

FY2024 STATE OF THE FOREST

CHARLOTTESVILLE TREE COMMISSION
ANNUAL REPORT
JANUARY 2025



*American Elm at Sojourners United Church of Christ
Charlottesville Area Tree Stewards, [Notable Trees Project](#)*

LETTER FROM OUR URBAN FORESTER

Dear Charlottesville Community,

As Urban Forester for the City of Charlottesville, I am committed to fostering a safe, vigorous, and diverse urban forest that enhances the quality of life for our residents and supports local wildlife. Trees are not just part of our landscape—they are vital to the health, resilience, and beauty of our city. At Parks & Recreation, we work to fulfill the objectives outlined in the city's Comprehensive Management Plan and Climate Action Plan, with a focus on increasing our tree canopy through both preservation and the thoughtful multi-species planting of young trees.

As Charlottesville grows, the importance of trees cannot be overstated. Trees provide cooling shade, improve air quality, reduce stormwater runoff, and create habitat for countless species. They strengthen neighborhoods, improve property values, and provide health benefits to residents. However, the pressures of development threaten this natural infrastructure. Much of the remaining land available for development is on critical slopes and floodplains—areas where the preservation of trees is particularly essential for stabilizing soils, managing stormwater, and mitigating the impacts of climate change.

To meet the city's housing and infrastructure needs without compromising our environment, we must plan ahead and act boldly. Enforceable ordinances, thoughtful site design, and innovative incentives can ensure that trees are integrated into every development project. The current trajectory for Charlottesville's Urban Forestry Program is 3-pronged:

PRESERVATION

Increased Preservation of Existing Trees—Preservation requires proactive management of existing trees including structural and sanitation pruning and vine removal. In addition, large trees need ongoing protection from threats posed by both development and the pathogens, pests, and competition imposed by invasive plants.

PLANTING

An Ambitious Tree Planting Program—Our urban areas need increased installations of large caliper trees. Efforts include planting 1-2" caliper trees in schools, parks and rights-of-way as well as large installations of tree seedlings and ground covers in restoration areas.

RESTORATION

Increased Restoration of Urban Woodlands—A comprehensive restoration program is underway to improve ecological health in pockets of the urban woodland that have been inundated with invasive vegetation.

A stronger tree canopy is not just an environmental goal—it's a necessity for our community's health, safety, and sustainability.

Steven Gaines

Urban Forester

Charlottesville Parks & Recreation

UPDATE ON TREE PLANTINGS, REMOVALS, AND MAINTENANCE, FY 2024

Stewarding a vigorous tree canopy requires both planting young trees, as well as the targeted removal of hazardous, dying trees. Both the City of Charlottesville and city-based arboreal nonprofits have made key improvements on this front. The following tables detail plantings and removals across public and private properties, and invasive species control work conducted by Urban Forester Steven Gaines and Charlottesville Parks & Recreation, with collaboration from community nonprofits.

Tree Planting and Removal Activities

Table 1 details tree planting numbers on public property, coordinated by the Urban Forester over the course of the 2024 fiscal year.

Organizational Entity	# of Trees	Location
Urban Forestry Annual Planting, 2" calipers	181	Rights-of-Way, schools, parks
Charlottesville Area Tree Stewards	22	Rives Park
Charlottesville Area Tree Stewards	10	Forest Hills Park
ReLeaf Cville	14	Charlottesville Redevelopment and Housing Authority on Madison Avenue
ReLeaf Cville	4	Rose Hill Rights-of-Way on Henry Avenue
ReLeaf Cville	11	Washington Park
The Grove	10	McIntire Park
Total	252	

Table 1. Tree Plantings on Public Property

Table 2 details tree removals conducted by Parks & Recreation on public property, with a row detailing Ash tree removals.

Tree Species (Ash or Non-Ash)	# of Trees Removed
Ash	49
Non-Ash	81
Total	130

Table 2. Tree Removals on Public Property

Table 3 details 2"-inch caliper tree plantings on private and other non-city-owned properties in Charlottesville, coordinated by city-based nonprofits, and including the Public Utilities' Spring Tree Giveaway.

Organizational Entity	# of Trees	Location
Public Utilities	230	Spring Tree Giveaway for private properties
Charlottesville Area Tree Stewards	24	Private Homeowners in 10th & Page
ReLeaf Cville	32	Burley Middle School
ReLeaf Cville	7	Community Lab School
ReLeaf Cville	61	Private Homeowners in Rose Hill
Total	354	

Table 3. Tree Plantings on Private and Non-City-Owned Properties

Invasive Species Management and Forest Restoration Projects

As noted in our [FY 2023 State of the Forest report](#), there are many reasons why the city's canopy has declined from 45% in 2014 to at best 38% in 2023: development, climate change, and the effects of intense storms and lethal pests, such as the emerald ash borer.

However, as is amply evident throughout the city, the destructive effects of invasive vines have taken a major toll on our mature trees, strangling and smothering them and ultimately bringing them down. To counter these devastating effects on our urban canopy, Steven Gaines and Parks & Recreation have conceived an ambitious comprehensive plan for invasive species management and reforestation with native trees and groundcover species to be carried out on the city's public properties.

As the first steps in realizing this plan, 16 parks, trails, and cemetery sites were selected for intensive invasive species management and forest restoration projects over the course of FY 2024. As noted in Table 4, these projects utilized a range of methods to clear invasives. Removal was followed by dense planting of seedlings and groundcovers. Overall, these management endeavors reclaimed more than 24 acres, and in some areas were tackled in collaboration with the Rivanna Conservation Alliance.

Acres Restored	# Seedlings Planted	Method(s)
24.55 acres	1,260	Forestry Mulching Goat Browse Chemical Treatments

Table 4. Invasive Species and Reforestation Projects

The efforts by our Urban Forester and Parks & Recreation to preserve our mature trees, plant new trees, and restore our urban woodlands have been dramatic and consequential over this past year. However, we must keep in mind the overall assessment of the condition of our urban tree canopy (UTC) as reported in the Tree Commission's [2023 State of the Forest Report](#), where it was noted that the city's UTC has declined alarmingly from a prior reported high of 45% to a present low of 38% (and may be even as low as 25% based on current field observations). Thus, more needs to be done to reverse the current trend of decline. As indicated in Figure 3 of the 2023 State of the Forest Report, this includes planting upwards of 3,600 additional trees annually in order to reestablish 45% UTC by 2050.

Public Education Activities and Arboreal Achievements

Over the last fiscal year, Urban Forester Steven Gaines and Parks & Recreation engaged in several public education initiatives and were recognized for their forest management plans and achievements.

- Designed and conducted 6 two-mile Ragged Mountain guided hikes to introduce the community to the site's natural history, specifically vegetation and wildlife habitat.
- Conducted 4 Downtown Mall walks in order to update the public on anticipated tree maintenance and long-term management planning on Downtown Mall.
- Received an Inflation Reduction Act (IRA) state grant to update the city's Urban Forestry Management Plan, which includes analysis of city trees, vegetation analysis, and strategic planning.
- Received the "Best New Environmental Sustainability Initiative" award from the Virginia Parks & Recreation Society for the city's invasive species management and control program.

TREE COMMISSION PROJECTS-IN-PROCESS

Neighborhood-Level Arboreal Relationships

According to Charlottesville's Climate Action Plan, "tree canopy is not evenly distributed between neighborhoods, with Charlottesville's older and less wealthy neighborhoods having noticeably fewer trees and greenspaces. In these areas, property lot sizes tend to be smaller, and the roadways were built with little public investment in sidewalks and spaces for planting strips."¹ Two of the key strategies included in the report are to:

- Maintain a Robust Urban Forest on City-owned Lands
- Encourage Healthy and Increased Tree Canopy on Privately Owned Properties

The City of Charlottesville and the Tree Commission have each highlighted the need for a more robust canopy on both public and private property. Key subgoals of the current Charlottesville Climate Action plan include a more equitable distribution of trees as well as the reduction of urban heat island effects.

Over the last few years, much of the Tree Commission's activities have focused on supporting large shade tree preservation and planting on public properties. This last year, the Tree Commission began working with neighborhoods to find ways to encourage neighborhood-desired tree preservation and planting projects.

Starting in Fifeville, the Tree Commission began building these relationships, which brought us into conversations, community "walkshops" regarding ongoing neighborhood projects, and collaborations for an outline of community interviews to begin next Spring at public parks. Building these neighborhood-specific relationships, at the pace of neighborhood-level leadership priorities, allows the Tree Commission to:

- Seek local, community-scale experiences and input regarding residents' lived experiences beneath the tree canopy;
- Face the historical and current impact of public policy and zoning decisions through active planting and preservation projects; and
- Incite curiosity, connection, and collaboration on neighborhood-level projects that expand the canopy and maintain its health.

The Tree Commission believes supporting current neighborhood-level projects aligns with the city's stated intentions to manage tree canopy in accordance with each neighborhood's built conditions, interests, and needs. Over the next year, the commission will continue to do so through neighborhood associations, collaborative site visits for ongoing site plans, and community input/feedback through group discussions and listening sessions.

If you are interested in collaboration and/or in having the Tree Commission visit your neighborhood, please connect with us at treecommission@charlottesville.gov.

¹ <https://www.charlottesville.gov/DocumentCenter/View/8776/Charlottesville-Climate-Action-Plan-PDF>.

The Charlottesville Invasive Plant Partnership (CHIPP)

As noted above, Steven Gaines has launched an [aggressive and award-winning project](#) to control invasives and reforest city-owned properties. However, because some 85% of properties in the city are in private hands, it is also critical to address the problem of invasive vines on private properties.

Concern with this problem has increasingly come to be recognized by the public, and was expressed to City Council by schoolteachers who urged Council to inform and educate the public about the importance of managing invasive species. Council conveyed that entreaty to Parks & Recreation. The challenge was taken up by Steven Gaines, who has worked with members of the Office of Sustainability, the Tree Commission, and a number of community organizations² to form the Charlottesville Invasive Plant Partnership (CHIPP). CHIPP's overarching mission is "to inspire awareness and action to protect native species from invasive plants."

As part of a comprehensive solution to the declining tree canopy in Charlottesville, CHIPP's initial collaborative project is concentrated on freeing mature trees from the damaging effects of invasive vines, focusing specifically on private properties in the City of Charlottesville. CHIPP has therefore conceived of an innovative project that seeks to build neighborhood-based teams of people who are trained to:

- Identify, survey, and treat invasive vines primarily on private properties;
- Educate and train their neighbors about the value of mature trees and about invasive vines and how to control them;
- Collaborate to free neighborhood trees from invasive vines; and
- Support vulnerable neighbors who are unable to do the work themselves.

CHIPP has begun to work with two neighborhoods—Kellytown and Little High—to develop pilot projects tailored to help each neighborhood deal with its specific problems with invasive vines and understand the beauty and benefits that can be created in managing them. Ultimately, we hope to involve not only individual homeowners and HOAs, but also commercial and rental property owners in all our neighborhoods.

For more information or if your neighborhood is interested in joining in this endeavor, please email cvillechipp@gmail.com.

² Blue Ridge PRISM (Partnership for Regional Invasive Species Management), Botanical Garden of the Piedmont, Charlottesville Area Tree Stewards, Piedmont Master Gardeners, ReLeaf Cville, Rivanna Conservation Alliance, Rivanna Master Naturalists, Jefferson Chapter of the Virginia Native Plant Society.

RECOMMENDATIONS FROM THE TREE COMMISSION

Tree Commission Support for a Second Urban Forester

The Tree Commission strongly supports the Neighborhood Development Services and Parks & Recreation request that the city hire an additional Urban Forester who would be located in Neighborhood Development Services. This request aligns with repeated recommendations from the Tree Commission, and is squarely in line with the practice of similar-sized cities as Harrisonburg and Blacksburg, VA, which have divided the many tasks belonging to contemporary urban forestry into two distinct roles:

- **Forest Management:** A role, under the heading of Parks & Recreation or Public Works, focusing on diverse arboricultural operations on public properties; and
- **Code Implementation and Enforcement:** A second role, under the heading of Neighborhood or Community Development, focusing on processes related to development, the enforcement of codes and ordinances, and tree removal permitting on private properties.

Charlottesville's Urban Forester's scope of work currently includes work in both public and private jurisdictions. Moreover, in recent years, the Climate Action Plan, the Comprehensive Management Plan, and updates to the Charlottesville Code of Ordinances have significantly intensified and multiplied the Urban Forester's duties which, taken together, stretch far beyond the capability of a single person.



American Basswood in Market Street Park
Charlottesville Area Tree Stewards, [Notable Trees Project](#)

The proposed hiring envisions discrete roles of the two Charlottesville Urban Foresters as outlined below.

Parks & Recreation: Urban Forester	Neighborhood Development: Urban Forester
• Increasing Urban Tree Canopy – Tree Planting • Urban Forest Restoration/ Invasives Vegetation Management • Administration of \$300,000 Urban Forestry Grant over the next 3 years • Public Education • Downtown Mall Tree Maintenance • Responding to citizen concerns and inquiries about city-owned trees • Stormwater: Green infrastructure (proposed)	• Technical assistance to property owners during development/planning process • Sidewalk inspection for root-heave to keep city in ADA compliance • Engaging with developers through all phases of planning • Code/Ordinance Enforcement • Tree Removal Permitting/Processing • Development Plan/Site Plan Review • Stormwater: Green infrastructure (proposed)

A healthy, vibrant tree canopy is an essential element in our Climate Action Plan—indeed it constitutes the “gold standard” for mitigating the harmful effects of increased heat and flooding due to climate change.³ To meet these goals, it is not only necessary to maintain a comprehensive plan of tree planting and invasive species management, but also to pursue a meaningful policy of tree preservation in collaboration with developers, and to enforce the tree-positive regulations in the city’s revised codes and ordinances.

For these reasons, the Tree Commission urgently requests that the city follow other Virginia communities and hire a second urban forester. While the Tree Commission advocates for two urban foresters, each in their specific jurisdiction, we also argue that the health of the urban forest in Charlottesville requires a close, substantive, and ongoing collaboration between the two.

³ [City of Charlottesville Heat Mitigation and Adaptation Guidebook](#), page 2.

Adjusting Stormwater Fee and Uses of Funds

Currently, the City of Charlottesville and the Public Utilities team are in discussions regarding adjustments to the city's Stormwater Utility Fee Program. The Tree Commission supports an adjustment to the fee, as well as expanding current uses of funds collected from the fee, to include tree preservation and planting as crucial aspects of stormwater management and green infrastructure. The Tree Commission puts forward three recommendations to City Council:

- 1. Expand the City's Stormwater Activity within Legal Authority***
- 2. Adjust Stormwater Fee Structure***
- 3. Bolster Uses of Funds to Include Green Infrastructure***

1. Expand the City's Stormwater Activity within Legal Authority

The Tree Commission sees an opportunity for the City of Charlottesville to expand its stormwater management and regulation, by widening its interpretation and activity of allowable uses within legal state authority. Public education activities and acquiring property are two examples of permitted management practices available to Charlottesville that could be utilized in an expanded stormwater program, both in line with current permitted practices.

Per state law, permitted activities include "1. The acquisition, as permitted by § 15.2-1800, of real and personal property, and interest therein, necessary to construct, operate and maintain stormwater control facilities; 2. The cost of administration of such programs."⁴ Possible benefits to expanding the current interpretation of what is allowable under state law include public greenspace, higher Urban Tree Canopy (UTC), and strengthened stormwater ecosystem services. The Tree Commission recommends using the next fiscal year as an opportunity to build more robust ways to enhance the city's canopy, in service of both additional greenspace and enhanced green stormwater infrastructure.

2. Adjust Stormwater Fee Structure

In order to understand the commission's recommendations for adjustments in the stormwater fee structure, it is necessary first to understand the current fee structure. Per the City of Charlottesville, the current fee is calculated and charged "in 500 square foot (SF) increments of impervious area, referred to as a billing unit (BU). The total impervious area for the parcel is divided by 500 and rounded up to the next whole unit. The Stormwater Utility Fee is calculated by multiplying the number of BUs by the utility rate adopted by the City Council (\$1.20 per billing unit per month). There is no fee for parcels determined to have less than 300 square feet of impervious area."

⁴ See Regulation of Stormwater, <https://law.lis.virginia.gov/vacode/title15.2/chapter21/section15.2-2114/>.

The Tree Commission recommends adjusting the fee structure in two key aspects:

Adjust the fee toward higher concentration of impervious surfaces

The commission recommends adjusting the fee such that properties that concentrate more impervious surfaces and have higher levels of runoff and ecological impact assume a requisite portion of the fee collection. The current fee structure builds its rate based on the percentage of impervious area on a property, such that both a small house and a large commercial shopping center are rated as having the same percentage of impervious surface on their properties. We suggest shifting the fee burden onto properties contributing more substantially to stormwater runoff.

Expand Waiver Program by raising minimum eligible for collection

Currently, according to Public Utilities, there is no fee for parcels determined to have less than 300 square feet of impervious area.⁵ The commission proposes raising the minimum threshold for parcels eligible for fee collection. This will revise the responsibility of small parcels with an inevitably high percentage of impervious surface, ensuring a more equitable distribution of stormwater fees.

3. Bolster Uses of Funds to Include Green Infrastructure

The commission strongly favors expanding the uses of funds collected from the Stormwater Utility Fee to include green infrastructure in addition to hard, built infrastructure. While traditional, piped stormwater infrastructure focuses on maximizing speed and efficiency of water conveyance, green infrastructure includes a range of strategies to slow the flow and increase the quality of stormwater, mitigating damage to our urban streams. At the same time, green infrastructure can provide a host of additional benefits, as it can reduce the urban heat island effect, support the city's tree canopy, provide shade for human comfort and offer biodiverse planting habitats.

In Charlottesville, effective interventions could include bioretention gardens at multiple scales, bioswales, permeable paving, "green streets" and enhanced riparian buffers. Two possible implementation options could involve:

- *Administering the program through a newly-hired NDS Urban Forester, in conjunction with Public Utilities; or*
- *Joint collaboration between NDS and Parks & Recreation.*

⁵ <https://www.charlottesville.gov/DocumentCenter/View/1039/Stormwater-Flyer-PDF>.



Bur Oak at Johnson Elementary School
Charlottesville Area Tree Stewards, [Notable Trees Project](#)

CONCLUSION

Restoring and revitalizing our urban forest—and actualizing its “gold standard” role in mitigating the detrimental effects of climate change in our city—will require the passion, hard work, and collaboration of people in multiple city departments, councils, and commissions in league with our nonprofit partners and private citizens. The Tree Commission is dedicated to moving forward with the initiatives detailed in this report while finding new ways to achieve a shared vision for our collective canopy.