

Community Profile

November 2015



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An aerial photograph of a river valley. A wide, dark river flows from the top left towards the bottom right. On the right bank, a city is visible with a dense grid of buildings and streets. The surrounding landscape is a patchwork of agricultural fields in various shades of green, brown, and tan. A green rectangular box is overlaid on the upper right portion of the image, containing the word "Introduction" in white text.

Introduction

Over the years, Greenville has evolved from one of the state's main agricultural centers into the cultural, medical, and economic hub of Eastern North Carolina. The city has grown in wealth and status from the successes of three key economic drivers: East Carolina University, Vidant Medical Center, and its continued strength in manufacturing. As a cultural center, Greenville provides arts, entertainment and shopping options for citizens throughout the region. This economic and social transformation presents new opportunities.

Meanwhile, the city must meet new demands from a growing and changing population, transformed local, regional, and global economies, and growing environmental challenges. Through citizen involvement and empowerment, and by taking advantage of Greenville's legacy of thoughtful planning, the Horizons 2026 comprehensive plan represents an opportunity to envision a vibrant and sustainable future.

This comprehensive plan will serve as a strategic policy guide that expresses the values, aspirations, and vision of the community, along with goals, policies, and strategies to achieve that vision. It is the broadest public policy document our community can create and will set forth the long-range vision for transportation, housing, environment, economic development, and related topics.

Horizons 2010 is the city's current comprehensive plan and prior plans were adopted in 2004, 1997, and 1992. There are several reasons the Horizons 2010 plan needs to be updated, including:

- Many of the action items have been accomplished;
- The population has grown and changed, resulting in new demands;
- Local, regional, national, and global changes have resulted in new knowledge and thinking about community planning best practices.

Horizons 2026 provides a key opportunity to study current trends and conditions and create a renewed vision for Greenville.

About the Greenville Community Profile

Analyzing existing trends and conditions is one of the initial phases in the comprehensive planning process. This report includes key information about the strength of the economy, changing population, built environment, public services and facilities, environment, public health, and quality of life measures.

Phase 1:

Initiate

the planning effort

Phase 2:

Analyze

community conditions

Phase 3:

Draft

the plan framework

Phase 4:

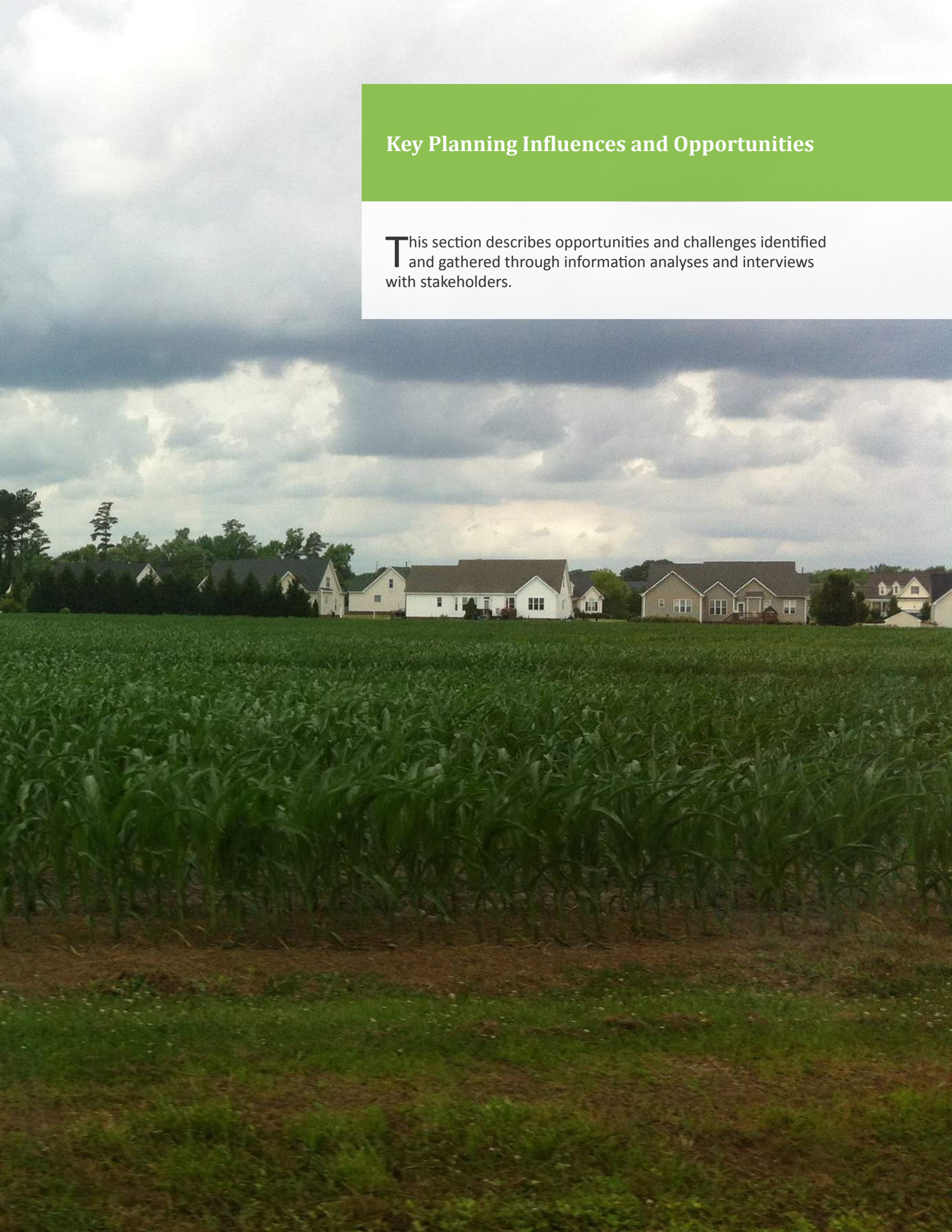
Adopt

the comprehensive plan

The purpose of this analysis is to provide a base of understanding and to inform the planning and decision-making process. The report will help citizens, stakeholders, and other leaders to sift through a large amount of information and gather the key trends that are affecting the city. Following is an overview of key planning influences and opportunities derived from analyses as well as interviews with stakeholders and other experts in the community.

Key Planning Influences and Opportunities

This section describes opportunities and challenges identified and gathered through information analyses and interviews with stakeholders.



The following paragraphs summarize major trends as described by business and governmental leaders in Greenville.

Taxable Land

A significant portion of land within the City of Greenville's corporate limits is not taxable. This shortfall in property tax revenue poses a challenge and several leaders in business and government alike think that high quality housing, industry, and commercial property within corporate limits, and public-private partnerships can help bolster revenues. ECU's recent Millennial Campus designation has invigorated leaders' determination to work with the university to redevelop buildings throughout Uptown, potentially resulting in additional improvement value and reinvigorating the city's urban core.

Properties within the recognized industrial area north of the Tar River (including Indigreen Corporate Park and other industrial development) are not required to annex into the City of Greenville despite provision of water and sewer. This provides an incentive tool to lure manufacturing into the area, but also has added to property tax revenue challenges for the city. While the annexation waiver is one economic development tool Greenville also has an opportunity to cultivate other attractive industrial sites within the city's corporate limits.

Urban Design

Greenville is due for modernizing the city's regulatory building design standards. **Design standards can be a powerful tool for creating walkable pedestrian-oriented environments and promoting placemaking design.** Voluntary standards currently exist for the Uptown District.

Intergovernmental Coordination

Coordination with Greenville Utilities Commission (GUC) is critically important for the purpose of controlling outward growth and sprawl on the city's periphery. In order to receive sewer service for properties outside of city limits, the property owner must request annexation into the city limits. Additionally, Greenville City Council must provide approval for extending service outside of the city's Extra-Territorial Jurisdiction (ETJ). The City Council

also has the authority to make appointments to the GUC board.

Coordination with Pitt County is important in order to manage growth and provide services efficiently through service-sharing agreements. Coordination could also strengthen partnerships with the City of Greenville and Pitt County regarding public schools and Pitt Community College, whose main campus is in Winterville and abuts the southern edge of Greenville.

Transportation Network

Greenville has grown and the city needs to rethink its intracity transportation system. Walkability is an issue that has come to the forefront in cities around the country, including Greenville. Existing road designs and urban form throughout the city have resulted in dangerous conditions for driving, walking, and biking. These conditions can have negative fiscal, social, economic, and environmental effects. The city will need to work aggressively to coordinate land use changes and street design/connectivity improvements that promote multimodal transportation. Many of these changes will require continued coordination with the North Carolina Department of Transportation (NCDOT).

Mass transit is a key transportation topic because of the city's socially and economically diverse population. There are currently three bus service providers in Greenville including Greenville Area Transit (GREAT), Vidant, and ECU's student-run bus system. These systems are all operated separately, with different goals. There may be opportunities for coordinating and improving efficiency between the systems.

Intercity transportation is also a critical component of Greenville's economic development strategy. City leaders are working to establish a highway with an interstate designation in Greenville, the lack of which poses a challenge to recruitment of industry. Better air travel is also key for developing and enhancing Greenville's innovation economy.

Uptown Revitalization

Efforts to revitalize Greenville's downtown has gained momentum, with developers constructing

new buildings as well as rehabilitating historic structures. Now ECU's Millennial Campus designation promises to provide another major player in downtown revitalization efforts. But, Downtown continues to face challenges for the following reasons:

- Several recently developed properties were built out of character with the historic urban fabric. For example, some streetscapes continue to prioritize service for automobiles over pedestrians and bicyclists. Surface parking exists where shopfronts or other land uses are more appropriate.
- Current spacing standards prohibit the clustering of bars.
- There are no grocery stores in Uptown.
- Several stakeholders seek to increase the supply of affordable/workforce housing in addition to new non-student housing within downtown.

Equity

Similar to other cities throughout the country, Greenville has experienced past marginalization of racial minorities, notably in the African-American community. There have been several Urban Renewal projects in Greenville that began in the 1960s and continued into the 1980s. The Shore Drive Area Project cleared housing, community facilities, institutions, and other buildings from almost fifty-eight acres on the present-day Town Common and relocated families to other parts of the City. Other urban renewal and demolition activities removed the first Pitt Community Hospital and other important buildings. Reconciliation, inclusiveness, and understanding and acknowledgement of the past will be important considerations while planning for Greenville's future.

Tar River Activation

The Town Common is a major asset that offers opportunities for a major transformation in Greenville's urban core. The Town Common is located on the southern edge of the Tar River and the northern edge of Uptown. There are opportunities in this area to reinvigorate the

waterfront and protect open space for the people of Greenville.

Parkland Accessibility

Greenville has several areas with insufficient amounts of, and accessibility to, parkland throughout the City. This presents opportunities to both develop parks and greenways to serve existing areas and allot space in future neighborhoods, with the goal of providing greenspace within the walking shed of new residences .

Growth Management

Over the past half century, Greenville is grown outward, defined by low-density, primarily homogenous, and automobile-oriented development. This growth pattern has reduced transportation options and accessibility, resulted in dangerous roadways, and presents fiscal challenges related to construction and maintenance of public infrastructure. Additionally, household changes are resulting in new market demands for living options, with a renewed emphasis on live-work-play neighborhoods.

In addition to properly managing outward growth, the city should continue to revise subdivision standards to reflect best practices in transportation and stormwater infrastructure, land development, and civic space allotment, while streamlining the development process for developers.

New zones and zoning dimensional standards have the potential to more effectively address infill development, especially in places like Skinnerville where existing lot widths preclude development without combining lots.

Several medium density residential subdivisions on the outskirts of Greenville utilize septic systems, which pose potential operations and maintenance problems and are not ideal long-range approaches where urban development is anticipated.

Coordination with the County will be necessary to identify solutions to future failing septic systems and ensure that high density developments within Greenville's planning area are restricted from utilizing septic systems, and should instead connect to the GUC water and sewer lines.

Summary of Past Planning Initiatives

Several thoughtful plans have been developed and updated within and around Greenville to help guide growth, protect natural and cultural resources, and promote safe, fiscally responsible, sustainable development. Each plan is important because it provides a vision for a particular geographic area or topic in greater detail than the comprehensive plan, and each identifies implementation strategies over the coming years and decades.

Role of existing plans in Horizons 2026

Horizons 2026 serves as an umbrella plan, providing a comprehensive framework that envisions each plan within the context of the larger study area, and ties them all together through a cohesive set of goals, policies, and strategies.

Review of existing plans

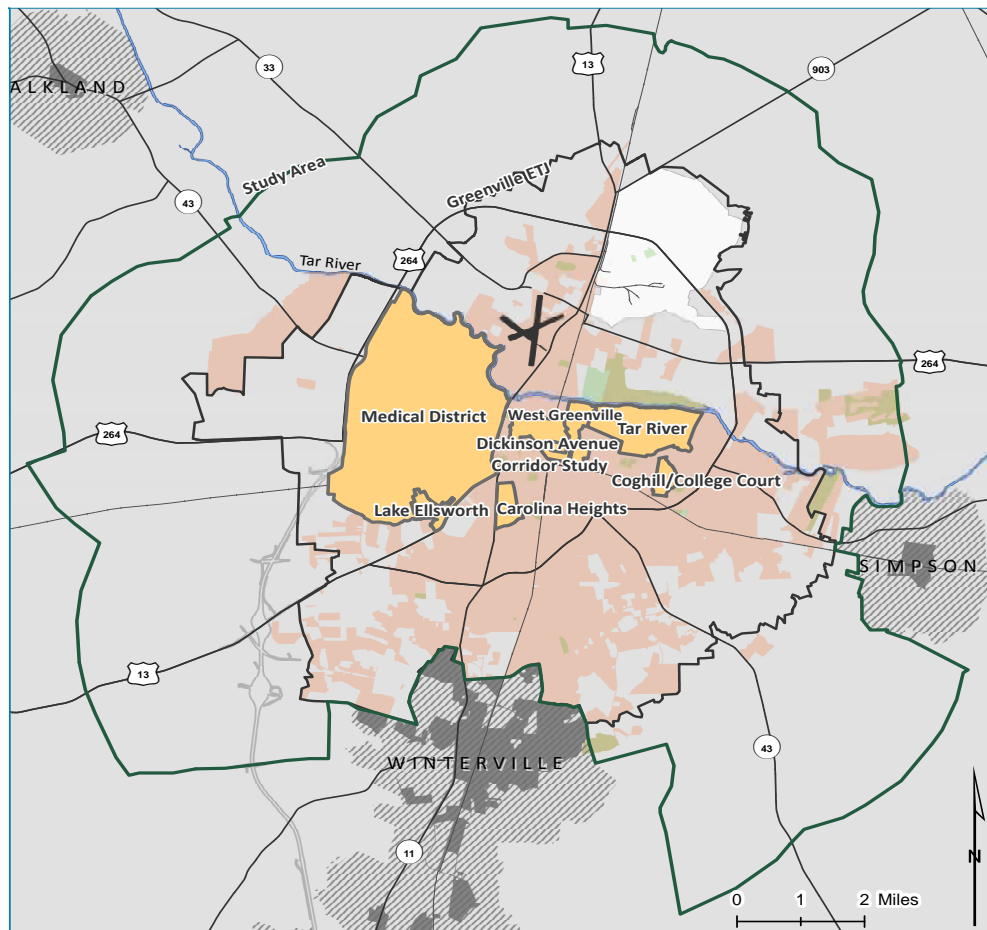
The table on the next page lists Greenville's existing studies and plans.

Map with Existing District Plans

This map displays the existing district and neighborhood plans and studies within Greenville and the Horizons 2026 study area boundary.

Horizons Plan Policy Relevance Audit

A policy audit of the Horizons 2010 plan will be completed during the Horizons 2026 planning process. This audit will help to determine which goals, objectives, and strategies continue to be relevant for Greenville's future.



Community Profile

Plan	Year Adopted	Purpose/Summary
City-Wide Plans		
Neuse River Basin Regional Hazard Mitigation Plan	2015	Identifies strategies for reducing natural hazards in coordination with Greene, Jones, Lenoir, Pitt, and Wayne Counties.
Greenville Capital Improvements Program	2015	Strategic Plan covering 2015-2019 for capital projects.
Metropolitan Transportation Plan	2014	Coordinates a comprehensive transportation planning process throughout the Greenville Urban Area over a 26 year horizon.
Tar River Legacy Plan	2014	Defines a vision and strategies as to how the Tar River can achieve its full potential as a local asset and regional attraction in eastern North Carolina.
Strategic Economic Plan for Greenville, North Carolina: A Roadmap to Community Prosperity	2012	Establishes strategies to build on Greenville's strengths and assets while planning for a changing economy.
ECU Campus Master Plan	2012	East Carolina University's plan for a sustainable, connected campus that supports and enhances both the University and the Greenville community.
Greenville Bicycle and Pedestrian Master Plan (Greenville MPO)	2011	Provides an analyses of walking and bicycling conditions; a recommended bicycle and pedestrian network; and standards, guidelines, and other implementation strategies.
Town Common Master Plan	2010	Proposes programming and physical changes to the riverfront park adjacent to the Uptown District.
Comprehensive Recreation and Parks Master Plan	2008	Identified both current and anticipated future park needs, and established standards for future park development.
Greenway Master Plan	2004	Recommends greenway corridors that provide access to residents, including previously under-served areas of the community.
Task Force on Preservation of Neighborhoods and Housing	2004	Study identifies challenges and provides ten neighborhood improvement strategies for preservation of neighborhoods.

Community Profile

Plan	Year Adopted	Purpose/Summary
Area Plans		
Dickinson Avenue Corridor Study	2014	This study provides urban design and policy ideas and recommendations for the Dickinson Avenue Corridor to grow and sustain a healthy vibrant core.
Carolina Heights, Greenbrier, Hillsdale and Tucker Circle Subdivisions Neighborhood Report and Plan	2010	Plan evaluates current conditions in the neighborhood and establishes strategies to improve livability, safety, and vitality.
Tar River / University Area Neighborhood Report and Plan	2009	Comprehensive neighborhood plan, completed as part of the effort to achieve one of City Council's 2006-07 goals to "emphasize the importance of neighborhood stabilization and revitalization."
College Court & Coghill Subdivisions Neighborhood Report and Plan	2007	Plan assesses current conditions and creates a comprehensive framework for stabilizing and revitalizing neighborhood in collaboration with residents and the City of Greenville.
Lake Ellsworth, Clark's Lake and Tripp Subdivisions Neighborhood Report and Plan	2007	Comprehensive neighborhood plan developed for neighborhood revitalization.
Medical District Land Use Plan Update	2007	Recommends changes to ensure an adequate distribution of services designed to promote a vibrant, efficient, and sustainable medical district.
West Greenville Revitalization Plan	2006	Focused on revitalizing the neighborhoods of Cherry View, Parkins Town, Biltmore, and Lincoln Park.

A misty, foggy landscape with a wooden pier extending into a body of water, surrounded by trees. The scene is atmospheric and serene, with the fog obscuring the background and the water reflecting the light. The pier is made of dark wood and has a simple railing. The trees are mostly bare, suggesting a cool season.

Snapshot of Trends and Conditions

The City of Greenville, North Carolina's tenth largest city, lies in the Coastal Plain region of the state. Following rapid population growth within the past several decades, it continues to be the population center of Pitt County, as well as a gateway to the Pamlico Sound and cultural center of eastern North Carolina. This section reviews trends affecting the region, and helps define the key issues and opportunities facing Greenville.

Overview

The Snapshot of Trends and Conditions reviews the following topics:

Population and Households: As populations grow and change in cities throughout the Southeast, households and household preferences are also continuously changing and cities must adapt and adjust to provide high quality services.

Growing Into the Future: The Horizons 2026 process allows community members and leaders to ask important questions about the region's long-term future including, *how much will the city grow?* and, *where will new residents go?*

Economics and Equity: The economy of the Greenville Metropolitan Statistical Area (MSA), which includes all of Pitt County, has grown both absolutely (from \$4 billion to \$7 billion since 2001) and as a share (1.45 percent to 1.55 percent) of North Carolina's total economic output.

Fiscal Responsibility: Urban development patterns can affect present and future costs of infrastructure, services, and utilities. These patterns affect both the amount of tax revenue that can be collected from property owners, and the level of expenditures needed to fully service and maintain developed areas.

Existing Urban Character: Over years of growth, Greenville has changed in many ways: economically, socially, and architecturally. These changes have occurred throughout the city and have helped to shape the character of neighborhoods in Greenville.

Transportation: Intracity transportation is becoming a challenge. Greenville's automobile-oriented streets, designed to move traffic at high speeds, are creating health, safety, access, and placemaking challenges, while reducing transportation choices for Greenville residents.

Natural Systems and Sustainability: As population continues to grow, so does Greenville's impact on the natural environment. Hazard mitigation and sustainable planning go hand-in-hand in a community like Greenville, located along a river, within close proximity of the coast, and with a large portion of land within floodplains.

Services and Utilities: Greenville provides its citizens with excellent services and utilities, according to the City of Greenville 2013 Citizen Survey, which surveyed residents from across the city. The city has adequate water and wastewater capacity over the long-term.

Community Health: Access to healthy foods, safe transportation options, community health facilities, and other services for people of all socioeconomic backgrounds are critically important for improving and maintaining community health.

Accessibility to Parks, Greenways, and Schools: The built environment impacts the way children and adults are able to access educational opportunities at schools and recreational opportunities at parks and greenways.



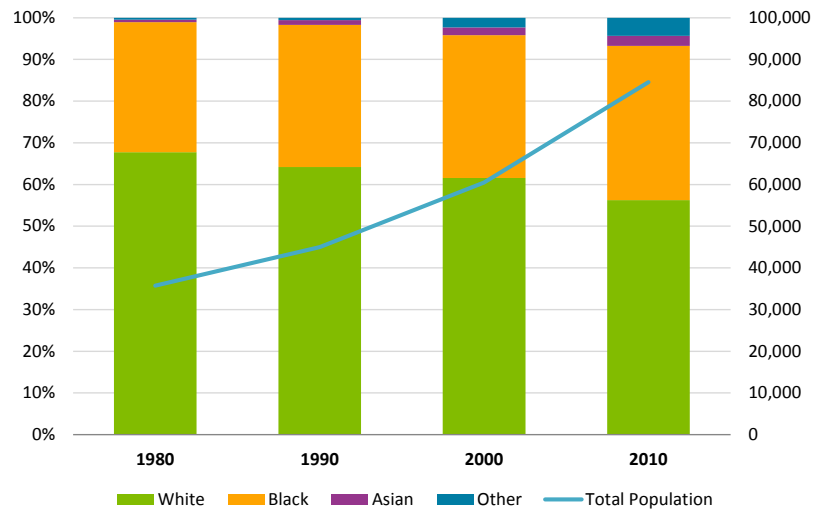
Population and Households

As populations grow and change in cities throughout the nation and Southeast, households and household preferences are also continuously changing and cities must adapt and adjust to provide the best services possible. This section describes the dynamic population that makes up Greenville and discusses how growth and diversity affect the city.

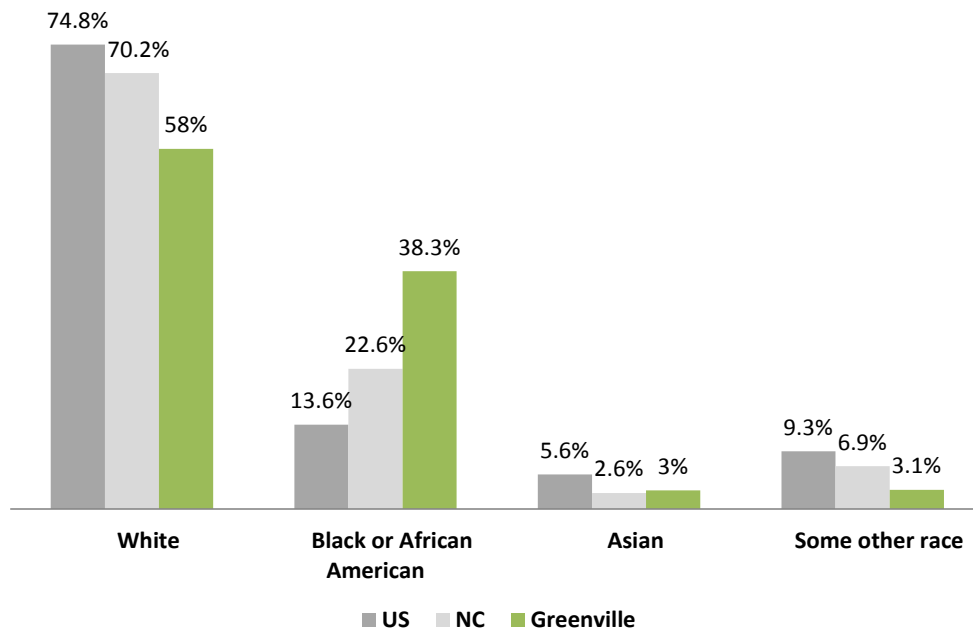
Trends in population change, race

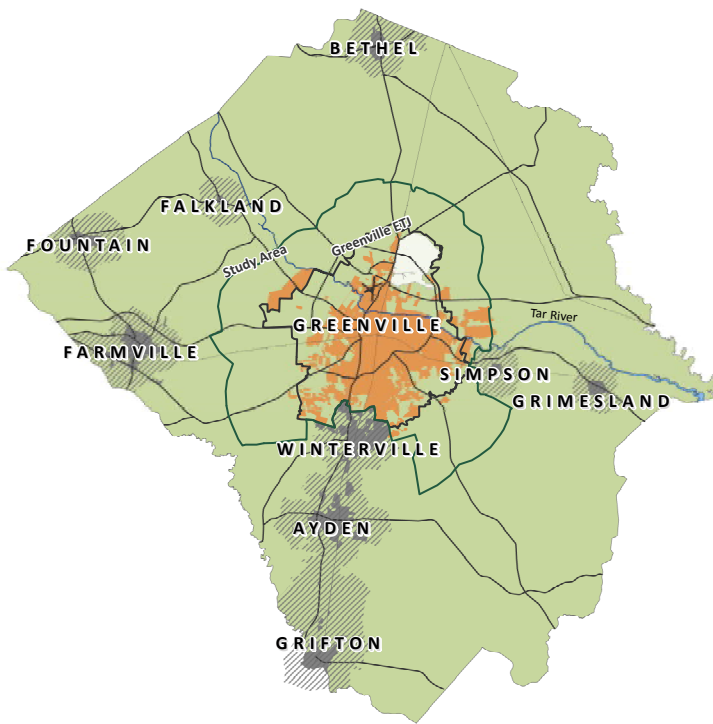
The population of Greenville has grown exponentially since 1980, more than doubling from 35,740 in 1980 to 84,554 in 2010, with continued growth through the decade. Meanwhile, while the majority of the City continues to be white, the population has also steadily diversified, with an increasing number of non-white races. Relative to proportions in North Carolina and the nation, Greenville has a lower than average white population while the black population is above average.

Greenville Population Change



2010 Population by Race

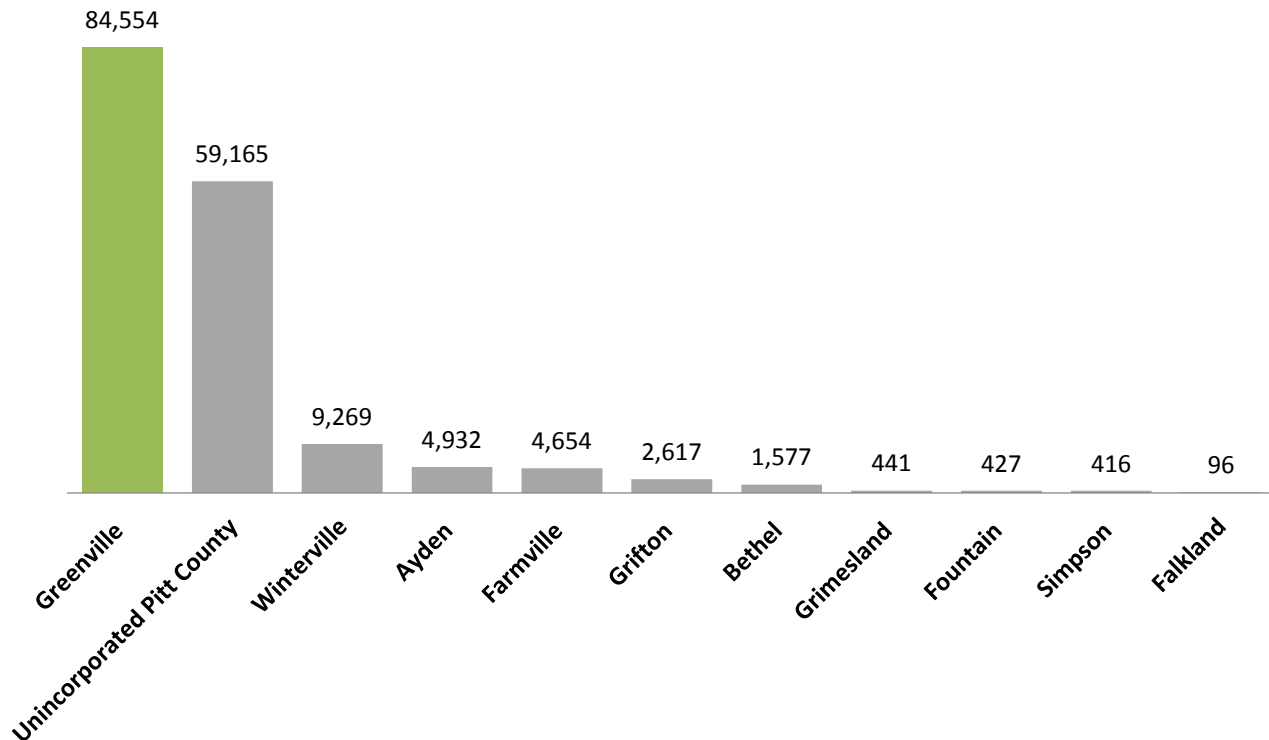




Population in Pitt County

Greenville is the largest incorporated area in Pitt County, followed by Winterville with approximately 9,269 people in 2010, a population one tenth the size of Greenville. Meanwhile, nearly 60,000 people lived in unincorporated areas within the county. Pitt County's total population in 2010 equaled just under 170,000 people and is projected to add an additional 20,000 people by 2035.

2010 Population by Jurisdiction



Trends in Age

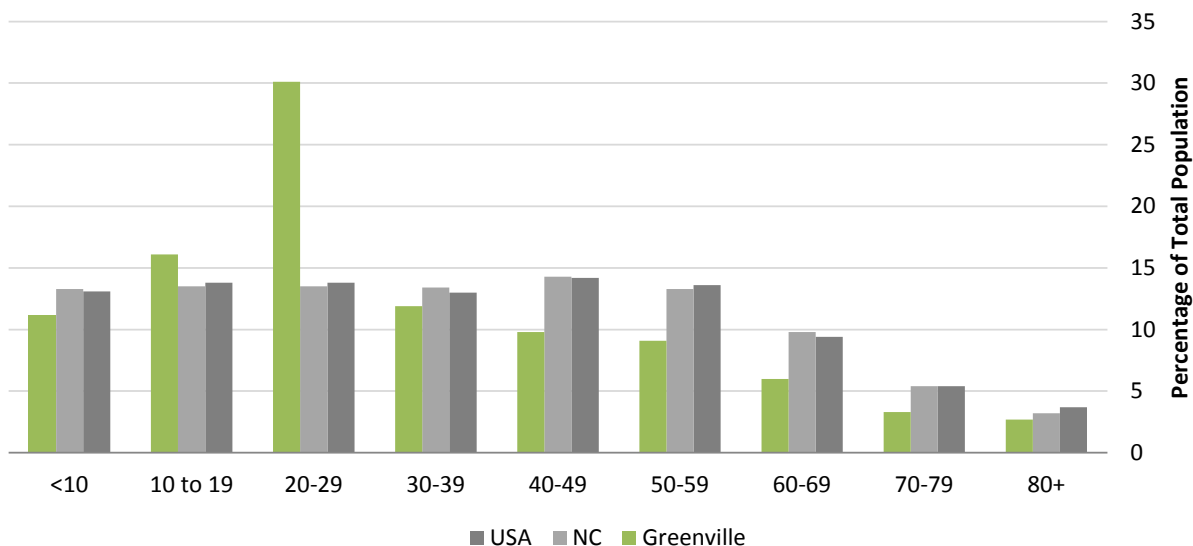
Greenville's age distribution reflects the City's position as a college town, home to the state's third largest public university. People living in Greenville have a median age (26) well below that of the state of North Carolina (37) and a large percentage of the population is between the ages of 20 and 29. In 2010, the most populous cohorts included those between the ages of 15 and 29.

Overall, Greenville is experiencing in-migration, contributing to the metropolitan area's population growth. Migration rates reflect population change unrelated to births and deaths within a county. Unsurprisingly, the Greenville MSA has a high net positive migration rate (>1.00) for people between the ages of 15 and 24. In fact, the MSA generally has net positive migration rates for all age groups except for cohorts between 30 and 39.

While an outflow migration (<1.00) would be expected for recent college graduates, the extent of such a population loss of young professionals could be revealing of factors that government and the business community may seek to improve, such as the retention of young adults through quality of life improvements.

Cohort Group	Migration Rate	
	Males	Females
0-4	1.06	0.99
5-9	1.07	1
10-14	1.17	1.19
15-19	1.58	1.88
20-24	2.16	2.68
25-29	1.14	1.05
30-34	0.7	0.67
35-39	0.92	1
40-44	1.07	1.07
45-49	1.1	1.13
50-54	1.11	1.12
55-59	1.08	1.12
60-64	1.12	1.15
65-69	1.18	1.12
70-74	1.13	1.1
75-79	1.05	1.08
80-84	1.02	1.05
85+	0.97	0.99

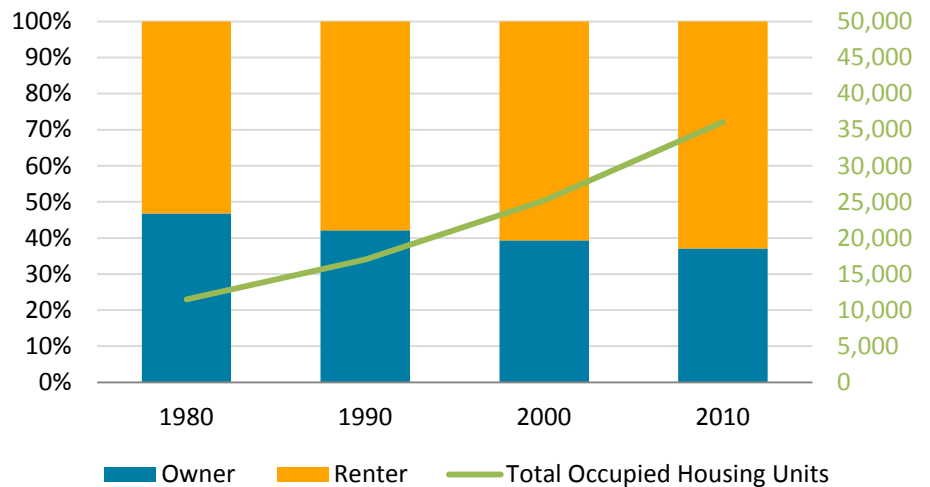
2010 Age Distribution



Housing Trends

The number of occupied housing units nearly quadrupled between 1980 and 2010, from about 10,000 to nearly 36,071 units. Over that time span, the number of occupied rental units increased at a higher rate than the number of owner-occupied units. In 2010, 37.1 percent of occupied housing units were owner occupied. While this trend reflects changes occurring on a national scale, Greenville's homeownership rate is lower than that of North Carolina and the rest of the United States, in part due to the number of students in Greenville.

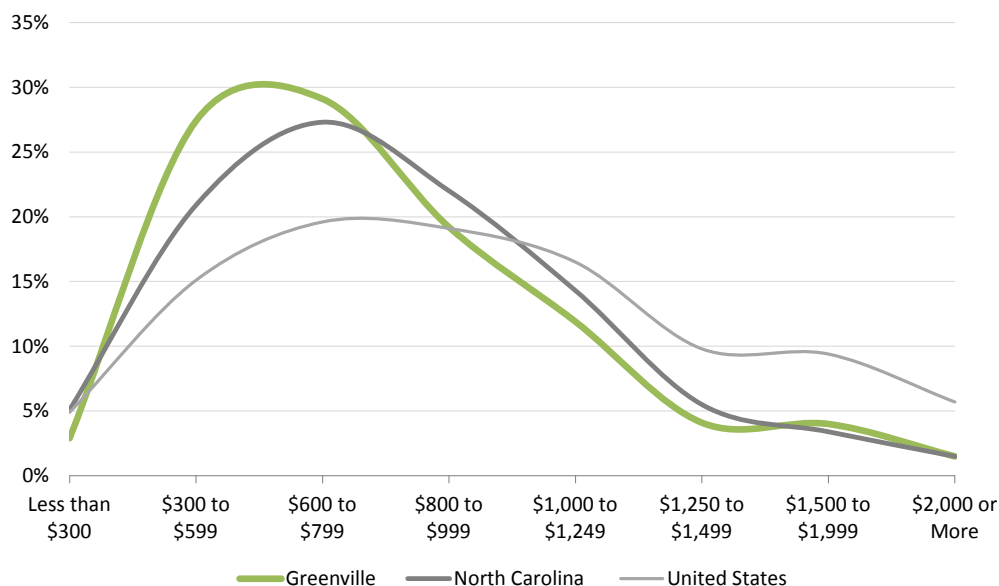
City of Greenville Housing Units Own vs. Rent



Meanwhile, housing in Greenville continues to be more affordable on average than across the rest of the state and nation. In 2013, median gross rent in Greenville was \$724 compared to \$776 and \$904 for North Carolina and the United States,

respectively. Greenville's median house value for all owner-occupied housing units was \$149,600 compared to \$153,600 and \$176,700. The cost of housing is a major asset for Greenville.

Renter-Occupied Housing 2013 Gross Rent



Residential Construction

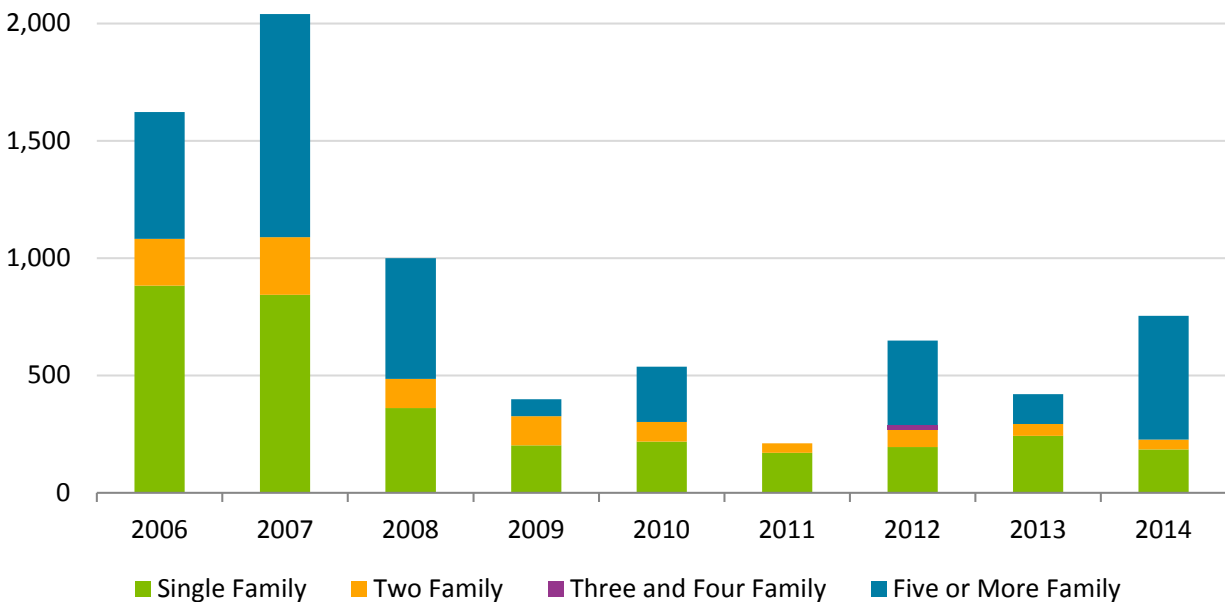
Annual residential unit construction dropped following the subprime mortgage crisis of 2007-2010, though the number of units constructed grew in 2014. Apartment buildings and single family homes are the most common product with very few new units in two, three, and four family buildings, leaving little diversity in housing options.

Household Size

Household size in Greenville did not change between 2000 and 2010, remaining at 2.18 persons per household. This is lower than average household sizes in North Carolina and the United States, which were 2.48 and 2.58 in 2010, respectively. The lower than average household size can largely be attributed to the large number of college students living off-campus. Household size steadily decreased throughout the United States over the past half century.



Greenville New Residential Unit Construction





Growing into the Future

Just as the City of Greenville has grown rapidly over the last several decades, it is expected to continue to grow. The Horizons 2026 community plan will play an important role in accommodating new residents and future generations by encouraging growth in strategic areas. This section provides population projections for the next 20 years.

Population Projections

The Horizons 2026 process allows community members and leaders to ask important questions about the region's long-term future, including:

- How many people are coming to our city?
- Where will they live and work?

While no one can predict the future, thoughtful population projections help anticipate and prepare for change. The chart below illustrates four methods of calculating projections in Greenville.

- Projection 1 analyzes Pitt County projections from Woods & Poole, a firm that updates and maintains population projections, and assumes that Greenville will continue to have approximately 51 percent of the County's total population.
- Projection 2 analyzes Pitt County projections from the State of North Carolina, assuming Greenville will maintain the same proportion of the County's population. Over the past decade, Greenville has grown at an average rate of 2.75

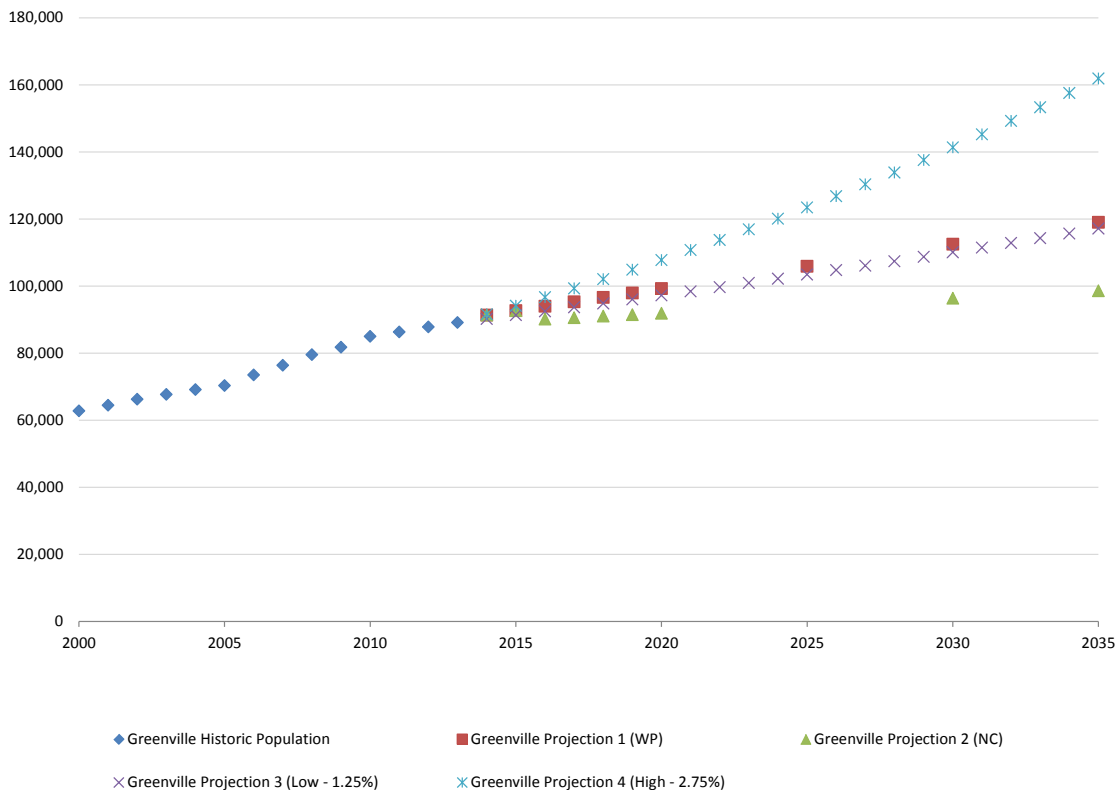
percent annually (ranging between 1.48 percent and 4.19 percent).

- Projection 3 assumes Greenville will grow at a low annual rate of 1.25 percent while Projection 4 assumes the City grows at an annual rate of 2.75 percent.

These projections reveal that the City may grow to as many as 161,000 residents by 2035, or as little as 98,600 by the same time. Complex and unpredictable forces, along with key policy decisions, will ultimately guide growth into the future. Using the average of these projections a key part of this plan will be to answer the question: *Where will the next 40,000 people live?*

ECU has been a driving economic engine in Greenville and grew between 2000 and 2010 from fewer than 20,000 students to total student enrollment of nearly 30,000 students. The ECU Strategic Framework for Comprehensive Facilities Master Plan projects growth of the student population to nearly 39,000 undergraduate and graduate students by 2025.

Population Projections for the City of Greenville





Economics and Equity

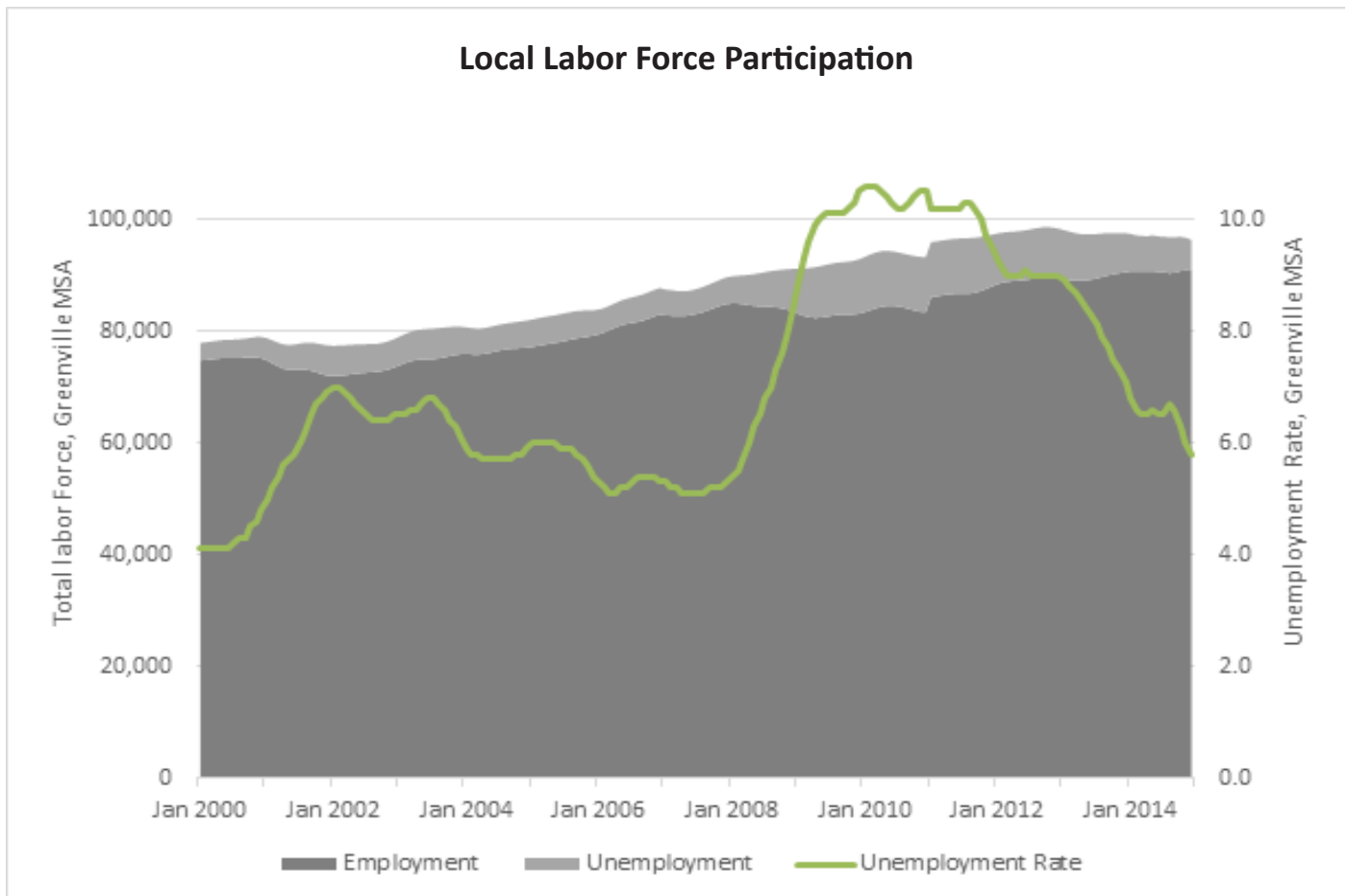
The total economy of the Greenville MSA has grown both absolutely (from \$4 billion to \$7 billion since 2001) and as a share (1.45 percent to 1.55 percent) of North Carolina's total economic output. This section highlights important economic trends that are redefining Greenville.

Labor Force Participation

Reflecting nationwide trends due to the economic recession, the Greenville MSA experienced a spike in the unemployment rate between 2008 and 2010. Since then the unemployment rate has decreased to under 6 percent. This number may be misleading as data show that total labor force has decreased, leading to the presumption that people who were once looking for work have given up or retired. Nonetheless, total employment continues to grow within the MSA.

Wages

Stable employment wages have increased since the year 2000 when accounting for inflation. Wages increased dramatically between 2002 and 2007 and dropped during the recession to 2005 levels. Since then, wages in the MSA continue to increase nearly climbing to 2007 wages.



Industries and Occupations

Manufacturing continues to be a key employment industry in the Greenville MSA, with 1 of 11 jobs in manufacturing, and many of these jobs providing above average wages. Over the past several decades, the change in employment has fluctuated with the national business cycles.

However, as manufacturing employment has decreased, there has been continued growth and diversification in non-manufacturing employment, especially within the service industries.

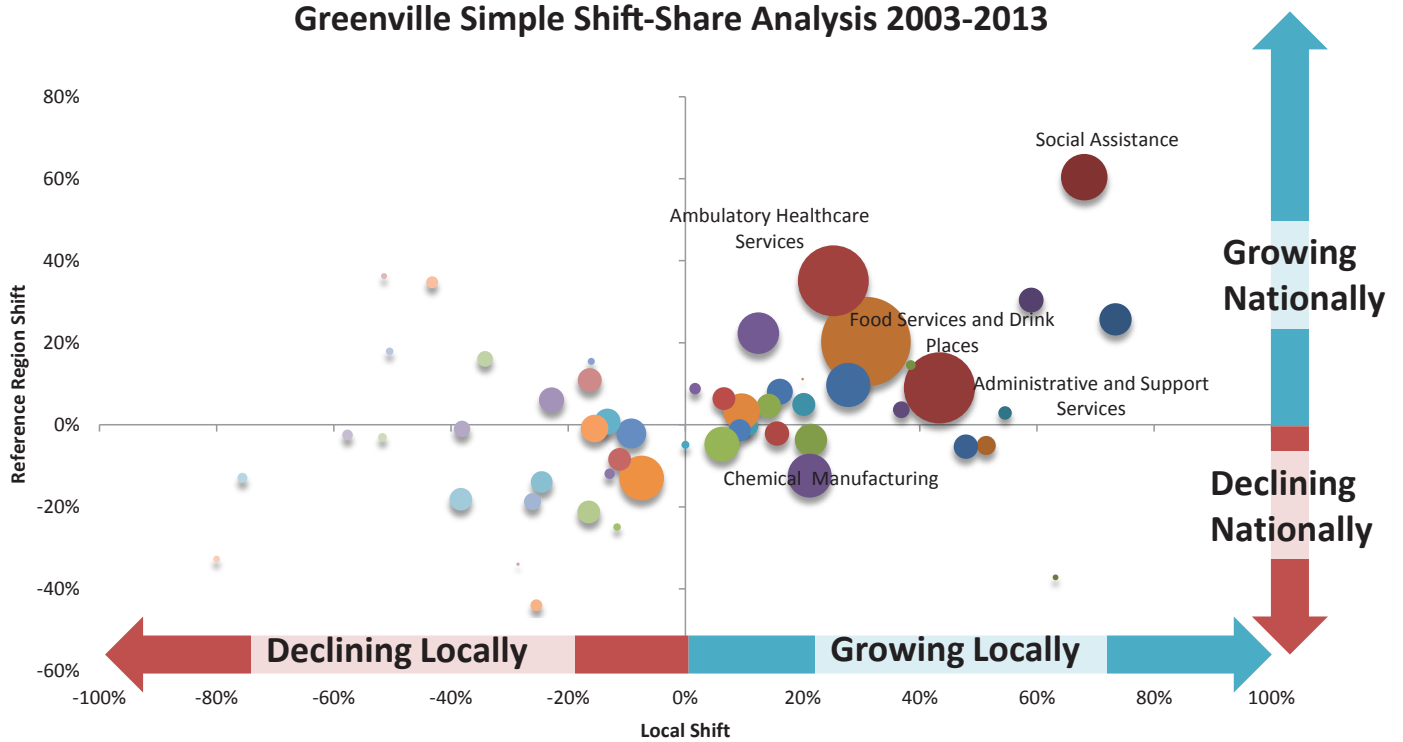
A simple shift-share analysis shows how Greenville MSA's economy has changed over time relative to the rest of the nation. By breaking down economic change into specific industries, strengths and weaknesses within the county become apparent. The bubble chart on this page shows industrial employment change at the local and the national

levels. Bubble sizes correspond with each sector's number of employees in Pitt County.

Generally, the industrial sectors that are growing nationwide also show growth in Pitt County, although there are some exceptions to that, such as chemical manufacturing. The largest industries tend to be those that are growing in the Greenville MSA (those industries located in the top right quadrant), which is a positive sign for future employment growth.

Greenville specializes in several industries, including chemical manufacturing (specifically pharmaceutical manufacturing), electronics and appliance stores, retail stores, restaurants, health care services, among other industries. These industry specializations demonstrate

Greenville Simple Shift-Share Analysis 2003-2013



Greenville's position as a cultural, economic, and administrative hub of eastern North Carolina.

Innovation

Innovation can be a critically important characteristic of a resilient economy. Innovation can be measured by documenting patents. Most patents in Greenville fall under class titles related to bio-medical research and chemical manufacturing. ECU plays a vital role in innovation within the region, along with the City's cluster of chemical manufacturing companies.

ECU is also a driver of innovation through its continued and growing success in acquiring research grant money. Between 2003 and 2011 research and development expenditures more than doubled from 13 to 28 million dollars.

Employment Projections

The Greenville MSA is projected to add approximately 45,000 jobs by 2035, with a large proportion of employment growth occurring in the City of Greenville. The industries projected to experience most rapid growth include health care and social assistance, retail trade, accommodation and food services, administrative and waste services, professional and technical services, educational services, and finance and insurance.

Largest employers

Vidant Medical Center and ECU are Greenville's economic engines, not only because they employ more workers than any other entity, but also because they pay relatively high wages and provide a social benefit to the community. Other major employers include schools, local governments, and several manufacturing companies.

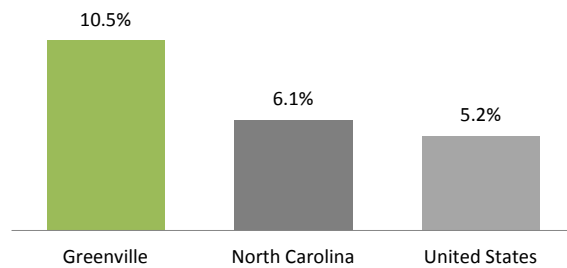
Rank	Greenville MSA Largest Employers	Industry	Employment Range
1	Vidant Medical Center	Education & Health Services	1000+
2	East Carolina University	Education & Health Services	1000+
3	Pitt County Board Of Education	Education & Health Services	1000+
4	Wal-Mart Associates, Inc.	Trade, Transportation & Utilities	1000+
5	Pitt Community College	Education & Health Services	1000+
6	NACCO Materials Handling Group, Inc.	Manufacturing	1000+
7	Patheon Manufacturing Services, LLC	Manufacturing	500-999
8	Pitt County	Public Administration	500-999
9	Alliance One International Inc	Manufacturing	500-999
10	City Of Greenville	Public Administration	500-999

Equity and Fair Opportunity

Home to ECU and PCC, Greenville has many excellent opportunities for education, employment, and workforce development for residents of diverse socio-economic backgrounds. Like many cities across the Southeast, Greenville continues to face the challenges of inequality between and within racial groups. The City's gini index of inequality - an important index that measures income inequality, where $G=1$ means a single person receives all of the income and $G=0$ means everyone equally shares income - was higher, 0.52 in 2013, than both North Carolina and the United States, 0.47. This is likely due in part to the large number of full-time college students living in the City who receive little or no income.

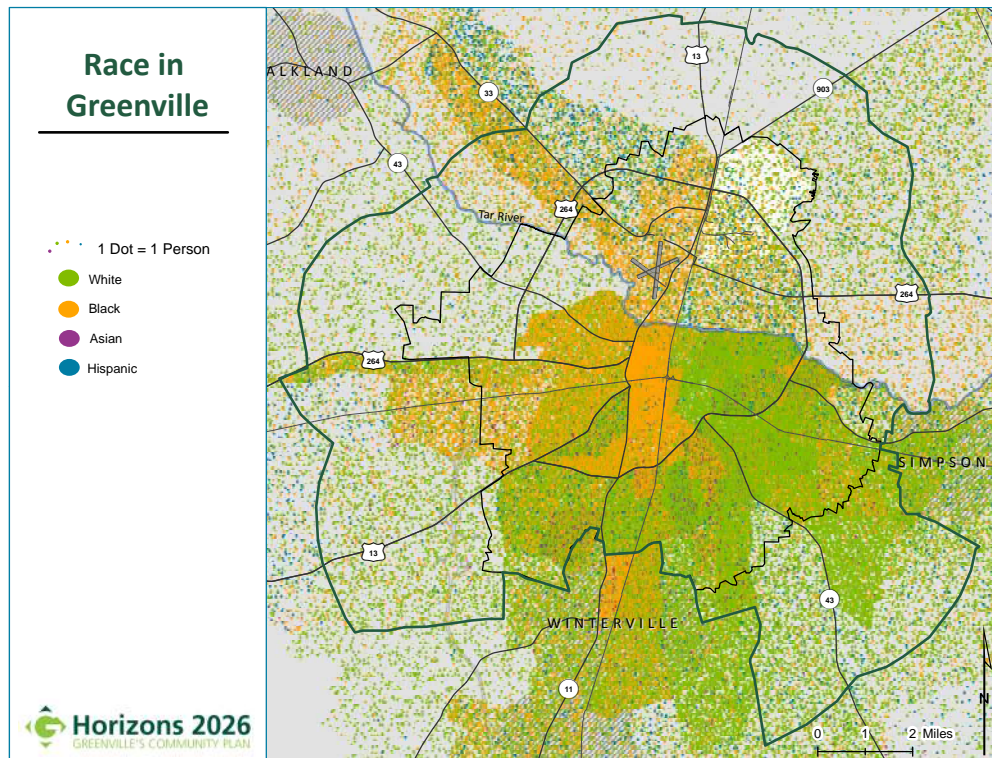
In spite of decades of progress and integration, race continues to play a role in where people live in Greenville. This pattern can not only have negative consequences for quality of life in the community, but could also hinder efforts to acquire federal funding for housing development. The Department of Housing and Urban Development (HUD) recently announced new rules that require cities to scrutinize their housing patterns for racial bias if they are receiving federal funding from HUD.

Percent of Families that Include Single Mothers Living in Poverty, 2013



According to the American Community Survey, Greenville also experiences a higher than average percentage of single-mother households. Policies and programs could improve the quality of life and access to opportunity of this segment of the population.

The City, County, nonprofits, and local businesses have worked to provide opportunities for local residents. These efforts have wisely focused on providing access to education, jobs, recreational opportunities, and healthy foods to all residents.



Housing + Transportation

An abundant supply of affordable housing is a key component of promoting a healthy and equitable local economy. Traditional measures of housing affordability ignore transportation costs associated with housing locations in spite of the fact that transportation costs tend to be a household's second-largest expenditure and is highly variable depending upon location.

The average household in Greenville spends nearly \$12,000 per year on transportation alone. This means that while the average household in Greenville spends 29 percent of its income on housing, an additional 28 percent of income is spent on transportation costs, leaving just 43 percent in remaining income to spend on goods and services and save for the future.

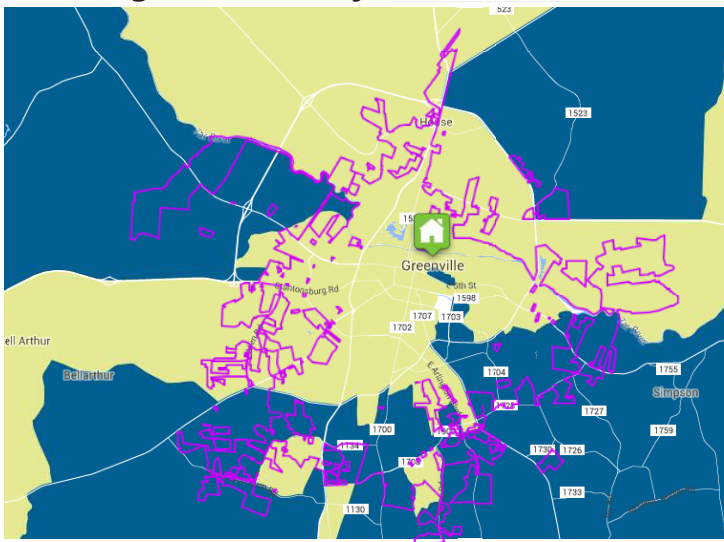
The current transportation patterns in Greenville also takes a negative toll on environmental and public health. On average, households drive 21,000 miles, emitting an average of 8.38 tons

of greenhouse gases into the atmosphere every year from driving. Some of these distances could otherwise be spent walking, biking, or riding on public transit for residents that do not own a car or would prefer additional transportation options.

The map below on the left shows areas where housing costs are greater than and less than 30 percent of household income. Generally people pay less than 30 percent of their income on housing throughout the city. The map on the right considers transportation costs on top of housing costs, showing that households spend less than 45 percent of their income on housing and transportation combined only within more compact and walkable places within Greenville.

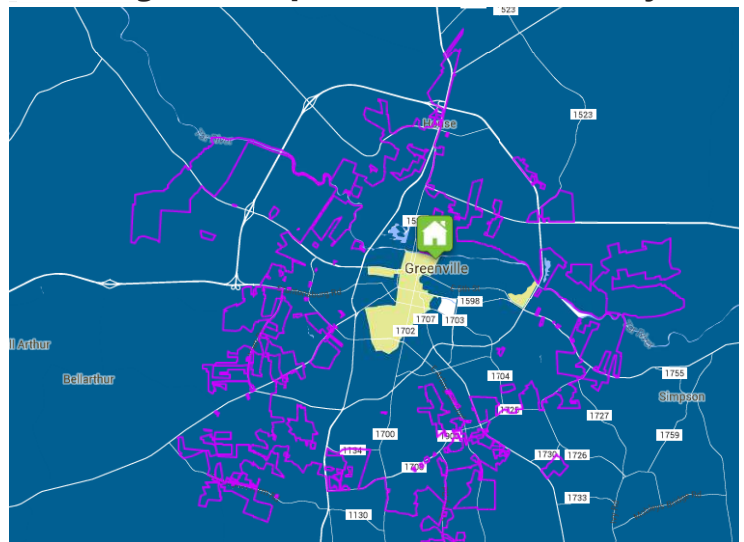
Compact, walkable, and highly diverse neighborhoods with high access to jobs, transit, and a variety of residential and commercial uses provide myriad affordable transportation options.

Housing Affordability



- Can Afford **Housing**
(Housing payment < 30% income)
- Are Cost Burdened
(Housing payment > 30% income)

Housing + Transportation Affordability



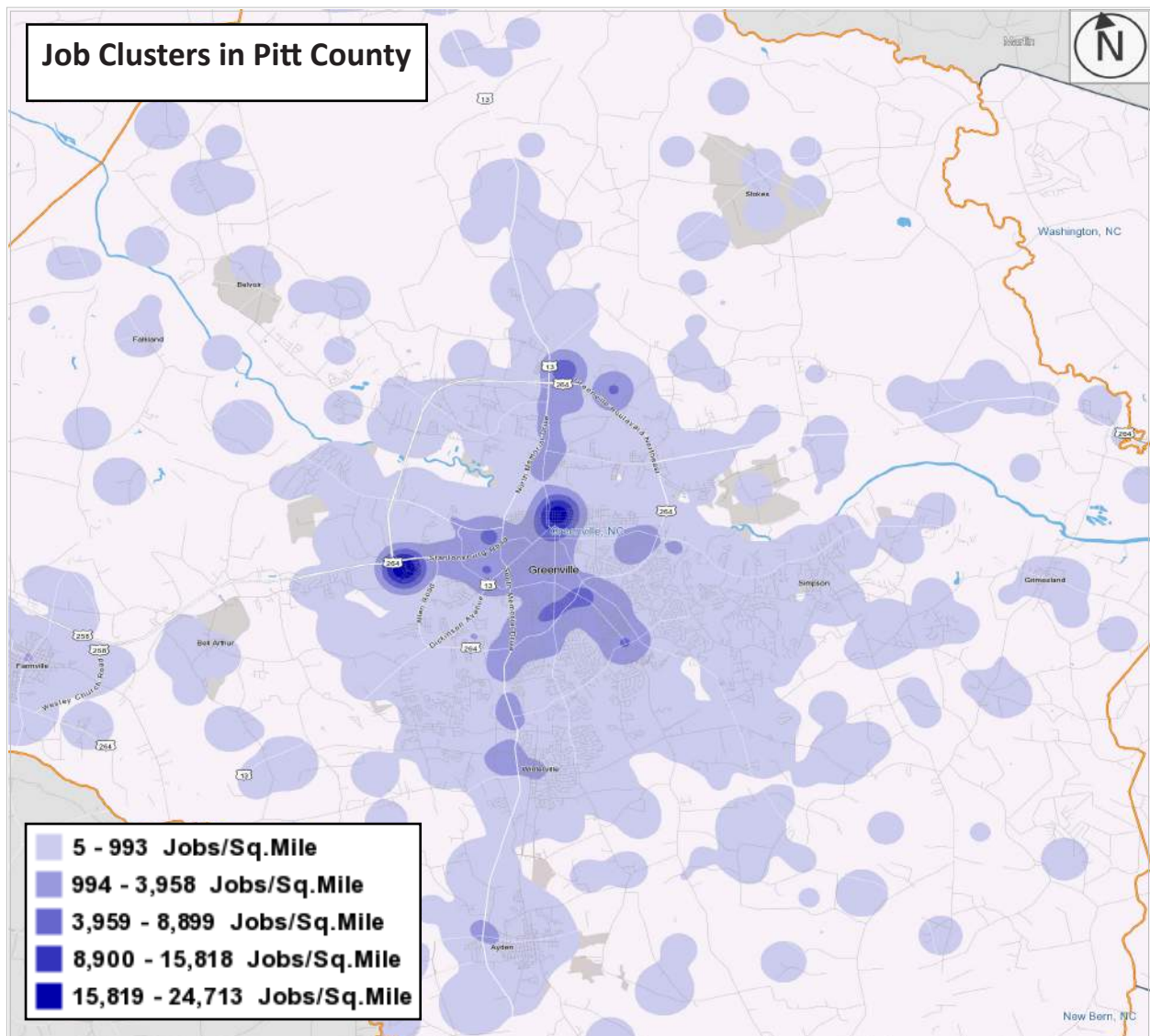
- Can Afford **Housing & Transportation**
(Housing & Transportation costs < 45% income)
- Are Cost Burdened
(Housing & Transportation costs > 45% income)

Retail

The retail industry employs a large and growing number of people in Greenville and the city plays an important role in providing retail options for residents of the city, who are experiencing growing prosperity, as well as residents in rural cities, towns, and unincorporated areas throughout eastern North Carolina. Retail industry jobs made up 6.2 percent of total MSA jobs and 7.9 percent of all earnings.

Job Clusters

Most jobs in Pitt County are located within the City of Greenville. Many of those jobs are located along major thoroughfares, in the core of the City, and within areas with clusters of manufacturing, like the recognized industrial area just north of the city.



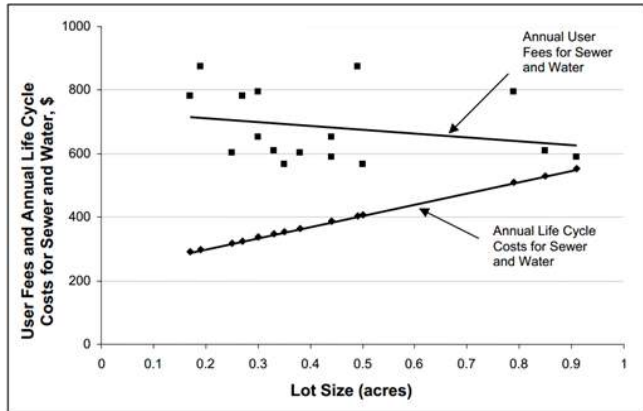


Fiscal Responsibility

Urban development patterns can affect present and future costs of infrastructure, services, and utilities. These patterns affect both the amount of tax revenue that can be collected from property owners, and the level of expenditures needed to fully service and maintain developed areas. This section provides some background and analysis to understand how growth can affect Greenville's pocketbook.

Building Pattern & Utility Costs

Studies have illustrated the impacts of development patterns on utility costs. The chart to the right displays a regression analysis of data from several communities across the U.S. The data show that as lot sizes for new single-family detached houses increase, annual life cycle costs for utilities also increase while annual user fees for utilities tend to decrease, potentially increasing the burden of low density greenfield development on existing customers and taxpayers.



Although construction of new roads and utilities is typically paid for by the developer, those costs are transferred to the homebuyer. Maintenance costs are then passed to the local taxpayers and utility customers into the future.

However, it is also important to consider the value generated by each acre developed. Walkable mixed use development can provide a large amount of tax revenue on a smaller amount of land.

Property Value per Acre

While development patterns affect public expenditures, they can also impact tax revenue. Big box stores can increase the value of underdeveloped land and create a major source of property tax revenue for local governments.

In Greenville, a small two story building located in the City's Uptown District yields a current tax value of less than one fifth the value of a highly trafficked big box store located on Greenville Boulevard. However, on a per acre basis, that same two story building yields a tax value 11 times greater.

Big Box Retail Store in Greenville

Current Tax Value: \$5,961,638

Land Developed: 11.77 acres

Tax Value per Acre: **\$506,450**



Two-Story Mixed-Use Building in Greenville

Current Tax Value: \$1,176,888

Land Developed: 0.21 acres

Tax Value per Acre: **\$5,572,369**



Population vs land consumption growth

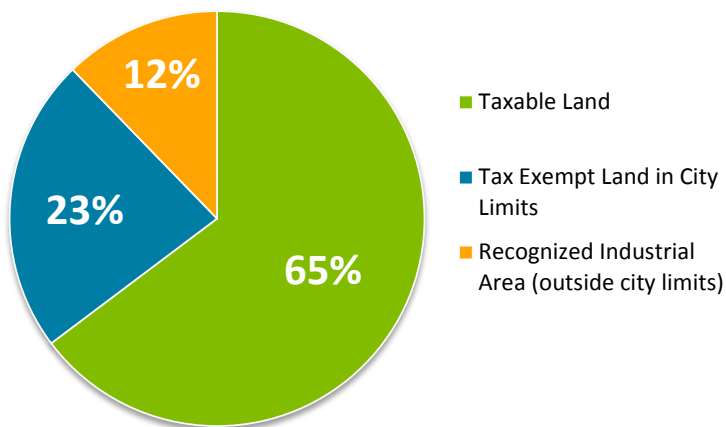
Over the past half century, Greenville's land consumption has outpaced its growth in population. Since 1960 Greenville's population has increased from 22,860 people to nearly 100,000 today, while the City land area has grown from 5.8 square miles to over 35 square miles. This represents a 510 percent growth in land area compared to 270 percent growth in population. Similarly, for every person living in Greenville in 1960 there was approximately 7,073 square feet of land. Today that number has increased to an average of 11,672 square feet per person.

This trend can have negative fiscal and environmental impacts due to the additional cost per person of infrastructure maintenance and city services, longer transportation distances, and increased impervious surface area.

Property Tax Exemptions

One major fiscal challenge for the City of Greenville is the number of high value properties that are exempt from paying property taxes. Important tax exempt properties within Greenville include the City's three main economic drivers: ECU, Vidant Medical Center, and manufacturing companies located in the recognized industrial area north of the Tar River.

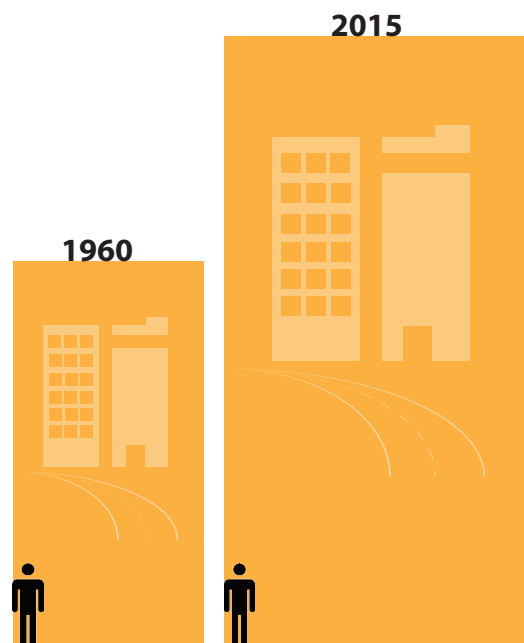
Tax Exempt Property in Greenville



Land Use Trade-Offs

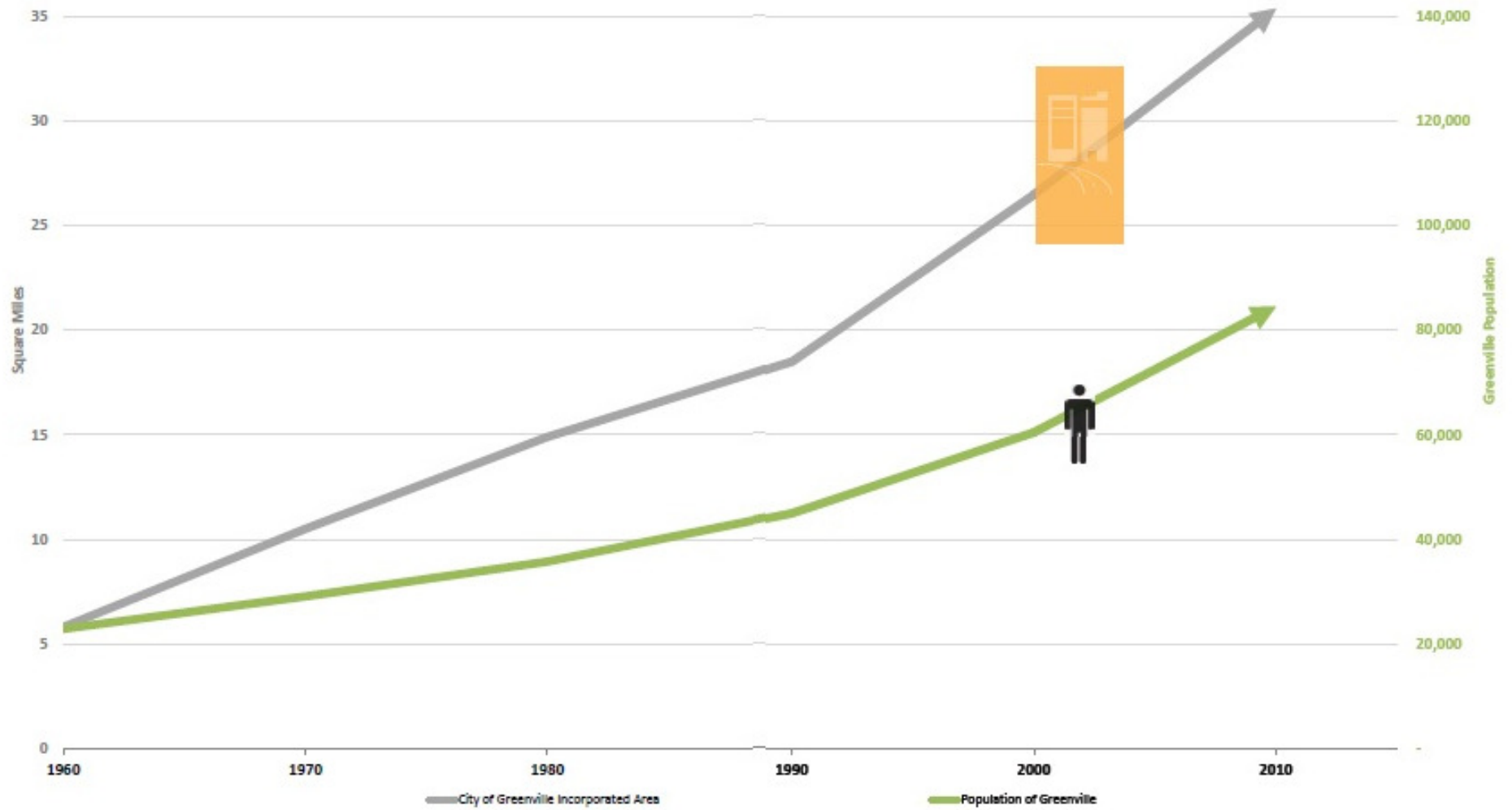
When it comes to net fiscal benefits, trends in other communities suggest that not all land uses are the same. Lower densities tend to require greater expenditures per person for construction and maintenance, while producing less revenue on average. An increase in low-density development can result in the need for higher property taxes and fewer services. Land uses may also yield different net fiscal benefits. Greenville may want to conduct an analysis of the fiscal benefits of land uses in the city.

Land per Person in Greenville



Greenville is expanding outward...

...faster than the population is growing



An aerial photograph of Greenville, South Carolina, showing a mix of urban, suburban, and natural landscapes. The image captures a dense network of streets, buildings, and green spaces. A prominent green banner is overlaid on the right side of the image, containing the title and introductory text. The background shows a variety of land uses, including residential areas, commercial districts, and parks. The text is white and clearly legible against the green background.

Existing Character Analysis

Over years of growth, Greenville has changed economically, socially, and in urban form. These changes have occurred throughout the city and have helped to shape the character of each neighborhood that makes up the greater city. This section goes beyond land uses, and evaluates the existing character of Greenville that has been built since the city's beginning.

Land Use Patterns

The following map and table summarizes existing land use within Greenville's ETJ.

The city occupies approximately 35.6 sq mi today while the ETJ occupies approximately 65 sq mi and the total study area includes 145 sq mi. The study area extends beyond the city's current ETJ encompassing an area approximately three-miles from the city limits, as permitted by North Carolina law. (see map on following page)

Vacant Land. Over half the land in the ETJ is classified as vacant (34.95 sq mi / 56.6%). Vacant land includes areas that have never been developed and those that may have been developed at one time and now have no buildings or other improvements, or may be developed, but unoccupied.

Approximately 32 percent of the vacant land within the ETJ is developable. Developable land was tabulated using existing vacant land use data and subtracting land within the 100 year floodplain as well as land designated for future conservation/open space. Although this calculation has taken a conservative approach to the amount of land, it garners a figure of roughly 13,490 acres, and is shown on the Developable Land map.

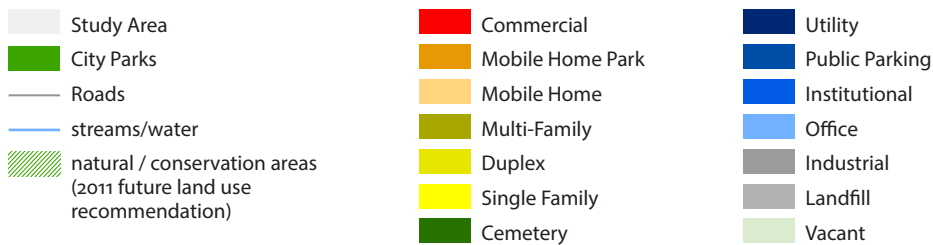
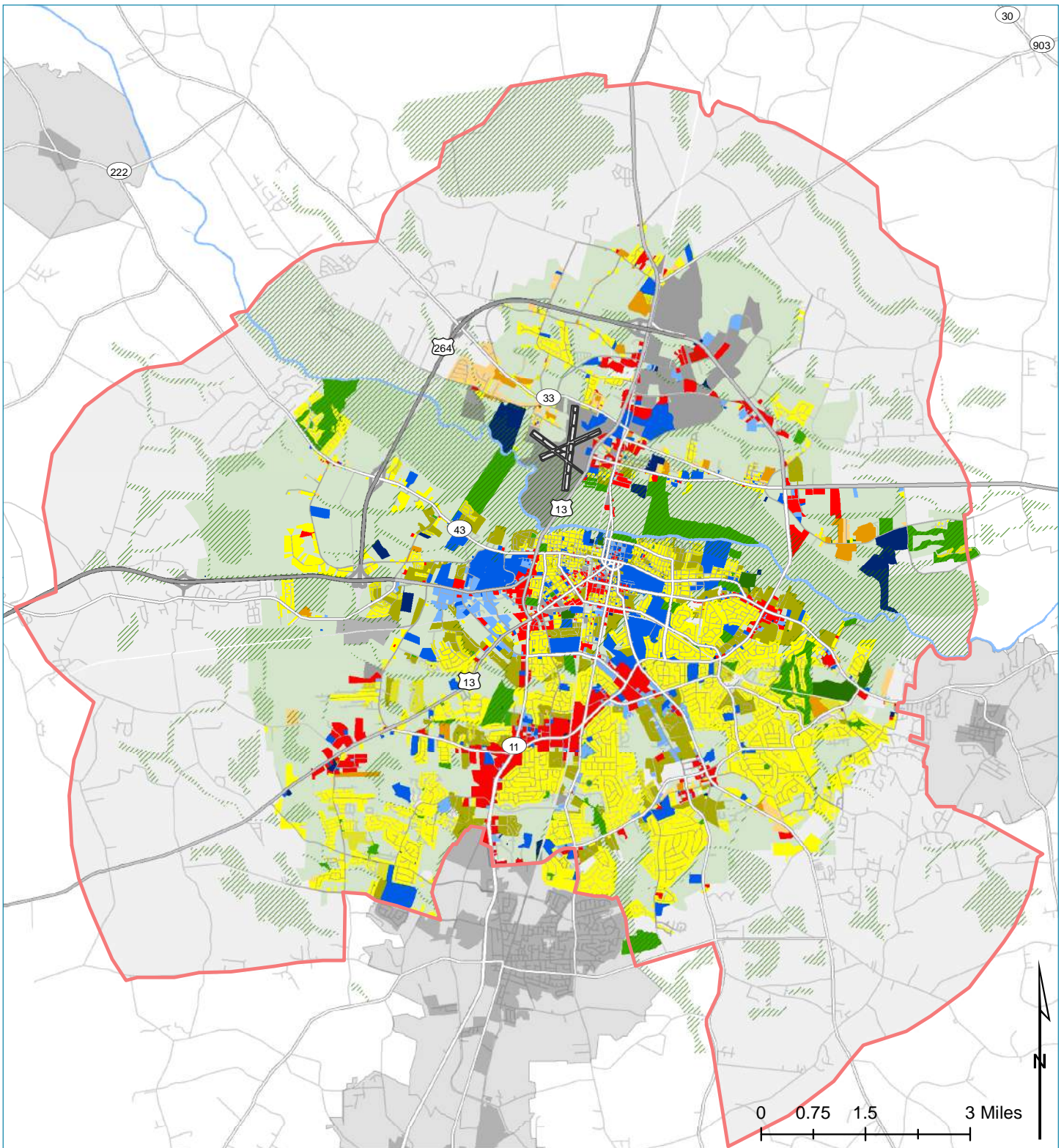
Residential land. Residential land is the largest developed use within the ETJ. Single-family residential comprises most of the residential land and typically within subdivisions. Denser residential patterns existing near Uptown. Multi-family typically occurs south of town near clusters of commercial developments.

Mixed uses. Mixed use development, where different non-residential and/or residential uses may be integrated in the same building, is not identified within readily available land use data. Such development may exist in Uptown or within the University area, but are likely included in the "commercial" or another non-residential classification.

use	acres	% of land
RESIDENTIAL		26.5%
Single Family	7,082.6	17.9%
Duplex	475.5	1.2%
Mobile Home	844.1	2.0%
Multi-Family	2,105.0	5.3%
NON-RESIDENTIAL		16.3%
Commercial	1,980.3	5.0%
Office	643.8	1.6%
Industrial	1,913.2	4.8%
Institutional	1,900.6	4.8%
OTHER		6.3%
Utility	503.6	1.3%
Landfill	171.4	0.4%
Public Parking	25.9	0.1%
Cemetery	175.3	0.4%
Recreation	1,627.0	4.1%
VACANT	22,373.1	56.6%
	41,821.3	

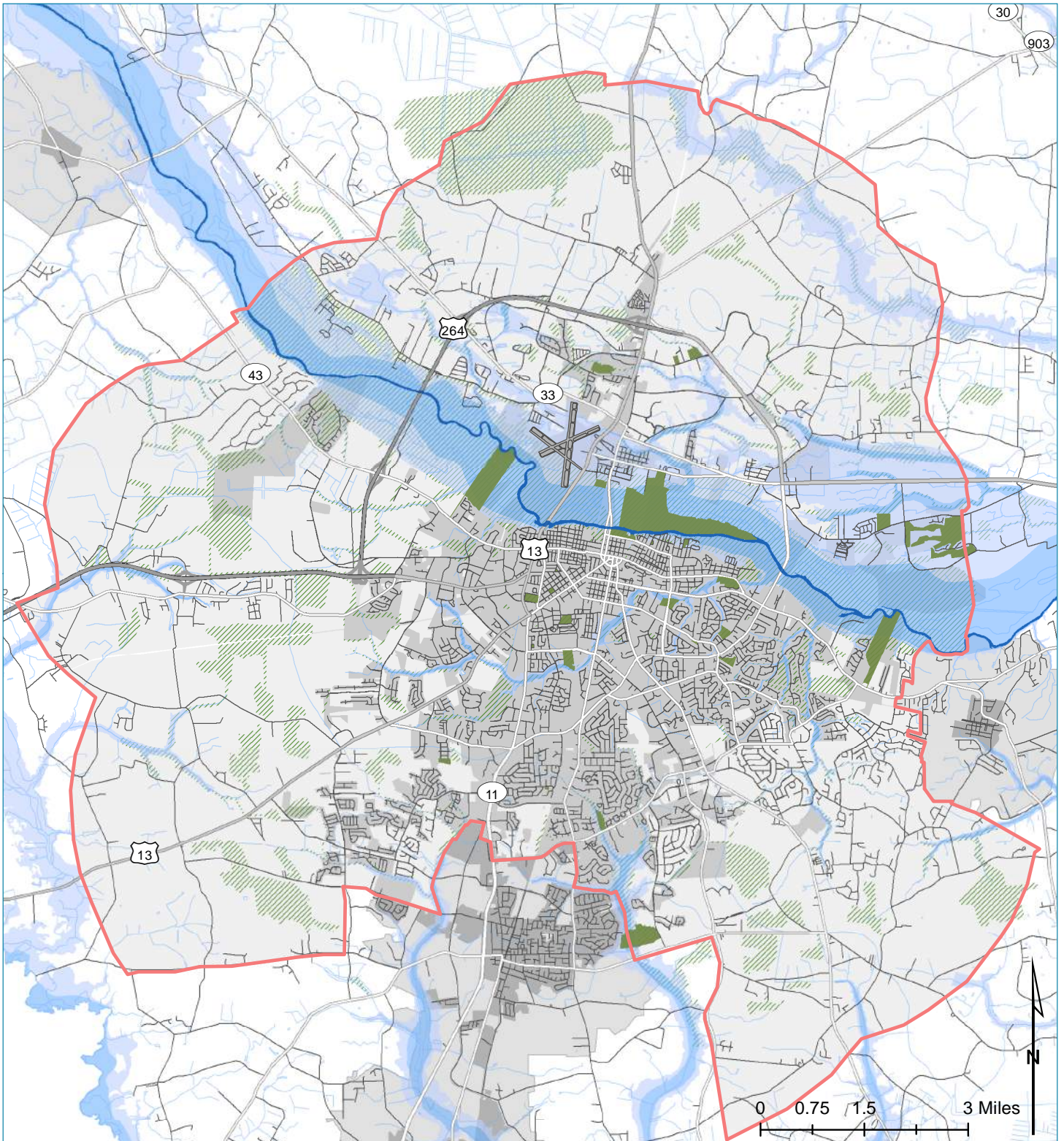
Community Profile

Existing Land Use in Greenville's ETJ



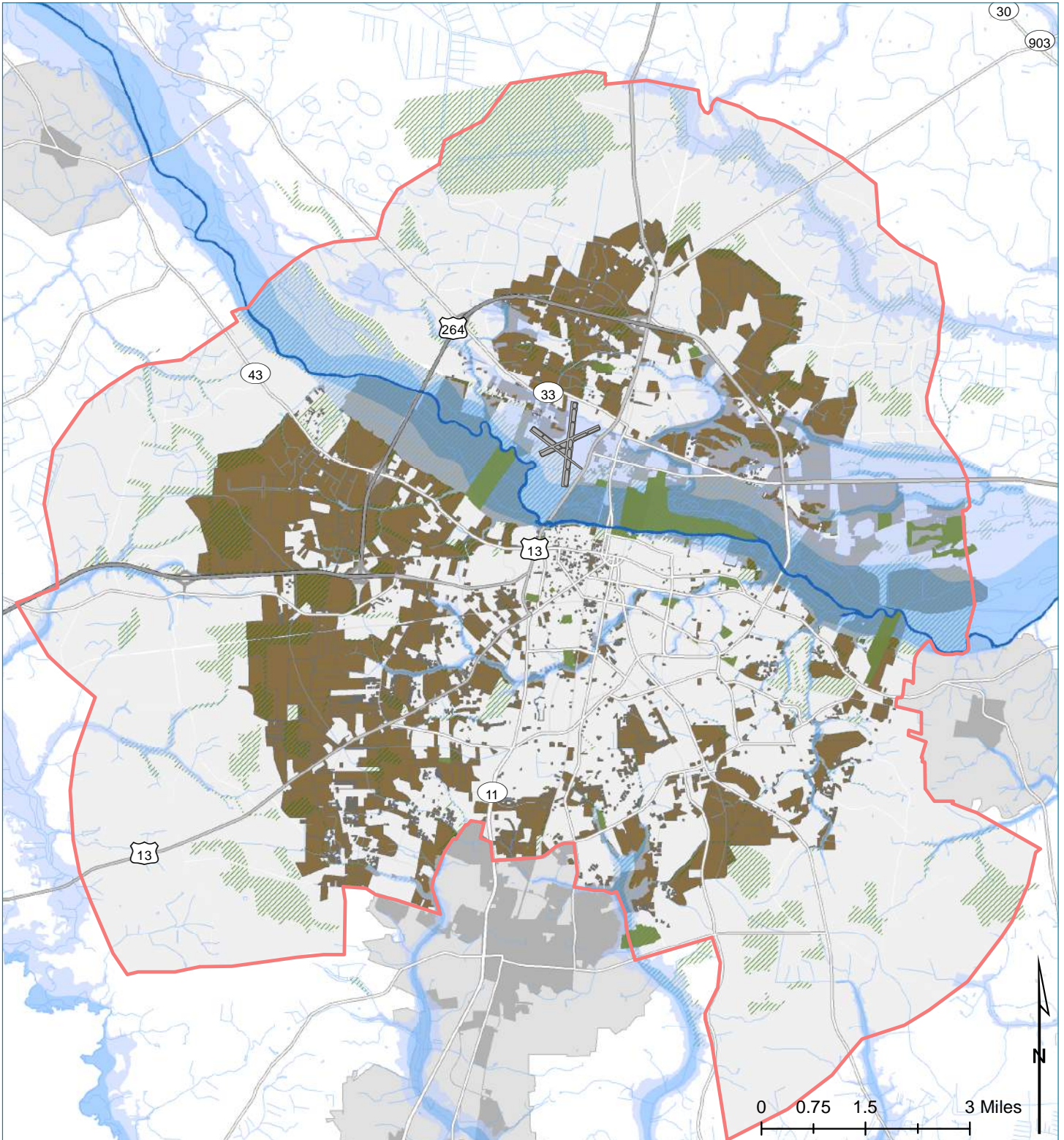
Community Profile

Development Pattern



- | | |
|---------------|---|
| City limits | 100-year floodplain |
| Study Area | floodway |
| City Parks | streams/water |
| Roads/streets | natural / conservation areas
(2011 future land use recommendation) |

Developable Land in Greenville's ETJ



- | | |
|--|--|
| Developable Land | 100-year floodplain |
| Study Area | floodway |
| City Parks | streams/water |
| Major roads | natural / conservation areas
(2011 future land use recommendation) |

Urban Form and Character

An analysis of the existing pattern and character of areas throughout the city provides an understanding of the quality of Greenville's built environment. This analysis classifies the study area into 12 Character Areas, which are types of neighborhoods, districts or corridors that share similar attributes of their form and function. The attributes used in defining the character areas include: type and size of buildings, relationship between buildings and streets, lot size and coverage, street pattern and connectivity, and land use.

The Existing Character map on the following page identifies the Character Areas throughout the study area. On the following pages, each area is defined qualitatively and quantitatively using written descriptions and example images.

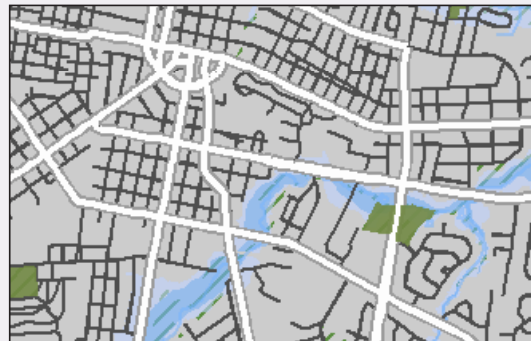
The existing character analysis will serve as the foundation for future land use recommendations. The future land use and character map will include:

1. Existing character types with narrative and images describing the future intent and preferred conditions for each area.
2. New character types that may not exist in Greenville today. These character types will define the preferred conditions for the area using words and images.

Urban vs Suburban

The existing Character Areas can be broadly divided into two groups, urban and suburban. Urban areas are walkable, mixed-use areas with small blocks arranged in a grid or grid-like pattern. Greenville's "urban" areas include Uptown and surrounding neighborhoods, which were initially developed before cars were the primary mode of transportation. Suburban areas are designed to be drivable, with longer blocks, curvilinear streets, fewer intersections and separated uses. Areas with "suburban" character make up a majority of Greenville's land.

Urban Character

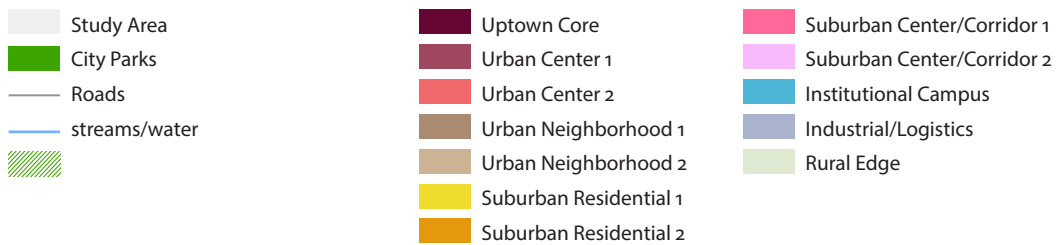
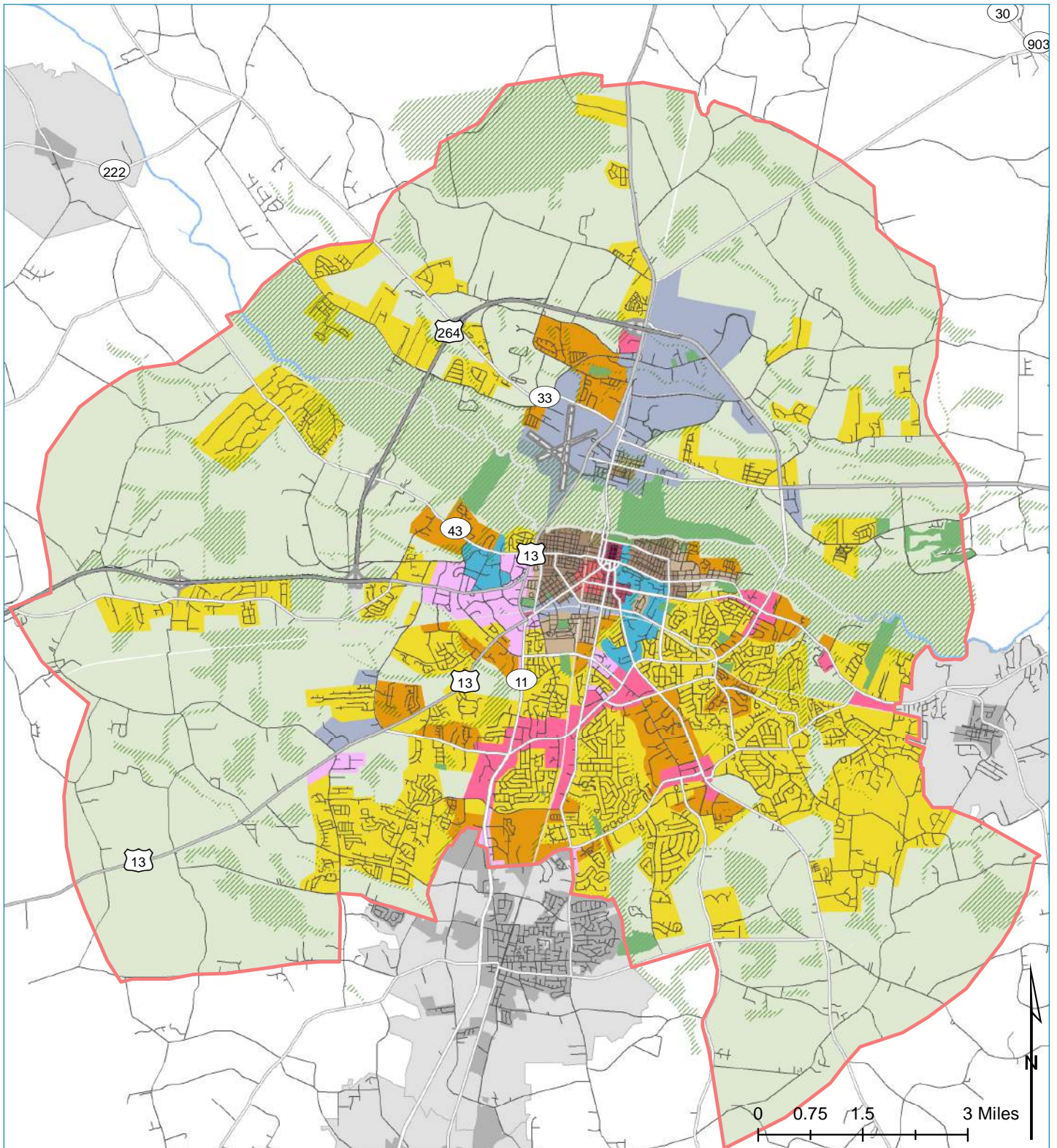


Suburban Character



Community Profile

Existing Character



UPTOWN CORE

Uptown is Greenville's historic core. It is the most urban and mixed-use area of the city with buildings located close together and near the street. Small blocks, on-street parking, and street trees create a pedestrian-friendly district.

OPPORTUNITIES

- Maintain and expand public realm features such as street trees and signs
- Reduce surface parking
- Infill development on vacant lots
- Vertical mixed-use (residential above commercial)

PRIMARY USES (>70%)

- Commercial
- Vertically mixed with office above ground floor commercial

SECONDARY USES (<30%)

- Civic
- Institution
- Office

BUILDING BLOCKS

Building Height	2-4 stories
Building Setback (front)	0-10 feet (generally consistent within a block)
Lot Coverage	60-90%
Street pattern / connectivity	linear, grid-like / high
Block Length	300-350 feet
Parking Provision	on-street & behind buildings

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



URBAN CENTER 1

Urban Center 1 surrounds the Uptown Core and extends its block pattern. It features a variety of mainly non-residential uses with a mix of building sizes, orientation, setbacks, and streetscape features.

OPPORTUNITIES

- Orient new development near street with consistent setbacks
- Improve pedestrian conditions with street trees and sidewalks and reduce curb cuts
- Reduce/consolidate surface parking

PRIMARY USES (>70%)

- Commercial
- Institutional
- Civic

SECONDARY USES (<30%)

- Multi-family residential
- Neighborhood commercial
- Parks and open space

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	0-30 feet
Lot Coverage	30-80%
Street pattern / connectivity	linear, grid-like / high
Block Length	300-350 feet
Parking Provision	on-street & surface parking to the side of buildings

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



URBAN CENTER 2

Urban Center 2 consists of primarily large footprint single-story industrial or warehouse buildings within the urban street grid. It includes the ECU warehouse district and future millennial campus area.

OPPORTUNITIES

- Adaptive reuse of buildings for non-industrial uses
- Improve public realm with sidewalks and street trees
- Infill and redevelopment

PRIMARY USES (>70%)

- Single family residential
- Multi-family residential

SECONDARY USES (<30%)

- Suburban commercial
- Office
- Parks and open space

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	0-15 feet (generally consistent within a block)
Lot Coverage	50-90%
Street pattern / connectivity	linear, grid-like / high
Block Length	300-350 feet
Parking Provision	on-street & private off-street

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



URBAN NEIGHBORHOOD 1

Urban Neighborhood 1 is a primarily residential area surrounding Uptown and Urban Centers. It features a grid street pattern and mix of residential building types on small lots, with some commercial, office and civic uses.

OPPORTUNITIES

- Public realm improvements (consistent sidewalks and street trees)
- Introduce neighborhood-scale commercial centers at key intersections
- Address blight/property maintenance

PRIMARY USES (>70%)

- Single family residential
- Two-family residential

SECONDARY USES (<30%)

- Multi-family residential
- Neighborhood commercial
- Churches and schools
- Parks and open space

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	10-30 feet (generally consistent within a block)
Lot Coverage	40-60%
Street pattern / connectivity	linear, grid-like / high
Block Length	250-400 feet
Parking Provision	on-street & private off-street

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



URBAN NEIGHBORHOOD 2

Urban Neighborhood 2 occurs at edges of Urban Neighborhood 1 where the urban street grid transitions to a more suburban-like pattern. It is distinguished by less dense residential and non-residential development on larger lots.

OPPORTUNITIES

- Public realm improvements (consistent sidewalks and street trees, pocket parks)
- Manage infill/redevelopment with respect to existing character

PRIMARY USES (>70%)

- Single-family residential

SECONDARY USES (<30%)

- Duplex and small multi-family residential
- Civic and Institution
- Parks and open space

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	20-40 feet (generally consistent within a block)
Lot Coverage	40-60%
Street pattern / connectivity	linear, grid-like / high
Block Length	400-850 feet
Parking Provision	on-street & private off-street

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



SUBURBAN RESIDENTIAL 1

Suburban Residential 1 areas are primarily single-family developments arranged along wide, curvilinear streets with few intersections. Building size and style tend to be consistent within a development with limited connectivity between different residential types and non-residential uses.

OPPORTUNITIES

- Providing better connectivity between residential developments
- Public realm improvements such as consistent sidewalks street trees, and parks where possible

PRIMARY USES (>70%)

- Single family residential

SECONDARY USES (<30%)

- Duplex and small multi-family residential
- Small office / institution
- Churches and schools
- Parks and open space

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	20-30 feet (generally consistent within a block)
Lot Coverage	20-30%
Street pattern / connectivity	wide connectors with curving residential streets / low
Block Length	350-1500 feet
Parking Provision	private off-street

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



SUBURBAN RESIDENTIAL 2

Set in a similar street pattern as Suburban Residential 1, Suburban Residential 2 is composed primarily of multi-family and small-lot single-family development. Building size and style tend to be consistent within a development with limited connectivity between different building types and uses.

OPPORTUNITIES

- Providing better connectivity between developments
- Improve architectural variety and site design for new developments
- Public realm improvements such as consistent sidewalks, street trees, and parks where possible

PRIMARY USES (>70%)

- Multi-family residential
- Office

SECONDARY USES (<30%)

- Duplex and Single-family residential (small lot)
- Neighborhood commercial
- Parks and open space

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	20-30 feet (generally consistent within a block)
Lot Coverage	20-30%
Street pattern / connectivity	wide connectors with curving residential streets / low
Block Length	350-1500 feet
Parking Provision	on-street & private off-street

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



SUBURBAN CENTER/CORRIDOR 1

Suburban Center 1 areas are primarily community- and regional-scale commercial development situated near and along major roadway corridors. Buildings are typically set behind surface parking.

OPPORTUNITIES

- Provide connectivity to nearby residential uses (paths, streets)
- Public realm improvements (signs, sidewalks, landscaping)
- Consolidate and share parking
- Infill/redevelopment (could include mixed-use)

PRIMARY USES (>70%)

- Commercial (small and large format)
- Office

SECONDARY USES (<30%)

- Medical office
- Multi-family residential
- Warehousing
- Civic

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	30-100 feet (generally consistent within a block)
Lot Coverage	50-80% including surface lots
Street pattern / connectivity	multi-lane thoroughfares and wide connectors / low
Block Length	500-1000 feet
Parking Provision	surface lots

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



SUBURBAN CENTER/CORRIDOR 2

Suburban Center 2 areas are primarily office, institutional, and neighborhood-scale commercial development situated near and along major roadway corridors. Buildings are typically surrounded by surface parking.

PRIMARY USES (>70%)

- Office (including medical office)
- Institutional

SECONDARY USES (<30%)

- Commercial (not large format)
- Civic
- Multi-family residential

OPPORTUNITIES

- Provide connectivity to nearby residential uses (paths, streets)
- Public realm improvements (signs, sidewalks, landscaping)
- Consolidate and share parking
- Infill/redevelopment (could include mixed-use)

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	30-100 feet (generally consistent within a block)
Lot Coverage	50-80% including surface lots
Street pattern / connectivity	multi-lane thoroughfares and wide connectors / low
Block Length	500-1000 feet
Parking Provision	surface lots

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



INSTITUTIONAL CAMPUS

The Institutional Campus is most represented by ECU's main campus as well as Vidant Medical Center. The core of each campus area tends to cluster buildings in a walkable pattern. At the edges of the campus are related facilities and parking areas.

PRIMARY USES (>70%)

- Education institutional
- Parks and open space

SECONDARY USES (<30%)

- Office
- Multi-family residential

OPPORTUNITIES

- Reduce surface parking with structures
- Encourage greater building height (medical campus)

BUILDING BLOCKS

Building Height	1-5 stories
Building Setback (front)	0-50 feet (generally consistent within a block)
Lot Coverage	30-60% plus many open lots
Street pattern / connectivity	narrow, curvilinear, grid-like / high
Block Length	200-600 feet car-access, 80-100 feet pedestrian path
Parking Provision	surface lots and structures

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



INDUSTRIAL/LOGISTICS

The Industrial/logistics area is characterized by warehouses and light manufacturing operations and related office uses. It includes the Greenville Industrial Park and airport area, as well as land along active rail corridors in Greenville's urban areas.

OPPORTUNITIES

- Significant land for new development

PRIMARY USES (>70%)

- Industrial
- Light industrial
- Open space

SECONDARY USES (<30%)

- Office
- Commercial

BUILDING BLOCKS

Building Height	1-2 stories (primarily 1 story)
Building Setback (front)	100-400 feet (tends to vary from lot to lot)
Lot Coverage	20-60% including surface lots
Street pattern / connectivity	multi-lane thoroughfares / low
Block Length	1000-3000 feet
Parking Provision	surface lots

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE



RURAL EDGE

Areas at the city's edges characterised by large-lot single-family residential development in small subdivisions, other isolated development, and abundant undeveloped land.

OPPORTUNITIES

- Open space conservation
- Cluster development

PRIMARY USES (>70%)

- Single family residential (large lot)
- Open space

SECONDARY USES (<30%)

- Light industrial
- Agriculture

BUILDING BLOCKS

Building Height	1-2 stories
Building Setback (front)	100-400 feet (tends to vary from lot to lot)
Lot Coverage	20-60% including surface lots
Street pattern / connectivity	multi-lane thoroughfares and small rural roads / low
Block Length	Varies, may exceed 1000 feet
Parking Provision	private, off-street

TYPICAL PATTERN



CHARACTER EXAMPLE



CHARACTER EXAMPLE





Transportation

Intracity transportation has become a major challenge which threatens to hamper the city's growing prosperity. Greenville's automobile-oriented streets are currently designed primarily to move traffic at high speeds. The city has an opportunity to change existing transportation priorities and create healthy, safe, accessible, fiscally-sound, and context-sensitive street networks, while increasing transportation choices for Greenville residents. This section details Greenville's existing transportation conditions and opportunities.

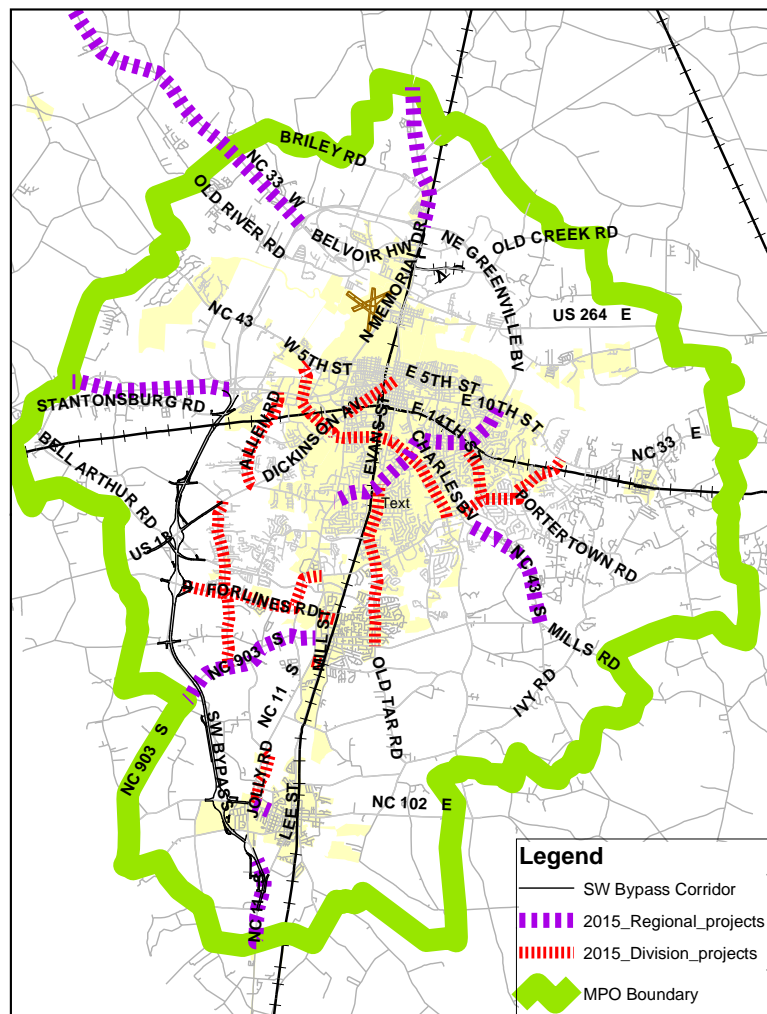
Transportation Planning

Transportation and land use are interlinked issues, thus necessitating coordination between transportation and development planning. The regional transportation planning authority in Greenville is the Greenville Urban Area Metropolitan Planning Organization (MPO). The Greenville Urban Area MPO provides the regional planning process that serves as the basis for the expenditure of federal transportation funds and comprises of elected officials and representatives from local government agencies within the Greenville urban area, which includes Greenville, Winterville, Ayden, Simpson, and surrounding areas of Pitt County, and the North Carolina Department of Transportation (NCDOT).

The Metropolitan Transportation Plan is the federally-mandated, long-term planning document that details the transportation policies and project to be implemented in the Greenville Urban Area. The plan includes fiscally constrained transportation projects expected to be funded through 2040. A few defining projects in Greenville that will impact the Horizons 2026 plan include:

- Tenth Street Connector
- Dickinson Avenue Modernization
- Southwest Bypass
- Green Mill Run and South Tar River Greenways

2015/16 Potential Highway Improvement Projects for MPO consideration



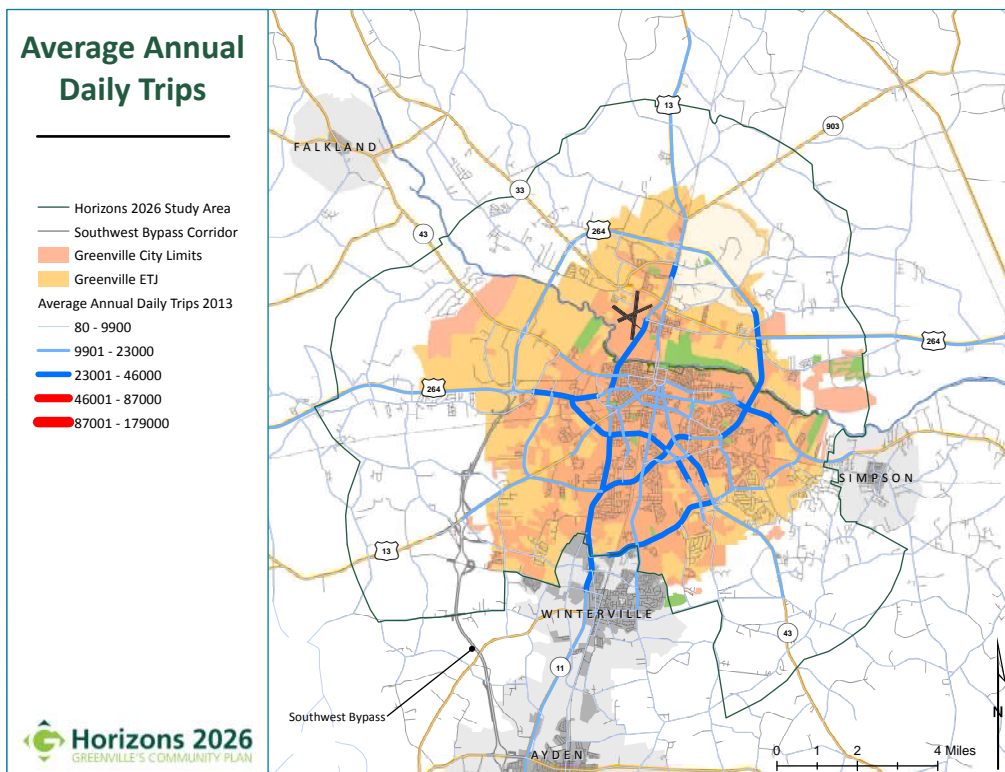
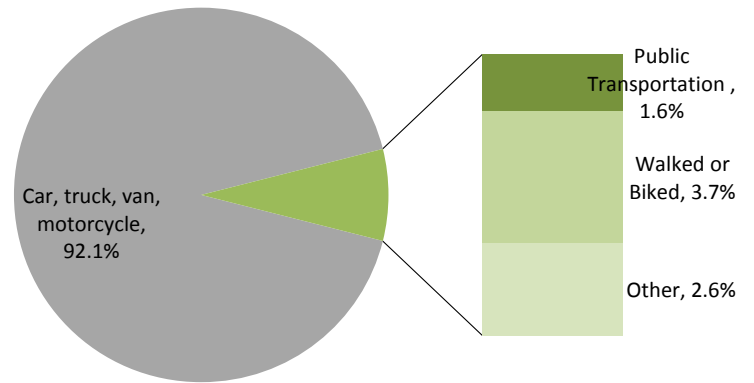
Commuting

The average commute time for workers who live in the city is shorter (17 minutes) than the average American or North Carolinian, who spent 26 and 24 minutes, respectively, commuting to work in 2013. This is likely in part due to Greenville's distance from other major metropolitan centers and its relatively small size. As the city continues to grow and increase the number of commuters, it has an opportunity to promote other forms of transportation as a method of maintaining short commute times, reducing congestion, improving safety, and promoting healthy living options.

Currently, the majority of workers commute via motorized vehicle. Only 3.7 percent of the population walked or biked to work and only 1.6 percent used public transportation in 2013. This pattern has detrimental impacts on public health and safety, infrastructure costs, and the environment. It also reduces mobility options for children, the elderly, disabled, and those without a car.

Greenville has an average of 1.61 automobiles per household and households drive an average of 21,000 miles, emitting 8.38 tons of greenhouse gas into the atmosphere.

Means of Travel to Work



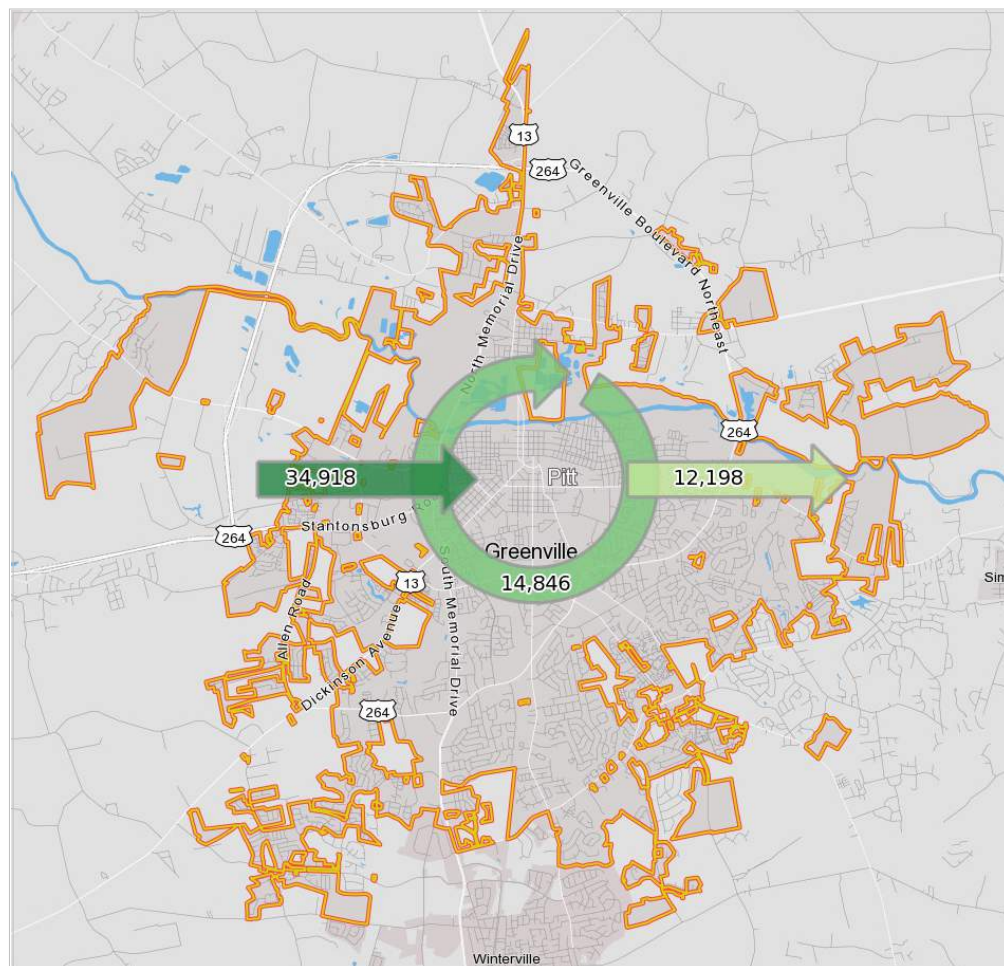
Intercity Commuting

Commuting patterns show that a large number of workers in Greenville commute into the city from their homes elsewhere. In fact, while nearly 15,000 workers in the City live within corporate limits and over 12,000 City residents commute to jobs outside of Greenville, nearly 35,000 workers commute into the City from other towns, cities, and unincorporated areas.

Collisions

Of the 100 counties in North Carolina, Pitt County is ranked number one as the county where traffic collisions are most likely. With 4,572 collisions in 2013 the county averages 318 crashes per 100 million vehicle miles traveled. AAA Carolinas ranked Pitt County the most dangerous county in the state for having traffic collisions of any type for the past six years.

Intercity Commuting



Walk Score

Walk Score measures pedestrian friendliness by analyzing population density and road metrics from Google, Education.com, Open Street Map, the U.S. Census, Localeze, and other data. Walk Score data is used by analysts and researchers in real estate, urban planning, government, public health, and finance. The algorithms and methodologies have been aligned with the latest academic research in walkability.

The City of Greenville has a Walk Score of 31 out of 100, making it a “Car-Dependent city.” In spite of this, there are several areas that are considered more highly walkable than others within the city, which are located near Uptown and ECU. The Uptown District has a Walk Score of 80. Other comparable cities include Chattanooga, with a Walk Score of 27, Columbia, with a Walk Score of 35, and Greenville, South Carolina with a Walk Score of 41.

Multimodal Transportation

Multiple studies have highlighted the effect of connectivity and block length on traffic flow and multimodal transportation patterns. Highly connected streets better disperse traffic flows, while short blocks slow traffic and

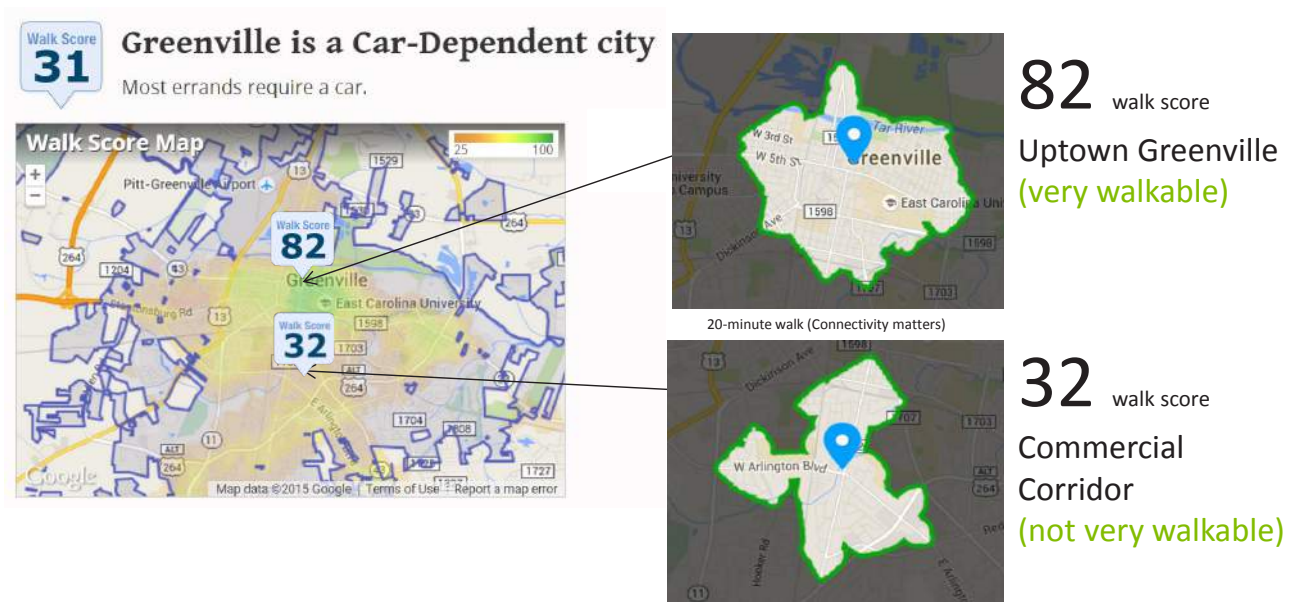
improve the street system for pedestrians and bicyclists. Early development patterns in Greenville reflected these patterns and included short, highly-connected blocks. Post WWII developments began including large disconnected blocks.

Street design is also an important component of multimodal transportation infrastructure. Wide streets, like Greenville Boulevard, create safety concerns for pedestrians, bicyclists, and motorists alike, while sidewalks, street trees, and adequate bicycle infrastructure improve the transportation options available to residents.

Adopted in 2011, the Greenville Urban Area MPO Bicycle and Pedestrian Master Plan outlines goals and strategies that aim to increase transportation options for Greenville citizens.

Transit

There are three separate bus operators in the City of Greenville. GREAT operates city-wide bus routes Monday through Saturday. Additionally, Vidant Medical Center and ECU provide bus service. This presents an opportunity to collaborate and expand services.



An aerial photograph showing a river meandering through a vast, dense forest. The river is a dark, winding line that cuts through the textured canopy of the trees. The forest appears to be a mix of deciduous and coniferous trees, with varying shades of green and brown. The river's path is irregular, with several sharp turns and loops. The overall scene is a natural, undisturbed landscape.

Natural Systems

As population continues to grow, so does Greenville's impact on the natural environment. Hazard mitigation and sustainable planning go hand-in-hand in a community like Greenville, located along a river, within close proximity of the coast, and containing a large portion of land within floodplains. This section briefly describes some existing conditions of the City's natural systems, which can also be found in Greenville's Tar River Legacy Plan.

Environmental Assets

The Tar River, a Class C river along its stretch within the study area is a critically important natural resource and makes up part of the Tar-Pamlico River Basin. The river plays an important role in Greenville by providing natural beauty, recreational opportunities, carbon sequestering plants, and drinking water intake. There are eight streams within the city including:

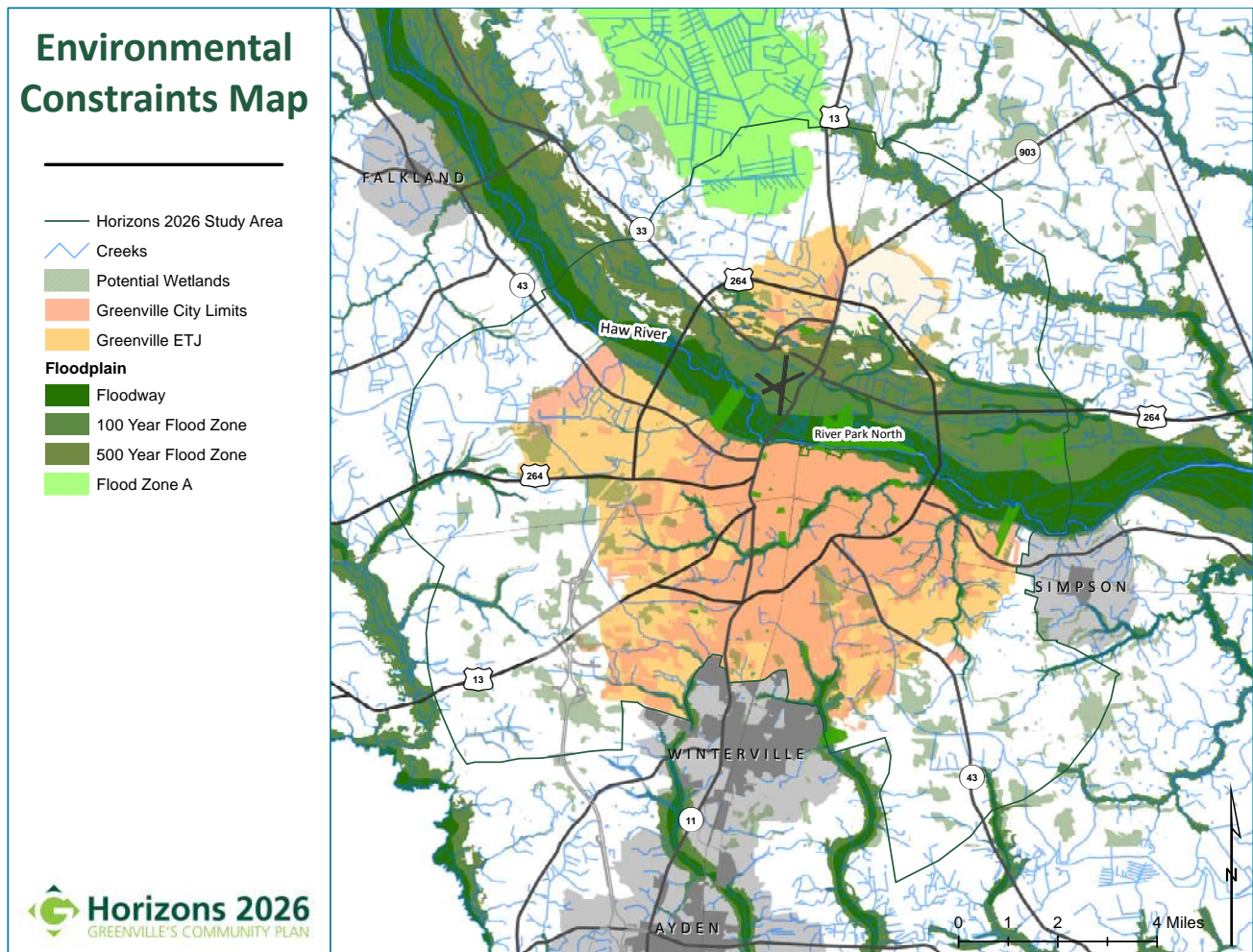
- Formes Branch
- Bryan Creek
- Bell Branch
- Meeting House Branch
- Schoolhouse Branch
- Sams Branch
- Parker Creek

- Sains Branch

There are also small lakes located within the study area including city owned lakes in River Park North and in the Phil Carroll Nature Preserve. Located throughout the community, wetlands provide natural habitats, flood protection, water filtration, runoff treatment, and other benefits.

The Environmental Advisory Commission (EAC), an advisory commission to the City Council, reviews environmental resources within Greenville, makes recommendations on environmental and sustainability issues, and offers programs to Greenville residents such as the EAC Grant Program, which provides funding for youth projects.

The Tar River Legacy Plan presents a vision and plan for improving the quality and accessibility of the Tar River and other local natural assets.



Stormwater Control and Hazard Mitigation

With increasingly volatile weather patterns, environmental conservation, stormwater control, and long-term hazard mitigation are growing in importance. Policies addressing each of these issues overlap. Greenville has experienced the consequences of flooding from storm events of various scales and impacts.

Leadership within the community, along with hazard mitigation planning, successfully limited and regulated development within hazardous and environmentally-sensitive areas. In Greenville there are over 11,500 acres of land with total building improvement values of approximately \$400 million located in vulnerable floodplain areas. The Neuse River Basin Regional Hazard Mitigation Plan includes strategies for the City of Greenville to protect existing and future developments, reduce flood damage, and enhance stormwater control measures.

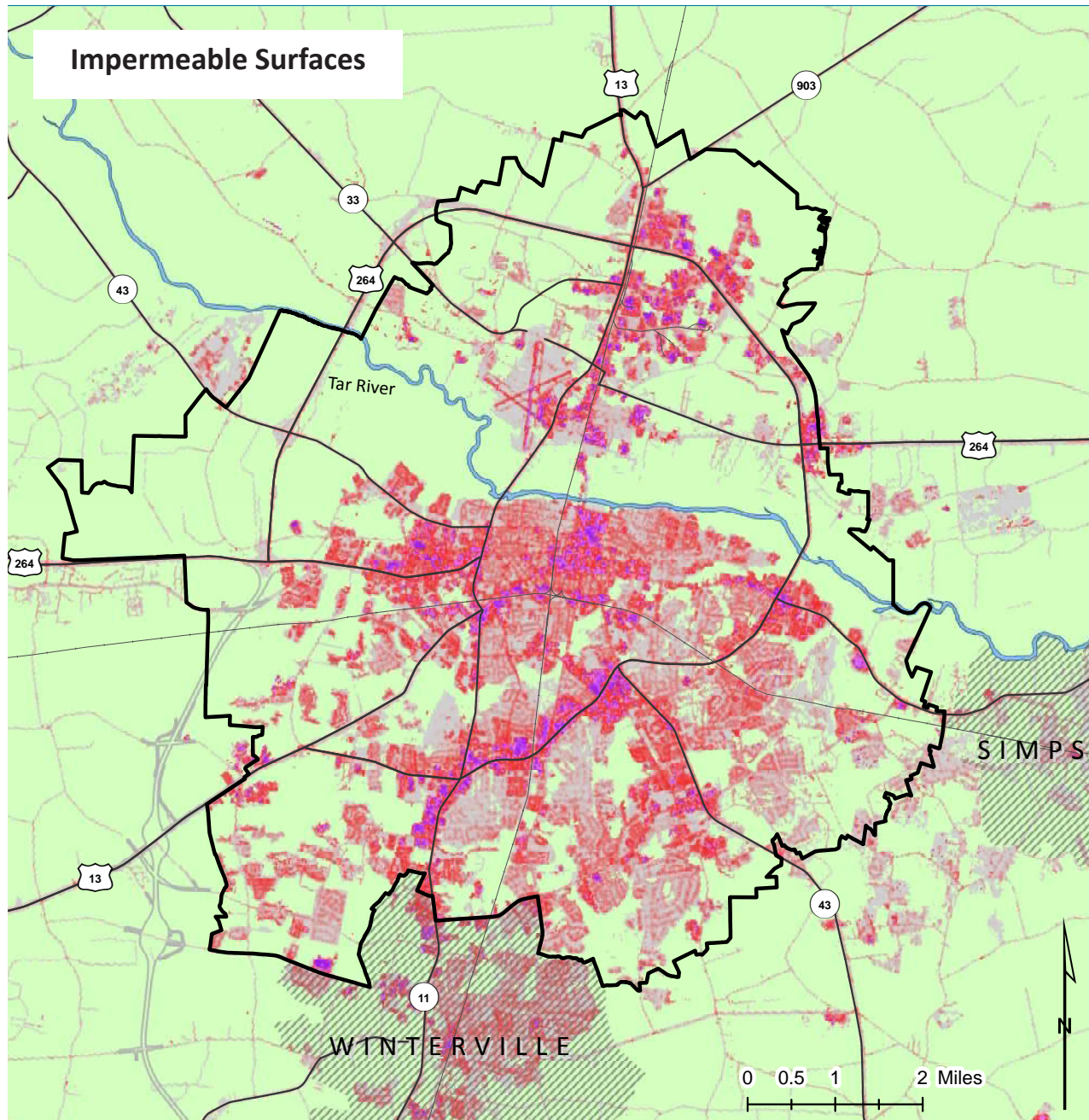
The Stormwater Advisory Committee implements a Stormwater Utility to support the city's comprehensive Stormwater Management Program to meet federal and state mandates for water quality protection, reduce the risk of flooding, improve existing stormwater facilities,

and engage the public. Revenue generated by the Stormwater Utility are derived from a fee charged to residential and non-residential customers based upon total impervious surface area located on their property. Revenue funds programs in order to comply with Tar-Pamlico Nutrient Management State Regulations and Federal National Pollutant Discharge Elimination System Regulations for water quality. It also supports maintenance of the City's drainage system, protects property damage from flooding, and improves streams and wetlands.



Impervious surface areas like large parking lots cause high velocity stormwater runoff, resulting in erosion and non-point source pollution that flows into the Tar River and Tar-Pamlico Sound.

Low density development tends to result in a large amount of per capita impermeable surface area, which can be detrimental to the watershed and Tar River and lead to high velocity stormwater runoff, nutrient loading, and non-point source pollution. High velocity runoff causes flooding and property damage and results in soil erosion and contamination. Nutrient loading in streams and wetlands can have detrimental impacts on water quality, fisheries, and the local ecosystem. Over time, this can also lead to negative impacts on economic development. The map showing impermeable surfaces shows a large amount of impermeable surfaces along major commercial thoroughfares where surface parking is a predominant feature.





Services and Utilities

Greenville provides its citizens with excellent services and utilities, according to the City of Greenville 2013 Citizen Survey, which surveyed residents across the city. This section reviews some of the services provided by the City of Greenville and how future growth and development may affect them.

Public Safety

Greenville's Fire Department comprises of 158 personnel that serve the city through six neighborhood based fire-rescue stations. Greenville's average of approximately 1.7 firefighters per 1,000 people is proportional to the national average within the United States.

The Greenville Police Department is a nationally accredited award-winning law enforcement agency of 186 sworn employees, that provides a full range of law enforcement services.



Utilities

The Greenville Utilities Commission (GUC) provides electric, water, sewer and natural gas services to the City of Greenville, and other customers within Pitt County. GUC is publicly owned but operates under a separate charter issued by the NC General Assembly. The eight-member board of Commissioners is responsible for approving rates, development plans, the annual budget, and setting operating and extension policies.

Greenville is a member of ElectriCities, which is a membership organization that consolidates many of the administrative, technical, legal, and legislative services needed by municipally-owned electric utilities and includes public power communities in North Carolina, South Carolina, and Virginia.

Water infrastructure

Currently, GUC operates a 22.5 million gallons per day (mgd) water treatment plant that was built in 1983 and upgraded in 2001. Water is supplied primarily from the Tar River, along with GUC aquifer storage and recovery. Total water available on any one day is 24.5 mgd. GUC sells to Greene County, Stokes Regional Water Corporation, and the Towns of Farmville, Winterville, and Bethel. Peak-day demand is approximately 10.8 mgd, leaving a surplus capacity of 11.7 mgd. Demand is projected to be approximately 60 percent of supply by 2030, meaning it has adequate supply for the long-term.

Wastewater infrastructure

GUC maintains over 480 miles of wastewater gravity and pressure pipeline infrastructure, including 28,000 connections and 36 pump stations. This network transports over 10 million gallons of wastewater per day to the wastewater treatment plant.

The wastewater treatment plant has a capacity of 17.5 mgd on a 700-acre site east of Greenville with a future expansion capacity of 35 mgd. Greenville is part of the Tar-Pamlico Basin Association.

GUC is currently able to provide landowners with wastewater service in areas throughout the City of Greenville, Greenville's ETJ, and some land outside of the Horizons 2026 Comprehensive Plan, as described in the 2012 Wastewater Master Plan. The water and wastewater capacities are adequate for future development through 2035.



Community Health

Access to healthy foods, safe transportation options, community health facilities, and other services for people of all socioeconomic backgrounds are critically important for improving and maintaining community health. This section reviews some existing conditions that may affect residents' health.



Leading causes of death

Rank	Leading Causes of Death	Pitt County	North Carolina
1	Diseases of heart	24.1%	21.4%
2	Cancer	20.2%	22.3%
3	Cerebrovascular diseases	4.6%	5.4%
4	Chronic lower respiratory diseases	4.3%	6%
5	Diabetes mellitus	3.9%	2.9%
6	All other unintentional injuries	3.8%	3.5%
7	Alzheimer's disease	2.7%	3.4%
8	Motor vehicle injuries	2.2%	2.3%
9	Nephritis, nephrotic syndrome and nephrosis	2.1%	2.1%
10	Influenza and pneumonia	1.60%	2.30%

Unhealthy behaviors

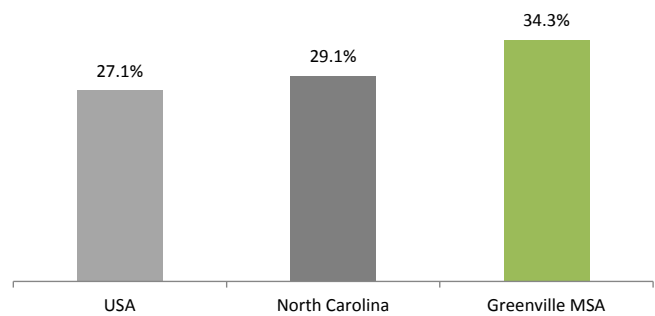
In Pitt County, only 16.8% of adults meet the Federal government's guidelines for fruit and vegetable consumption, which is lower than the national rate of 23.4%. More than 25% of Pitt County adults report eating fast food four or more times per week. Additionally, only 42% of Pitt County adults reported that they met the recommended 30 minutes or more of physical activity at least five days a week, and 20.5% of adults in the county reported no physical activity in the last 30 days.

Overall, 72.7% of adults in Pitt County are overweight or obese, and more than one in three children in Pitt County is overweight or obese. Poor diet and physical inactivity contribute to the obesity problem.

Access to Healthy Foods

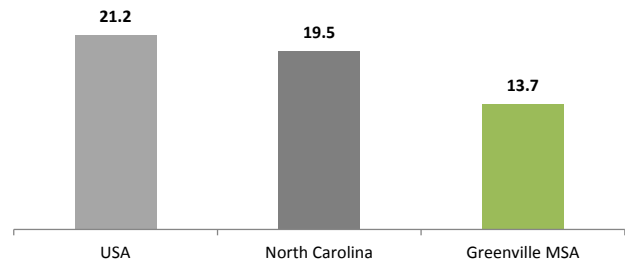
Some areas within Pitt County lack access to healthy foods provided by grocery stores and farmers markets while containing an above-average number of fast-food establishments. The city, together with the county and other nonprofits, have taken steps to improve health in the community, like offering urban farming opportunities for locals.

Percent Adults with BMI > 30 (Obese)



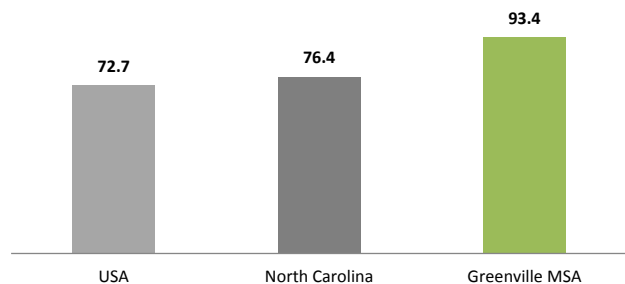
Grocery Store Establishments per

100,000 Population



Fast Food Establishments per

100,000 Population



Accessibility to Parks, Greenways, and Schools

The built environment impacts the way children and adults are able to access educational opportunities at schools and recreational opportunities at parks and greenways. This section measures the accessibility of these important community resources to city residents.



School Accessibility

Seventeen public schools fall within the Horizons 2026 planning area. These schools are part of the Pitt County Schools system, which includes a total of 37 schools throughout the County. Students also have valuable opportunities to take high school and college-level classes at Pitt Community College

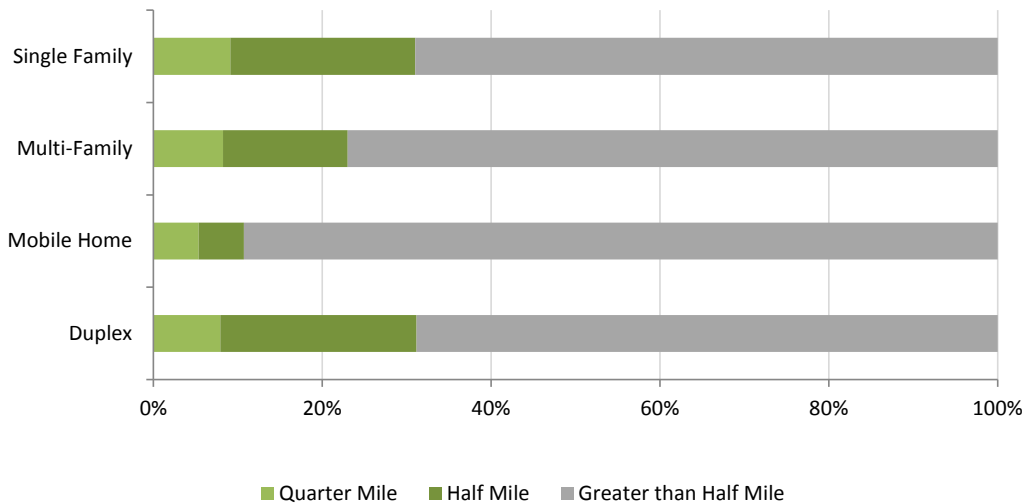
Traditionally, schools have been located on small or medium-sized lots, within residential neighborhoods, and connected to sidewalk networks. Over the past half century, new schools

grew in size and on larger sites in neighborhoods with less connectivity than previously.

Throughout the country, cities have seen the proportion of school children walking to school decrease significantly, while at the same time experiencing increasingly dangerous roadways and growing rates of obesity in children under the age of 18, in part due to a decrease in physical activity, including utilitarian exercise.

Today, most residential land is not located within walking (1/4 mile) or biking (1/2 mile) distance of a school.

Residential Land Within Walking and Biking Distance to School



Less Accessible Urban Fabric



Highly Accessible Urban Fabric



Parks and Greenways Accessibility

Parks play a role not just in providing recreational opportunities, but also in recruiting a high quality workforce, improving public health and quality of life, improving air quality, decreasing crime, and producing other positive outcomes.

Greenways can provide both for recreational purposes and transportation to meet daily needs,

like commuting to work or school. The City of Greenville has increased its supply of Greenways and plans to expand and improve the existing network.

Access to parks and greenways is greater in Greenville than to schools, but most residential property is not within walking or biking distance to a park or greenway.

Residential Property within Walking Distance of a Park or Greenway

