



City of Atlanta IURC Carbon Credit Webinar

Chandra Farley, Chief Sustainability Officer City of Atlanta, Mayor's Office of Sustainability and Resilience



CITY OF ATLANTA
VISION

One City with One bright future. A city of safe, healthy, connected neighborhoods with an expansive culture of equity, empowering upward mobility and full participation for all residents, embracing youth development, and an innovative, dependable government moving Atlanta forward. **Together.**



Chandra Farley Chief Sustainability Officer



John R Seydel



j. olu baiyewu Deputy Chief Sustainability Officer Urban Agriculture and Food Systems Director



Beth Graham Stakeholder Engagement Director



Michelle Midanier Clean Energy Programs Associate



Shun Barnes Sr. Management Analyst



MAYOR'S OFFICE OF Sustainability and Resilience

Leading science-based analysis informed by the community to uplift sustainability, climate action & environmental justice in City Hall and across Atlanta!



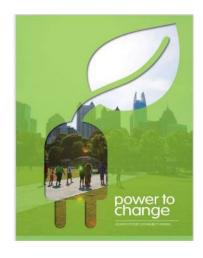
Ameena Abdul-Hakeem WeatheRISE ATL Program Administrator

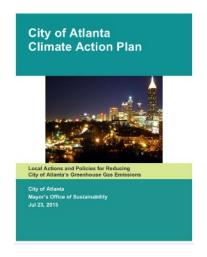
CITY OF ATLANTA MAYOR'S OFFICE OF SUSTAINABILITY & RESILIENCE

The Mayor's Office of Sustainability & Resilience leads science-based analysis informed by the community to establish, develop, implement, and promote policies, programs, and initiatives related to environmental sustainability, climate resilience, circular economy and food security rooted in environmental justice.

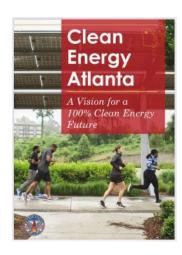


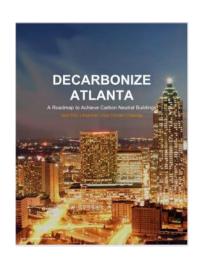


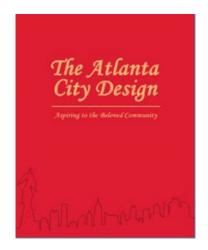














Climate resilience is about successfully coping with and managing the impacts of climate change while preventing those impacts from growing worse —and doing so in ways that make the world more equitable and just, not less.

https://www.ucsusa.org/



CITY OF ATLANTA SUSTAINABILITY AND RESILIENCE GOALS

- 100% Clean Energy for 100% Atlantans by 2035
- Reduce Energy Burden by 10% of the Most Energy Burdened Households
- 59% Reduction in Greenhouse Gas (GHG) Emissions by 2030
- Add 250 Electric Vehicle Charging Ports across Atlanta through 2025
- Fresh and Affordable Food Access within 0.5 Mile for 100% Atlantans by 2030

Tree Canopy Goals:

- 50% average Tree Canopy cover in Atlanta
- Planting 8,000 Downtown Trees, doubling the baseline downtown trees.



CLIMATE RESILIENCE ACTION PLAN FRAMEWORK



CLIMATE MITIGATION



100% Clean Energy



Net Zero Emissions



Accessible Fresh & Affordable Food



Reduce Energy Burden



Transformative Multimodal Transportation



Climate Resilient ATL

People Centered, Equitable & Just, Data Driven, Improves Health & Wellbeing, Proactive



CLIMATE ADAPTATION

Climate Perils



Flood



Heat



Drought

Building Atlanta's First Climate Resilience "Action" Plan STAKEHOLDER ENGAGMENT



10
Climate Resilient
ATL Events

1,274

Atlantans Engaged 1,921

Community Recommendations

9,677

Social Media Impressions

Why Carbon Credits?

❖ Innovative Revenue Generation

- Achieving our goals require resources!
- Maintenance and stewardship for the City's Forests is underfunded.

Climate Resilience & Greenspace Equity

- Enhances stormwater management, air quality, and biodiversity
- Supports greenspace access within a half-mile walking distance for all residents.

Sustainable and Scalable Funding

 Generates revenue that can be reinvested into urban forestry, climate resilience projects, and community initiatives





City Forest Credits

Generate high-quality projects and new carbon revenue for greener, healthier, and more equitable cities

- National 501(c)(3) nonprofit carbon registry that manages carbon and impact standards for metropolitan areas in the United States.
- Connect conservation and urban forest leaders to new source of funding
- Empower companies to invest in local climate action
- Developed national carbon protocols with leading national urban forest and forest carbon scientists and professionals



Challenges

Losing urban trees

36 million trees lost each year nationwide

Urbanization

Over 80% of the U.S. population lives in cities and towns

Inequitable distribution

Under-resourced neighborhoods have fewer trees

Lack of public funding Budgets strained, not enough money for tree care

Benefits of Trees



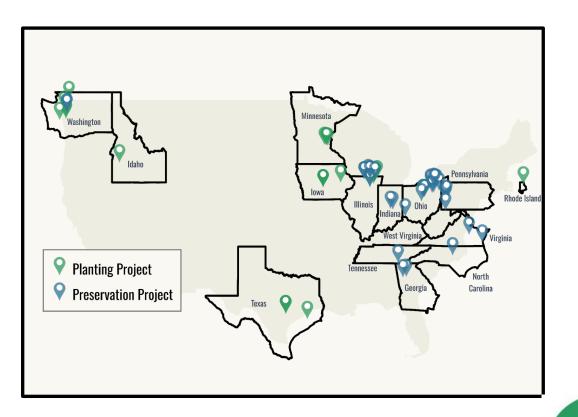




Store carbon Manage stormwater Enhance climate resilience Provide jobs Address environmental injustices Improve access to nature Promote physical activity Provide shade

National Impacts

- 64 registered carbon projects throughout the US
- Over 300,000 trees planted
- Over 2,400 acres preserved
- 516,089 metric tons of CO₂e
 stored over the projects' lifetime
- Over \$9 million in quantified annual co-benefits (avoided costs)



National Carbon Standard and Protocols

Rulebooks for verified carbon projects

- Expert forest scientists and urban forest professionals on protocol drafting group
- 26 year commitment for planting
- 40 or 100- year commitment for preservation
- Rules for location, site ownership, quantification, third-party verification, monitoring, and more
- Robust and secure system to issue and track credits



Available at: https://www.cityforestcredits.org/carbon-credits/carbon-protocols/

Carbon Project Participants

Three main roles in a carbon project

Develop carbon project

Project Owner

Land Trust
City or County
Non-profit Tree Org
Conservation District

Set rules and issue carbon credits

Carbon Registry

City Forest Credits
Verra
American Carbon Registry
Climate Action Reserve

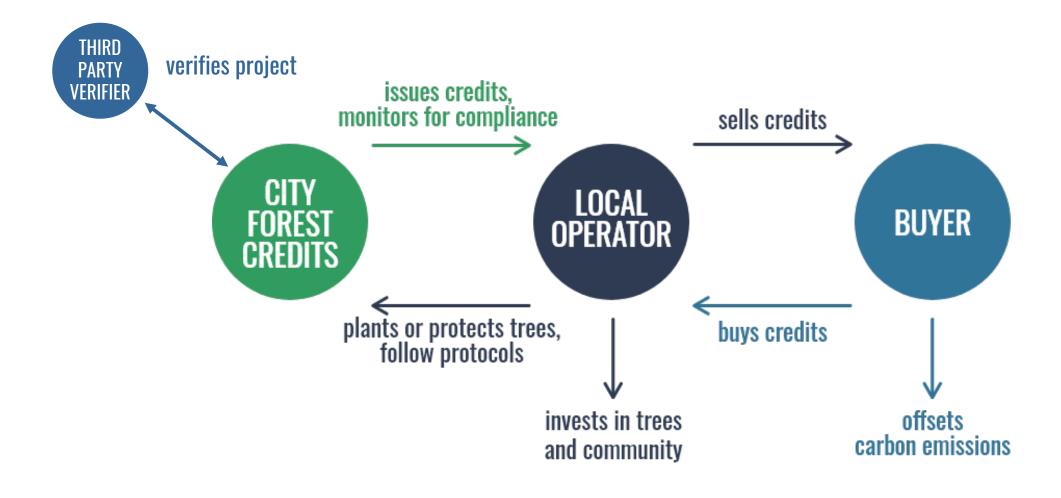
Buy carbon credits

Buyer

Brokers – buy on company behalf Companies – direct purchase Credit sale platforms



How It Works





Carbon Project Process



The City of Atlanta's First Project: Lake Charlotte Nature Preserve



Preserves almost 200 acres of forested land in City of Atlanta and protect from development

- Property was in danger of imminent destruction from development
- Formerly owned by Waste Management property was under contract to sell to industrial developer
- The Conservation Fund bought it from Waste Management to protect it, City of Atlanta purchased to permanently protect
- Carbon Credits: 36,365 tons CO2
- Revenue: ~1 to 1.2 million (sale price \$30 35/ton)
- Co-Benefits: \$4M ecosystem services over 40 years

Project Goals / Impacts

- Provide local recreation opportunities for Atlanta residents and connect them to nature
- Protect woodland habitat and prevent fragmentation

Lake Charlotte Nature Preserve





Project Profile

Project Location

Atlanta, GA

Project Operator

<u>City of Atlanta - Mayor's Office</u> <u>of Sustainability and Resilience</u>

Project Type

Preservation

Project Credits

36.265

Credit Availability

Available

Project Contact

John R Seydel, Deputy Chief Sustainability Officer of the City of Atlanta Mayor's Office of Sustainability and Resilience jrseydel@atlantaga.gov verview Credits Impact Stats Docum

The City of Atlanta is preserving 196 acres of the 216-acre Lake Charlotte Nature Preserve, one of the largest remaining high-quality forests left inside the City of Atlanta, as part of a carbon project. Consisting of a mix of mature hardwood and evergreens, Lake Charlotte is a unique resource for Atlanta, allowing nature-based recreation and environmental education opportunities. Preserving the forest also provides public health benefits such as air quality improvements and urban heat mitigation, along with expanded greenspace access and wildlife habitat.

The Lake Charlotte Nature Preserve Project is an important opportunity to utilize a revenue-generating model to help fund the preservation and stewardship of urban forested properties. Carbon credit revenue will help fund maintenance and stewardship of the property and promote forest health. Not only will preservation of the forest avoid the emissions that would come with development, the forest and carbon stock will grow over time.



City Forest Credits™







MAYOR'S OFFICE OF Sustainability and Resilience

Process SummaryLake Charlotte Nature Preserve Process



- ❖ City Forest Credits (CFC) 40 Year Urban Forest Preservation Protocol
 - Application
 - Contract for Carbon Registry
 - Deed Restriction to establish additionality
 - Canopy confirmation
 - 3rd party verification supported by CFC
 - Ongoing reporting



Marketing Materials for Lake Charlotte Carbon Credit Program



Lake Charlotte Nature Preserve

PROJECT LOCATION Atlanta, GA PROJECT OPERATOR City of Atlanta

TYPE
Tree Preservation

CREDITS on 36,265* PROTOCOL VERSION
City Forest Credits Preservation
Protocol V 11.40

36,265 ICROA-Endorsed Carbon+ Credits from the City of Atlanta's Lake Charlotte Nature Preserve Permanent Forest Conservation.

Value of the Project

Urban growth is projected to add close to 100 million acres of urban land to the United States by 2060. Preserving at-risk parcels near cities delivers critical environmental and social impacts to metro areas. The 196-acre Lake Charlotte Nature Preserve is situated in the densely populated and growing Atlanta area. The 75-year old forest was under contract to be developed before being purchased by the Conservation Fund and then ultimately by the City of Atlanta. The Preserve will provide easy access to nature for nearby communities, will enhance watershed functions, and protect priority habitats. By investing in this project, your company can make a positive impact right in its own backyard.

Unique Public Interest Credits

These carbon credits are public interest credits — a public municipality preserving a forested natural area as a public resource. Through the generation of these credits, improved air quality, reduced stormwater runoff, and reduced heat will result, while also delivering social equity and human health impacts. CFC credits are endorsed by the prestigious International Carbon Reduction and Offset Alliance (ICROA). Buyers can confidently offset their carbon emissions with a public interest credit while giving back to their local communities. Buyers of CFC credits include PayPal, Dominion Energy, Xcel Energy, REI, City of Austin, and more, all seeking the rare community-based credits issued by CFC.

*Total credits to be issued over project lifetime

196 Acres Preserved Oak-hickory, loblolly-

Oak-hickory, loblo short leaf pine

Rain Interception

26,189 m3/year, \$68,500 per year

Energy - Cooling

(electricity) 244,550 kWh/year, \$18,561 per year

Co-benefits

Valued at \$100,560 per year

Lake Charlotte Nature Preserve

Carbon+ Credits Available for Purchase

The City of Atlanta developed this project and the credits in compliance with the carbon protocols developed by City Forest Credits, a non-profit carbon registry devoted to urban forest carbon.

These credits represent valuable elements of Atlanta's urban forests – equitable access to greenspace, climate benefits in carbon storage and quantified ecosystem values, and a community resource for health and social cohesion. Proceeds from the credits will fund stewardship and maintenance of the Lake Charlotte Nature Preserve.



cityforestcredits.org



SUSTAINABLE GOALS



Healthy Communities Improve resident well-being



18,478 tCO_{2e}

Carbon+ Credits
issued and available
for purchase



196 Acres Generating \$4 million in ecosystem value over 40 years



Cooperation and Partnerships Underpin the project's success

FOR MORE INFORMATION PLEASE VISIT

https://www.cityforestcredits.org/carboncredits/carbon-registry/atlanta-forest-carbon-offsets/

CONTACT

John R. Seydel 470-421-6160, Jrseydel@atlantaga.gov





What's Next? Scaling Up in 2025: Atlanta's Carbon Credit Program





Expansion of Carbon Credit Program -

Atlanta is adding four new sites
(Southwest Nature Preserve, Utoy Creek
Nature Preserve, Mount Zion Nature
Preserve, and South River Nature
Preserve), preserving Almost 150 acres of
mature forest.



Environmental & Community Benefits -

Protecting these forests enhances climate resilience, air quality, recreation, and biodiversity, while ensuring greenspace access for Atlanta residents.



Scaling Urban Forest Conservation – This initiative builds on the success of the

Lake Charlotte Nature Preserve Carbon
Credit Program and aligns with Atlanta's
climate action and urban resilience
strategy.



Strong Partnerships & Legacy – Led by the Mayor's Office of Sustainability & Resilience, in collaboration with Parks &

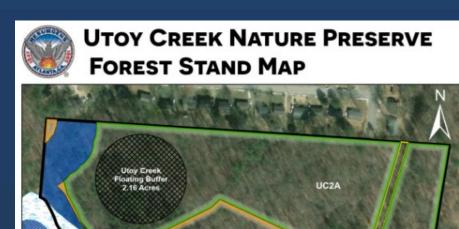
Recreation, The Conservation Fund, and regional stakeholders, reinforcing Atlanta's reputation as the "City in the

Trees."





City of Atlanta Carbon Credit Program (2024)



Forest stands and canopy gaps mapped remotely and field verified by Trees Atlanta. Hydrology buffers generated from data compiled from

FEMA, NWI, DWM, and field surveys by Trees Atlanta. Map prepared by James Moy - COA DPR, August 2025

Stand Boundaries

UC2A Mesic Forest - 70 years old

UC2B Mesic Forest - 70 years old

National Wetlands Inventory 75 ft Stream Buffer

UC1 Bottomland Hardwood Forest - 75 years old

Canopy Gaps

Floating Buffer
Property Boundary

Tree Trust Fund Purchased Properties:

Utoy Creek Nature Preserve

←-----

Southwest Nature Preserve



SOUTHWEST NATURE PRESERVE FOREST STAND MAP



Forest stands and canopy gaps mapped remotely and field verified by Trees Atlanta. Hydrology buffers generated from data compiled fr FEMA, NWI, DWM, and field surveys by Trees Atlanta. Aerial imagery from ESRI. Map prepared by James Moy - COA DPR, August 2025

City of Atlanta Carbon Credit Program (2024)





Tree Trust Fund Purchased Properties:

Utoy Creek
Nature Preserve
←-----

Southwest
Nature Preserve





City of Atlanta Carbon Credit Program (2024)



MOUNT ZION NATURE PRESERVE FOREST STAND MAP



Park Impact
Fees Fund
Purchased
Properties:

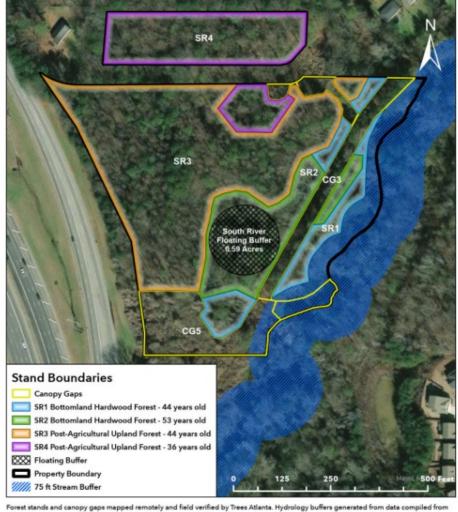
Mt. Zion Nature Preserve

←-----

South River Nature Preserve



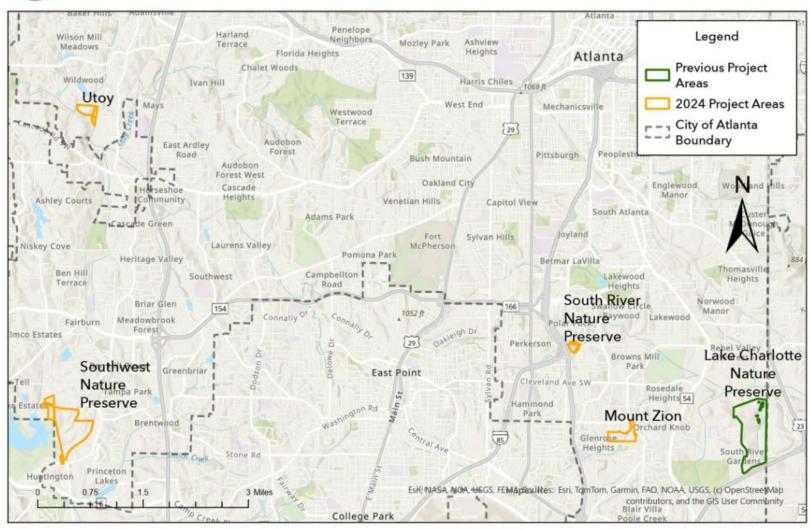
SOUTH RIVER NATURE PRESERVE FOREST STAND MAP



Forest stands and canopy gaps mapped remotely and field verified by Trees Atlanta. Hydrology buffers generated from data compiled from FEMA, NWI, DWM, and field surveys by Trees Atlanta. Aerial imagery from ESRI. Map prepared by James Moy - COA DPR, August 2025



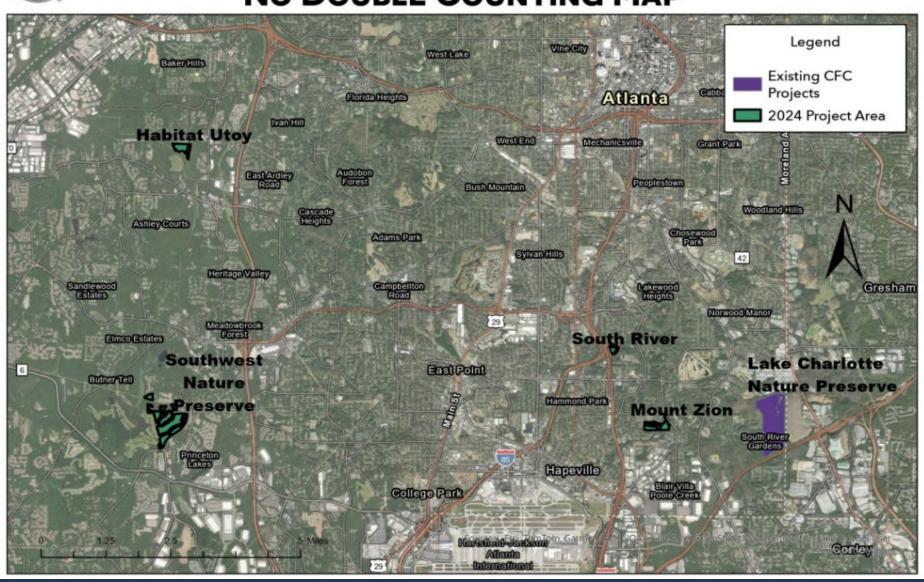
CARBON CREDIT PROGRAM 2024 - REGIONAL MAP



Project areas shown above are derived from tax parcel data (2025) with canopy gaps removed. Stand mapping performed by Trees Atlanta (Southwest, Utoy, and Mount Zion) and City of Atlanta Office of Natural Resources staff (South River)\
Map prepared by James Moy - COA DPR in June 2025



CARBON CREDIT PROGRAM 2024 NO DOUBLE COUNTING MAP



City of Atlanta Carbon Credit Program (2024): Awaiting Verification approx. December 2025

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Movii	ng A	tlan	ta Fo	rward

Municipality	Parcel Number	Total Parcel	Project Area	Notes Floating buffer acreage	Final Project
		Acreage	Acreage	to be removed from	Area
				project area for carbon	Acreage
				quantification	
Atlanta -	14F-0041-LL-047-8	60.0	18.6	5.73 acres will be	95.27
Southwest	14F-0035-LL-071-6	115.1	81.3	removed from the highest	
Nature	14F-0034-LL-036-0	3.4	1.1	carbon areas	
Preserve					
Atlanta -	14F-0027-LL062	28.5	20.3	2.16 acres will be	18.14
Utoy Creek				removed from the highest	
Nature				carbon areas	
Preserve					
Atlanta -	14-0062-LL0833	35.6	25.0	2.18 acres will be	24.42
Mount Zion				removed from the highest	
Nature	14-0062-LL0544	2.1	1.6	carbon areas	
Preserve					
Atlanta -	14-0069-LL0596	8.3	6.2	0.59 acres will be	8.41
South River	14-0069-LL0646	1.8	1.2	removed from the highest	
Nature	14-007000040275	1.6	1.6	carbon areas	
Preserve					
	Totals		156.9	10.66 acres	146.24
			acres		



City of Atlanta Carbon Credit Program (2024) Projected Impacts and Credits:



Summary numbers from Carbon Quantification Calculator

Project Area (acres)	146.24
Percent tree canopy cover within Project Area	98
Project stock (tCO ₂ e)	31,108
Accounting Stock (tCO ₂ e)	24,886
On-site avoided biomass emissions (tCO ₂ e)	20,571
On-site avoided soil carbon emissions (tCO ₂ e)	8,567
Deduction for displaced biomass emissions (tCO ₂ e)	3,765
Deduction for displaced soil emissions (tCO ₂ e)	2,596
Credits from avoided biomass emissions (tCO ₂ e)	16,807
Credits from avoided soil emissions (tCO ₂ e)	5,971
Total credits from avoided biomass and soil emissions (tCO ₂ e)	22,778
Credits attributed to the project (tCO ₂ e), excluding future growth	22,778
Contribution to Registry Reversal Pool Account	2,278
Total credits to be issued to the Project Operator (tCO ₂ e)	20,500
(excluding future growth)	

Ecosystem Services	Resource Units	Value
Rainfall Interception (m3/yr)	25,979.3	\$67,951.14
Air Quality (t/yr)	3.8874	\$9,033.28
Cooling – Electricity (kWh/yr)	200,495	\$15,217.57
Heating – Natural Gas (kBtu/yr)	94,017	\$976.87
Grand Total (\$/yr)		\$93,178.87

Co-benefits were quantified using CFC's Co-Benefits Quantification Calculator. These ecosystem services represent values in avoided costs of \$93,178.87\$ annually and \$3,727,154.93 over 40 years.



SOLAR ATLANTA Program 41 Sites Energized!



MAYOR'S OFFICE OF Sustainability and Resilience

M.L. King, Jr. Recreation and Aquatic Center







21 Homes
Electricity use per year



11 Million
Smartphone charges annually















Selling Environmental Attributes (Carbon Credits & Renewable Energy Credits)







- Currently working with Sustainable Capital Advisors and the City's Department of Procurement to sell Carbon Credits, creating a model for other Environmental Attributes.
 - Selling these credits will generate revenue for municipal sustainability programs, communitydirected projects, and forest stewardship and maintenance.





Thank you!

Chandra Farley, Chief Sustainability Officer City of Atlanta, Mayor's Office of Sustainability and Resilience