



by Chris Dubuque & Jen Matto



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## Another Benefit to Land Conservation

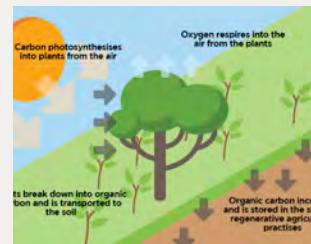
*Written by Sustainability Coordinator Aly Petruch*

There are many benefits to land conservation, but one not easily recognized is the positive effect it has on our climate and reducing carbon emissions. Many ecosystems are considered carbon sinks, which means that an area absorbs more carbon than it releases. Examples of these carbon sinks are forests, wetlands, and agricultural land. This absorption happens naturally through a process called carbon sequestration, which helps reduce greenhouse gas concentrations in our atmosphere. The longer a tree is alive, the more carbon it can sequester. This process happens both above ground and below as carbon is stored in the tree canopy, trunk, soil, roots, deadwood, and the fallen leaves. The reduction of carbon in our atmosphere can help mitigate extreme weather events and flooding.

Carbon sequestration also creates a healthier ecosystem. An increase of carbon leads to better water retention and more nutrients within the soil making it healthier. Carbon sequestration also reduces erosion because soils with a higher carbon content are more durable and less prone to gradually wearing away. As a result of the County's 2024 greenhouse gas inventory, the total forested land within the Greenbelt program at the time helped sequester 59,034 metric tons of Carbon Dioxide emissions.

This is equivalent to all the following:

- 6,812 homes' energy use for a year
- 136,676 barrels of oil consumed
- 5,799,018 gallons of diesel consumed
- 6,642,737 gallons of gasoline consumed



Carbon sequestration diagram

As the Charleston County Greenbelt Program continues to thrive, the amount of carbon emissions sequestered will increase and help Charleston County hit its Climate Action Plan goals. Charleston County adopted its Climate Action Plan in August of 2024 and seeks to accelerate the transition to a clean energy economy, while simultaneously achieving multiple health, equity, economic, and resilience benefits. To learn more about this topic, [click here](#) to read an article from the U.S. Department of Agriculture about understanding forest carbon.

### The Cherokee Rose

This high climbing shrub was brought to the United States during colonial times and cultivated by the Cherokee. The Cherokee Rose is an evergreen climbing shrub and gets between 16-30 feet tall. It features glossy green leaves and fragrant white flowers. The plant blooms in early spring, though it can occasionally bloom in the fall with the right conditions. The Cherokee Rose was selected as the Georgia state flower because it has come to represent the removal of the Cherokee from the state in 1838 on what is now known as the "Trail of Tears." The white petals represent the clans of the Cherokee and the yellow center represents the gold for which the land was stolen. The Cherokee Rose still grows along the route the Cherokees followed westward to the Oklahoma Territory. This photo was taken on a Greenbelt funded property located in Mt. Pleasant.



## Upcoming Events

in and around Charleston County



**Earth Day Celebration**  
**Tanger Outlets**  
April 19th, 12-3 p.m.



**Arbor Day Celebration**  
**Sullivan's Island**  
Friday April 25th, 9-5 p.m..



**Forest Immersion & Your Health**  
**Johns Island County Park - \$2 admission**  
April 27th, 3-5 p.m.



Charleston County  
Greenbelt Program