

Durham, NC and surrounding area

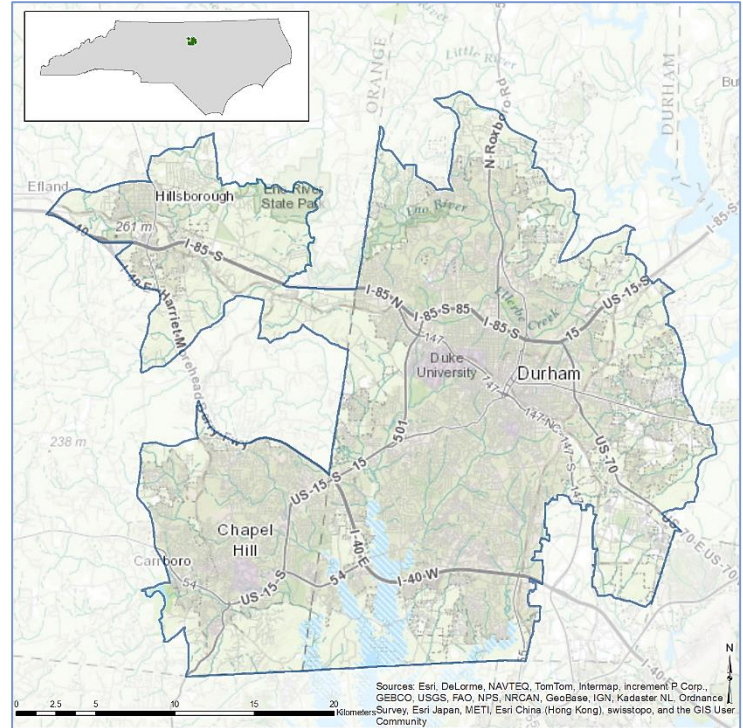
EnviroAtlas combines maps, graphs, and other analysis tools, fact sheets, and downloadable data into an easy-to-use, web-based educational and decision-support tool. EnviroAtlas helps users understand the connections between the benefits we derive from ecosystem services and the natural resources that provide them. For more information, please visit our [website](#).

For selected U.S. communities, EnviroAtlas includes fine-scale maps and other information about existing and potential benefits from the local natural environment. This fact sheet highlights some of the many community data layers available.

Background

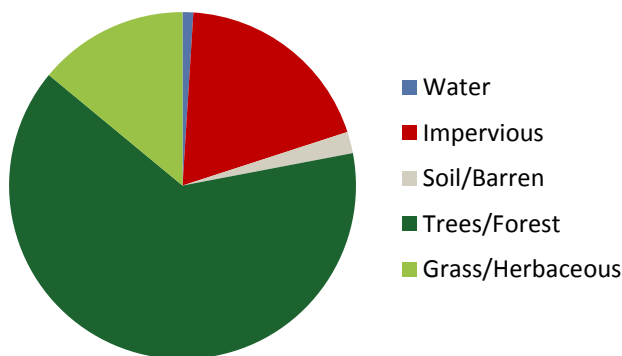
The Durham, NC area was chosen as the first EnviroAtlas community, based on its proximity to the EPA offices in Research Triangle Park, NC, and its inclusion as the research pilot for [EPA's Sustainable and Healthy Communities](#) program. The EnviroAtlas boundary for the Durham area was determined using the 2000 Census definition of an Urban Area. It includes Durham, Chapel Hill, Carrboro, and Hillsborough, measures 569 square kilometers, and encompasses 193 census block groups.

The Durham, NC area is in the Piedmont ecoregion. It has a mild, humid, sub-tropical climate with moderate precipitation throughout the year. Historically, the area was vegetated with pine and mixed oak-hickory forests; however, much of the area was once cultivated for tobacco and other crops. Currently, the non-urban environment is



reverting to successional pine and hardwoods; it also supports planted pine stands. The community is part of the Research Triangle area, which is among the fastest growing regions in the U.S. The leading industries today are health care and information technology; the largest employers are Duke University, the University of North Carolina at Chapel Hill and IBM. The demographics of the Durham community area indicate that the potential exists for income and other disparities in the distribution of environmental assets. EnviroAtlas includes demographic maps that can help screen for potential health and well-being disparities resulting from disproportionate distribution of “green infrastructure.”

Percent Land Cover in Community Area



Durham Area Demographics

Total population	340,851
Under 13 years old	16.40%
Over 70 years of age	6.29%
Other than white/non-Hispanic	50.32%
Below twice the poverty level	32.46%

Ecosystem Services Overview

In EnviroAtlas, ecosystem services are organized into seven benefit categories:

- Clean air
- Clean and plentiful water
- Natural hazard mitigation
- Climate stabilization
- Recreation, culture, and aesthetics
- Biodiversity conservation
- Food, fuel, and materials (data available only in select communities)

Examples of some of the data included in EnviroAtlas are detailed below:

Green Space and Tree Cover

Research indicates that physical and visual access to trees and other green space has positive physiological, cognitive, and emotional benefits. In the interactive map's table of contents, green space data layers can be found under all of the benefit categories.

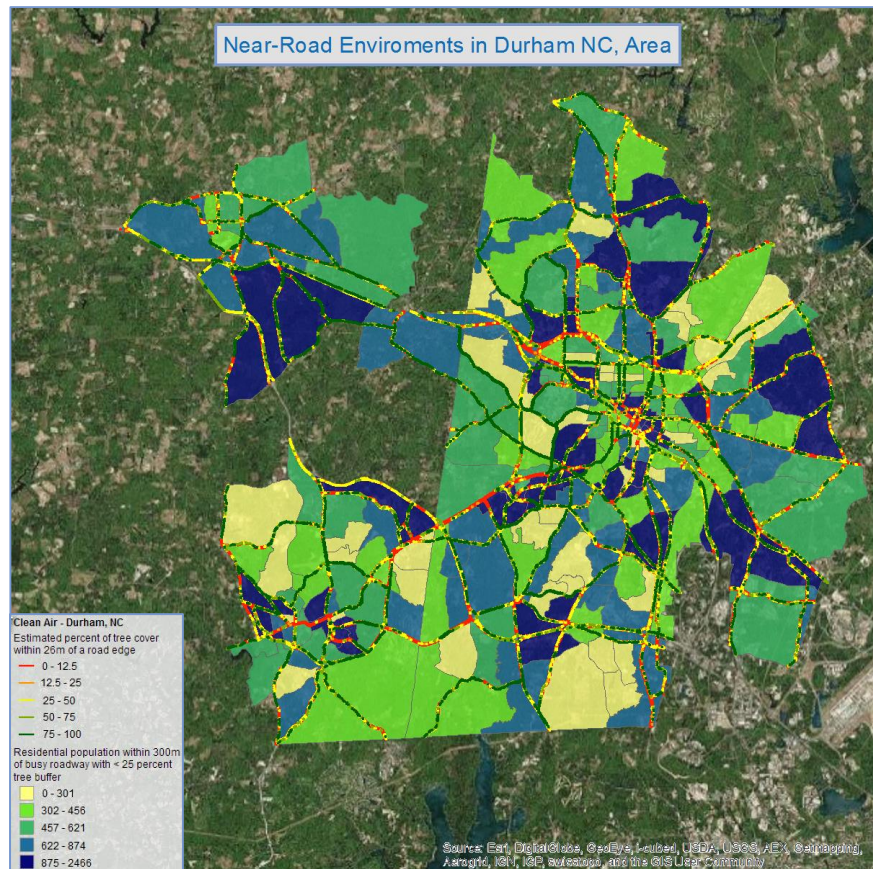
- There are 1,301 square meters of green space per person
- Almost 29,000 residents have less than 5 percent tree coverage within 50 meters of their home
- There are 2,803,385 tons of carbon stored in the local tree biomass, with an additional 589 tons sequestered annually.

Near-Road Environments

Studies indicate that the capacity of trees to filter air may reduce the health impacts of vehicular pollution. In EnviroAtlas, you can find analyses of tree coverage near busy roads.

EnviroAtlas Tools and Features

- [EnviroAtlas Community Component](#): data layers based on 1-meter land cover summarized to the block group scale.
- [EnviroAtlas National Component](#): data layers based on 30-meter land cover summarized to the watershed scale.
- [EnviroAtlas Interactive Map](#): go directly to the interactive map.
- [EnviroAtlas Fact Sheets](#): Describe the project, each community, and each data layer in detail.
- [Eco-Health Relationship Browser](#): An interactive relational tool that explores ecosystems, the services they provide, and benefits to human health and well-being.
- [Contact the EnviroAtlas Team](#): Please contact us if you have any questions about EnviroAtlas.



- An estimated 56 percent of the Durham area population lives within 300 meters of a busy roadway (yellow to blue block groups in the figure above)
- 35 percent of the estimated population lives within 300 meters of a roadway that has little to no tree coverage (roadways indicated by red and orange lines in the figure at right).

In addition to the Clean Air benefit category, near-road vegetation data layers can also be found under Biodiversity Conservation, and Recreation, Culture and Aesthetics in the interactive map's table of contents.

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