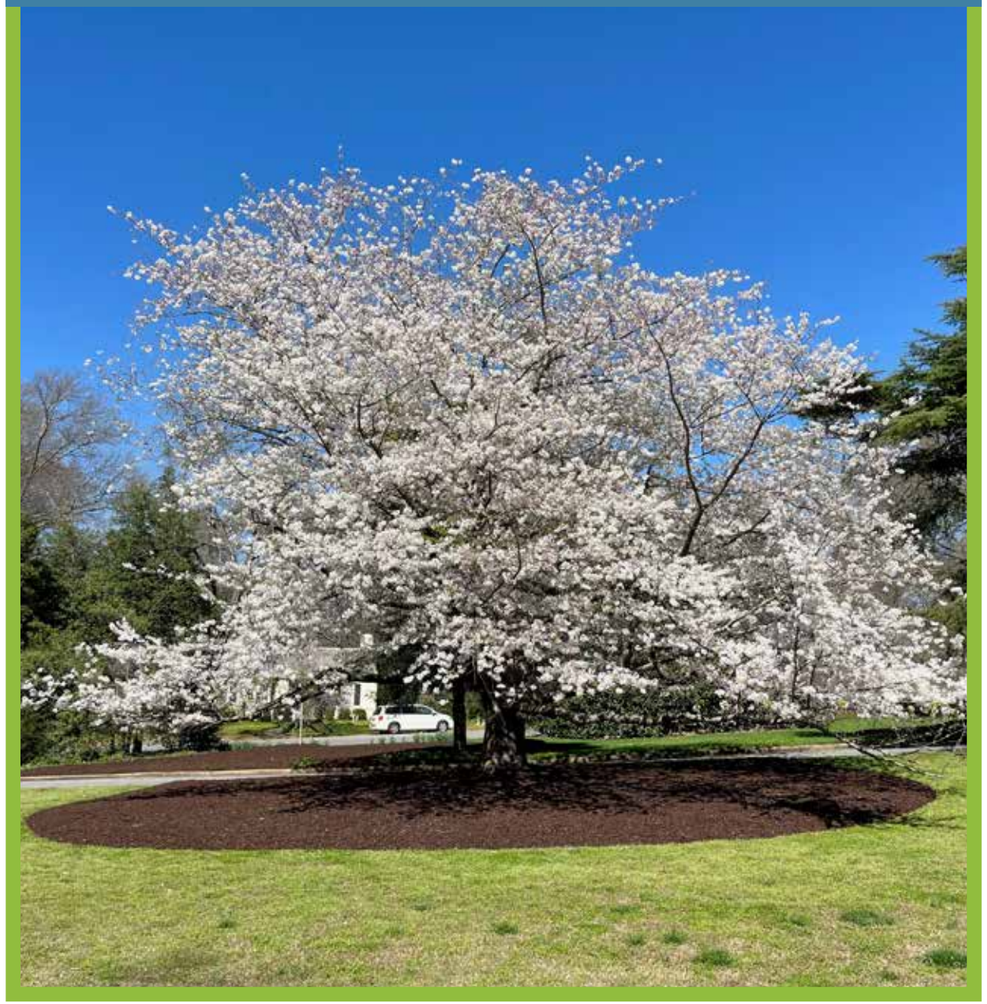

Photo credit: Noble Tree Foundation

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Executive Summary

The urban forest is a critical asset for healthy, resilient, and sustainable cities. Trees provide benefits that directly support public health by cleaning the air and filtering and reducing stormwater runoff, reducing urban temperatures, and fostering greater economic development. However, these benefits are at risk because tree canopy cover is declining across many U.S. localities. This *Regional Strategic Tree Canopy Plan* has been a unified effort across municipalities and organizations of varying scales to gather data and create actionable objectives for maintaining and restoring tree canopy in the City and County of Spartanburg.

This plan is the culmination of a year-long planning process that included joint workshops and strategic planning sessions led by the Green Infrastructure Center Inc. (GIC) with city staff, county staff, non-profit leaders and community partners. The extent of the urban forest and forest land cover was determined by analyzing aerial imagery to map the region's land cover. Open space was evaluated to determine the Potential Planting Area where future trees might be

planted, along with assessments of the environmental and social benefits the city's and county's trees provide. Strategies for retaining, protecting, and restoring tree canopy coverage were created by a regional stakeholder committee composed of local government, the water utility, and various nonprofits focused on trees, active recreation and economic development.

How Trees Benefit Spartanburg

Tree canopy provides benefits such as cleaner air, urban cooling, stormwater capture, wildlife habitat, and natural beauty. This plan quantifies and identifies strategies to increase these benefits.

Air Quality

Trees sequester carbon and clean the air of particulate matter and ground-level ozone. Each year, the region's trees remove:

From the City:

- 27,019 metric tons of carbon
- 169,708 lbs. of ground-level ozone (O_3)
- 39,656 lbs. of airborne particulate matter

From the County:

- 1,408,823 metric tons of carbon
- 8,848,857 lbs. of ground-level ozone (O_3)
- 2,067,789 lbs. of airborne particulate matter

Urban Cooling

Excessive pavement and lack of shade create urban heat islands. Spartanburg's trees counter urban heating by shading hot areas. Tree canopy cover lowers surface temperatures and cools the city.

Stormwater Uptake

Trees capture rainfall and filter pollutants. During a ten-year/24hr rainfall event (5.43"), the region's trees:

From the City:

- soak up 48 million gallons of water
- reduce runoff pollution loads for nitrogen by 13%, phosphorus by 17%, and sediment by 9%

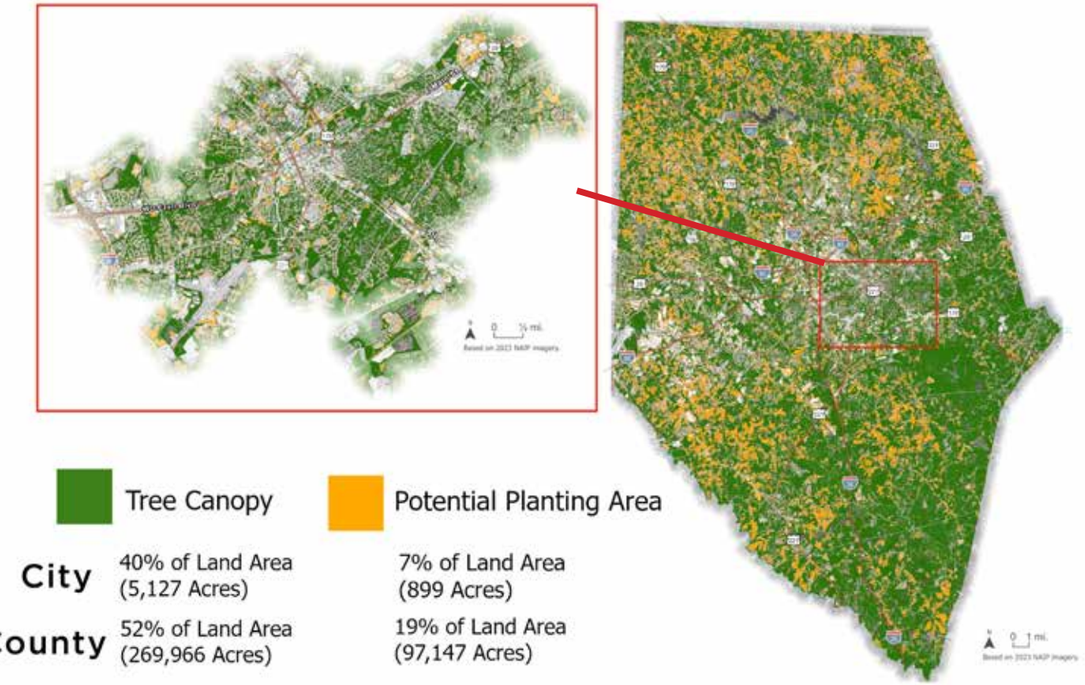
From the County:

- soak up 2.8 billion gallons of water
- reduce runoff pollution loads for nitrogen by 29%, phosphorus by 32%, and sediment by 16%

In September 2024, during this project, Hurricane Helene passed through Georgia and then over both Carolinas, delivering destructive amounts of wind and rain to the region and causing property damage and widespread tree canopy loss. Impacts from the storm are still being felt in the region over a year later. Community engagement in tree recovery and replanting efforts give people opportunities to work together toward a shared vision, creating social cohesion that aids in emotional, psychological and spiritual healing after a devastating storm. This plan supports efforts by regional and local partners to restore tree canopy and provide opportunities for community engagement and healing. The data covered in this project does not capture the impacts of Helene; therefore, it is recommended that the city and county update their land cover maps and assess losses in the next few years as more recent aerial images become available.

Tree Canopy and Potential Planting Area

The City of Spartanburg and Spartanburg County now have baseline data to identify opportunities to plant new trees for shade, energy savings, increased stormwater uptake, and improved air and water quality.



Introduction

The **City of Spartanburg** was formed in 1785, named for the Spartan Regiment which served in the area during the Revolutionary War. Beyond the natural landmarks and attractions, the city is also steeped in history from this connection to the Revolutionary War. The Magnolia Street Train Depot is a reminder of Spartanburg's past as the "Hub City" with many railroad connections finding their way here. It is the county seat of Spartanburg County, one of the counties in northwestern South Carolina which make up the region known as 'The Upstate.'

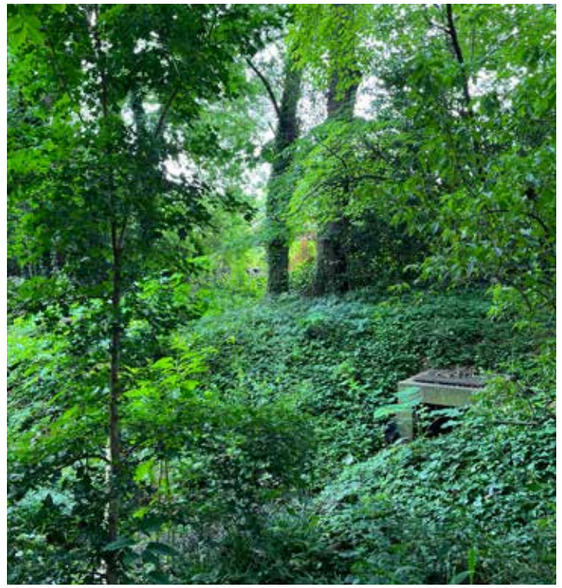
This Piedmont city is one of the major metropolitan areas travelers from the coast pass through on their way to the Blue Ridge Mountains and beyond. The city, with its vibrant downtown, has become a destination thanks in part to OneSpartanburg, Inc, a local organization building the city into a local powerhouse and center. Regional attractions such as Hatcher Gardens and The Dan, a greenway which extends throughout the city and county draw residents and visitors alike. Play. Advocate. Live Well. Spartanburg County (PAL) is a local nonprofit who assists in maintaining The Dan greenway and advocates for trails and green spaces in the region. Spartanburg is also home to Wofford College as well as the University of South Carolina's Upstate campus.

Hammond Hall is the oldest building on the Spartanburg Methodist Church campus in downtown Spartanburg.

The City of Spartanburg has a wealth of natural features including urban trees, parks, forests, wetlands, lakes, streams, and rivers that provide social, economic, and ecological benefits. By protecting and restoring its natural features and historic sites, the City of Spartanburg can ensure a healthy, green, and vibrant future.

Spartanburg County, located in the northwestern 'Upstate' of South Carolina is an expansive county featuring fourteen municipalities, large drinking water reservoirs, flowing rivers, agricultural lands and intact forests. The County is at the edge of the Piedmont region as it transitions into the Blue Ridge Mountains of the Carolinas. Spartanburg County has 237,330 acres of tree canopy, much of it forest, yet it sits in between two rapidly expanding metropolitan areas: Greenville just to the west and Charlotte further to the east. Spartanburg County is in transition as it faces population growth as a result of a robust manufacturing base composed of BMW's largest production plant and numerous other advanced manufacturing facilities.

Spartanburg County values its large swaths of rural and urban forests that spread across its fourteen municipalities, recognizing the benefits trees and forests provide. The County is working to preserve and restore forests and trees through partnerships with regional organizations such as Spartanburg Water, who maintains three large reservoirs that provide 26 million gallons of drinking water for the county per day,



Trees Upstate, a nonprofit focused on preserving existing trees and replanting trees across the Upstate region of South Carolina, and the Noble Tree Foundation, a nonprofit promoting the ecological value of trees and providing grant funding to plant new trees across the City and County of Spartanburg.

FAST FACTS

CITY OF:
Spartanburg

Population: 39,606 people*

48%	Non-Hispanic Whites
42%	Black/African Americans
7%	Hispanic or Latino
2%	Asian

Total City Area: 20.5 square miles
Land Area: 20.5 square miles
Lakes/Ponds: 178 acres
Wetlands & Marshes: 301 acres
Tree Canopy: 5,127 acres
Potential Planting Area: 899 acres
Impervious Surfaces: 3,607 acres

*(U.S. Census 2024 estimate) https://www.census.gov/quickfacts/fact/table/spartanburgcitysouthcarolina

FAST FACTS

COUNTY OF:
Spartanburg

Population: 369,256 people*

65%	Non-Hispanic Whites
20%	Black/African Americans
10%	Hispanic or Latino
3%	Asian

Total County Area: 819 square miles
Land Area: 805 square miles
Lakes/Ponds: 8,620 acres
Wetlands & Marshes: 9,130 acres
Streams: 1,986 miles
Tree Canopy: 267,330 acres
Potential Planting Area: 99,642 acres
Impervious Surfaces: 45,731 acres

*(U.S. Census 2024 estimate) https://www.census.gov/quickfacts/fact/table/spartanburgcountysouthcarolina

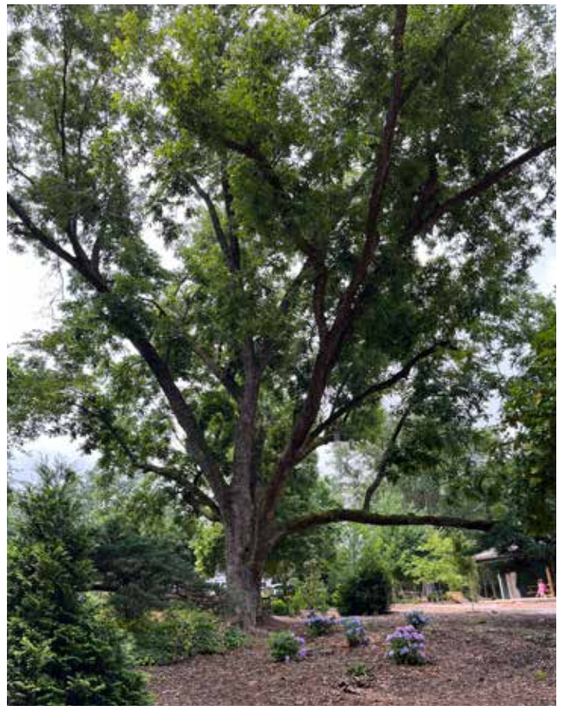
The Benefits of Trees

Trees benefit communities ecologically, economically, and socially. Some of the many benefits include:

- Cleaner air and water
- Enhanced natural beauty
- Bird and wildlife habitat
- Reduced urban heat island effect
- Reduced levels of crime
- Reduced traffic accidents
- Increased revenues from sales and property taxes
- Lower vacancy rates
- Improved mental health and focus
- Improved metabolic function
- Increased access to outdoor fitness opportunities.

Trees Are Green Infrastructure

Trees and other vegetation serve as the City's and County's "green infrastructure." Just as localities manage grey infrastructure (roads, sidewalks, bridges, and pipes), they should also manage vegetation as infrastructure. Trees support a vibrant, safe, and healthy community while adding to its historic character. They enhance sustainability by filtering stormwater and reducing runoff, cooling streets, cleaning the air, capturing carbon emissions, and increasing property values.



Large canopy trees provide greater benefits than smaller trees.

Gray vs. Green

The image on the left shows an example of gray infrastructure, including buildings and roads. Classified high-resolution satellite imagery (*on the right*) adds the city's green infrastructure data layer (trees and other vegetation). This *green infrastructure* provides cleaner air and water, energy savings, and natural beauty.

Reducing Stormwater Runoff and Filtering Pollutants

Trees protect communities from problems associated with stormwater runoff. As forested land is converted to impervious surfaces, such as roads, buildings and parking lots, urban stormwater runoff increases. Excess stormwater runoff can cause temperature spikes in receiving waters, increased pollution of surface and ground waters, and greater potential for flooding.

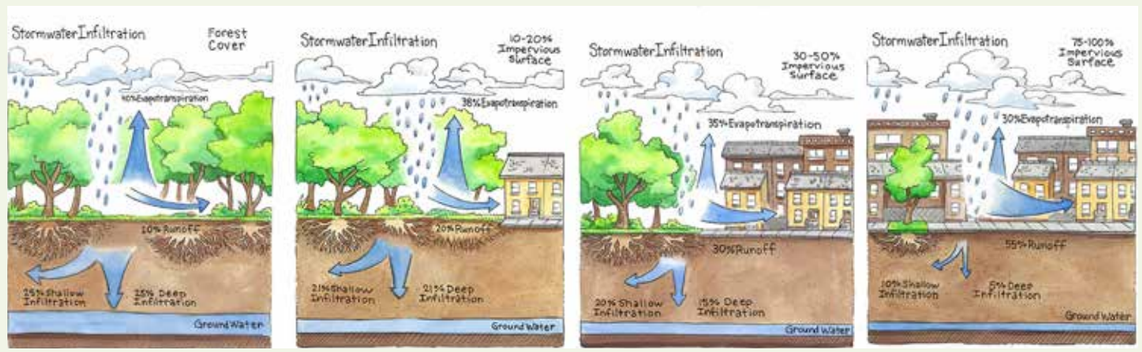
Trees reduce nitrogen, phosphorus, and sediment in stormwater runoff by filtering rainfall of these pollutants. Increased loads of nutrients in stormwater runoff reduce oxygen in surface water, causing harm to fish and other aquatic life. Nitrogen and phosphorus can cause harmful algal blooms, while sediment can clog fish gills, smother aquatic life, and necessitate additional dredging of canals and waterways. As tree cover is lost and impervious areas expand, excessive urban runoff of these harmful pollutants greatly increases. The presence of trees means fewer pollutants enter the city's many watersheds, including the Tyger River, Pacolet River, and even the Broad River. Forests also protect surface water sources and aquifer recharge zones and reduce the cost of drinking water treatment. American Water Works Association found a 10% increase in forest cover reduced treatment costs for drinking water by 20% (Ernst et al 2004).

The average annual precipitation in Spartanburg is 49.8 inches (National Weather Service 2025). Some of this runoff flows into the city's stormwater system and the surrounding river systems, transporting surface pollutants from the land to local waterways. Large, paved areas contribute significant

Trees filter and clean stormwater runoff before it enters surface waters, ensuring healthy rivers and creeks for recreation and habitat.

Excess impervious areas cause hotter temperatures and increased runoff. This parking lot could be retrofitted to add more trees, bioswales, and pervious surfaces that let water seep into the ground..

Infiltration Rates with Development



Runoff increases as land is developed. *Graphic adapted by GIC. Data Source: U.S. EPA Watershed Academy 2025.*

This road shoulder is significantly eroding from surface runoff. Trees help stabilize the soil and prevent erosion.

volumes to this runoff. While stormwater ponds and other best management practices (BMPs) are designed to mimic natural land cover rainfall release by detaining and filtering runoff, they do not fully replicate pre-development hydrology. In addition, older parts of the city may lack updated stormwater management practices required for new developments, so not all runoff is captured or treated before it flows into open waterways.

Since trees filter stormwater and reduce overall flows, planting or conserving trees is a natural, cost-effective way to mitigate stormwater. Each tree plays an important role in stormwater management. Based on the GIC's review of canopy rainfall interception studies, a typical street tree's crown can intercept between 760 and 4,000 gallons of water per year, depending on species and age.

These trees in this residential front yard provide stormwater management benefits for this home and the surrounding watershed.

Buffering Storm Damage with Green Infrastructure – Trees!

Another benefit of conserving trees and forests is buffering against storms and reducing losses from flooding. According to the U.S. Environmental Protection Agency (EPA), excessive stormwater causes increased flooding, property damage, and public safety hazards. The EPA recommends ways to use trees to manage stormwater in its book *Stormwater to Street Trees*. https://www.epa.gov/sites/default/files/2015-11/documents/stormwater2streettrees.pdf

Retaining trees and forests along streams prevents erosion and provides key habitat for fish, birds, animals and people too. A community can categorize their trees as "green infrastructure" to help justify spending money on city trees because they function as natural infrastructure by reducing standing water, preventing erosion, serving as windbreaks, and shading areas to reduce excessive temperatures.

In some cases, FEMA has reimbursed communities for lost tree cover when those trees were part of identified infrastructure, such as when a stream restoration project was damaged by a hurricane and the community had already identified the planted trees as infrastructure. To qualify, trees must be inventoried, have records of maintenance, and be specifically utilized for stormwater management, buffers, or other "green infrastructure" functions. Trees should also be recognized as infrastructure in policy documents such as the Comprehensive Plan, the Capital Improvement Plan (CIP), and even the city or town's tree ordinances.

Riparian buffers prevent stream erosion and reduce the risk of flooding.

Improving Air Quality, Public Health, and Economic Values

Trees Clean the Air

Higher tree canopy cover is correlated with better air quality. Trees reduce ground-level ozone (O3) while filtering out fine particulate matter, which can damage lungs and lead to respiratory distress and conditions such as asthma. In fact, well-treed neighborhoods have lower rates of respiratory illness (Rao et al. 2014). Trees capture such greenhouse gases as sulfur dioxide and carbon dioxide. These gases contribute to a warming planet and are associated with health problems from excessive heat. Trees also sequester carbon by storing it as wood, preventing its release into the atmosphere and mitigating the impact of climate change.

Trees Cool the Region

Tree shade provides important refuge for children and the elderly during hot summers. Excessive heat can lead to heat stress, especially affecting infants and children up to four years of age, those 65 years of age and older, those with obesity issues, and those on certain medications (Center for Disease Control 2024).

Tree canopy shades streets, sidewalks, parking lots, and homes, making urban locations cooler and more pleasant for outdoor activities, such as hiking, gardening and playing in city parks. Multiple studies have found significant cooling (2-7°F) and energy savings from shade trees in cities

Photo credit: Trees Upstate

> **People shop longer and spend more in treed commercial shopping districts.**

(McPherson et al. 1997, Akbari et al. 2001). Individual trees can transpire hundreds of liters of water per day, creating a cooling effect equivalent to the energy needed to power two average household central air-conditioning units (Ellison et al. 2017). Proper tree placement can reduce summer air conditioning costs by up to 35%. (Arbor Day Foundation 2025).

Lastly, shaded pavement has a longer lifespan than pavement in full sun, reducing maintenance costs associated with roadways and sidewalks (McPherson and Muchnick 2005).

Trees Improve Cognitive Function

Exposure to green spaces such as parks or treed landscapes for just 20 minutes a day can significantly improve cognitive function, emphasizing the need for green spaces around schools to allow children to learn to their best ability. Children with Attention Deficit Hyperactivity Disorder (ADHD) benefit from exposure to greenspace. Children who regularly play in green spaces have milder symptoms of ADHD (Faber Taylor and Kuo 2011).

The City's trees reduce temperatures during hot summers through evapotranspiration and by casting shade.

Well-treed sidewalks encourage people to walk and shop.

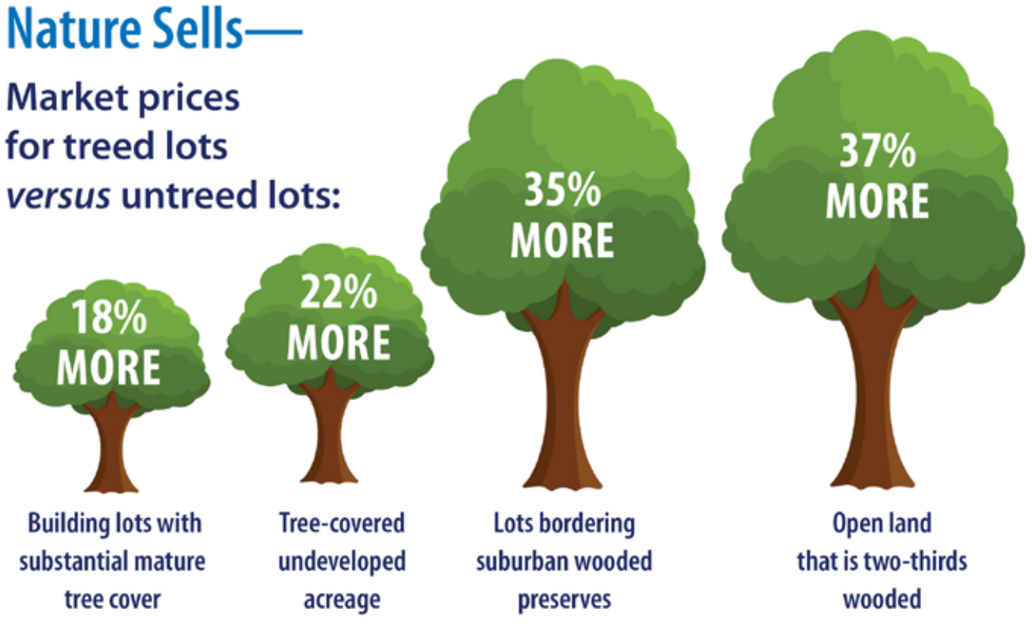
Home buyers will pay more for homes with mature trees.

Trees Improve Walkability

Trees result in people walking more and walking farther. The cooler temperatures, aesthetics, and traffic calming effect increases a community's walkability, which is a priority of the City of Spartanburg. When trees are not present on a street, people perceive distances to be longer, hotter, and less pleasant, making pedestrians less inclined to walk than if streets are well-treed (Tilt, Unfried, and Roca 2007).

Trees Increase Property Values

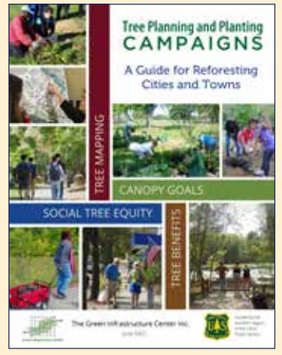
Developments that include green space or natural areas in their plans sell homes faster and for higher profits than those that take the more traditional approach of building over an entire area without conserving natural space (Benedict and McMahon 2006). Individual trees and forested open spaces make lots more valuable. Trees on developed lots add about 18% to property assessments and real estate value. (Wolf 2007). [*See the Nature Sells graphic, below.*]



Data Source: Kathleen Wolf, 2007, *City Trees and Property Values*

Preventing "Green Gentrification"

The fear of gentrification is often a concern when it comes to community planting projects in lower-income neighborhoods. The concern is that beautifying a neighborhood with numerous shade trees, adding street medians with more trees, planting trees in front yards, and having more parks and other open spaces nearby will raise property values and make houses unaffordable for low-income families, spur landlords to raise rents and result in property tax increases. As a result, some people have argued against planting trees in low-income and minority communities. However, that is really a counter-productive argument. Should we use that same argument to deny those neighborhoods streetlights, sidewalks or good policing? Everyone has the right to cleaner air, cooler summers, less flooding, lower energy costs and the general social wellbeing that trees provide – regardless of their race or income. Higher house prices actually help those who already own their homes to accumulate capital for their retirement. To learn more about how to prevent "green gentrification", see the GIC's *Tree Campaign Guide* https://gicinc.org/books/tree-planning-and-planting-campaigns/



Instead of keeping places less treed and more polluted, cities should address the sources of those problems associated with affordability. One example would be an agreement with landlords not to raise rents within five years of a planting project; another would be to engage the community housing and development staff in providing more affordable housing. GIC has worked to improve public housing and partnered with housing authorities to provide more affordable housing.

Trees provide shade and make shopping districts more walkable.

Trees Pay Us Back

As the City considers the cost of planting and caring for more trees, it's important to note that "every dollar invested in planting a tree results in an average return on investment of $2.25" (Endreny 2018). In fact, even a newly planted tree will immediately begin to provide benefits. So, while the City will need to expend more funds to increase and maintain its canopy coverage, those trees will more than pay their way. This includes increases in property values, and thus property taxes, the rejuvenation of business districts, more tourist dollars, and makes the city more attractive to new businesses. For example, people were seen to shop longer and spend more in treed commercial shopping districts, which benefits the city through increased sales revenues (Wolf, 2007).

Planting trees should not be seen in isolation, but as part of a wider cycle of urban renewal and growth, in which trees spur development and raise incomes, business sales and that 'feel-good factor', which can, in turn, lead to a desire for more trees, parks and outdoor leisure facilities. Trees help turn a downward spiral into an upward spiral, as part of a city's renewed sense of pride and prosperity.

Tree Canopy Analysis Methods

The tree canopy analysis was performed to map current tree canopy, quantify the ecosystem services these trees provide, map potential planting areas, and estimate potential future canopy based on plantable areas. These new tree canopy data can be used to analyze urban cooling, walkability, and street tree plantings; or to inform area plans, urban forestry planning, and any regional Comprehensive Plan updates.

Satellite imagery from the National Agricultural Imagery Program (NAIP) distributed by the USDA Farm Service Agency was classified to determine the types and extent of different land covers in both the city of Spartanburg and Spartanburg County. The land cover map was created at 1-meter resolution using NAIP imagery from April 9, 2023. LiDAR (light detection and ranging) data were used to determine height, in order to distinguish between large shrubs and trees.[1] This allows the GIS analyst to separate bushes from trees and other vegetation. This distinction of tree/non-tree vegetation is very important when modeling tree benefits, since the modeled pollution-removal benefits are based on trees, and do not necessarily translate to smaller, non-woody vegetation. In addition, various vector data were used where possible (e.g. sidewalks, driveways, and other impervious surfaces). The tree canopy was mapped at 93% accuracy, with an overall land cover accuracy of 86%.

Determining Plantable Acreage

Potential Planting Areas

In urban areas, a realistic goal for expanding urban canopy depends on an accurate assessment of the total plantable open area. A *Potential Planting Area* (PPA) map estimates areas where it may be feasible to plant trees. The PPA is estimated by selecting land cover types that have space available for planting trees and accounts for the overlap of canopy (canopy that is intermingled or a large canopy tree that partially covers an understory tree).

Of the nine land cover types mapped, only pervious and bare earth were considered for the PPA. However, some paved areas could be removed or reduced, soils conditioned and then used to plant new trees. For example, a parking lot could be redesigned in order to accommodate more tree canopy to absorb and clean stormwater runoff and provide shade for cars.

[1] LiDAR is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the top of the vegetation, compared to the underlying surface of the Earth. The farther the laser beam travels, the shorter the vegetation.

NAIP Aerial Image (2023)

Potential Planting Area (PPA)

There are many places where new trees can be planted in the City and County.

Eligible planting areas are also limited by their proximity to features that interfere with a tree's natural growth (such as buildings) or where a tree might affect the feature, such as power lines, street signs, or road junctions. The GIC buffers potential planting areas to exclude trees from these features. City and County staff and the GIC reviewed the draft PPA map and removed playing fields, cemeteries, and other land uses where trees would not be appropriate. The resulting PPA represents the maximum potential places trees can be planted and grow to full size.

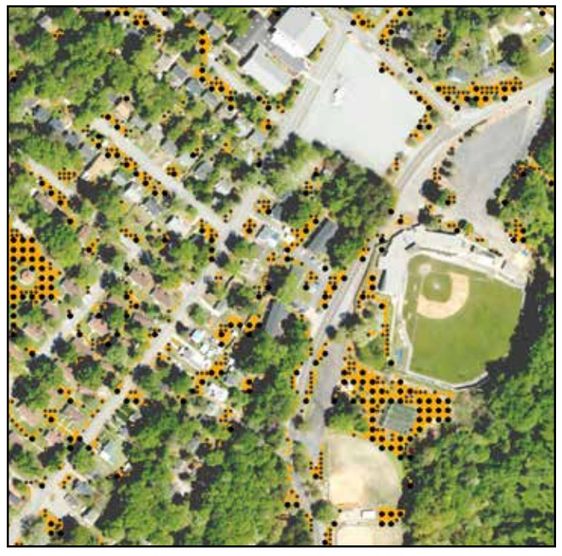
Based on an analysis of existing pervious surfaces, 7% of the city's land area, or 899 acres, could be planted with additional trees, while the county has a potentially plantable area of 97,147 acres or 19% of its land area. The GIC recommends that no more than half the available PPA, so considering the city as an example, would equal that 3.5% or 450 acres, is realistic to plant, since many other uses, such as vegetable gardens or swimming pools, require full sun.

Potential Planting Spots

Potential Planting Spots (PPS) are created from the PPA. A GIS modeling process is applied to select spots where a tree can be planted, depending on the desired mature size. For this analysis, expected canopy spreads of 20ft. and 40ft. diameter for individual mature trees were used, with priority given to 40 ft. diameter trees, since larger trees provide more benefits.

Potential Canopy Area

The *Potential Canopy Area* (PCA) is created from the PPS. Once the PPS are selected, a buffer around each point is created to represent the mature canopy spread. For this analysis, that buffer radius is either 10ft. or 20ft., which represents a 20ft. or 40ft. diameter canopy. These individual tree canopies are then merged to form a *Potential Canopy Area*.



Potential Planting Spots (PPS)

Potential Canopy Area (PCA)

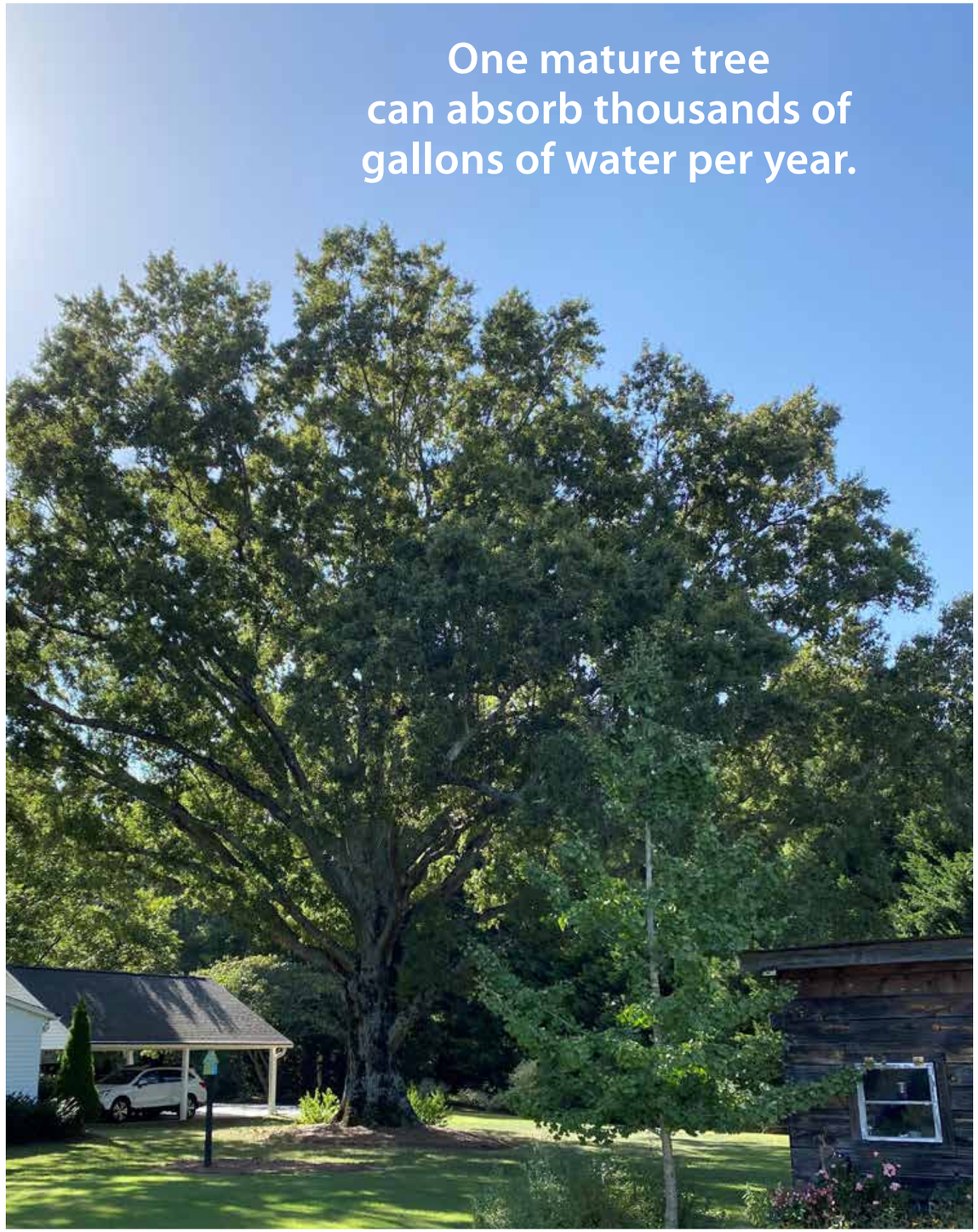


Photo credit Noble Tree Foundation

Canopy Analysis Maps and Findings

The *Tree Canopy Analysis* has been used to plan the City's and the County's target tree canopy goal and will act as a benchmark to gauge the future status of the regions tree canopy. An ArcGIS geodatabase with digital shape files produced during the study has been provided to the City and the County staff.

The City and County received additional tree canopy statistics for the following areas:

City:
- Streets
- Flood zones
- Neighborhoods
- Greenway system of trails

County:
- Streets
- Floodplains
- Watersheds
- Municipalities

The Tree Canopy Analysis can inform tree planting decisions to meet many goals, such as walkability, greenhouse gas emission reduction, energy savings, urban heat reduction, and economic revitalization.

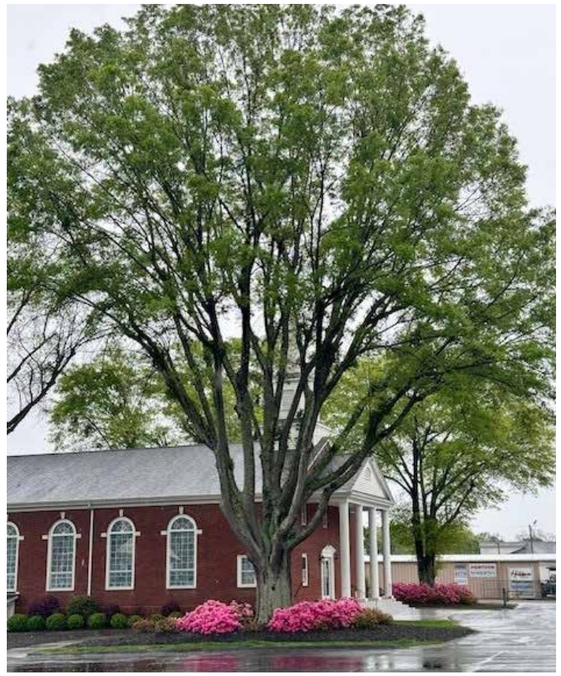
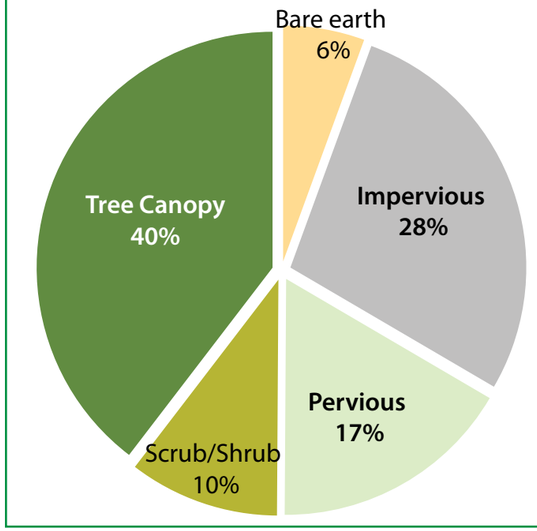


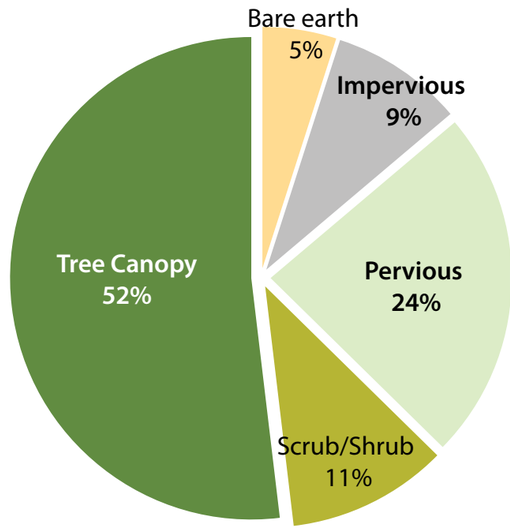
Photo credit: Noble Tree Foundation

The following pages contain Spartanburg's *Tree Canopy Analysis* Maps for the City and the County.

Spartanburg City Percent Land Cover



Spartanburg County Percent Land Cover

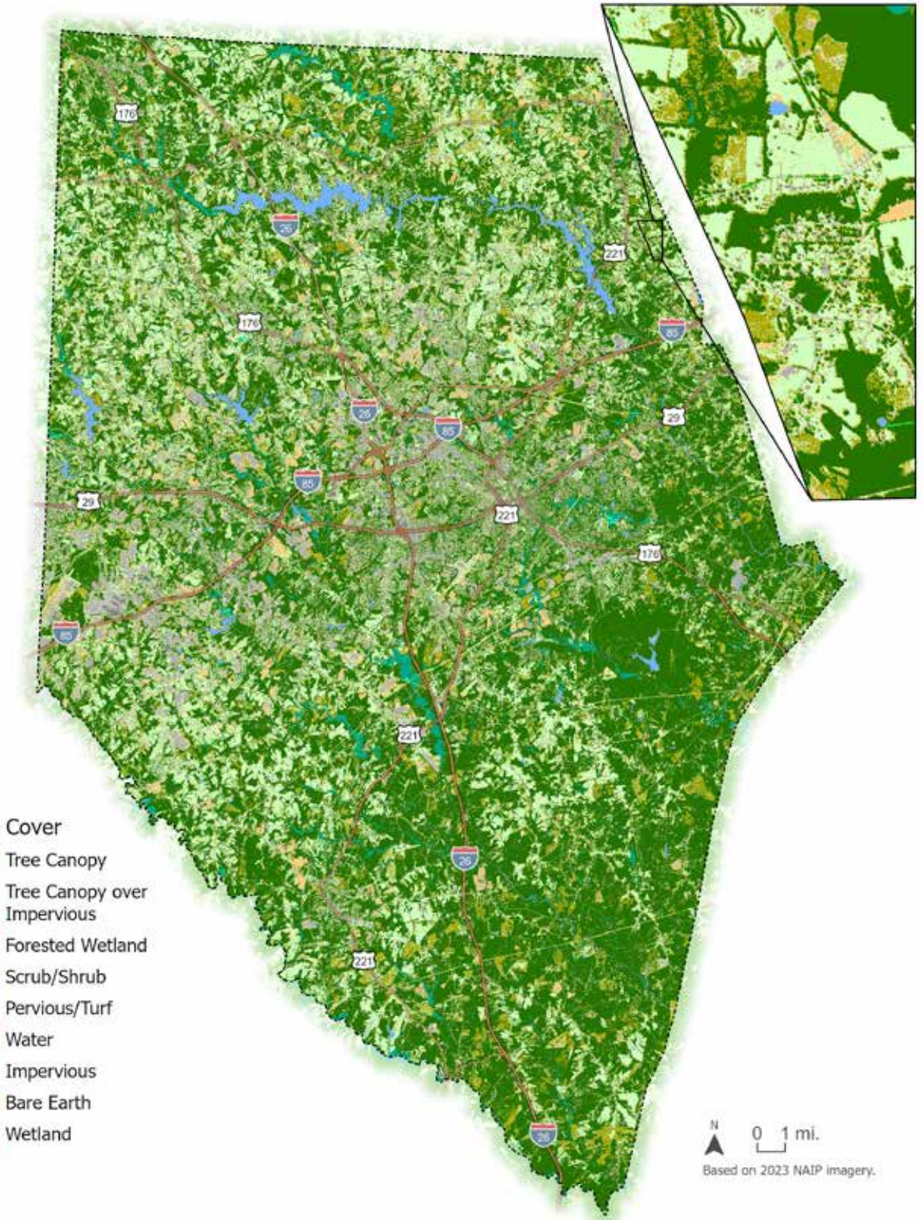


City Land Cover

GIC classified 9 land cover types for the City of Spartanburg from 2023 NAIP aerial imagery.

County Land Cover

GIC classified 9 land cover types for Spartanburg County from 2023 NAIP aerial imagery.

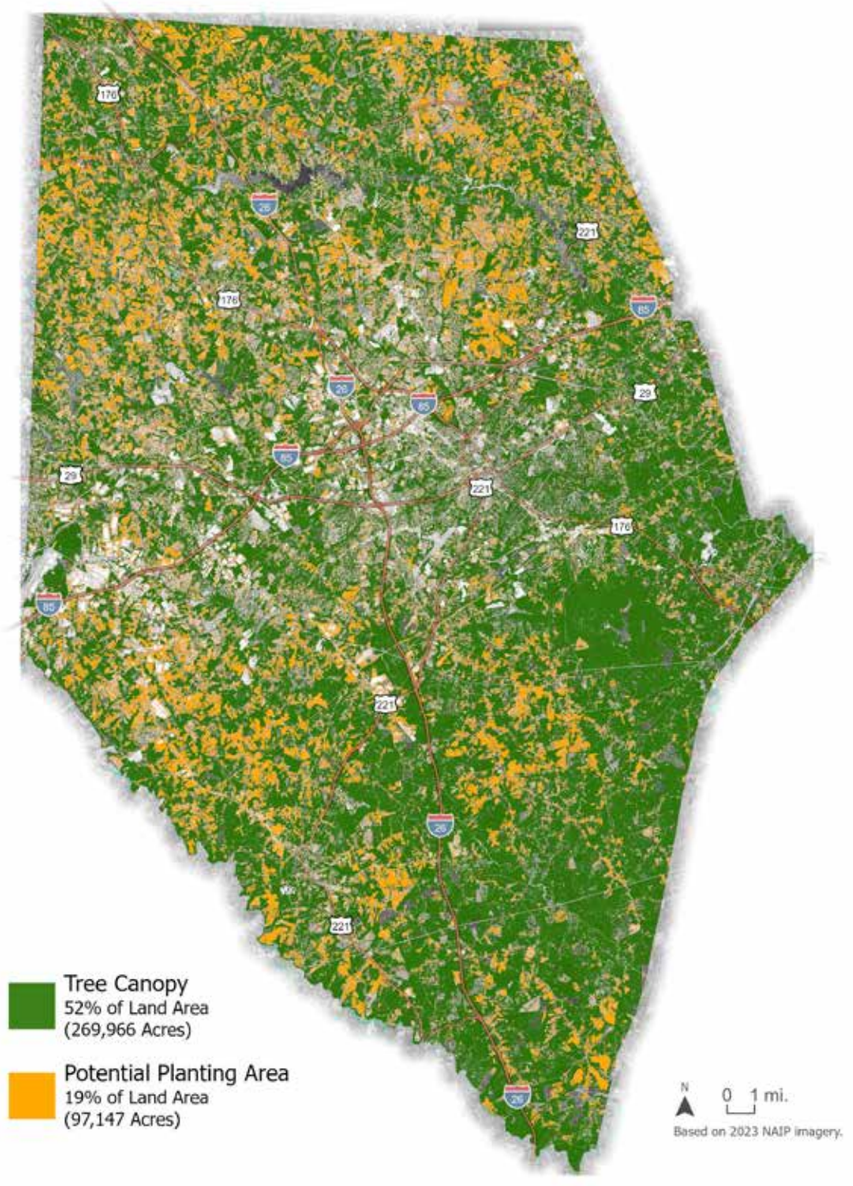


City Tree Canopy and Potential Planting Areas

Existing tree canopy (green) and potential planting area (orange) were determined based on land cover data and input from the City. Potential planting areas (PPA) depict areas where it may be possible to plant trees. All sites would need to be confirmed in the field prior to planting. The map shows PPA on both private and public lands.

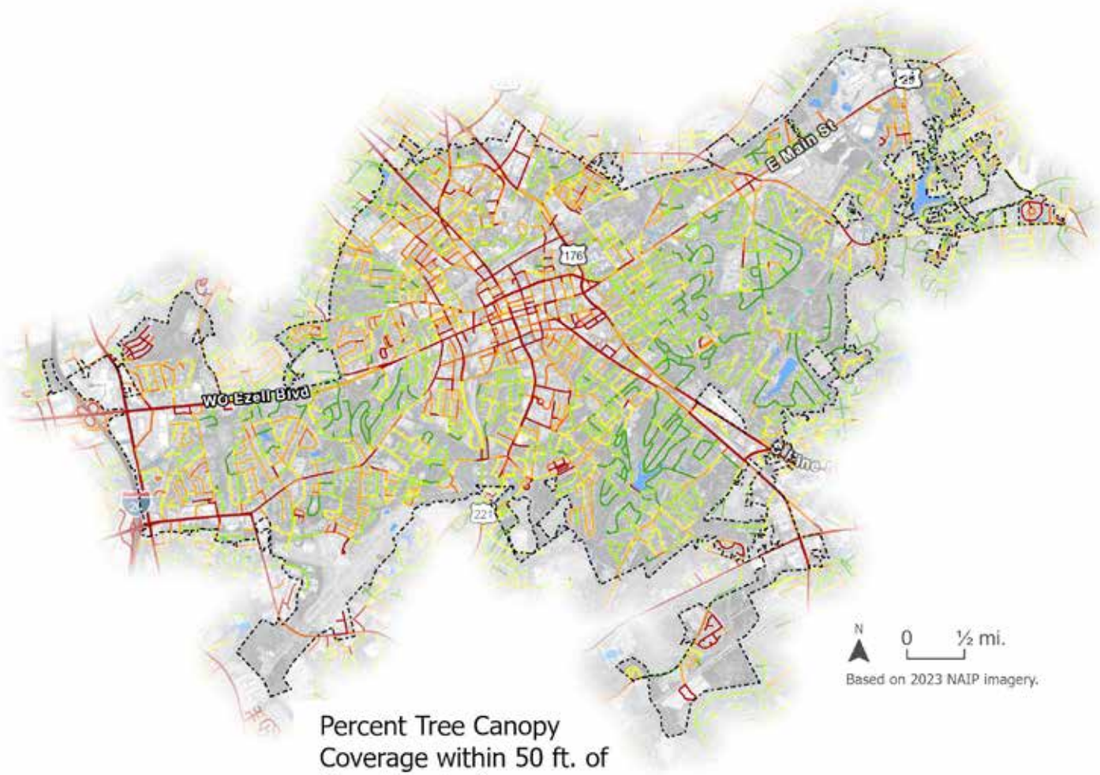
County Tree Canopy and Potential Planting Areas

Existing tree canopy (green) and potential planting area (orange) were determined based on land cover data and input from the County. Potential planting areas (PPA) depict areas where it may be possible to plant trees. All sites would need to be confirmed in the field prior to planting. The map shows PPA on both private and public lands.



Existing Tree Canopy Coverage Along City Streets

Streets that have the most canopy (dark green) and those that have the least canopy (red). Streets that lack good tree coverage can be targeted as appropriate for planting to facilitate specific City goals, such as safe routes to school or beautifying a shopping district.



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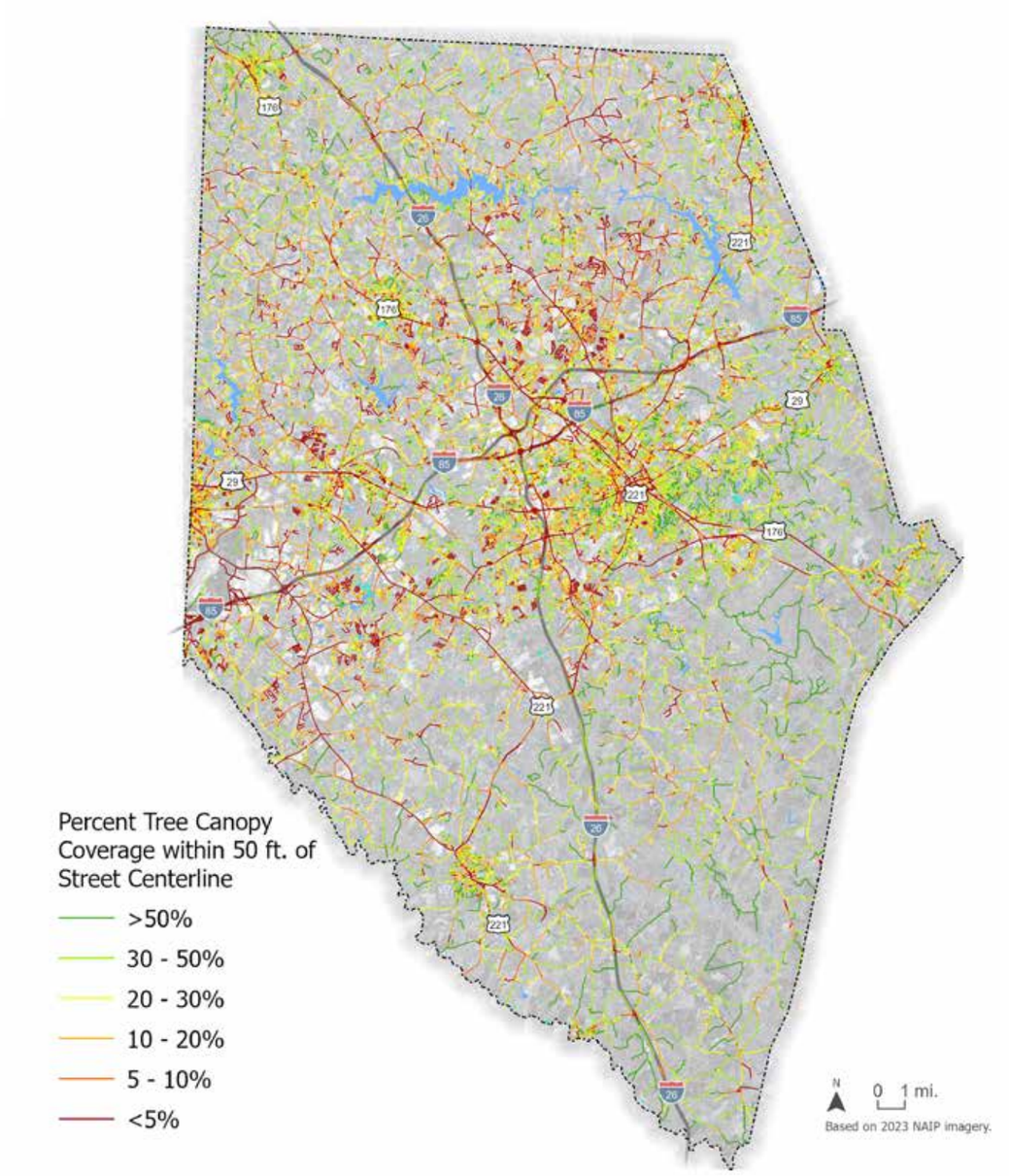
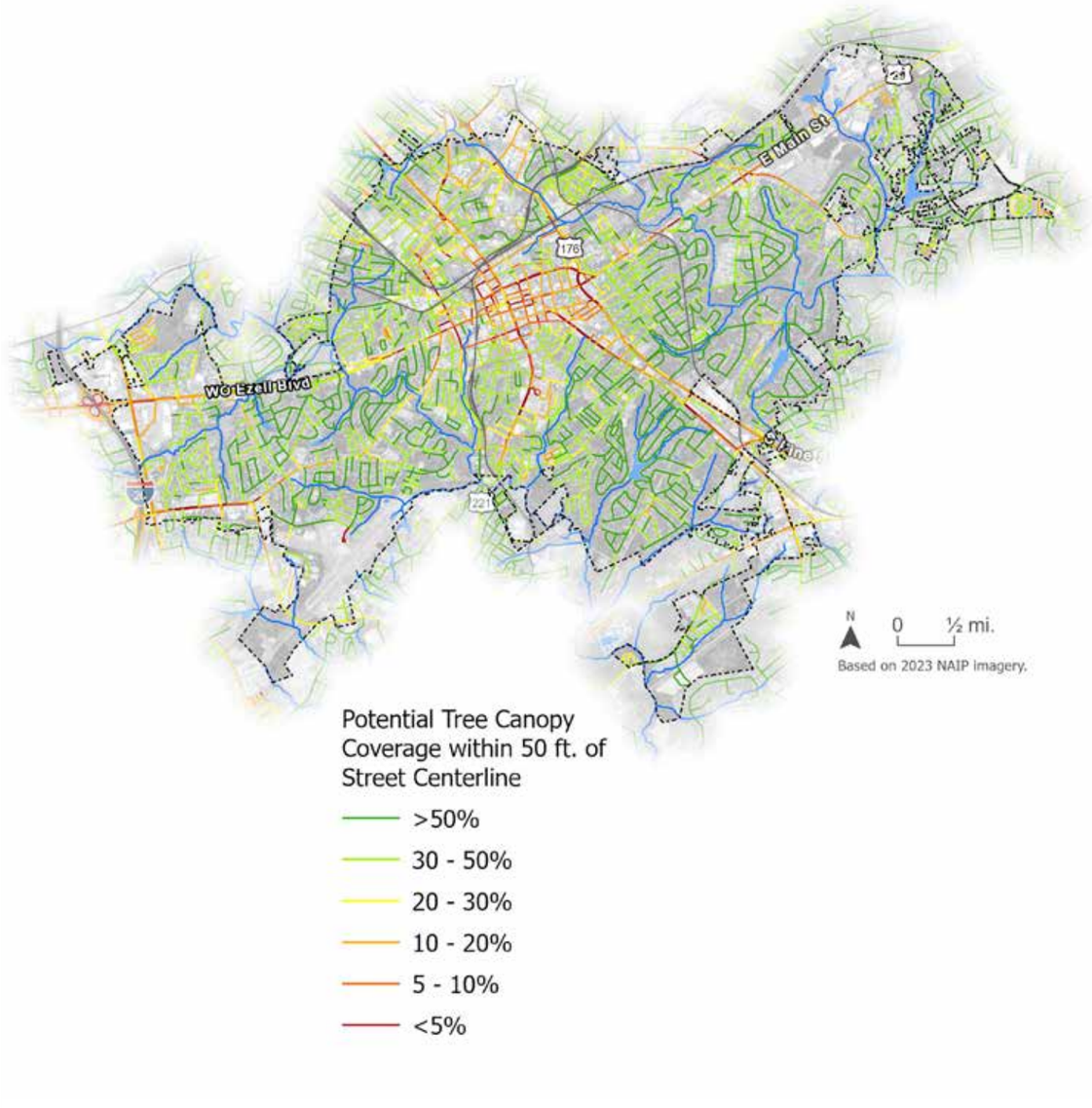


Potential Tree Canopy Coverage Along City Streets

If all potential planting areas within 50ft. of every road's center line were planted, this is what the canopy coverage along streets would look like.



Disclaimer: This map is based on Potential Planting Areas (PPA) within 50ft. of the Right-of-Way.
As such, it identifies unconstrained planting sites based on the best available GIS data, meaning that existing underground tree wells or narrow landscape strips (under 6ft.) are not included in this analysis.
As with the overall PPA map, it does not account for utilities, and all locations must be field verified.

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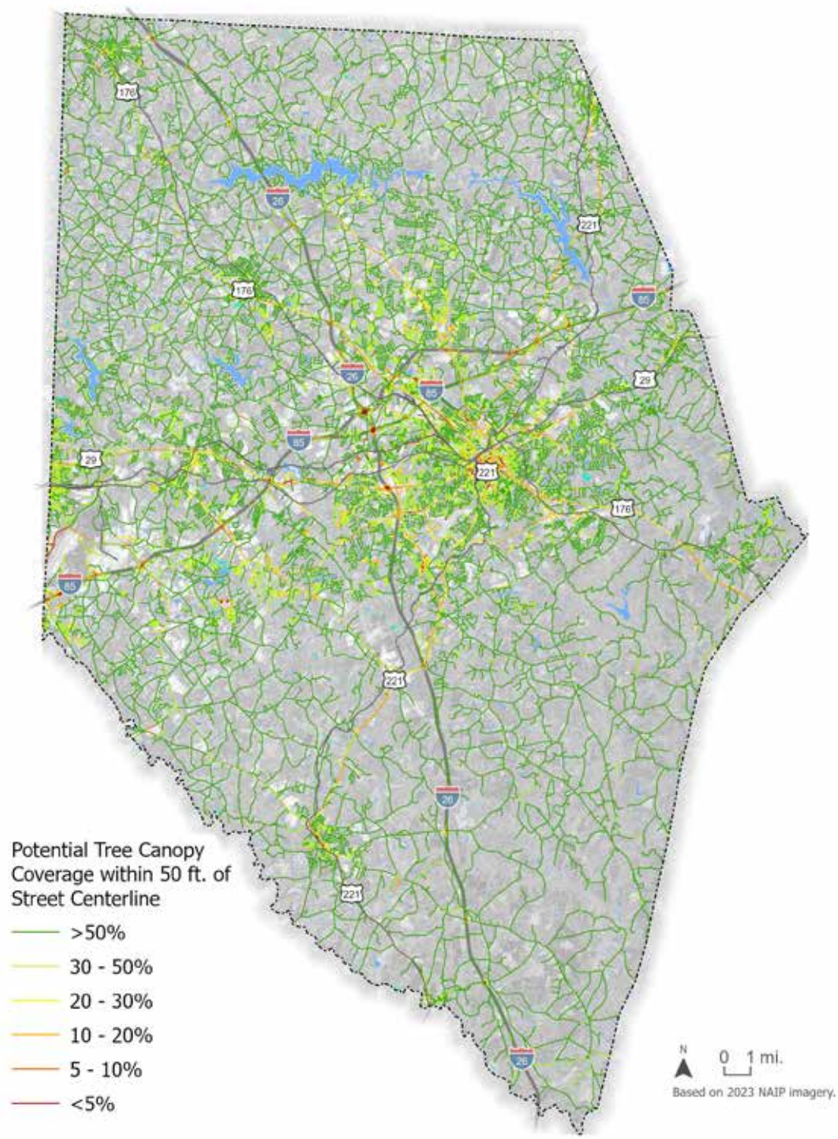

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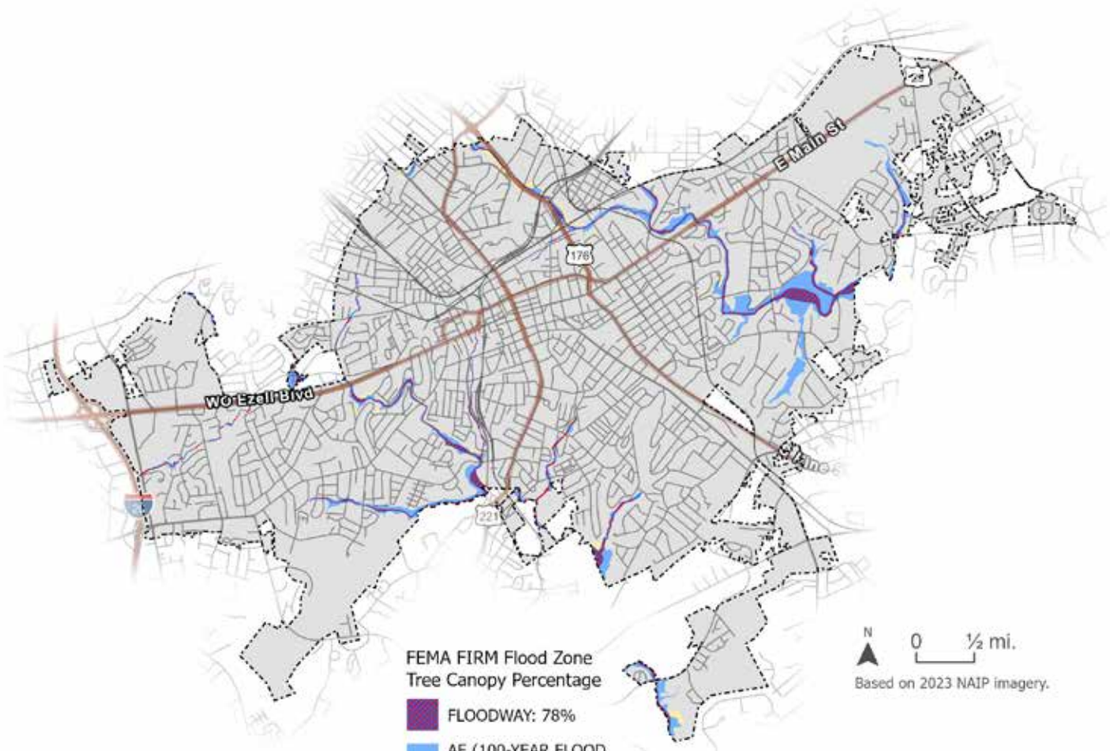
City Tree Canopy Coverage by Flood Zone

Tree canopy for each flood zone within the city. Trees can take up stormwater during rainfall events and reduce flooding impacts of intense storms.



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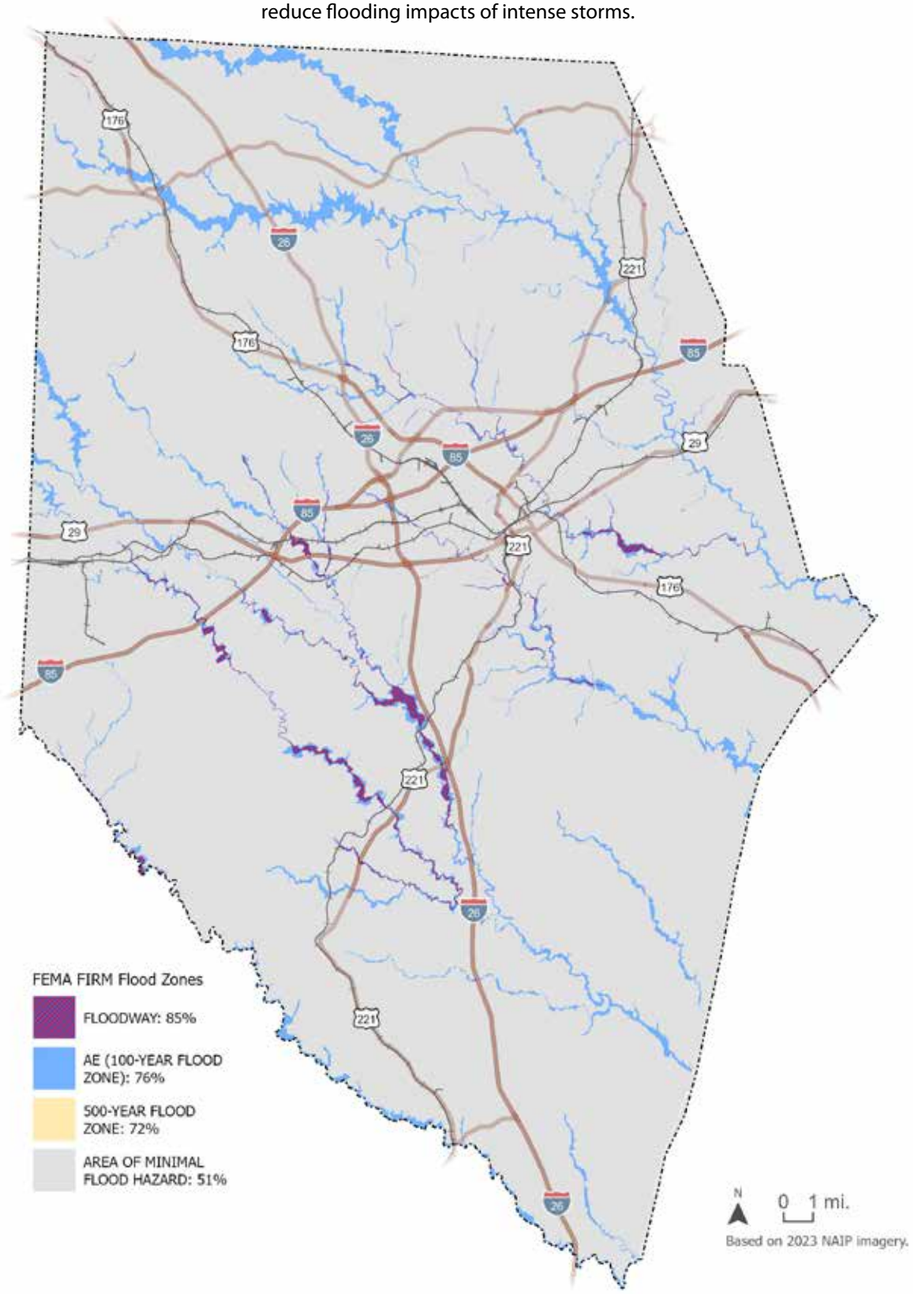
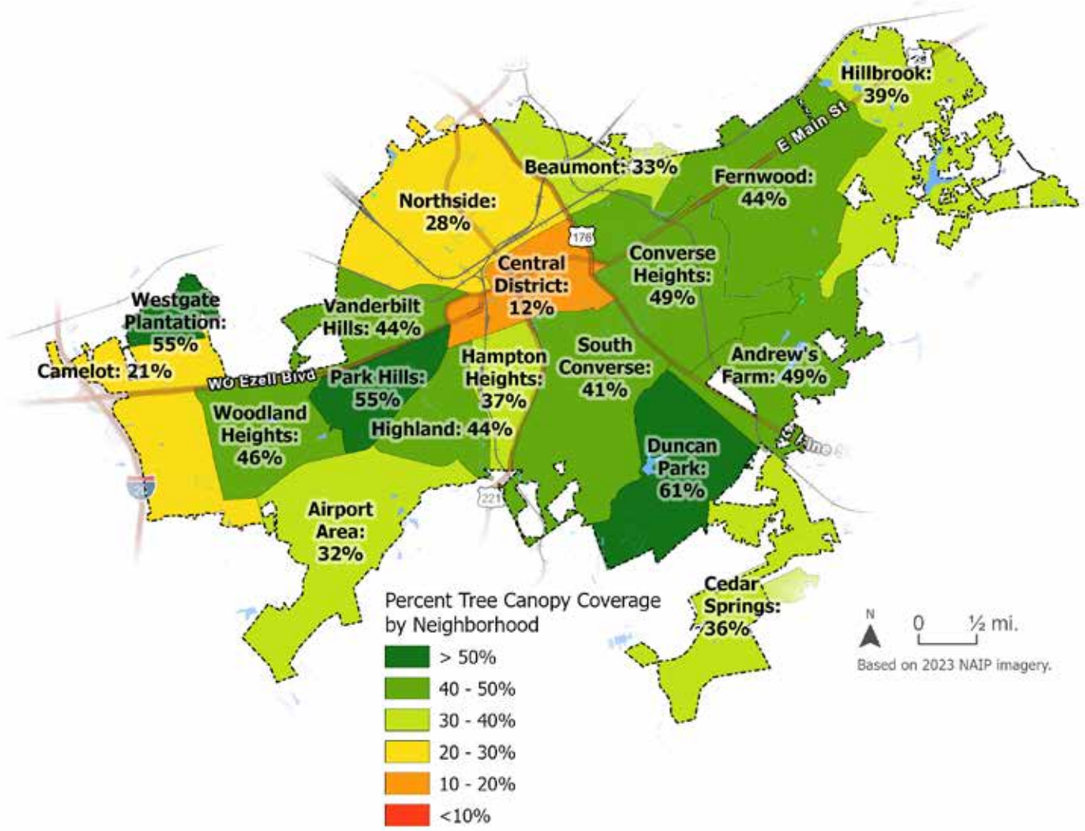
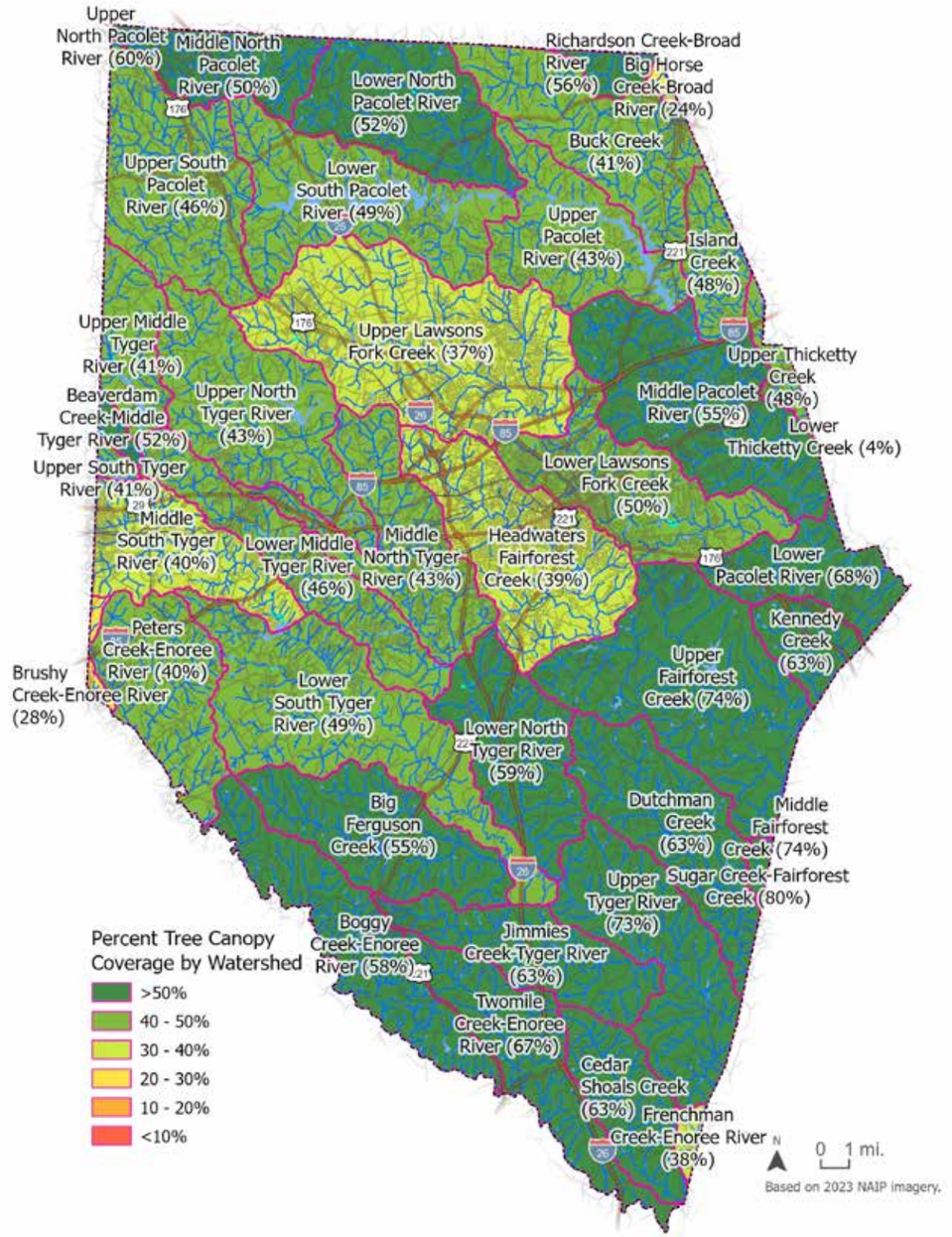


City Tree Canopy Coverage by Neighborhoods



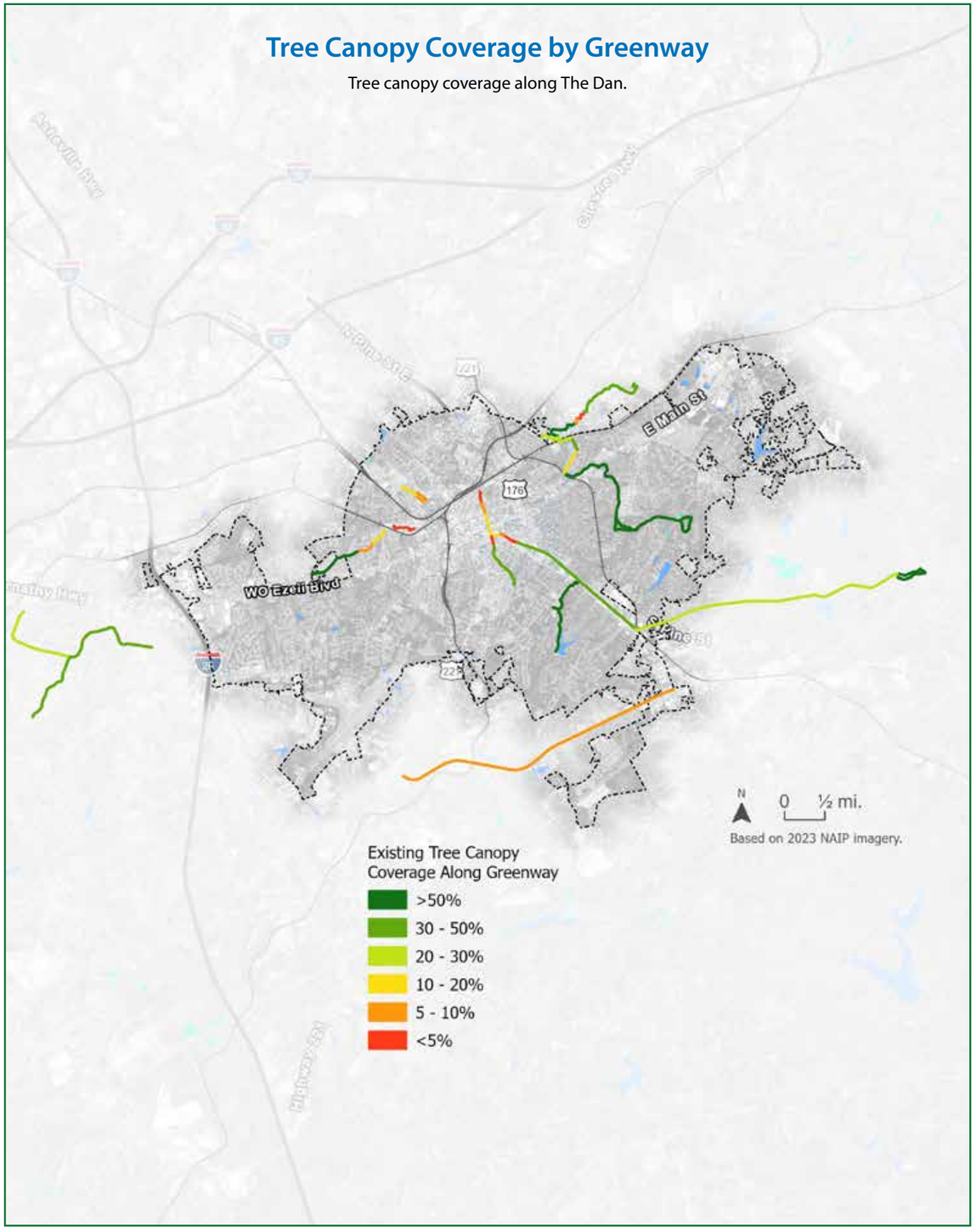
County Tree Canopy Coverage by Watershed

Tree canopy for each watershed across the county.



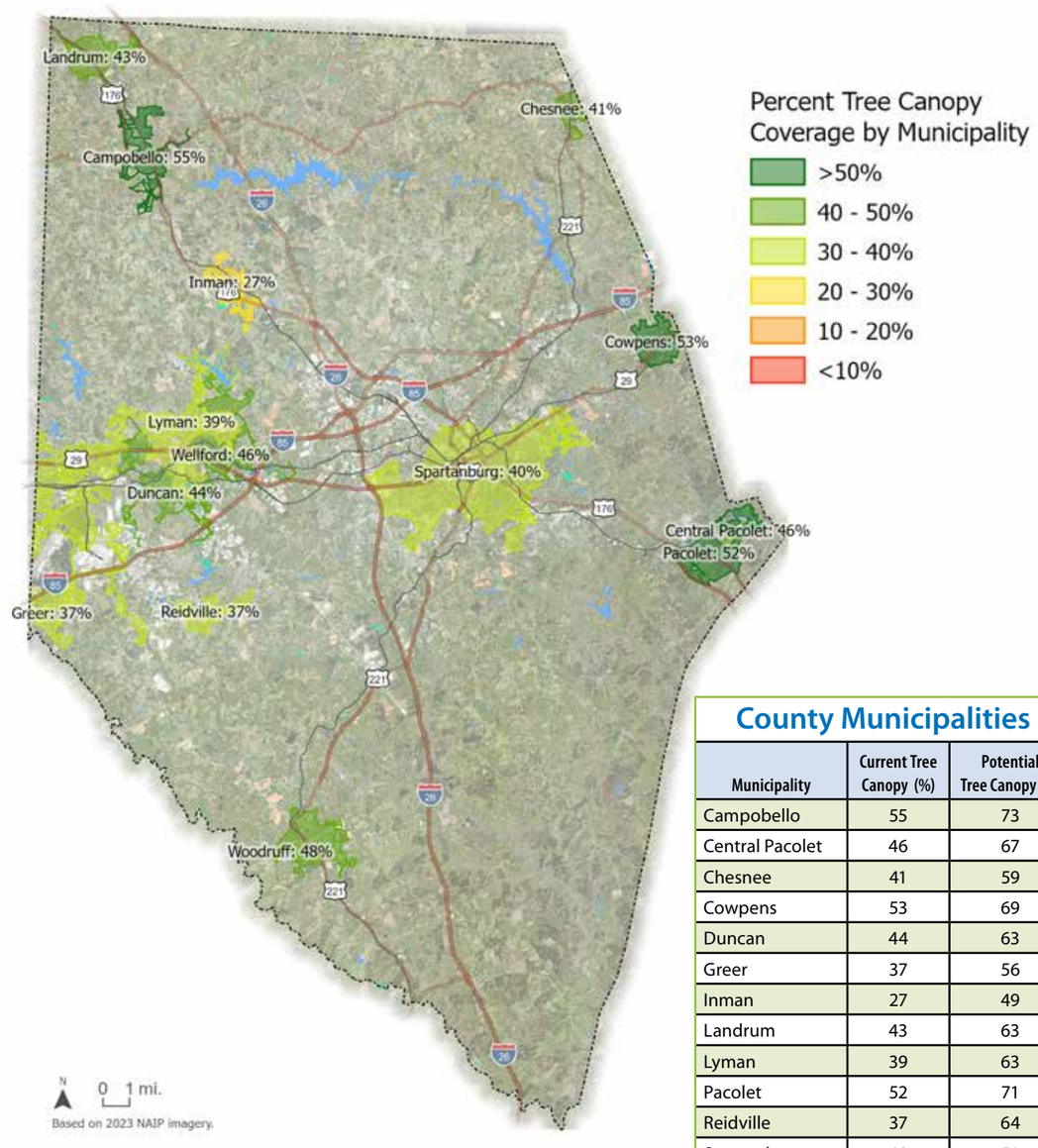
Tree Canopy Coverage by Greenway

Tree canopy coverage along The Dan.



County Tree Canopy Coverage by Municipality

Tree canopy across the fourteen municipalities within Spartanburg County.



County Municipalities

Municipality	Current Tree Canopy (%)	Potential Tree Canopy (%)
Campobello	55	73
Central Pacolet	46	67
Chesnee	41	59
Cowpens	53	69
Duncan	44	63
Greer	37	56
Inman	27	49
Landrum	43	63
Lyman	39	63
Pacolet	52	71
Reidville	37	64
Spartanburg	40	51
Wellford	46	66
Woodruff	48	66

Calculating Environmental Benefits

Stormwater Uptake

Trees and forests are the best land cover for taking up urban stormwater and are recognized as such by forestry scientists and civil engineers (Kuehler 2017, 2016). Tree canopy stormwater interception varies from 100% at the beginning of a rainfall event to about 3% at maximum rain intensity. (Xiao et al, 2000).

Trees help capture and filter stormwater runoff. The Trees and Stormwater Calculator (TSW) Tool developed by the GIC estimates the stormwater interception, infiltration, and runoff of different land cover types. This methodology uses a modified version of the "curve number" approach, originally developed by the Natural Resources Conservation Service (NRCS) which factors in impacts of hydrologic soil groups, land cover types, hydrologic condition, and design/management practices that impact runoff. The modified TR55 curve numbers (CN) provided by GIC include a factor for canopy interception. This approach allows for more detailed assessments of stormwater uptake based on the landscape conditions of the City's forests. It distinguishes whether the trees are within a forest, a lawn setting, a forested wetland, or over pavement, such as streets or sidewalks. This is because the conditions and the soils in which the tree is living affect the amount of water the tree can intercept. For more about this methodology, please visit: https://gicinc.org/projects/resiliency/trees-and-stormwater/

Lawn trees in a park soak up more stormwater than trees over pavement.

The GIC used its Trees and Stormwater Calculator (TSW) Tool to model stormwater and pollution reductions by city and county tree canopy.

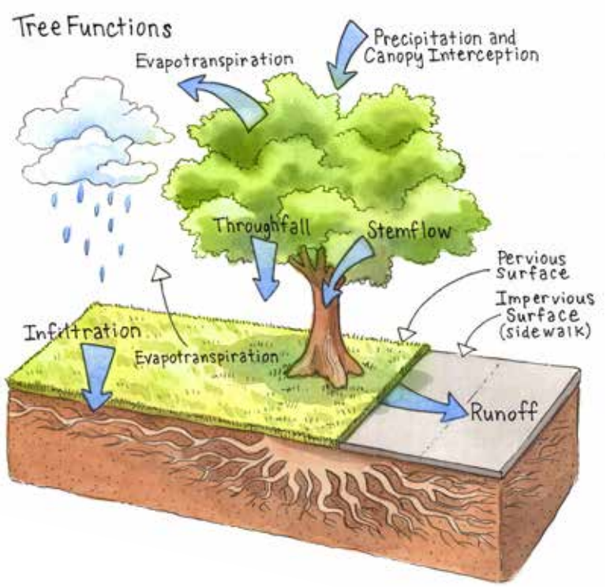
For the City, the model shows that, during a 10-year/24-hour rainfall event (5.43 inches), trees take up 48 million gallons of runoff, or about 72 Olympic swimming pools of water. Spartanburg City's trees capture:

- **23,856 lbs./year of nitrogen**
- **2,000 lbs./year of phosphorus**
- **1,703 tons/year of sediment**

For the County, the model shows that, during a 10-year/24-hour rainfall event (5.43 inches), trees take up 2.8 billion gallons of runoff, or about 4,242 Olympic swimming pools of water. Spartanburg County's trees capture:

- **1,735,503 lbs./year of nitrogen**
- **144,640 lbs./year of phosphorus**
- **90,785 tons/year of sediment**

The TSW Tool takes into account the interaction of land cover and hydrologic soil conditions within each watershed. The TSW Tool can also be used to run 'what-if' scenarios, specifically losses of tree canopy from development or storm damage or increases in tree canopy from additional tree planting.



Tree Canopy Coverage by Watershed

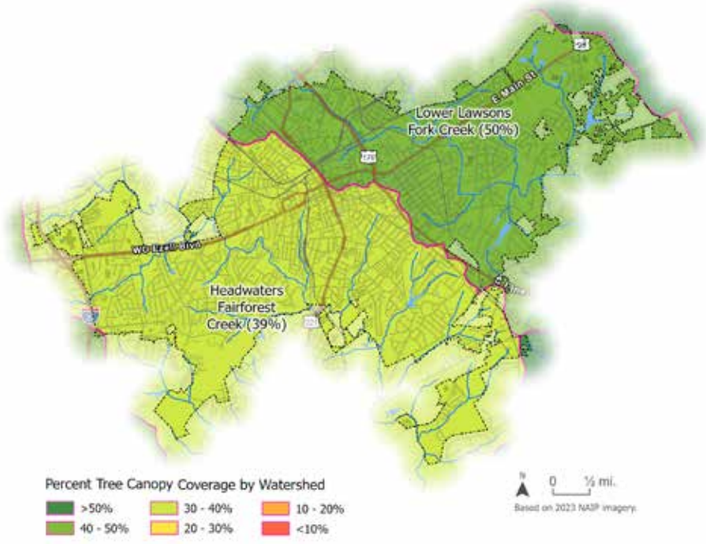
The conditions under and around a tree, such as the size of its planting box, the amount and type of open space, surface soils, drainage and root spread affect the infiltration of water. The TSW Tool uses plantable open spaces to determine how many more trees could be planted and how much additional nitrogen, phosphorus, and sediment pollutants new trees and their surrounding soils could absorb.

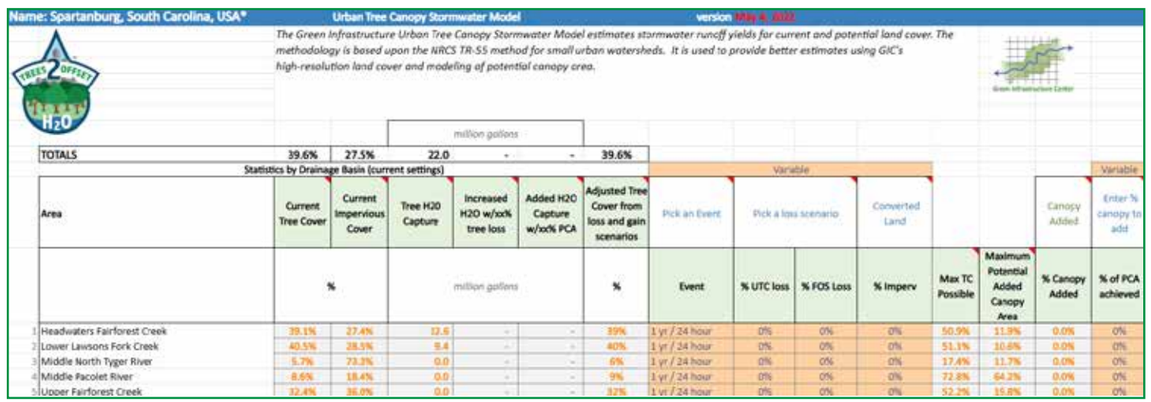
While sometimes necessary due to disease, development or old age, the removal of mature trees and existing forest results in the greatest increase in stormwater runoff. As more land is developed, the City should maximize tree conservation and encourage new plantings to maintain surface water quality and groundwater recharge. For example, when mature trees are removed to reconfigure or create larger green spaces, new plantings and low impact development practices can be included to minimize any potential changes in stormwater runoff from a loss of trees The following maps use soil types and tree cover to show the areas where it is most important to retain trees for stormwater uptake and areas where tree planting will have the most benefits for stormwater uptake.

Hatcher Park is a park located just outside of downtown Spartanburg. It seeks to recreate a more natural landscape with a stream, rain garden and full tree canopy coverage. This forested acreage is the best land cover type for stormwater uptake.

City Tree Canopy Coverage by Watershed

The City and County can use the TSW Tool for running scenarios and setting goals at the watershed scale, for planting trees, and for evaluating consequences of tree loss, as it pertains to stormwater runoff.





Name: Spartanburg, South Carolina, USA* — Urban Tree Canopy Stormwater Model — version May 4, 2022

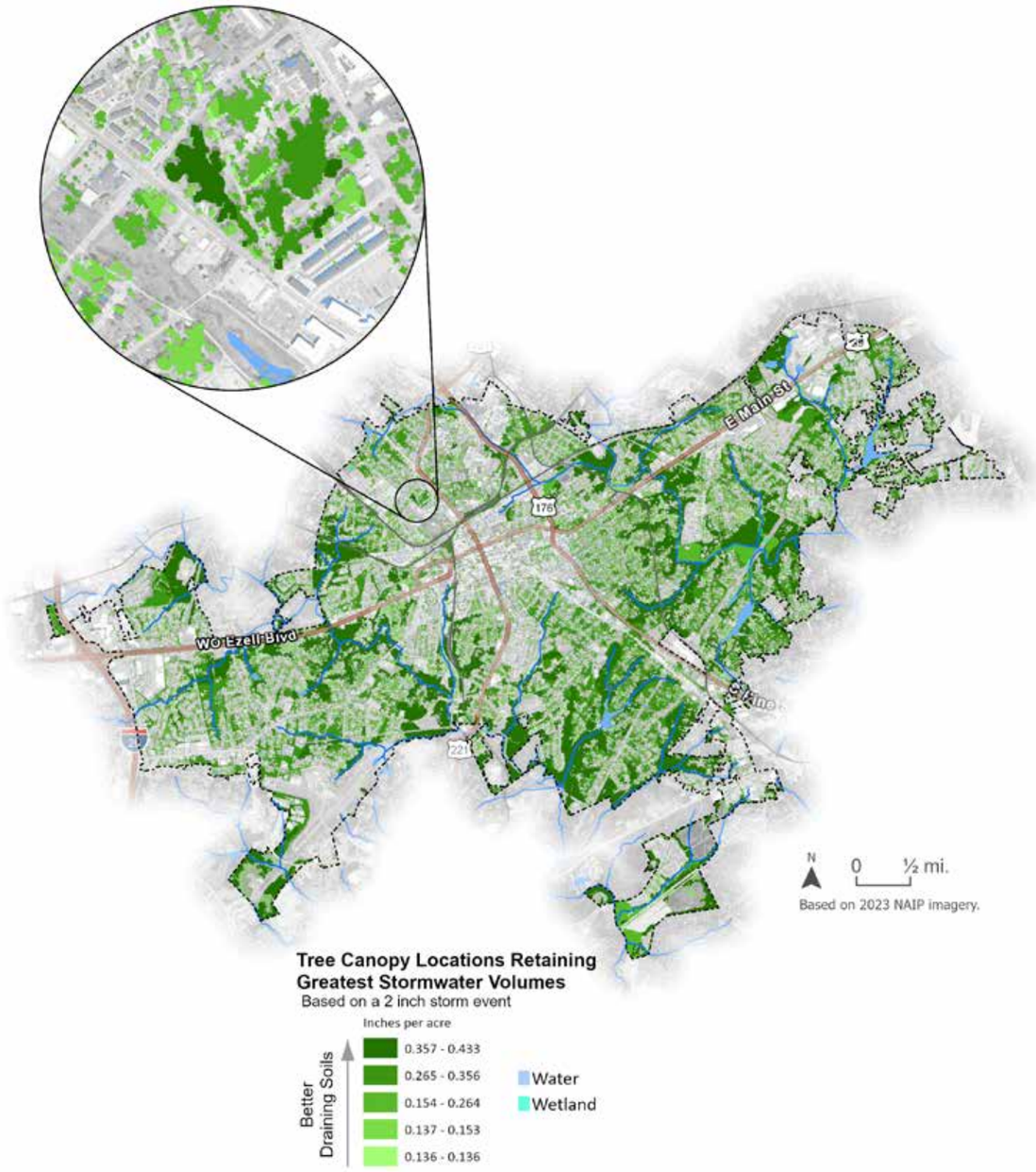
The Green Infrastructure Urban Tree Canopy Stormwater Model estimates stormwater runoff yields for current and potential land cover. The methodology is based upon the NRCS TR-55 method for small urban watersheds. It is used to provide better estimates using GIC's high-resolution land cover and modeling of potential canopy crea.

	Area	Current Tree Cover	Current Impervious Cover	Tree H20 Capture	Increased H2O w/xx% tree loss	Added H2O Capture w/xx% PCA	Adjusted Tree Cover from loss and gain scenarios	Pick an Event	Pick a loss scenario		Converted Land			Canopy Added	Enter % canopy to add
		%		million gallons			%	Event	% UTC loss	% FOS Loss	% Imperv	Max TC Possible	Maximum Potential Added Canopy Area	% Canopy Added	% of PCA achieved
	TOTALS	39.6%	27.5%	22.0	-	-	39.6%								
	Statistics by Drainage Basin (current settings)							Variable							Variable
1	Headwaters Fairforest Creek	39.1%	27.4%	12.6	-	-	39%	1 yr / 24 hour	0%	0%	0%	50.9%	11.9%	0.0%	0%
2	Lower Lawsons Fork Creek	40.5%	28.5%	9.4	-	-	40%	1 yr / 24 hour	0%	0%	0%	51.1%	10.6%	0.0%	0%
3	Middle North Tyger River	5.7%	73.3%	0.0	-	-	6%	1 yr / 24 hour	0%	0%	0%	17.4%	11.7%	0.0%	0%
4	Middle Pacolet River	8.6%	18.4%	0.0	-	-	9%	1 yr / 24 hour	0%	0%	0%	72.8%	64.2%	0.0%	0%
5	Upper Fairforest Creek	32.4%	36.0%	0.0	-	-	32%	1 yr / 24 hour	0%	0%	0%	52.2%	19.8%	0.0%	0%

The TSW Tool models water uptake by the existing canopy and the impacts from changes, whether positive (adding trees) or negative (removing trees).

Best City Tree Canopy to Save for Stormwater Infiltration

The TSW Tool was applied to map the locations where tree conservation will result in the greatest amount of stormwater capture and infiltration (dark green) in the city.



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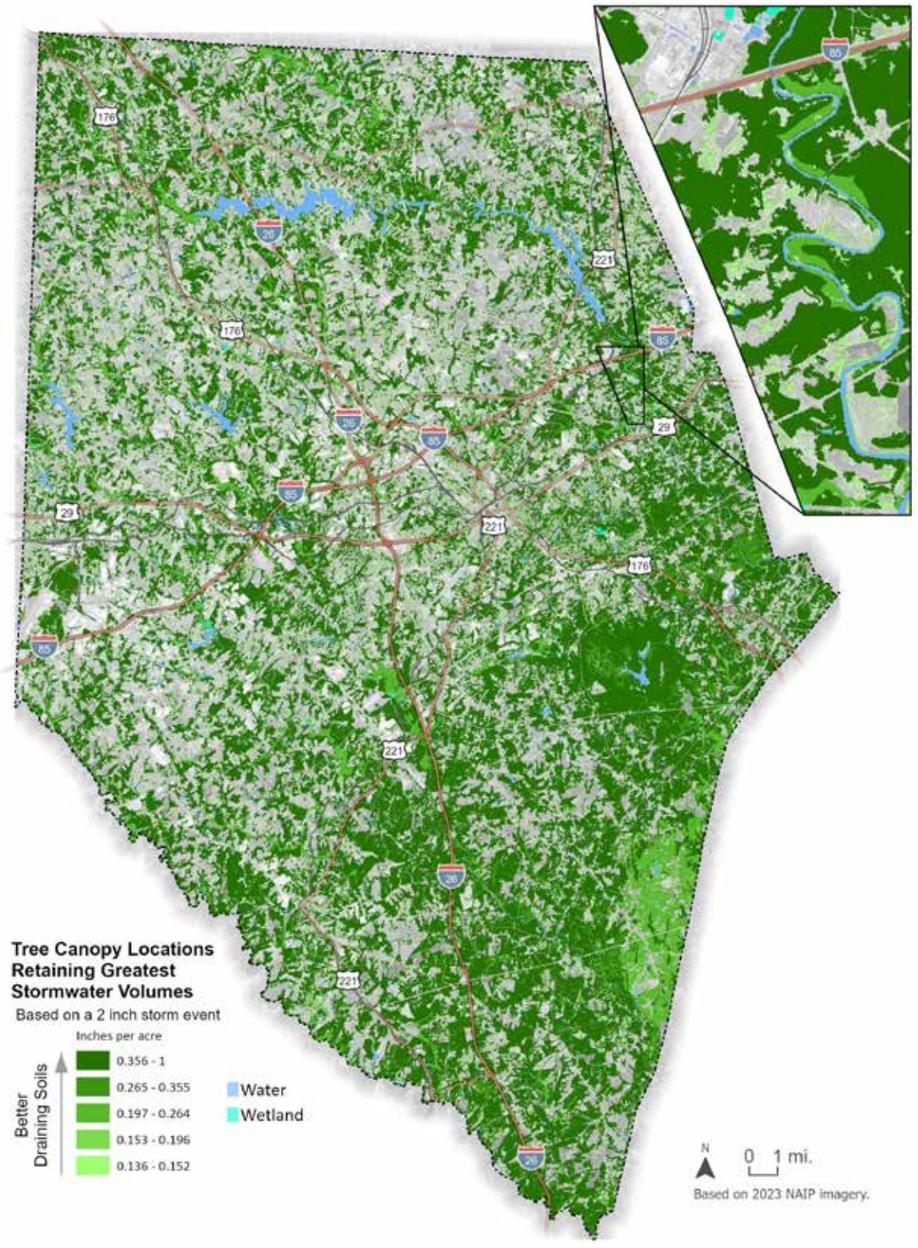
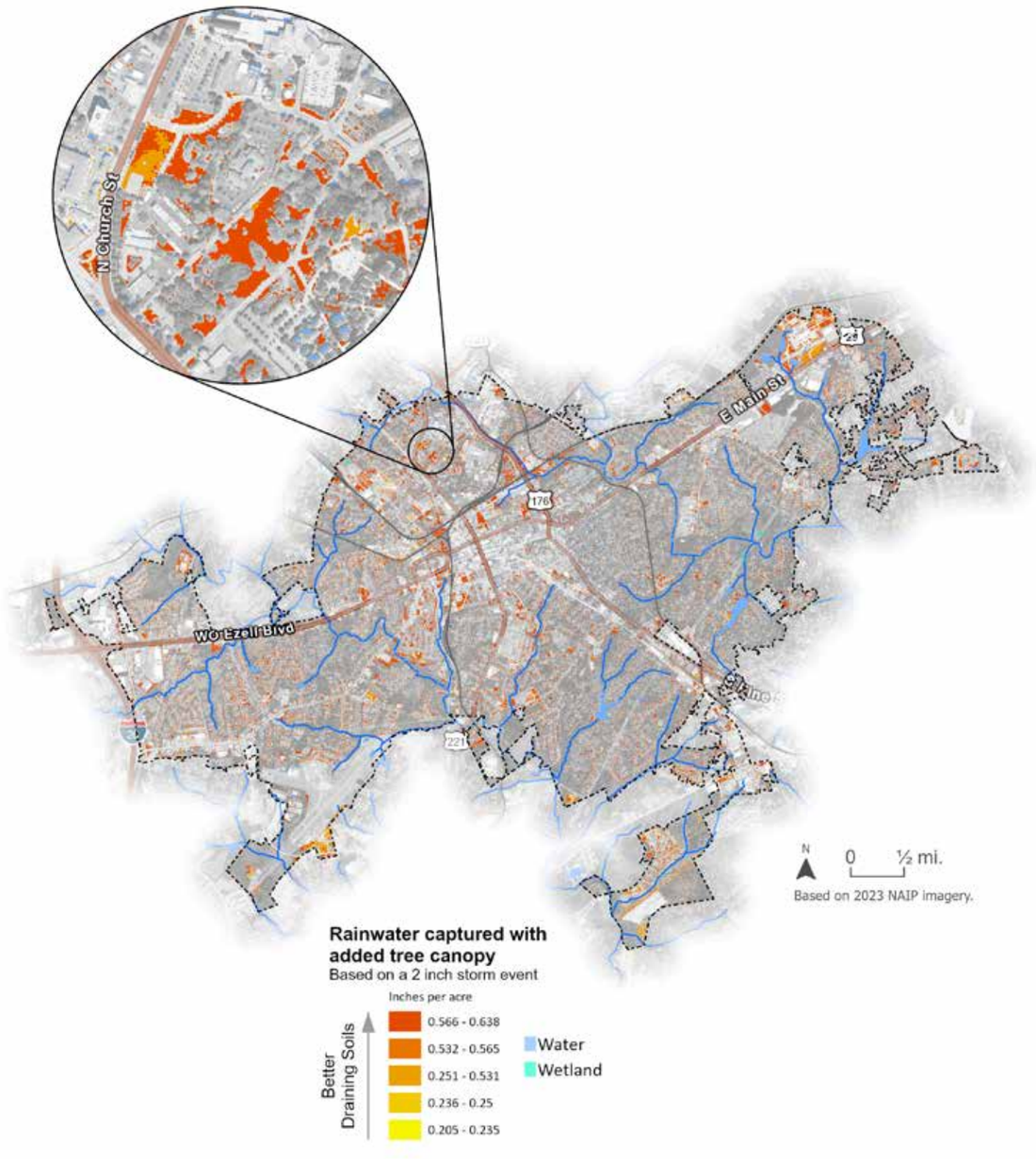


Best City Tree Planting Locations for Stormwater Infiltration

The TSW Tool was applied to map locations where planting trees will result in the greatest amount of stormwater capture and infiltration (red) in the city.



Best County Tree Planting Locations for Stormwater Infiltration

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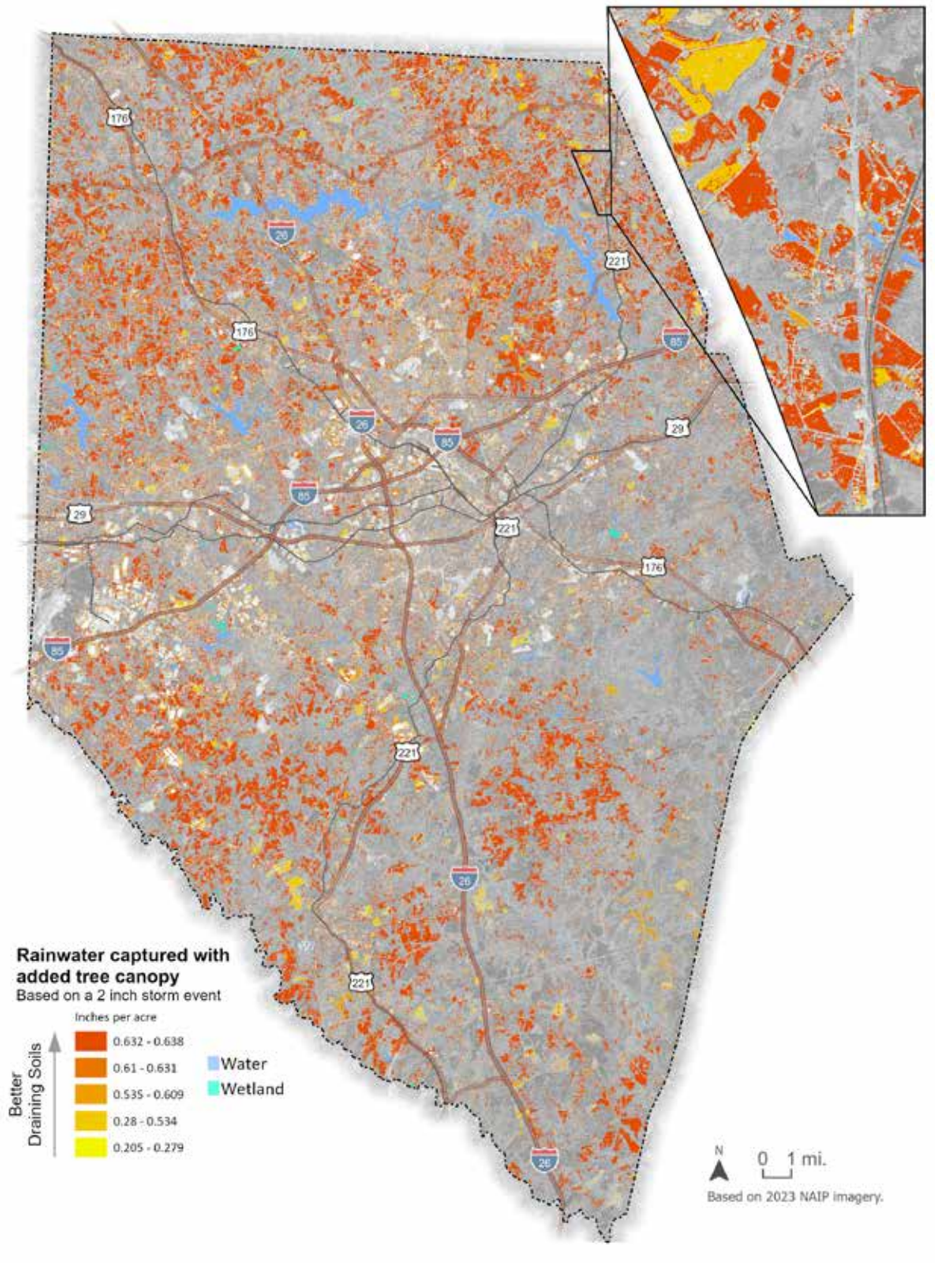


Air Quality

Air pollution removal values were calculated by applying pollution removal values for each acre of tree cover from the i-Tree model. i-Tree is a peer-reviewed software suite from the USDA Forest Service that provides urban and rural forestry assessment tools.

Investments in canopy at the neighborhood level can improve the respiratory health of residents.

Trees mitigate climate change by storing carbon in their tissue and sequestering atmospheric carbon from carbon dioxide (CO_2) in new tree growth. Current trees in the City are storing 190,468 metric tons of carbon that will be released back into the atmosphere when these trees die. Current trees in the County are storing 9.9 million metric tons of carbon that will be released back into the atmosphere when the current trees die. Trees also capture particulate matter, ground-level ozone (O_3), nitrogen dioxide, and sulfur dioxide from the air, resulting in better air quality and healthier neighborhoods.

Well-treed neighborhoods have cleaner air and lower rates of asthma.

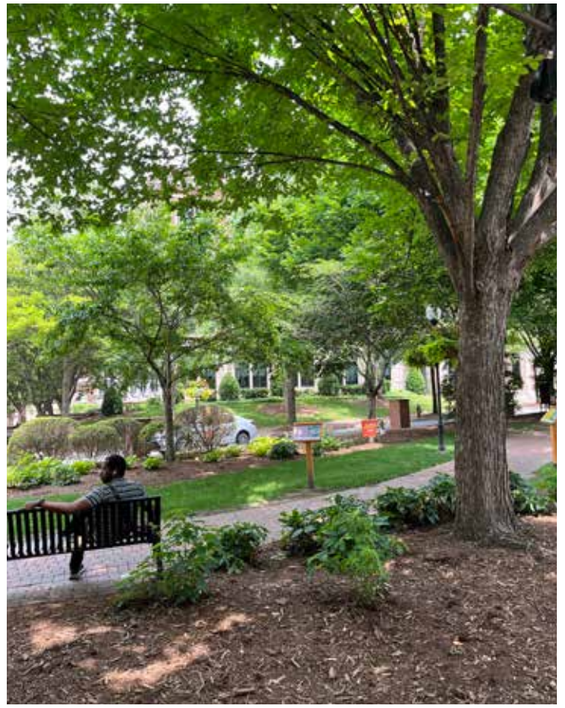
City of Spartanburg —air pollution and greenhouse gases removed annually by trees.						
CO (carbon monoxide)	**NO_2** (nitrogen dioxide)	**O_3** (ozone)	**PM_{10}** (particulate matter 10 microns)	**$PM_{2.5}$** (particulate matter 2.5 microns)	**SO_2** (sulphur dioxide)	**C seq** (carbon sequestered)
2,671 lbs	**22,733 lbs**	**169,708 lbs**	**31,505 lbs**	**8,151 lbs**	**2,932 lbs**	**27,019 metric tons**

Spartanburg County —air pollution and greenhouse gases removed annually by trees.						
CO (carbon monoxide)	**NO_2** (nitrogen dioxide)	**O_3** (ozone)	**PM_{10}** (particulate matter 10 microns)	**$PM_{2.5}$** (particulate matter 2.5 microns)	**SO_2** (sulphur dioxide)	**C seq** (carbon sequestered)
139,278 lbs	**1,185,336 lbs**	**8,848,857 lbs**	**1,642,736 lbs**	**425,053 lbs**	**152,912 lbs**	**1,408,823 metric tons**

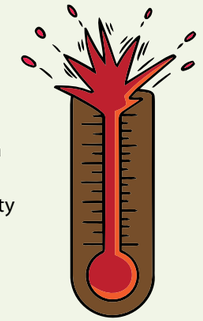
Urban Heat and Equity

Urban heat is a growing concern as extreme heat continues to increase in South Carolina with the changing climate. In Spartanburg, the number of days with a heat index above 100˚F is projected to rise from the historic average of 7 per year to 83 per year by the year 2070.

To reduce temperatures, the region can plant trees to cool the landscape. Inequities in the distribution of tree canopy and opportunities to correct them can be identified through tree canopy data, surface temperature data, and U.S. Census data that provides race and income statistics.



How much hotter is your home city now than when you were born?



This interactive online tool allows a user to put in their home city and birthdate to see how their home city has changed since then and how much hotter it may get. The tool provides the average number of days over 90°F.

https://www.nytimes.com/interactive/2018/08/30/climate/how-much-hotter-is-your-homecity.html

Days Per Year of Extreme Heat

Average days per year with temperatures over 100˚F

In this table "bold action" refers to reductions in greenhouse gases through energy conservation. It does not consider the effects of planting more trees.

Where we are now	Where we are currently headed		If bold action is taken
Historically 1971-2000	Midcentury 2036-2065	Late Century 2070-2099	Extreme heat limited to
7 days	**51** days	**83** days	**36** days

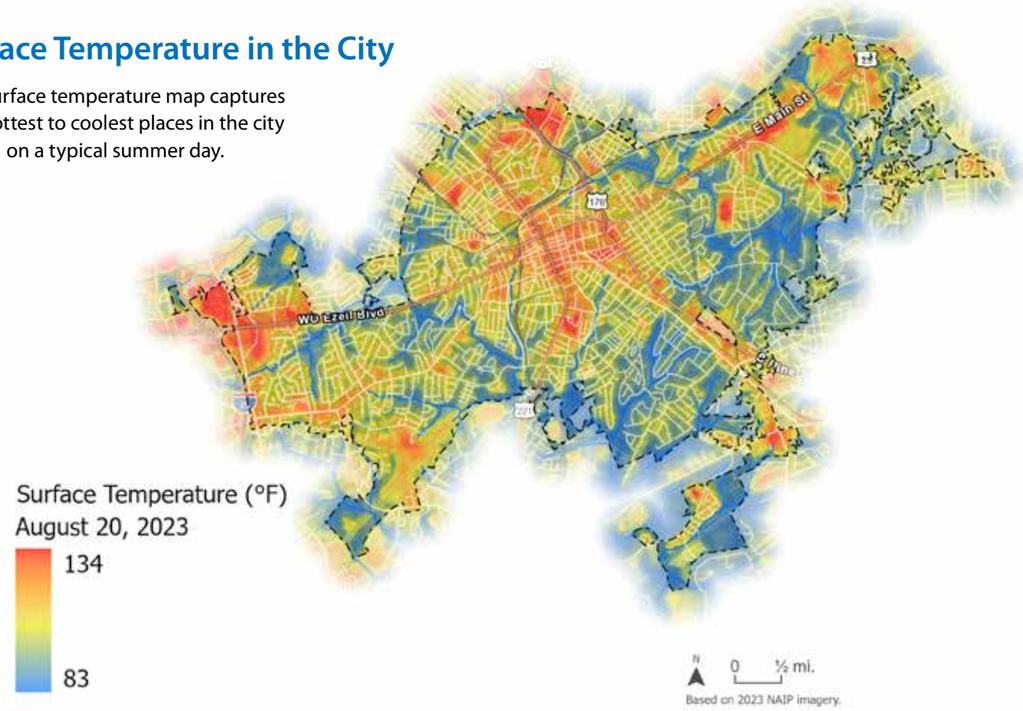
Source: Union of Concerned Scientists. *2019, Killer Heat Interactive Tool.*

What is tree equity?

Tree equity ensures all communities can have equal access to the benefits that trees provide. Areas that have been under-resourced, having fewer trees and more heat than the rest of the city, are the focus of tree-planting efforts.

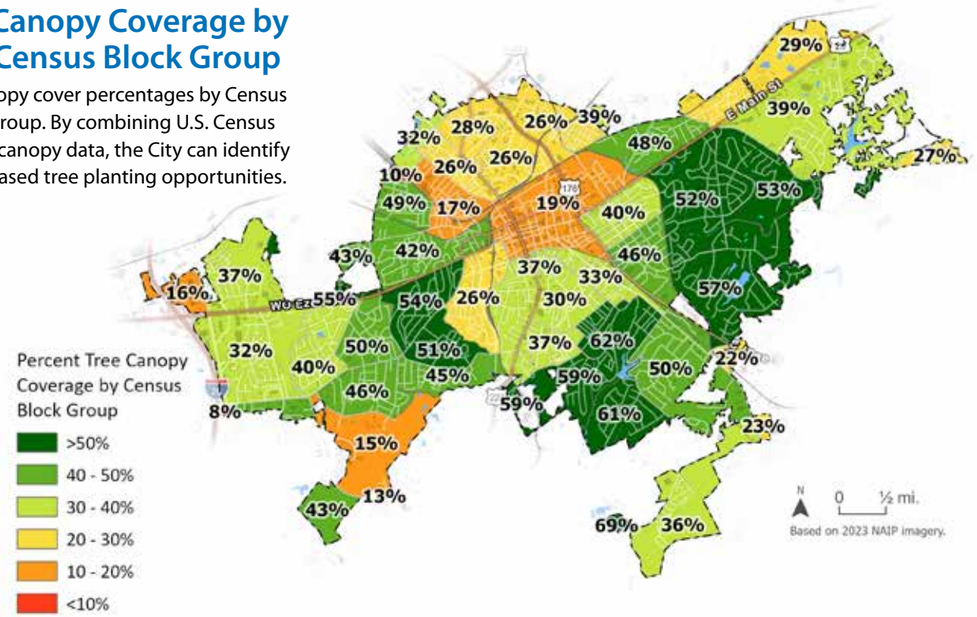
Surface Temperature in the City

The surface temperature map captures the hottest to coolest places in the city on a typical summer day.



Tree Canopy Coverage by City Census Block Group

Tree canopy cover percentages by Census Block Group. By combining U.S. Census and tree canopy data, the City can identify equity-based tree planting opportunities.



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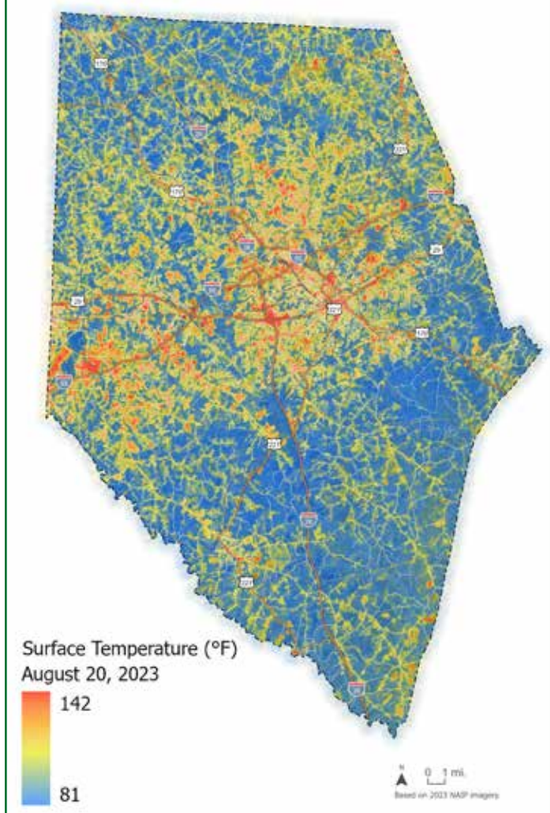

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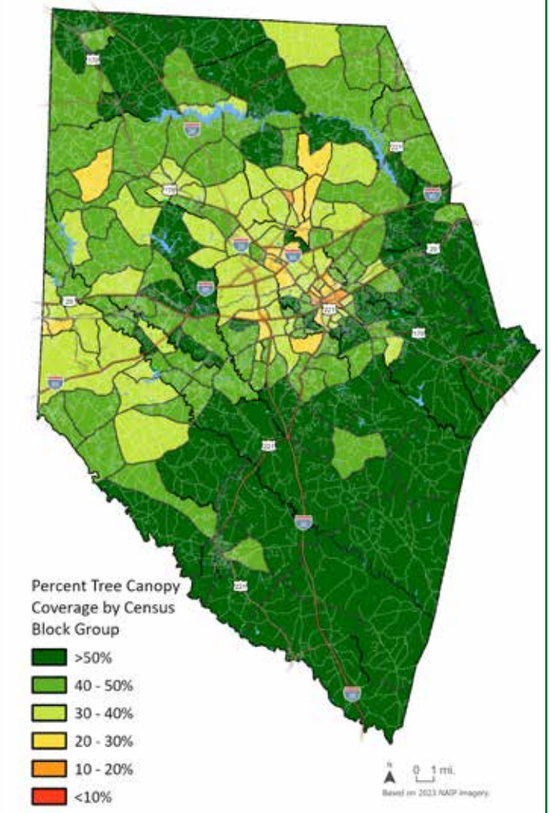
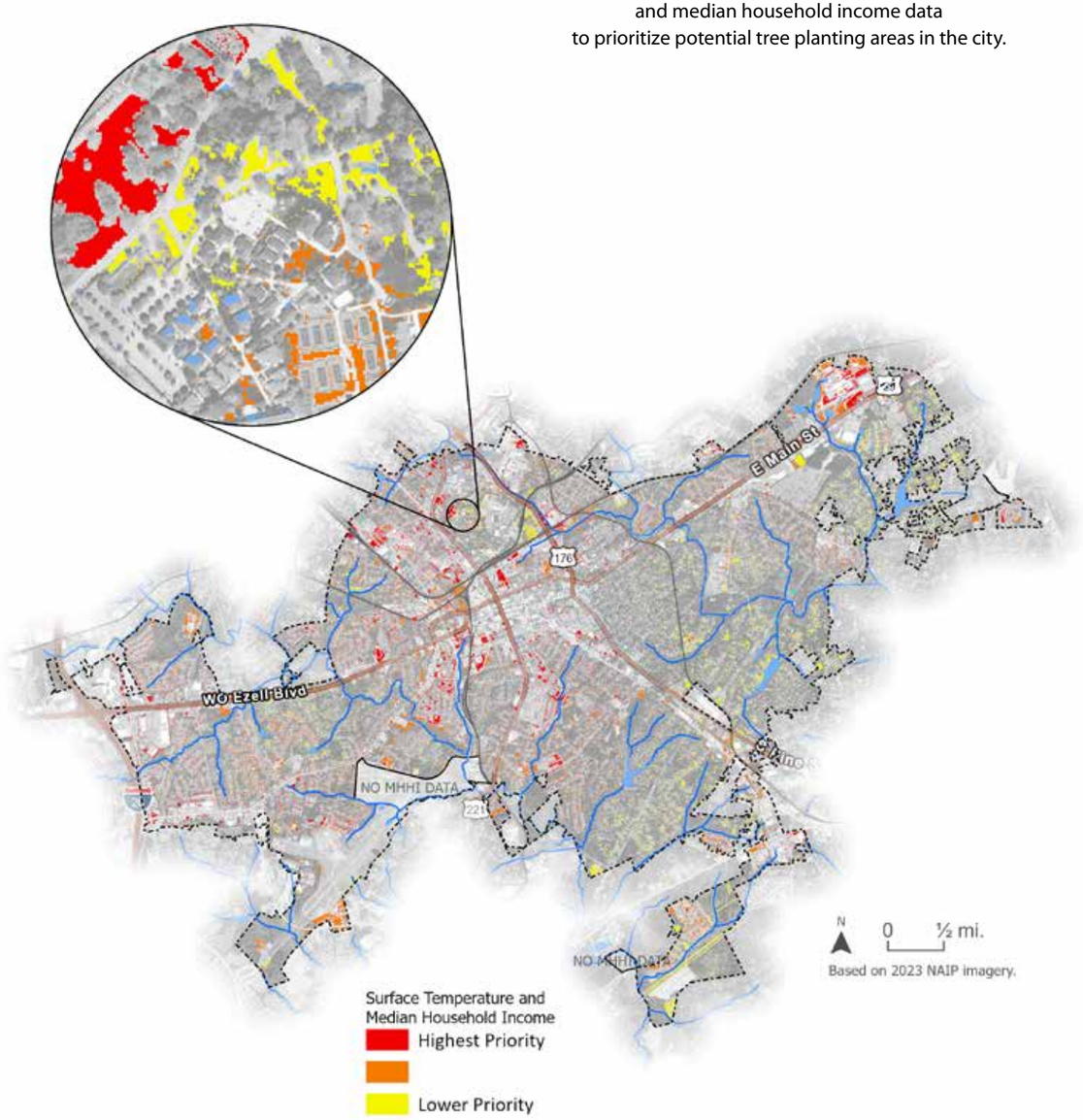


Photo credit: Trees Upstate

Heat and Income Priority Tree Planting Locations in the City

This map uses surface temperature data
and median household income data
to prioritize potential tree planting areas in the city.



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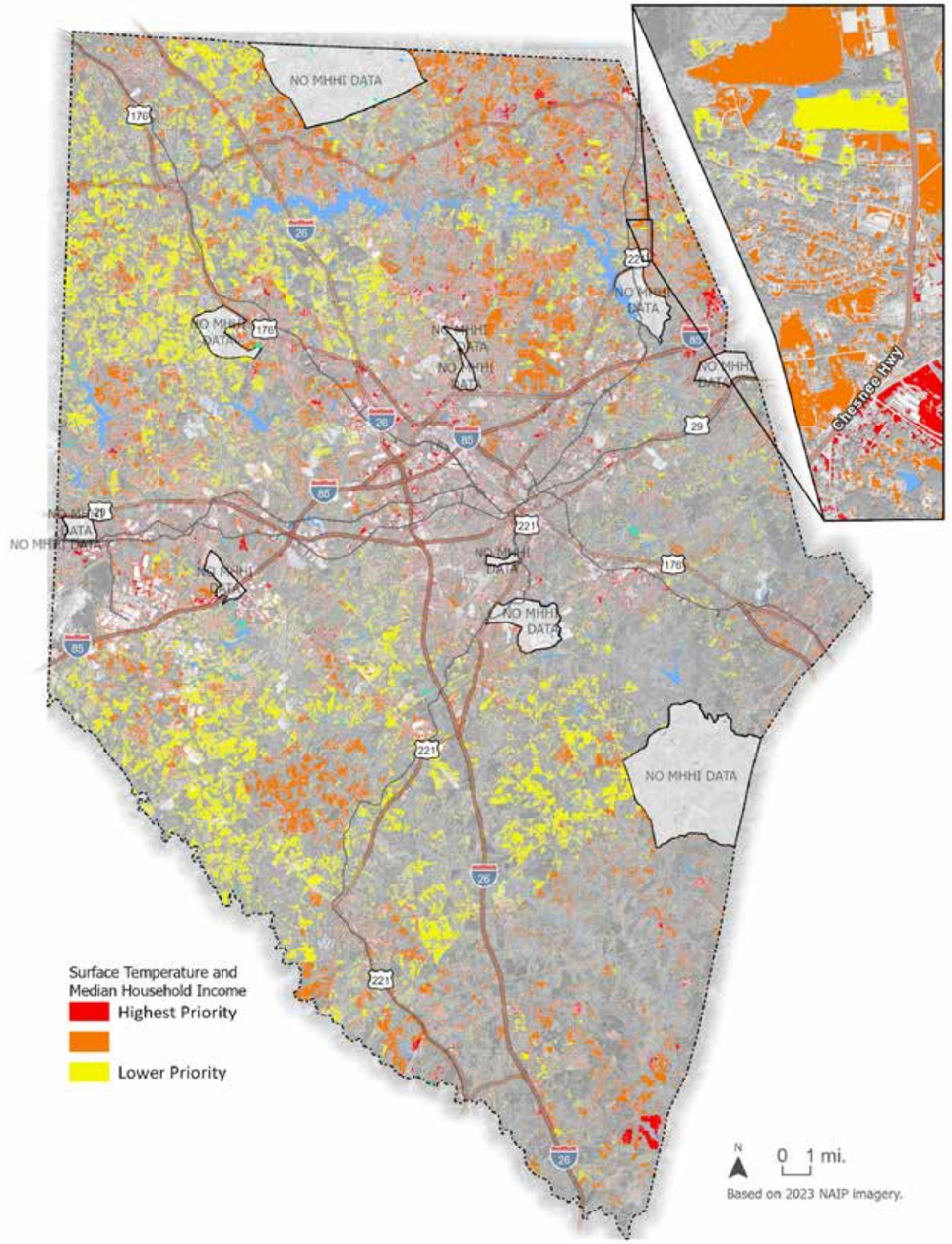

Planning and Engagement Process

The City of Spartanburg, Spartanburg County, OneSpartanburg, Inc, Spartanburg Water, PAL, Trees Upstate, the Noble Tree Foundation and the GIC partnered in a year-long effort to create this *Regional Strategic Tree Canopy Plan*. A stakeholder advisory committee was created and made up of representatives from local government and community partners to discuss the data, strategies and priorities for the region. They engaged in a series of six workshops from the spring of 2024 to the spring of 2025 to evaluate tree canopy cover, determine plantable areas, analyze ecosystem services provided by the tree canopy, and create a holistic set of strategies in which all stakeholders can take part to preserve and conserve tree canopy.

Advisory Committee

From the beginning, the planning process was a joint effort from City and County staff as well as leaders from local stakeholder community groups. This dynamic group, all with varying insights and priorities formed a single Program Advisory Committee. This committee consisted of representatives from the City of Spartanburg staff, Spartanburg County staff, OneSpartanburg Inc leadership, Spartanburg Water staff, as well as leadership staff from Trees Upstate, The Noble Tree Foundation and PAL. Committee members attended workshops and check-ins throughout the planning process. The advisory committee reviewed maps and data to develop the Regional Strategic Tree Canopy Plan goals and strategies for a healthier Spartanburg.

Photo credit: Trees Upstate

Newly planted trees along this street will provide shade as well as aesthetic beauty for decades to come.

Canopy Implementation Strategies

Recent national data show urban and suburban tree canopy cover is trending downwards at a rate of **175,000 acres lost per year** – approximately 36 million trees lost annually (Nowack and Greenfield 2012). Trees are lost due to development, disease, storms, and old age. Spartanburg is no exception. In order to ensure that current and future residents enjoy the continued benefits of trees and a healthy, sustainable, and beautiful region, City of Spartanburg and Spartanburg County along with their partners have identified actions to preserve existing trees, plant new trees, increase forestry education and outreach, monitor the existing forest resources and find funding sources to carry out these goals.

Several key goals were identified by the stakeholder committee to support the management of tree canopy and community forestry in the region.

Spartanburg's key goals:

- **Goal 1: Revise and update policies and plans around tree canopy.**
- **Goal 2: Identify opportunities for new tree plantings and implementation.**
- **Goal 3: Increase community forestry education and outreach within the region.**
- **Goal 4: Collect new data and monitor forest resources in the region.**
- **Goal 5: Identify funding sources to preserve existing tree canopy and new tree planting programs.**

Many streets and public properties, such as this school, private yard, and around this stormwater retention wetland, have room for more trees to add shade, beauty, and improve air quality.

On the following pages, details of each goal are presented. The objectives under each goal include color coding of lead stakeholders; with **orange for the City of Spartanburg**, **green for Spartanburg County**, **blue for Spartanburg Water**, and **brown for PAL (Play. Advocate. Live Well. Spartanburg County)**. Potential state, regional and local partners in achieving the objectives along with potential time frames for implementation are also included.

1 Goal: Revise and update policies and plans around tree canopy.

Objective 1.1: Review the subdivision and zoning ordinances and recommend amendments to increase and maintain tree canopy.

- **Lead Stakeholders:** City of Spartanburg, Spartanburg County
- **Partners:** Trees Upstate, OneSpartanburg, Inc, Noble Tree Foundation, PAL, Spartanburg Water
- **Timeframe:** 3 months -2 years

Objective 1.2: Evaluate requirements for shade trees within the right of way on low-speed roads. When possible, reduce traffic lane widths in high trafficked pedestrian areas to accommodate more tree wells and bioswales in rights-of-way (ROWs).

- **Lead Stakeholders:** City of Spartanburg, Spartanburg County.
- **Partners:** SC Dept. of Transportation, Trees Upstate, Spartanburg Water, developers
- **Timeframe:** 1-2 years

Objective 1.3: Incorporate stronger standards for trees and stormwater Best Management Practices into parking lot designs to retain more stormwater on site.

- **Lead Stakeholders:** City of Spartanburg, Spartanburg County
- **Partners:** Spartanburg Water, PAL, developers, property owners.
- **Timeframe:** 2-5 years

Objective 1.4: Review the comprehensive plan and recommend strategies to increase and maintain tree canopy.

- **Lead Stakeholders:** City of Spartanburg, Spartanburg County
- **Partners:** Trees Upstate, OneSpartanburg, Inc, Noble Tree Foundation, PAL
- **Timeframe:** 2 years

New developments are often cleared of most or all trees from a site before grading and construction begins. This results in a loss of a valuable resource that can support stormwater management, cleaner air and cooler communities.

Objective 1.5: Adopt stronger tree replacement requirements for trees removed due to development.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Spartanburg County, Spartanburg Water, developers, property owners
- **Timeframe:** 1-5 years

Objective 1.6: Evaluate the effectiveness of adopting a Green Area Ratio (GAR) policy. A GAR provides a series of options for developers to meet stormwater requirements, landscaping requirements and minimize total impervious surfaces for development with high density.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Spartanburg County, Spartanburg Water, developers, property owners
- **Timeframe:** 2-3 years

Objective 1.7: Ensure continuity between trees in preliminary site designs and final site layout and construction.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Developers, property owners
- **Timeframe:** 1-2 years

Objective 1.8: Reduce parking lot minimums for non-residential properties.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Developers, property owners
- **Timeframe:** 1-2 years

Objective 1.9: Require alternative grey infrastructure installation practices in Central District such as boring or sleeving. Use tree root guards to minimize tree root impacts to nearby utilities.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Local utilities, developers, property owners
- **Timeframe:** 3-5 years

Objective 1.10: Use this data to support a Complete Green Street Policy for city rights-of-way (ROWs).

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** SC Dept. of Transportation, Non-Governmental Organizations (NGOs)
- **Timeframe:** 5 years

Objective 1.11: Form a technical advisory group of representative stakeholders to evaluate and develop recommendations for enhanced riparian buffer and Critical Water Resource Area (CWRA) requirements.

- **Lead Stakeholders:** Spartanburg Water, City of Spartanburg, Spartanburg County
- **Partner:** SC Department of Environmental Services
- **Timeframe:** long term, multi-year (in phases)

2 Goal: Identify opportunities for new tree plantings and implementation.

Objective 2.1: Use data and partner with watershed and land trust groups to identify property owners in 100-year floodplains and riparian corridors that have low canopy for habitat restoration.

- **Lead Stakeholders:** City of Spartanburg, Spartanburg County
- **Partners:** Spartanburg Water
- **Timeframe:** 2-10 years

Objective 2.2: Integrate new tree wells and structural cells into major capital improvement projects where planting space is limited.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Local utilities, developers, property owners
- **Timeframe:** 2-5 years

Objective 2.3: Partner with hospitals and other healthcare facilities to include more trees, vegetation and gardens on site to help filter air pollutants.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Healthcare sector, community groups, volunteers
- **Timeframe:** 2 years

Objective 2.4: Focus plantings in hottest areas of the city and county and use shade tree species with large mature canopies.

- **Lead Stakeholders:** City of Spartanburg, Spartanburg Water, Play. Advocate. Live Well. Spartanburg County (PAL)
- **Partners:** Noble Tree Foundation, developers, property owners
- **Timeframe:** 2-4 years

Objective 2.5: Enforce landscaping standards for commercial properties.

- **Lead Stakeholder:** City of Spartanburg
- **Partners:** Developers, property owners
- **Timeframe:** 2-3 years

Photo credit: Trees Upstate

Connecting people to trees and how trees touch their lives every day is important for building widespread public support.

Objective 2.6: Work with SC Department of Transportation and other partners on landscaping enhancements along Appearance/Gateway Corridors.

– **Lead Stakeholders:** Spartanburg County

– **Partners**: SC Dept. of Transportation, OneSpartanburg, Inc, Noble Tree Foundation

– **Timeframe**: 3-10 years

Objective 2.7: Collaborate with regional tree nonprofits to plant trees on public and private property.

– **Lead Stakeholders:** Spartanburg County

– **Partners**: Trees Upstate, Noble Tree Foundation, Spartanburg Water

– **Timeframe**: Ongoing

Objective 2.8: Work with Soil & Water Conservation District/USDA to identify areas where tree canopy can be enhanced on farmland.

– **Lead Stakeholders:** Spartanburg Water

– **Partners**: Soil & Water Conservation Districts

– **Timeframe**: 2-4 years

Trees that are not properly protected during land disturbing projects are more likely to experience damage from construction equipment that may lead to decline and death.

3 Goal: Increase community forestry education and outreach within the region.

Objective 3.1: Develop an educational campaign to promote tree plantings, proper care and the value trees provide to the community.

– **Lead Stakeholder:** City of Spartanburg, Spartanburg County, Spartanburg Water

– **Partners**: Trees Upstate, Clemson Extension, Trees SC, Spartanburg Community College's Horticulture Department, Watershed Ecology Center, Glendale Outdoor Leadership School, regional arboretums, volunteers

– **Timeframe**: 2-4 years

Objective 3.2: Implement a tree planting campaign centered around the public health benefits of trees.

– **Lead Stakeholder:** City of Spartanburg, Play. Advocate. Live Well. Spartanburg County (PAL)

– **Partners**: Spartanburg County, Non-Governmental Organizations (NGOs), community groups, volunteers

– Timeframe: 2 years

Objective 3.3: Prioritize outreach to parcels with the greatest stormwater infiltration capacity and room for trees for a tree giveaway.

– **Lead Stakeholder:** City of Spartanburg

– **Partners**: Property owners, community groups

– **Timeframe**: 2-4 years

Objective 3.4: Create a regional network of stewardship groups that can support tree planting projects.

– **Lead Stakeholders:** Spartanburg Water

– **Partners**: Trees Upstate, Spartanburg's Men's Garden Club, Trees Coalition

– **Timeframe**: 1-3 years

4 Goal: Collect new data and monitor forest resources in the region.

Objective 4.1: Update the county's tree canopy data using new imagery in 4-6 years to track change.

–**Lead Stakeholder:** Spartanburg County

– **Partners**: South Carolina Forestry Commission (SCFC)

– **Timeframe**: Long-term

Objective 4.2: Conduct a cost benefit analysis to prioritize funding to reduce sediment loading to the Spartanburg community's water supply reservoirs.

– **Lead Stakeholders:** Spartanburg Water

– **Timeframe**: in-progress

Objective 4.3: Study the financial impacts of increased sedimentation on reservoirs and water resources.

– **Lead Stakeholder:** Spartanburg Water

– **Timeframe**: in-progress

Objective 4.4: Compare trail counts against existing tree canopy along trails and assess correlations.

–**Lead Stakeholder:** Play. Advocate. Live Well. Spartanburg County (PAL)

– **Timeframe**: 1 year

Objective 4.5: Identify metrics between trees and chronic health conditions.

– **Lead Stakeholder:** Play. Advocate. Live Well. Spartanburg County (PAL)

– **Partners**: Spartanburg Regional Healthcare, SC Department of Health, Spartanburg Department of Health

– **Timeframe**: 1 year

Heavy rain and high winds from Hurricane Helene damaged the region's tree canopy. Cleanup is still occurring in some areas.

Photo credit: Spartanburg Water

Forests buffer and protect the region's drinking water supply, making them a natural asset in the region.

5 Goal: Identify funding sources to preserve existing tree canopy and new tree planting programs.

Objective 5.1: Apply for carbon credits for urban tree plantings through carbon registries such as City Forest Credits.

– **Lead Stakeholders:** City of Spartanburg

– **Partners**: Non-Governmental Organizations (NGOs), community groups, volunteers

– **Timeframe**: 2 years

Objective 5.2: Use a small percentage of the stormwater utility fee to support tree giveaways or tree plantings in the city.

– **Lead Stakeholder:** City of Spartanburg

– **Partners**: Local utilities

– **Timeframe**: 1-3 years

Objective 5.3: Expand and advertise the Donor Tree Program through the Parks and Recreation Department.

– **Lead Stakeholder:** Spartanburg County
– **Timeframe**: 3-6 months

Objective 5.4: Create a tree mitigation/voucher program that can be used when trees must be removed for public projects.

– **Lead Stakeholder:** Spartanburg County
– **Partners**: Trees Upstate
– **Timeframe**: 2 years

Objective 5.5: Leverage resources at local and state levels to build public-private partnerships for urban forest management.

– **Lead Stakeholders:** Spartanburg Water
– **Partners**: All partners
– **Timeframe**: Ongoing

The Dan, a regional greenway provides the community an access to nature and active recreation.

Trees are functional works of art.

Conclusion

The City and County now have new data and strategies to guide the management of the urban forest across the region to ensure that current and future residents enjoy the continued benefits of trees and forests. This plan can guide the city, county, and their partners in the coming years as they balance development and maintain urban and rural tree canopy. The data and strategies in this plan can serve as a foundation for building a robust forest management program to ensure a green, healthy, and beautiful future for the region.

As development continues across the Southeast, and tree canopy is lost, it is important to keep in mind that these assessments only represent a singular snapshot in time. As was seen in 2024, stronger storms are also happening more frequently and despite being further inland from the coast, Spartanburg saw significant impacts on its tree canopy from Helene. Regular monitoring throughout the region, along with implementation of the strategies in this document will ensure that the investments in the tree canopy will pay dividends by reducing stormwater runoff, cleaning air and water, lowering energy bills, increasing property values and preserving natural beauty far into the future.

This *Regional Strategic Tree Canopy Plan* is intended to be integrated into on-going staff work plans, annual budgets, grant proposals, and partnerships with outside agencies and organizations. It is recommended that an implementation committee meet quarterly to document the plan's progress and adapt its strategies as needed. This committee can include the organizations involved in the development of this plan, with representatives from the City of Spartanburg, Spartanburg County, OneSpartanburg Inc, Spartanburg Water, PAL, Trees Upstate and The Noble Tree Foundation. In addition, the City of Spartanburg has been selected to take part in the 2026 Trees4SC! Program. This continued grant support with GIC, the South Carolina Forestry Commission and local partners will include updated canopy mapping to assess the impacts post-Helene, a tree codes audit, and tree plantings in neighborhoods with the most need for new tree canopy over the next two years. This work will move the region forward by meeting several objectives in this plan and support a healthier and greener Spartanburg across the region.

Photo credit: Spartanburg Water

Appendixes

Appendix A: Funding Opportunities

For tree campaigns to be successful, there must be dedicated funds. These funds can come from a variety of sources; including federal, state, local, and private resources. Examples of these opportunities are listed below.

South Carolina Forestry Commission

https://www.scfc.gov/management/urban-forestry/

- Technical Support and Direct Assistance Community Grant
- Trees4SC!
- Food Forest Grant Project

Partner Grants

- The Noble Tree Foundation
  https://www.nobletreefoundation.org/
- Trees Upstate Tree Giveaways
  https://treesupstate.org/

Dominion Energy Charitable Foundation

A yearly fund awarded to environmental stewardship, educational, and community renewal projects
https://www.dominionenergy.com/about/our-company/charitable-foundation

National Grant Opportunities

- Climate Smart Communities Initiative
  https://climatesmartcommunity.org/
- Urban and Community Forestry Grants
  https://www.fs.usda.gov/managing-land/urban-forests/ucf
- Watershed Rehabilitation Program:
  https://www.nrcs.usda.gov/programs-initiatives/watershed-rehabilitation-program
- Community Development Block Grant Program:
  https://www.hud.gov/hud-partners/community-cdbg#eg

Photo credit: Noble Tree Foundation

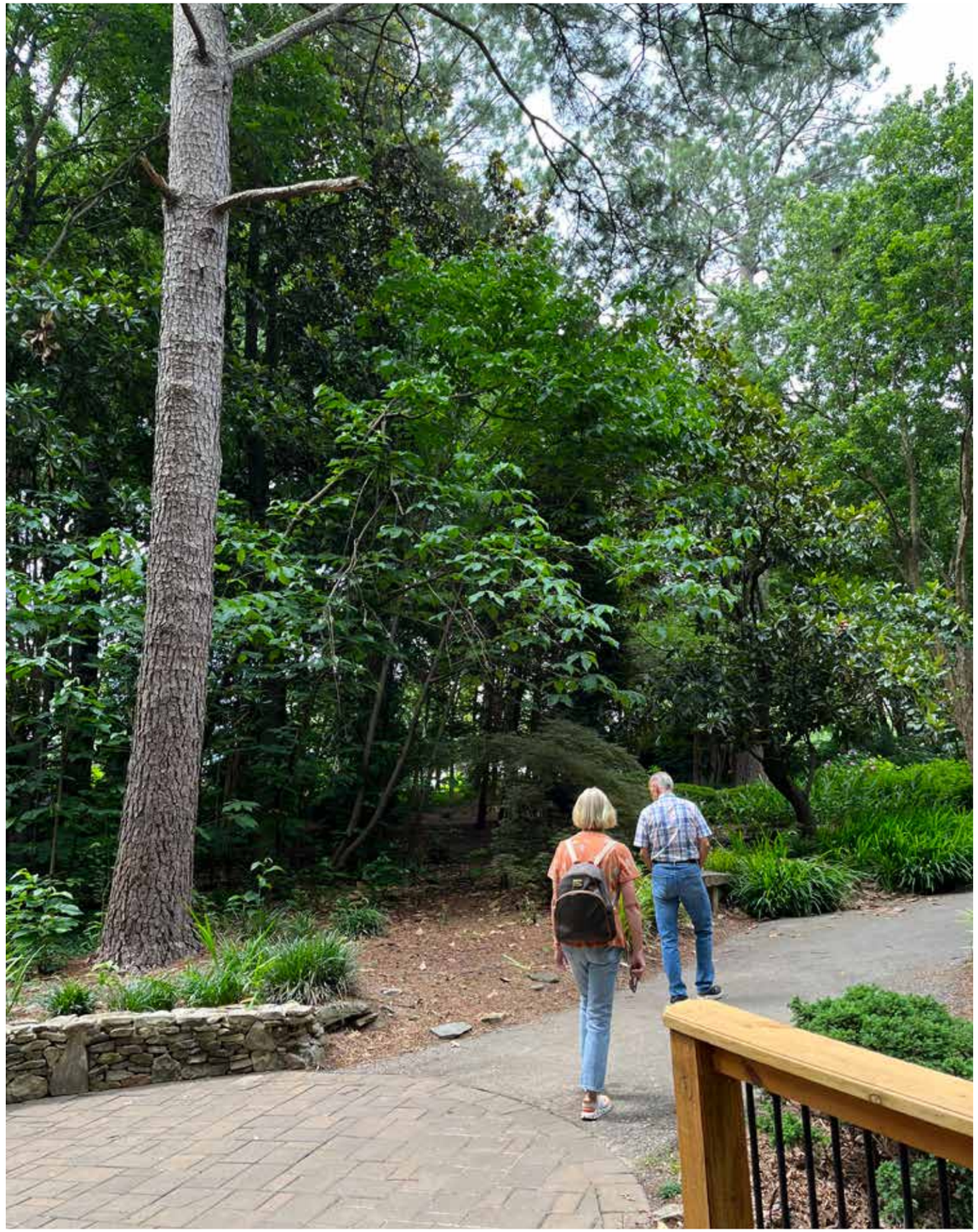

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Photo credit: Trees Upstate