

Urban Forests & Health

Trees provide multiple benefits to both human and natural communities



Healthier Cities

North Carolina's cities are hotspots of high ground-level ozone levels and stormwater runoff. Trees are essential to effectively improving these conditions.

Aging Population

North Carolina has one of the fastest growing older adult population in the country. Seniors are more vulnerable to extreme heat and cold than most other people, and trees can buffer these impacts.

Our Home

North Carolina is a wonderful place to live and we want to keep it that way. Real estate studies show that young families are flocking to communities with parks, greenways, and street trees that have connections to farms and nature. Such green infrastructure investments are necessary for the region's prosperity.



Photo: Brian Leon © 2005



North Carolina is home to 9.5 million people across a diverse landscape with histories as farming communities, big cities, mill towns, and pristine natural areas. As all of these communities grow, it will be important for the people and environment to be as healthy as possible. Trees will be critical to these solutions.

Building a Healthy State for Today & Tomorrow

North Carolina is growing quickly, mostly in our towns and cities. Trees are critical to providing a healthy place for people to call home.

North Carolina is projected to grow from about 9.5 million people in 2010 to 12.4 million in 2030. These people will all need homes and jobs that could stress our air, water, open spaces, and ecology. Market studies show that most of these new families want to move to towns and cities, straying from the historic trend in suburban lifestyles that made the state one of the most sprawling areas in the United States, consuming over 100,000 acres of land every year. This is great news for our forests and farms, but it makes the need to develop sustainable energy policies and practices imperative.

North Carolina is home to a large and quickly growing older adult population. However, it is expected to grow to over 1 million new households of young families in the next twenty years. Both seniors and children are among the most vulnerable populations to environmental stress like heat. The North Carolina Piedmont is a top priority area for urban heat island impacts, including ground-level ozone and fine particulate matter. Rural seniors are also frequently stuck in older, energy-inefficient housing that makes

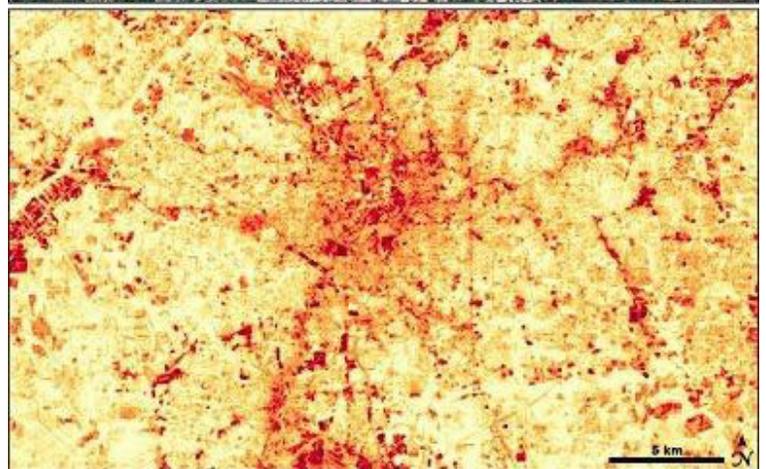
them vulnerable to both heat and cold.

As the region continues to warm and experience more violent storms due to global climate change effects, trees in both rural and urban communities will be a vital part of the green infrastructure to buffer these impacts and protect North Carolina residents. Trees are the most cost-effective best management practice for absorbing air and water pollutants, as well as providing invaluable shade cover, which enhances property values and reduces the heat island effect, home energy costs, and stormwater runoff. Such investments are needed and necessary to attract young families, which demand access to local parks and shady streets for their children to play on safely.

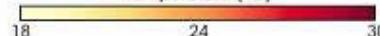


Photo: catherineyeulet

NORTH CAROLINA IS HOME TO A LARGE AND QUICKLY GROWING AGING POPULATION



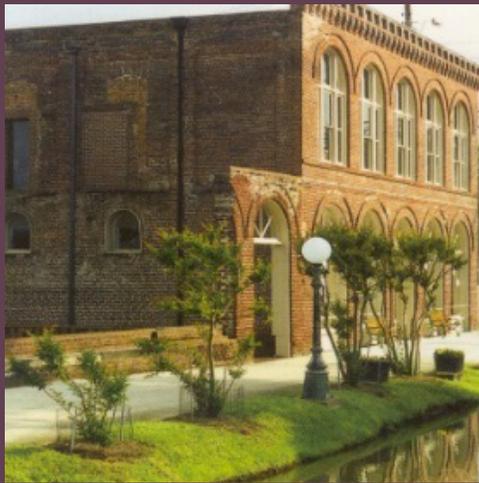
Temperature (°C)



THE URBAN HEAT ISLAND EFFECT IS ONE OF THE BIGGEST HEALTH RISKS FACING URBAN RESIDENTS.



Young families want to live near parks, and want to be able to walk to them.

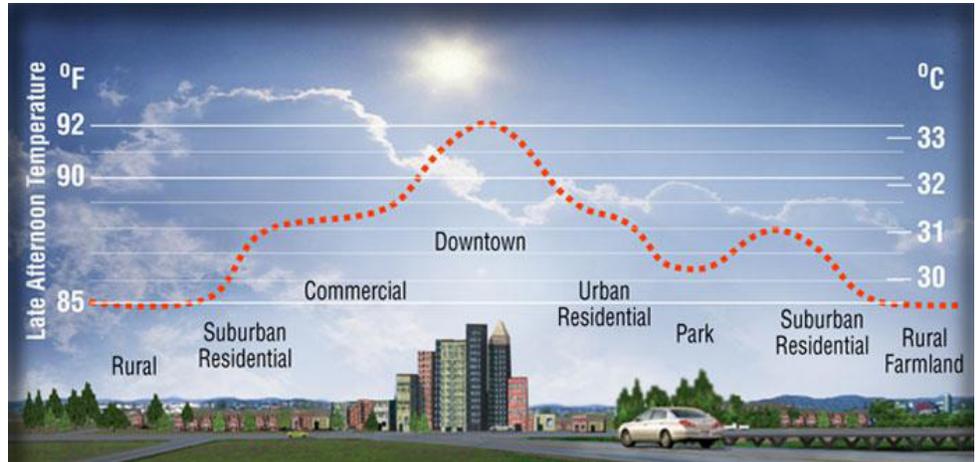


Walkable communities with ready access to amenities are a key demand of today's young professionals, families and the elderly. The shade provided by street trees make walking more appealing to all.



Street trees are one of the best sustainable practices available – filtering air and water pollutants while providing shade and habitat in towns and cities.

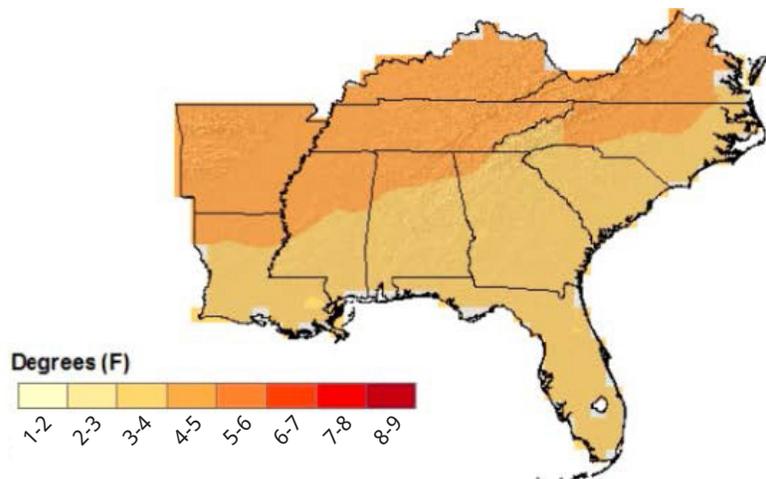
Urban Heat Island Effect



US DEPARTMENT OF ENERGY

The urban heat island effect is one of the biggest challenges for city and town residents, affecting a community's environment and quality of life. Air pollution and greenhouse gas emissions result from power plants struggling to keep up with increased demand. Elevated temperatures also directly increase the rate of ground-level ozone formation.

Projected Change in Annual Temperatures for US Southeast



PROJECTED INCREASE IN AVERAGE ANNUAL TEMPERATURE CHANGE, INGRAM, ET AL., 2013

The region is likely to get warmer year-round, with hotter summers and falls and fewer days with freezing temperatures. The map above shows the difference between the average annual temperature of 1971-2000 and the projected annual temperature from of 2041-2070. Increases in the frequency and severity of regional heatwaves will affect the state's quality of life, including fundamental concerns like health care costs.



Photo: Dan River Basin Association © 2011



PIEDMONT together

Community Choices. Regional Solutions.

In 2011, the Piedmont Triad Regional Council and the Piedmont Authority for Regional Transportation received a \$1.6 million grant from the US Department of Housing and Urban Development. With key support from agencies such as the NCFCS, they produced Piedmont Together, a sustainable communities plan for the twelve-county Triad region. It features all of the information in this booklet and more. Please visit us at: www.piedmonttogether.org.

Healthy Communities for All

North Carolina is growing and changing in many ways: it is growing older, more diverse, and with greater demand for homes in towns and cities. It is also a place where rural areas – especially local farms and greenways and paddle trails – are valued more by new residents. As most residents will tell you, it is a wonderful place to live and make a home. Through rural and urban forestry, we can make sure that it has clean water, clean air, beautiful parks, shadier streets, and pristine natural spaces long into the future. However, such a future takes effort and commitment, putting trees on the ground to protect our

natural resources and making sure everyone can make a home in the Triad.

Top Recommendations:

- Plan ahead for extreme heat events with Emergency Management Services in every county.
- Address air and water quality issues with forest canopies of at least 40% in every North Carolina town and city.



PIEDMONT TRIAD
REGIONAL COUNCIL

Funding for this project was provided in part through the Urban & Community Forestry Program of the North Carolina Forest Service, Department of Agriculture and Consumer Services, in cooperation with the USDA Forest Service, Southern Region.

The North Carolina Forest Service is an equal opportunity employer. Its programs, activities and employment practices are available to all people regardless of race, color, religion, sex, age, national origin, disabilities, or political affiliation.