



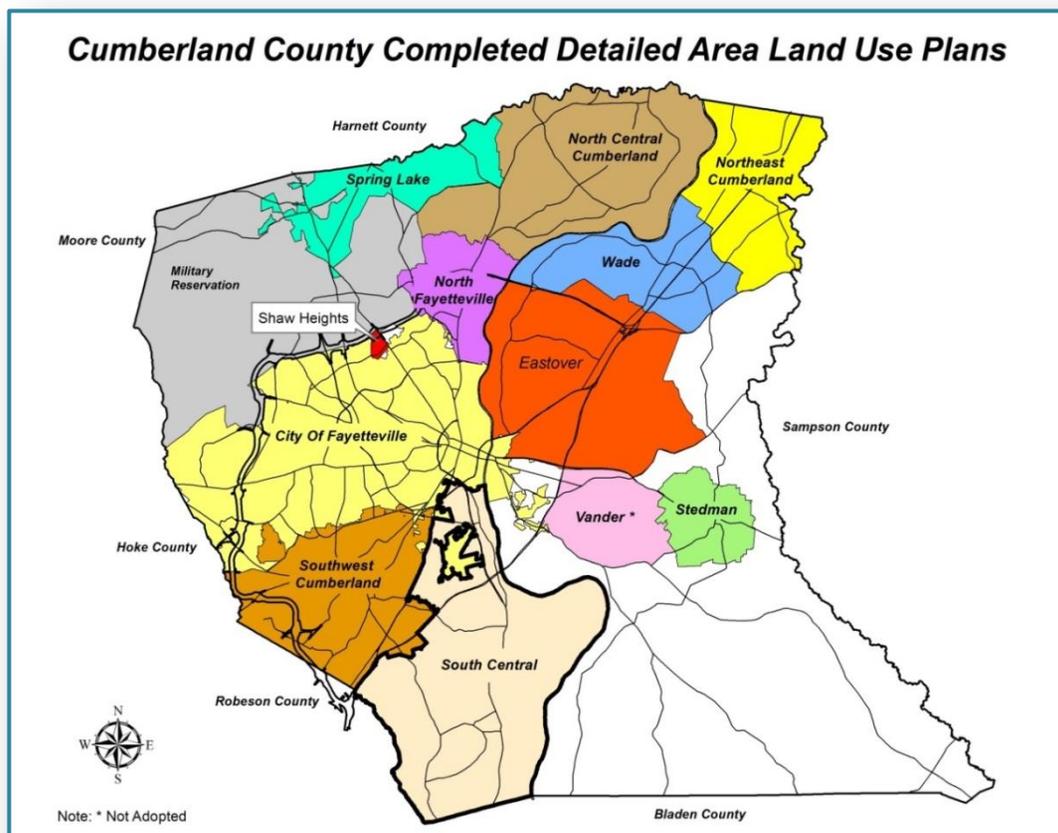
SOUTH CENTRAL LAND USE PLAN

MARCH 2015

PREFACE

The South Central Study Area Land Use Plan is part of a continuing effort by the Cumberland County Joint Planning Board to develop detailed land use plans for the entire County and all the jurisdictions that are part of the Joint Planning Board. South Central is the eleventh area in this effort. These detailed plans supplement the Cumberland County 2030 Growth Vision Plan, adopted in April 2009. While the policies and actions in the 2030 Plan are still valid and provide a framework for the future, detailed land use plans address and updates the Cumberland County 2030 Growth Strategy Map. Additionally, the detailed plans serve, along with the Land Use Policies Plan, as a tool to help the Planning Board and the various governing bodies make planning and zoning decisions. It should be noted that this Plan may be changed, modified, or altered if the basis for some or all of the land use decisions made within this document changes in the future. Factors that may precipitate this change include; but are not limited to, the extension of public or community water and sewer, road improvements or changes, the construction of a school or public facility, changes in the economic climate, land use policy changes, or the location of major employment in or near the area.

This report is intended to provide a snapshot of the existing community conditions and social characteristics; isolate natural conditions and constraints; engage the residents and stakeholders to developing a shared vision; and provide a framework to guide future development for the Study Area officially defined as South Central Cumberland County.



INTRODUCTION

The South Central Study Area is located in the south central portion of the County. It consists of over 44,714 acres containing a population of approximately 16,422 persons. The Fayetteville Regional Airport property and the Crown Coliseum Complex, which are within the City Limits of Fayetteville, are not part of this Study. While these entities are not part of the Study Area, their influence on the surrounding properties requires the Plan to address them. It is not the purpose of this Plan to attempt to provide detailed plans for these facilities, but to show how their impact could enhance and influence the area surrounding them.

The South Central Study Area can be defined as the Fayetteville City Limits to the north, Business 95/ U.S. Hwy. 301 South to the west, Robeson and Bladen Counties to the south, and the Cape Fear River to the east. The Study Area includes all of Census Tracts 15, 30.01 and 30.02 and portions of Census Tracts 2 and 5. The southern portion of the Area is primarily rural in nature while the central and northern portions are more urban. The Area also includes a portion of the Cumberland County Industrial Center, the Wal-Mart Distribution Center, the DuPont Plant tract, and large farming operations.

There are some unique natural features considered rare for the coastal plain region. These features include the steep bluffs and terraces along the Cape Fear River, Rockfish and Willis Creeks, mountain vegetation, and the Carolina Bays.

There has also been significant growth within the Study Area. Population growth has increased approximately 95% between 1990 and 2010. It is projected that the population will increase approximately 32% by 2030. Housing in the Area between 1990 and 2010 grew by 103% and based on past growth it can be assumed that 700 new homes could be constructed by 2020.

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PROCESS

The process used to develop the Plan consists of four distinct phases which include:

1. compiling data and analyzing existing conditions,
2. citizen involvement,
3. Plan development
4. Plan adoption.

The initial phase of the process began with the Planning Staff collecting and analyzing data about the Study Area. This data included, but was not limited to, natural features, infrastructure, built features, existing plans, political issues, demographics, and economics.

The second phase in the process involved public participation. There were public participation opportunities for all residents before and after the draft Plan was completed. This phase was initiated with a Vision Session with the area residents. The residents' responses, along with a questionnaire and vision response form were recorded and compiled. In addition, at the Vision Session residents were to ask to volunteer to serve on the South Central Citizens Planning Committee. This Committee's responsibility was to develop the Plan with Planning Staff facilitation.

The third phase in the process consisted of developing a draft Plan. Over the course of several months, the South Central Citizen's Planning Committee met and developed goals and objectives for various land use types, a proposed land use plan map, and other recommendations necessary to achieve the community's vision. After the Committee completed the draft Plan, the Plan was presented to the residents for their comments and review, as well as to gather feedback. After the second residents' meeting, the Committee met and finalized the Recommended South Central Land Use Plan.

The fourth phase in the process is plan adoption. The Plan will be presented to the Cumberland County Joint Planning Board at a public hearing for consideration. The Planning Board recommendation will be forwarded to the Cumberland County Board of Commissioners for adoption.

PUBLIC INVOLVEMENT

TOP 5 QUALITY OF LIFE FACTORS

1. Police/Fire Protection
2. Education
3. Air & Water Quality
4. Protected Farmland
5. Community Appearance

NUMBER OF MAN HOURS

422

CITIZENS INVESTED TO CREATE THIS PLAN

SCHOOLS WELL-KEPT DIVERSITY
QUIET RURAL TREES PEACEFUL
CROWN COLSEUM CLOSELY-KNIT
NICE PEOPLE COMMUNITY AGRICULTURE

Public involvement was the cornerstone for creating a vision for the Study Area and occurred throughout the planning process. In the beginning, over 7,000 letters were sent to property owners in the Study Area to inform them of the study and inviting them to the Vision Session meeting.



These letters were supplemented by public notices in print publications and by using Cumberland County's Emergency Management's Code Red System, a subscription based notification system in which 3,401 phone calls, 435 texts, and 661 emails were sent out.

A Vision Session was conducted with the citizens of the Study Area on September 24, 2013 at Gray's Creek Middle School. A brief summary of the Study Area existing data gathered by the Planning

Staff was presented. Over 200 persons attended the meeting.

These attendees were asked three questions:

1. What would you like the Area to look like in the future?
2. What are the existing assets now that can help you obtain that future?
3. What are the current liabilities in the Area now that hinders that future?

Questionnaires and a vision response form were distributed. The Staff also created an online questionnaire and vision response form through Survey Monkey as an additional option for public input. The residents' responses, along with the questionnaires and vision response forms were recorded and compiled. The purpose of the questionnaire and vision form was to gather the attendee's opinions on issues and concerns in the Area. The final action at the Vision Session was to ask for volunteers to serve on a South Central Citizens Planning Committee to develop the Plan.



The Vision Session, Questionnaire, and Vision Response Form data gathered were compiled and summarized. The following responses are listed as submitted:

What Would You Like The Area To Look Like In The Future? (Future Vision)

- Affordable water and sewer
- Better transit
- Controlled growth
- Find out how to pay for additions
- Deactivate the Sheriff's Department
- Family-centered services (dance, recreation centers run by Gray's Creek)
- Preservation of wildlife habitats and open space
- Neighborhood watch
- New mall at I-95
- Animal parks (vets, etc.)
- Sheriff substation
- 2 acre lot size - minimum
- Restaurants
- Parks and pool
- Additional hospital
- Grocery stores
- Library
- Sidewalks
- Incorporate Gray's Creek
- Maintain country atmosphere
- Better street signage
- No increase in property taxes
- Improvements on Yarborough Road
- Improvements on Braxton/Chicken Foot/Sandhill Roads intersection
- Post Office
- Hotel off the I-95
- Target
- Eliminate unsightly telephone poles (underground utilities)
- If you want urban services, move there
- Improvements around Crown Coliseum and more events for the general public
- No more industrial zoning
- Interagency agreement between the City, County and Hope Mills that they will not annex Gray's Creek
- Have a Cumberland County address if you live in the area
- Wal-Mart/Lowe's Supercenter



What Are The Existing Assets In The Area That Helps Obtain That Future?

- Country
- Good the way it is
- School system
- Hall Ballpark
- Clean air – natural vegetation
- Diversity of wildlife
- Community
- Peace and quiet
- Residents
- Agriculture
- Cape Fear River
- Fire Department
- Grandson's Restaurant
- Lower crime rate
- Golf course
- Grays Creek Recreation Center
- The diversity of people in Study Area
- Visible stars in the sky
- No tall buildings
- Peace and quiet
- Existing forest
- Not Fayetteville
- Horse stables
- Circle M Farms
- Less traffic
- Christian center and churches
- Ruritan Club



What Are The Current Liabilities In The Area That Hinder That Future?

- Savvy Homes – box houses (homes built with no amenities)
- Residential areas are being used as thoroughfares
- Dam on Canady Pond needs to be repaired
- Animal control
- Litter – especially along roads
- Little to no police protection – slow response times
- Poor private trash pickup
- Too much drug traffic
- Lack of control of urban and industrial sprawl

- No control of types of houses - built close together (i.e. differing prices)
- Trespassing on private property
- Chicken Foot Road needs to be improved

As mentioned above, a questionnaire and a vision response form was distributed at the Vision Session to supplement the public meeting comments. Data from these forms were compiled. The vision response forms showed that residential, commercial, and community facilities/services were the top future visions of the group. In general, existing community facilities/services, residential, and open space were viewed as good, while existing transportation, land use/development, and community facilities/services were commonly viewed as the worst issues existing in the area. On the surface of this data one would think the residents are in disagreement on their assessment of the Study Area. This may be due to the diversity in the area or whether they live in an urban or rural environment. It was agreed, however, that these facilities and services need improvement.

The compiled questionnaire data showed that the profile of the attendees were evenly split between male and female, that the vast majority was 35 years old or older, mostly white, retired, homeowners, and have lived in the Study Area over 20 years. The majority of attendees felt that there was a “good” quality of life in the Study Area and agreed that schools, housing, fire protection and air and water quality are items that should be listed as ‘good’ in Area. This data revealed that libraries, shopping facilities, job opportunities, and bus service were the most deficient issues in the Area. It was a consensus that police and fire protection, education, air and water quality, community appearance, and the economy are all indicators that positively impact the quality of life in the South Central Study Area.

The South Central Citizens Planning Committee was created and 53 persons volunteered to serve. All Committee meetings were open to the public and held at the Gray’s Creek Recreation Center. The first meeting of the Committee entailed the Planning Staff teaching a short course in land use planning, property rights, and an explanation of their task and the final product.

The Committee’s first order of business was to develop the Goals & Objectives for the various land uses applied on the land use plan map. After developing these goals and objectives, the Committee was split into two groups to develop their proposed land use plan map. Once the two groups completed their individual group maps, they were presented to the entire Committee. The Committee considered the recommendation from each group and developed a consensus map, along with other recommendations, that constituted the Committee’s Proposed South Central Land Use Plan.

The Planning Committee’s proposed South Central Land Use Plan was presented to the Study Area citizens at a public meeting held on October 9, 2014. This meeting allowed citizens an opportunity to give feedback on the proposed Plan. Comments from the residents were recorded and considered by the Citizens Planning Committee at their next meeting. The Committee’s changes became the official plan recommended to the Planning Board. Residents had two additional opportunities for further input on the Plan

at public hearings held by the Cumberland County Joint Planning Board and the Cumberland County Board of Commissioners.



EXISTING CONDITIONS

Population
16,422
as of 2010

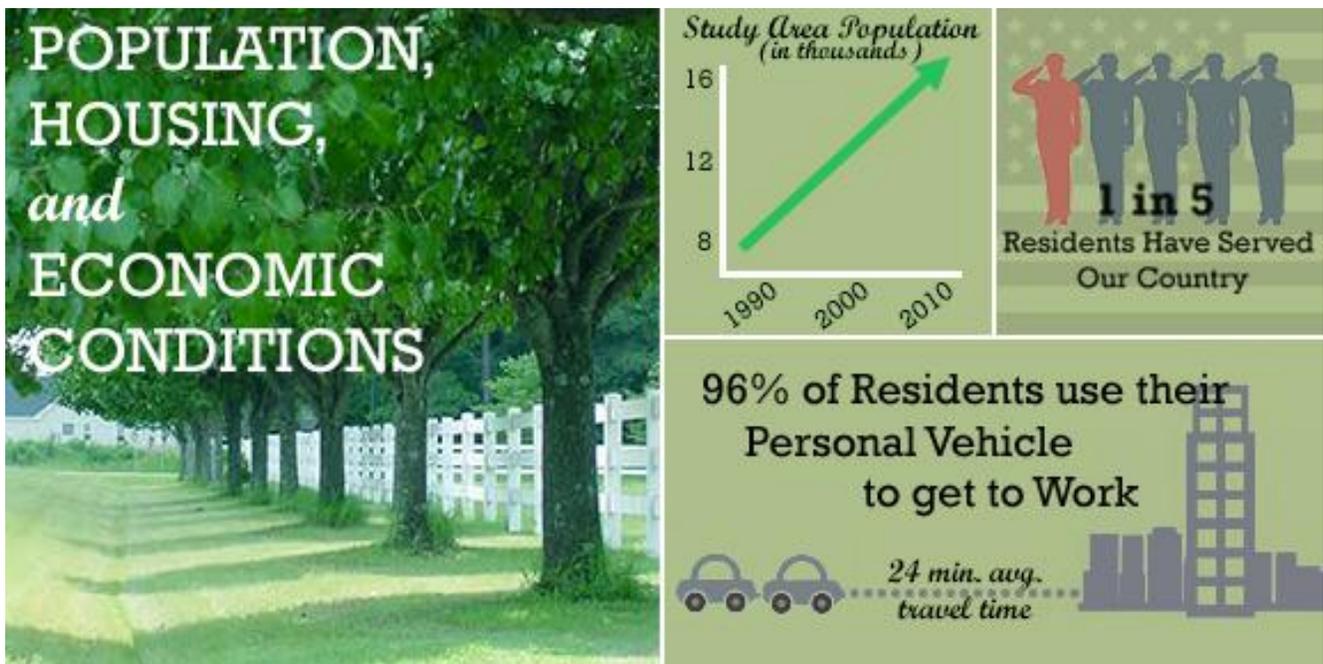


EDUCATIONAL ATTAINMENT

Number of those with a College Degree



2010
AVERAGE
\$49,621
HOUSEHOLD
INCOME



The first task in developing a plan requires reviewing, analyzing, and understanding of existing demographic, housing, economic, natural, and the built environment conditions. Knowing these conditions allows for the identification of opportunities and constraints facing the Study Area. Demographic data looks at population, population characteristics, and population projections. Housing examines the number, condition, type, growth rate, occupancy, ownership, and projection of the housing stock in the area. Economic conditions include the assessed value of property, income, employment, major employers, agricultural interests, outside economic influences and economic trends. Natural conditions are natural features that impact the Area such as soils, flood hazard areas, hydric soils, septic tank suitability, topography, environmentally sensitive areas, endangered species, and etc. The built environment consists of action that are the results of human activity such as zoning, existing land use, utilities, the road network, and community facilities.

POPULATION

Population data for the Study Area is taken from previous and current Census data at the tract and block level. An additional data source was the Transportation Analysis Zones (TAZ). TAZ's are a basic geographic unit usually comprised of Census block groups used in transportation planning for inventorying demographic and land use data. Using the current Fayetteville Area Metropolitan Planning Organization's (FAMPO) Population and Economic Study 2010 - 2040, October 2013, and matching TAZ boundaries to our current study boundary, assists in projecting future population growth within the Study Area.

The South Central Study Area encompasses three complete Census tracts: Tracts 15, 30.01, and 30.02; and contains a very small portion of Tracts 2 and 5. Tracts 30.01 and 30.02 were split from Tract 30 for the recently completed 2010 Census. Therefore, in places throughout this document, data from Tracts 30.01 and 30.02 were recombined to match data available from the 2000 Census.

Exhibit 1 - Population Change, 1990-2010 shows the twenty year population change in the Study Area and Census Tracts compared to the overall County. The 2010 U.S. Census indicated that 16,422 people resided in the South Central Study Area. The Study Area, between 1990 and 2010, grew by 7,983 persons, representing a growth of 95%. Comparatively, Cumberland County only grew by 16% over that same time period, making the South Central Study Area a rapidly growing community within the County. More specifically, Tract 30 grew by approximately 7,714 persons, easily the highest growth tract within the Study Area. Since the tract was split for the 2010 Census, it is impossible to know how much growth tracts 30.01 and 30.02 received over this same

Exhibit 1 - Population Change , 1990-2010

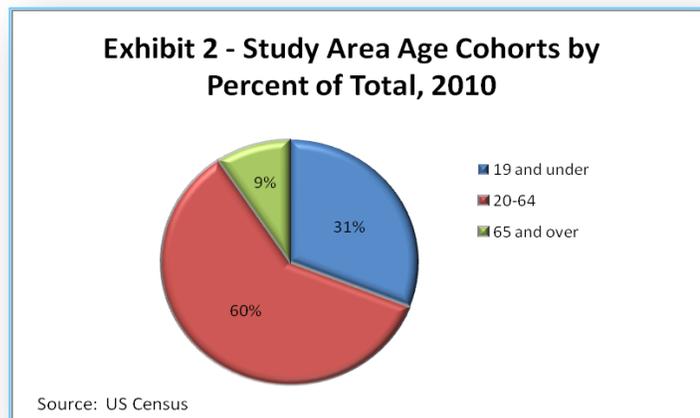
	1990	2000	2010	1990-2010	
				Number Change	Percent Change
County	274,566	302,963	319,431	44,865	16%
Study Area	8,439	12,433	16,422	7,983	95%
Tract 15	2,644	2,786	2,863	219	8%
Tract 30	5,845	9,647	13,559	7,714	132%

Source: US Census

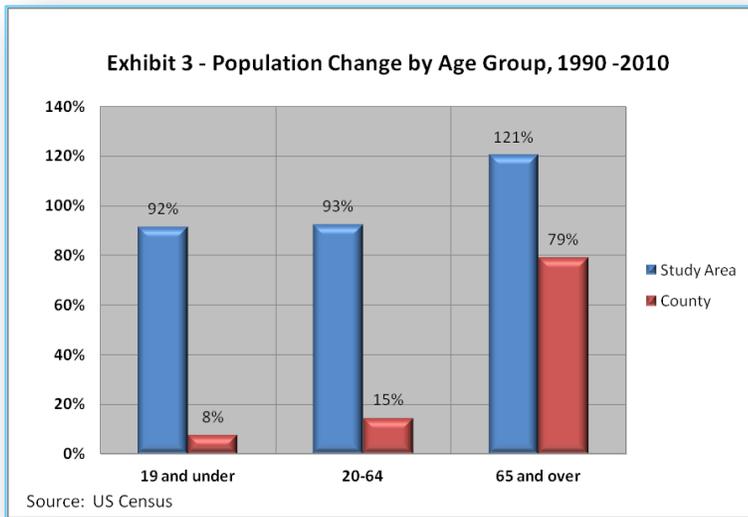
time. Using block group data, we can conclude that the majority of the growth over the past 20 years has occurred in tract 30.01. The concentration of the

population in the Study Area is illustrated in **Map 1 - South Central Area Population Density with Census Tracts**. Using 2010 block-level census data, shows the concentration and approximate location of the population. The largest agglomerations of dots are found west of the Fayetteville Regional Airport and west of N. C. Highway 87 South the along southern part of Chicken Foot Road, meaning that is where the population is concentrated. Areas east of the Martin Luther King Jr. Freeway/N.C. Highway 87 South and west of the Cape Fear River remain less dense than other parts of the Study Area.

Cohort information for 2010 shows that 5,082 (31%) persons comprise the 19 and under cohort, 9,803 (60%) persons are between 20-64 years of age (adults of working age), with the remaining 1,537 (9%) persons aged 65 and over as illustrated in **Exhibit 2 - Study Area Age Cohorts by Percent of Total, 2010**.



A comparison of the three age cohort's change over a twenty year period for the County and the Study Area is reflected in **Exhibit 3 - Population Change By Age Group, 1990-2010**.



Growth in the study area has increased in each age cohort, with the most growth coming from persons aged 65 and over. The 65 and over group grew by 121%, while the 20-64 age group grew by 93% followed by 92% for the 19 and under age group. Those aged 65 and over have more than doubled over that same time frame, indicating a rapidly aging population or an area that is drawing this age cohort.

Comparatively, growth within these three cohorts in Cumberland County is relatively stagnant, with the biggest growth coming from the 65 and over cohort, again, pointing to an aging population.

According to FAMPO's Population and Economic Study 2010-2040, October 2013, the South Central Study Area is expected to grow, although not at the rate seen from 1990-2010.

Exhibit 4 - 2030 Population Projections

	2010	2030	Change	
			Number	Percent
County	319,431	396,665	77,234	24%
Study Area	16,422	21,733	5,311	32%
Tract 15	2,863	5,797	2,934	102%
Tract 30	13,559	15,936	2,377	18%

Source: US Census, FAMPO

Exhibit 4 - 2030 Population Projections

shows that through the year 2030 there will be an estimated increase of over 5,300 persons in the Study Area, a 32% increase. Growth in the Study Area is also projected to outpace that of the County, but that growth is expected

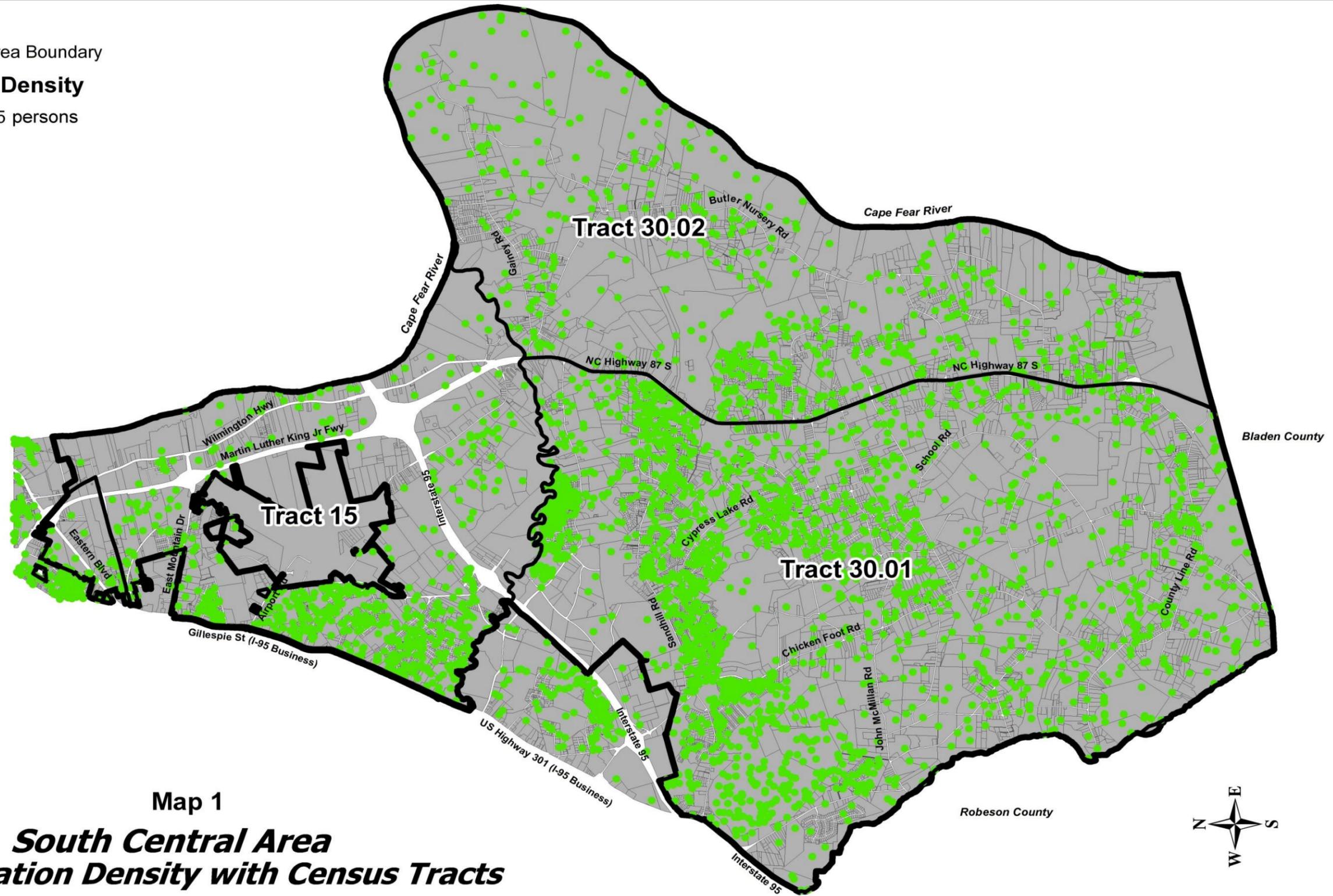
to slow significantly as it compares to growth from 1990-2010 (95%).

The most growth in the Study Area is expected to happen in Tract 15. Population projections for the year 2030 in Tract 15 is expected to more than double while growth in Tract 30, which had massive growth from 1990-2010, is projected to have a modest increase.

— Study Area Boundary

Population Density

● 1 Dot = 5 persons



Map 1
**South Central Area
Population Density with Census Tracts**

Prepared By: Cumberland County Comprehensive Planning, September 2014

Population characteristics examined also included the education of the population. **Exhibit 5 - Educational Attainment for Population 25 years of Age and Older, 2010**

illustrates educational attainment for population 25 years of age and older for the South Central Study Area, and compares those results with the County as a whole. The data shows that approximately 34% of the population within the Study Area have received their High School Diploma (or equivalent), compared with only approximately 27% in the County. Additionally, approximately 23% of the population aged 25 and over has attended some college, while in the County its approximately 28%. The County slightly outgained the Study Area in the approximate percentage of those who have bachelor's degree and have gone on to pursue graduate or professional degrees.

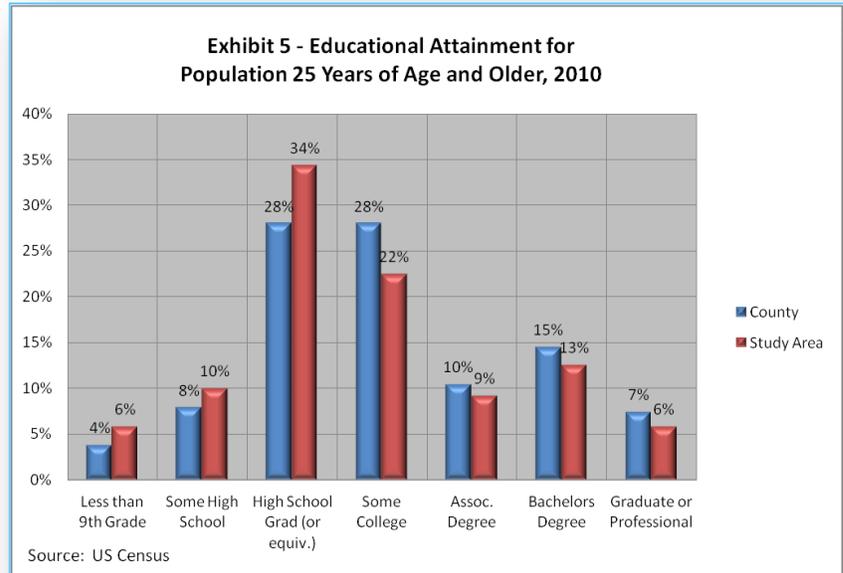
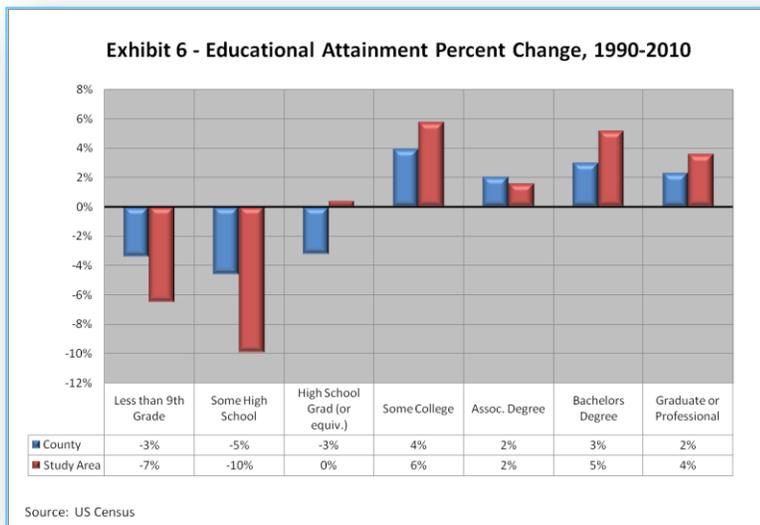


Exhibit 6 - Educational Attainment Percent Change, 1990-2010 illustrates trends in educational attainment for those aged 25 and older from 1990 to 2010. This data shows the Study Area has seen a large drop in persons that have not completed high school. Over that same time, those who have attended some college and persons with an associate's degree have increased by 6% and 2%, respectively. The largest gains in educational attainment, however, are seen in those that have completed their bachelor's degree or graduate degree. These two groups have increased over the 20 year



period and have outpaced the growth of the County as a whole.

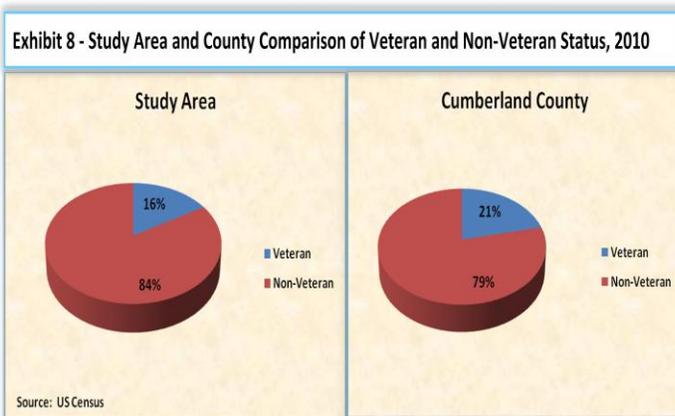
Exhibit 7 - Comparison of Household Size, illustrates household size in the Study Area and the County. Approximately 32% (1,884) of the households within the Study Area and the County (39,012) are 2-person households, followed by 3-person households at 21% (1,220) in the Study Area and 19% (23,098) in the County.

Exhibit 7 - Comparison of Household Size

Household Size	Study Area		County	
	Number	Percent	Number	Percent
1 Person Household	1,072	18%	32,456	27%
2 Person Household	1,884	32%	39,012	32%
3 Person Household	1,220	21%	23,098	19%
4 Person Household	1,001	17%	16,447	13%
5 Person Household	444	8%	7,247	6%
6+ Person Household	249	4%	4,171	3%

Source: US Census

The number of 1-person household in the Study Area is 18% (1,072) compared to 27% (32,456) in the County. The number of 4-person households ranges from 17% (1,001) within the Study Area to 13% (16,447) in the County. Households with 5-person households accounts for 8% (444) of the Study Area compared to 6% (7,247) for the County; the 6 to 7 person households comprises approximately 4% (249) in the Study Area and 3% (4,171) in the County. The Study Area has a significantly lower one-person households than the County.



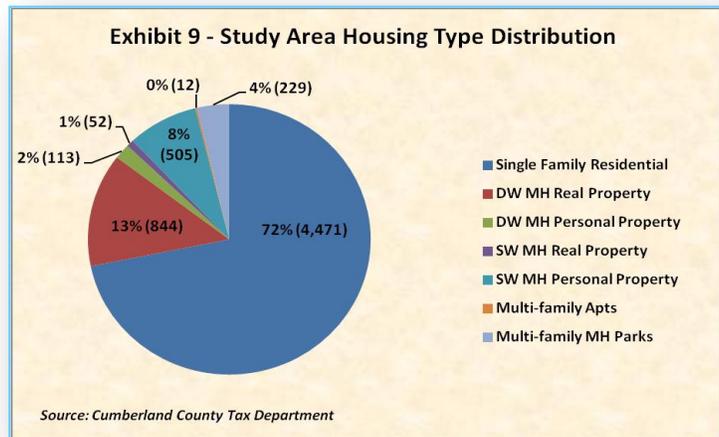
Population characteristic examined also included the veteran status of the residents in the Study Area. According to the 2010 U.S. Census, as illustrated in **Exhibit 8 - Study Area and County Comparison of Veteran and Non-Veteran Status, 2010**, shows that approximately 16% (1,716 persons) of the population in the Study Area are veterans; compared to 21% (43,099 persons) in the County.

HOUSING

Housing is another factor examined when assessing the existing conditions in the Study Area. Some of the housing data examined include the number, type, vacancy rate, ownership, and condition of the housing stock. According to Cumberland County Tax Department records, there are approximately 6,226 residential structures in the Study Area.

Exhibit 9 - 2010 Study Area Housing Type Distribution

shows that approximately 86% (5,367) of these residential structures are classified as single family real property. Single family real property consists of stick-built homes, modular, and manufactured homes (single or doublewide) placed on a permanent foundation. The composition of the single family residential real properties include 4,471 stick built, 844 doublewide and 52 singlewide homes. Manufactured homes not placed on a permanent foundation are classified as personal property and account for 10% (618) of the total single family units consisting of 113 doublewide and 505 single wide manufactured homes.



Multi-family residences account for approximately 3.9% (241) of the residential structures in the Study Area. These multi-family structures consist of 12 apartment homes and 10 manufactured homes parks containing approximately 229 units.

The general condition of the housing stock was also examined. The source of this data was from County Tax Department records. According to these records, there are approximately 54 single family real property residential structures classified as poor or unsound. There are no statistics for housing classified as personal property, so the number of properties that are poor or unsound is potentially much higher.

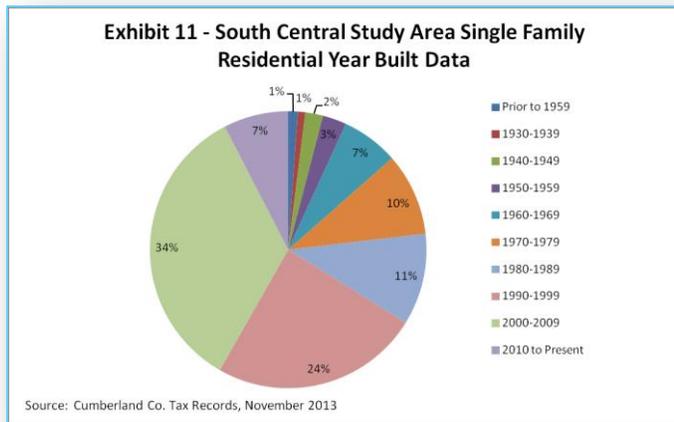
The number of housing units has grown steadily throughout the South Central Study Area over the past 20 years. According to **Exhibit 10 - Housing Growth, 1990 - 2010** shows that housing has grown by approximately 3,195 units, to a total of 6,296 units.

This represents a 103% increase, well above the 20 year growth rate of 38% for the County. Upon closer examination, the vast majority of the growth in the Study Area has occurred in combined Tract 30. Housing units grew at a pace of 150% over 20 years, while only a 14% increase was seen in Tract 15 over the same period.

	1990	2000	2010	1990-2010	
				Number Change	Percent Change
County	98,360	118,425	135,524	37,164	38%
Study Area	3,101	4,918	6,296	3,195	103%
Tract 15	1,072	1,200	1,224	152	14%
Tract 30	2,029	3,718	5,072	3,043	150%

Source: US Census, Cumberland Co.

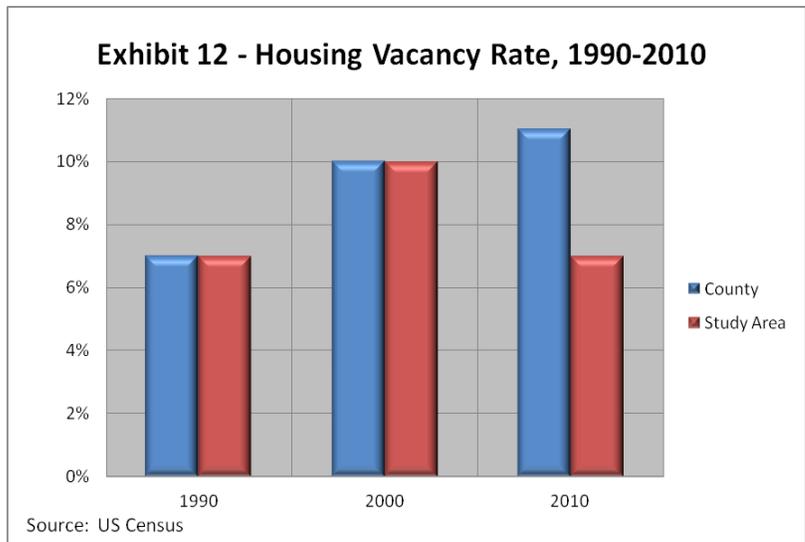
Map 2 - Single Family Residential Structures Year Built and Exhibit 11 - South Central Study Area Single Family Residential Year Built Data illustrates the year housing stock in the Study Area was built.



According to Cumberland County Tax Department records, approximately 66% of all single-family residential units were built during or after 1990. The largest housing boom occurred between 1990-1999 when over 1,800 homes were built. There were approximately 404 houses built between 2010 and 2013. Based on current growth, and if we assume that growth continues at its current

rate, there will be approximately 700 additional homes added in the Study Area by 2020.

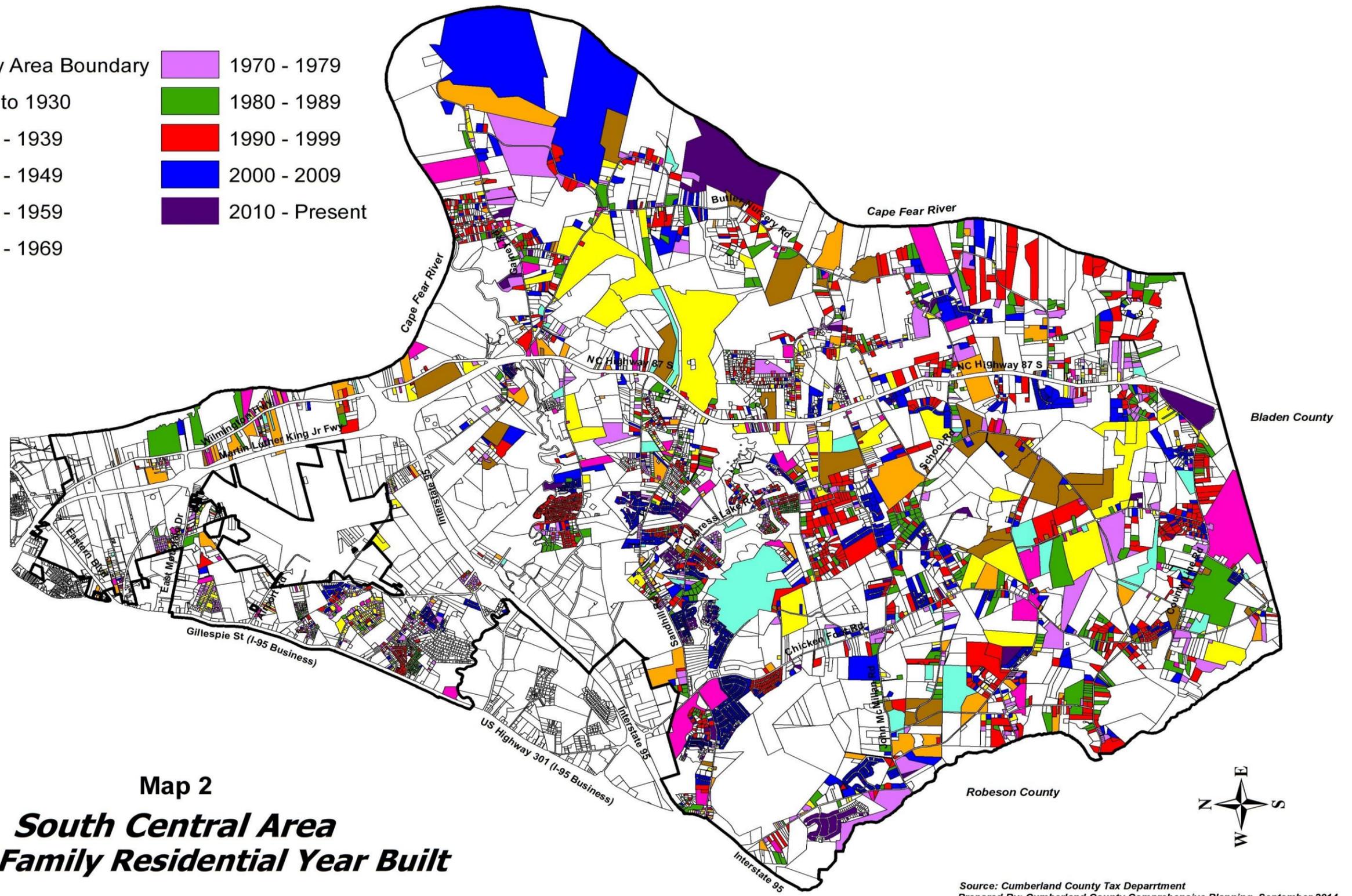
Housing vacancy rates for the Study Area have fluctuated in the last twenty years. **Exhibit 12 - Housing Vacancy Rate, 1990-2010** shows housing vacancy for the Study Area and the County between 1990 and 2010. In 1990, there was a 7% housing vacancy rate in the Study Area and the County. The vacancy rate peaked in 2000 at 10% for the Study Area and the County. In 2010 the vacancy rate dropped to 7% for the Study Area, while the County rose to 11%.



The ratio of owner and renter occupied housing, within the Study Area is important in assessing the health of the housing market. According to 2010 Census data, owner-occupied housing units comprises approximately 80% of the total occupied housing stock within the Study Area; whereas owner-occupied accounted for 56% in the County. The owner-occupied rate from 1990-2010 has stayed relatively static for the Study Area and County, fluctuating around 3% during the period.

Legend

- Study Area Boundary
- Prior to 1930
- 1930 - 1939
- 1940 - 1949
- 1950 - 1959
- 1960 - 1969
- 1970 - 1979
- 1980 - 1989
- 1990 - 1999
- 2000 - 2009
- 2010 - Present



Map 2
South Central Area
Single-Family Residential Year Built

Source: Cumberland County Tax Department
 Prepared By: Cumberland County Comprehensive Planning, September 2014

ECONOMIC CONDITIONS

Economic conditions provide a window into to the economic health of the Area. In order to understand how the economy in the Study Area relates to the overall County, economic data was gathered for the Study Area and the County. Economic conditions included the assessed value of the property, employment, occupations, agricultural conditions, population income, poverty status, and major employers.

According to the Cumberland County Tax Records, the total assessed property values of the County is \$19,296,330,127 compared to the Study Area's \$1,164,792,611, or approximately 6% of the County Total. The composition of the Study Area's assessed values shows that \$991,326,791 for single family residential, \$399,200 for apartments, \$2,592,484 for manufactured home parks, \$151,297,024 for commercial, and \$19,177,112 for industrial as shown in **Exhibit 13 – Study Area Assessed Value, 2010**.

Exhibit 13 - Study Area Assessed Value, 2010

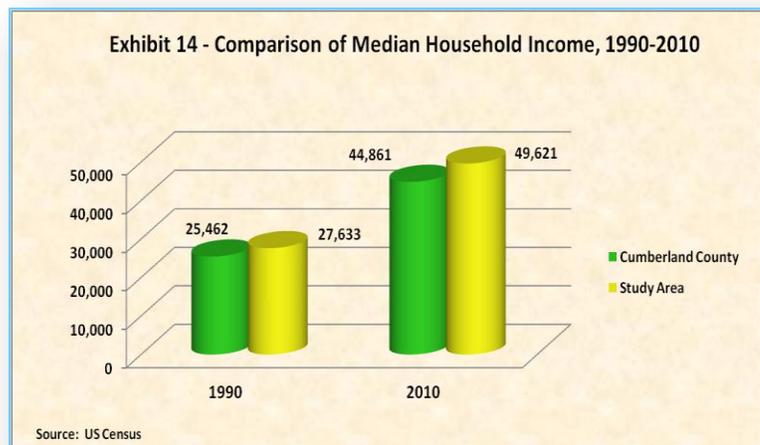
Property Type	Assessed Value	Percentage
Single Family Residential	\$991,326,791	84%
Apartment	\$399,200	0.03%
Manufactured Home Park	\$2,592,484	0.22%
Commercial	\$151,297,024	12.72%
Industrial	\$19,177,112	1.61%
TOTAL	\$1,164,792,611	100%

Source: Cumberland County Tax Department

According to the 2010 Census, the median income in the Study Area is \$49,621 compared to \$44,861 in the County as shown in **Exhibit 14 - Comparison of Median Household Income, 1990 - 2010**. The median household income was examined over a twenty year period to determine the amount of change. The data shows that the median household income in the Study Area

increased from \$27,633 in 1990 to \$49,621 or 44%; while in the County it increased from \$25,462 to \$44,861 or 43%. This indicates that the Area residents' income is above the County average.

The change in the persons below the poverty line in the Study Area and County between 1990 and 2011 is shown in **Exhibit 15 - Persons Below Poverty Line, 1990-2010**. This data shows that the number of persons at or below the poverty line changed from 962 in 1990 to 2,302 in 2011, a 58% increase in the Study Area, compared to 36,495 to 50,175 in the County, or, a 38% increase.



Employment data includes the civilian employment by occupation, employment by industry, employment characteristics, armed forces and civilian employment, veteran and non veteran, and place of employment. **Exhibit 16 - Comparison of Civilian Employment by Occupation** shows in the Study Area, approximately 29% (2,056) is employed in management, business, science and arts; and 22% (1,587) work in sales and office; 19% (1,323) of the populace are employed in natural resources, construction, and maintenance; followed by 17% (1,167) in service occupations; and 13% (924) in production, transportation and material moving occupations.

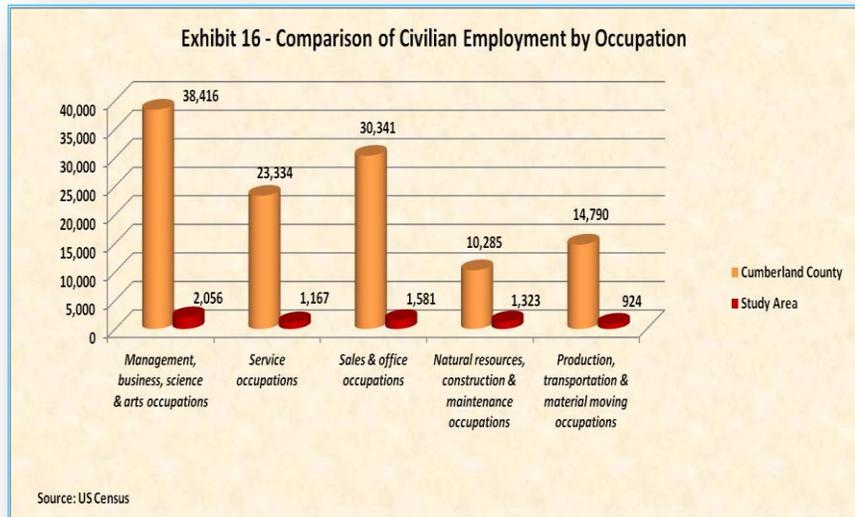
Exhibit 15 - Persons Below Poverty Line, 1990-2010

	1990			2010		
	Total	Below	Percent	Total	Below	Percent
County	252955	36345	14%	302057	50175	17%
Tract 15	2638	307	12%	2984	680	23%
Tract 30	5823	655	11%	10922	1622	15%
Study Area	8461	962	11%	13906	2302	17%

Source: US Census

and maintenance; followed by 17% (1,167) in service occupations; and 13% (924) in production, transportation and material moving occupations.

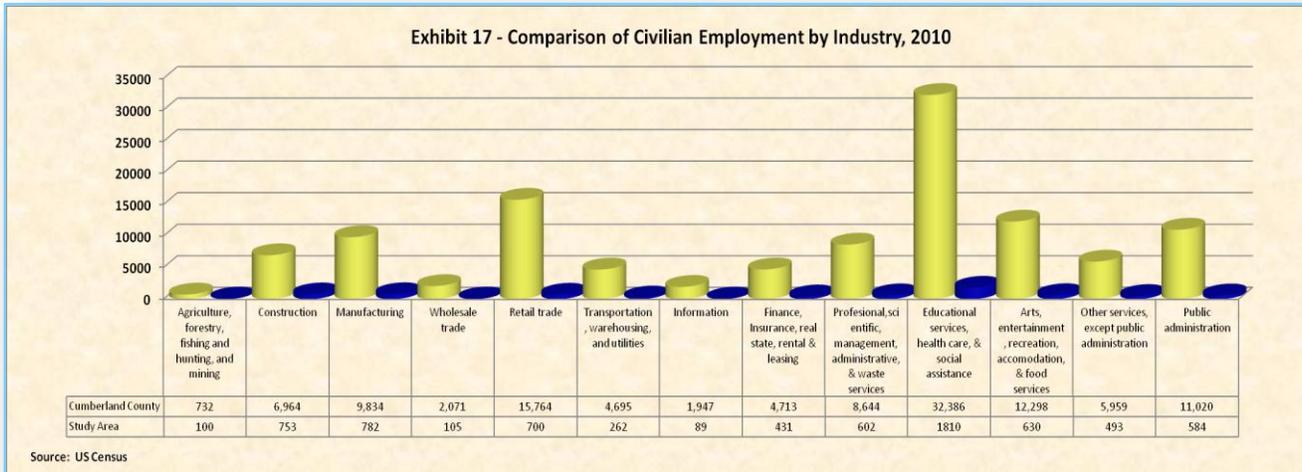
In the County, the civilian employment by occupation data shows approximately 33% (38,416) of the population is employed in management, business, science and arts; 26% (30,341) in sales and office; 20% (23,334) in service occupations; 13% (14,790) in production, transportation and material moving; and 9% (10,285) in natural resources, construction and maintenance occupations.



Civilian employment by industry data in the Study Area and County were examined and is shown in **Exhibit 17 - Comparison of Civilian Employment by Industry, 2010**. Civilian employment by industry in the Study Area shows there are approximately 7,341 total persons employed. The industry breakdown shows that approximately 1,810 (25%) of the workers are in educational services, health care, and social assistance; 782 (11%) in manufacturing; 753 (10%) in construction; 700 (10%) in retail trade; 630 (9%) in arts, entertainment, recreation, accommodations and food services; 602 (8%) in professional, scientific, management, administrative and waste services; 584 (8%) in public administration; 493 (7%) in other services except public administration; 431 (6%) in finance, insurance, real estate, rental and leasing; 100 (1%) in agriculture, forestry,

fishing and hunting, and mining; with the remaining balance in transportation, warehousing, and utilities, wholesale trade, and information.

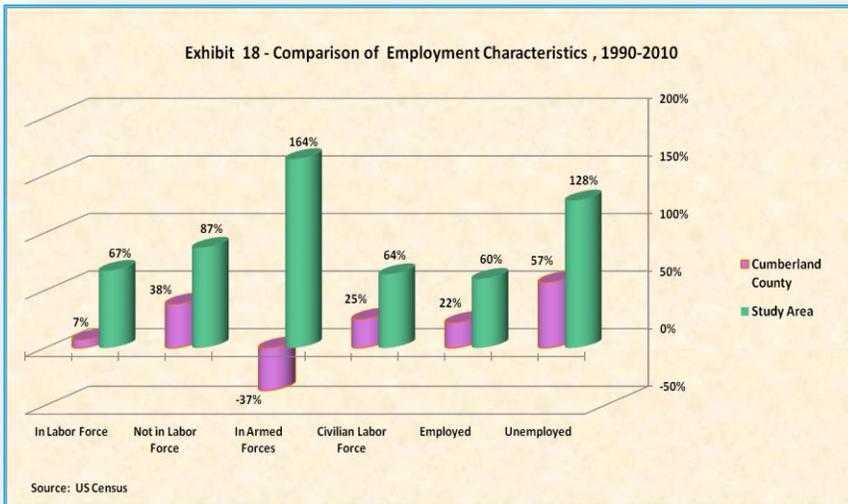
Civilian employment by industry for the County shows that there are approximately 117,027 employed persons. The data shows that of the approximately 117,027 civilian



persons employed in the County, approximately 32,386 (28%) of the work force work in educational services, health care, and social assistance; 15,764 (13%) in retail trade, 12,298 (11%) in arts, entertainment, recreation, accommodations, and food services 11,020 (9%) in public administration; 9,834 (8%) in manufacturing; 8,644 (7%) in professional, scientific, management, administrative and waste services; 6,964 (6%) in construction; 5,959 (5%) in other services other than public administration; 4,713 (4%) in finance, insurance, real estate, and rental leasing; 4,695 (4%) in transportation, warehousing and utilities; 732 (less than 1%) in agriculture, forestry, fishing and hunting, and mining; with the remaining percentages being in wholesale trade and information.

Comparing the County and Study Area employment by industry shows that the Study Area has a higher percentage of workers in manufacturing, construction, retail trade, than the County. This may be due to the proximity of industry to the Area. In addition to the Cumberland Industrial Center, the Walmart Distribution Center, the Eaton Corporation, and the E.I. DuPont De Nemours Company are located in the Area.

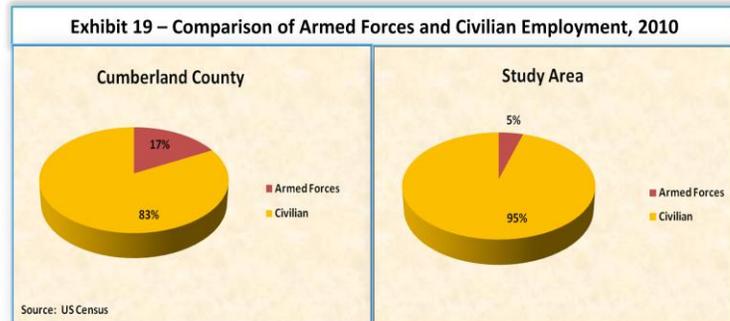
Exhibit 18 - Comparison of Employment Characteristics 1990 - 2010 indicates that between 1990 and 2010, the Study Area had a 67% increase in the labor force compared to 7% for the County; a 164% increase in persons in the armed forces as compared to 37% decrease for the County; a 128% increase in the unemployed for the Study Area compared to 57% increase for the County; an 87% increase in persons not in the labor force for the Study Area compared to 38% for the County; and the civilian labor force increased 64% in the Study Area, compared to 25% in the County. There was also a 60% increase in the number of persons employed in the Study Area, compared to 22% for the County.



The 2010 US Census shows less than 5% of the work force is in the armed forces, as shown in **Exhibit 19 - Comparison of Armed Forces and Civilian Employment 2010**. In the County, there was a 37% drop in the number of persons employed in the armed forces between 1990 and 2010; but the armed

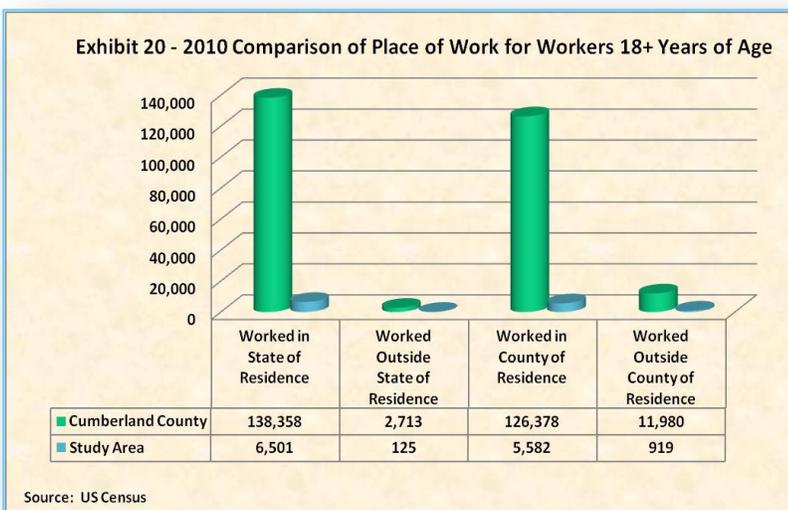
forces workforce still comprised approximately 17% of the County work force.

Additional employment data gathered for the Study Area included the workplaces of the residents. According to the 2010 US Census, and shown in **Exhibit 20 - 2010 Comparison of Place of Work for Workers 18+ Years of Age** approximately 84% (5,582 persons) of the Study Area



residents works in the County compared to 90% (126,378 persons) for the overall County. This data shows that about 14% (919 persons) of the Study Area residents

work outside the County but not outside the State, compared to about 9% (11,980 persons) in the overall County. An equal number of residents (2%) in the Study Area and the County worked outside the State.



Statistical data from the 2006-2010 American Community Survey shows approximately 96% (6,359) of the residents in the Study Area used automobiles to commute to work; 2% worked at home; and less than 2% walks to work, commuted by public transportation, motorcycle, taxi and other means. No one in the Study Area biked to work as shown in **Exhibit 21 - Study Area Residents Means of Transportation to Work**. It can be concluded that the Study Area is an auto dependent community and has a limited amount of pedestrian infrastructure.

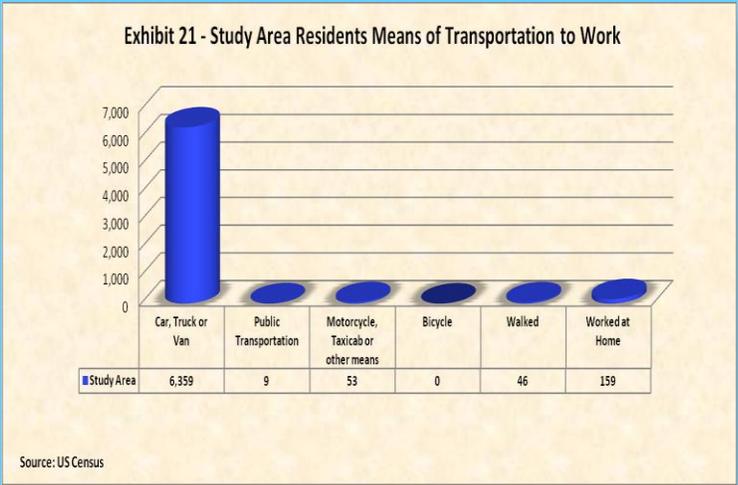
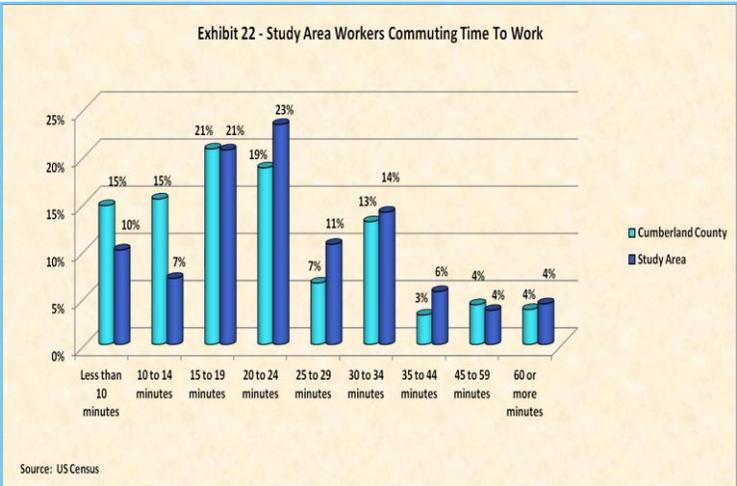


Exhibit 22 - Study Area Workers Commuting Time to Work, addresses the workers travel time to work. It shows that in the Study Area, approximately 23% of workers commute time to work is between 20 and 24 minutes; 21% is between 15 and 19 minutes. This data reveals that approximately 72% of the workers commute time is less than 30 minutes. The mean travel time to work in the Study Area is 21.3 minutes.





AGRICULTURE

The 2010 Census classifies the Study Area about equally rural and urban (48% and 52%, respectively), and agriculture and agribusiness are usually economic drivers in rural areas. The Study Area has a vibrant farming community in the southern portion.

In the past, agriculture in the past played a major role in the economy of the Gray's Creek portion of the Study Area, and continues to be part of the economics in the area today. Agricultural data is primarily available on the County level only.

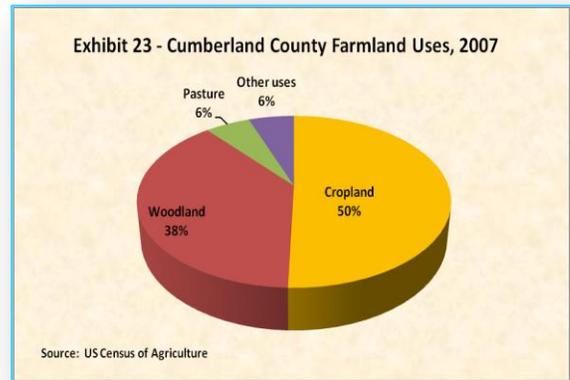
In Cumberland County farming generates over \$80,000,000, consuming approximately 21% (88,353 acres) of land. According to the 2007 Census of Agriculture, there were approximately 500 farms in the County.

Farmland in the County is decreasing. According to the North Carolina Census of Agriculture, between 1992 and 2012 Cumberland County has lost approximately 29,847 acres of farmland and forestland. This loss may be attributed to population growth, low profitability of farming, high land cost, and aging farmers. Once a farm or forest is developed (subdivided, topsoil removed, and built upon), it is difficult to return it to agriculture. This irreversibility of development is why there is a need to protect agricultural land.

Exhibit 23 - Cumberland County Farmland Uses, 2007 shows that 50% of the farmland in the County is used for agriculture or growing row crops (soybeans, corn, cotton, wheat, and tobacco, forage crops and horticultural crops) while 38% for woodland, 6% for pasture and 6% for other uses. The location of these working farm

types in the Study Area are shown on **Map 3 – South Central Area Type of Working Farms.**

The United States Department of Agriculture (USDA) classifies farms into three subtypes: small family farms, large family farms, and very large family farms. Small family farms are defined as having gross sales less than \$250,000. Small family farms accounted for 83% of the farms in the County farming 45,741 acres. Approximately 96% of these farms are family owned with over 86% of these farms being sole proprietorships, and 10% in a family partnership or family held corporations. Farms with sale less than \$1000 are growing. Data shows that between 1992 and 2007 these farms grew from 51 to 181 (72%) producing 36% of the County’s farm income.

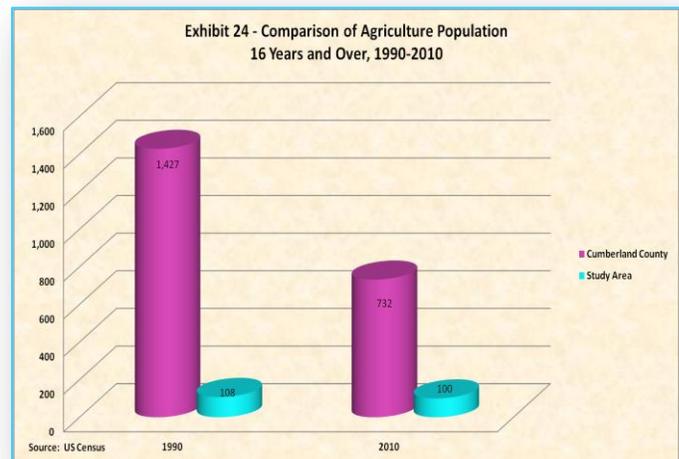


Large family farms are farms with sales between \$250,000 and \$499,999. Very large farms have sales in excess of \$500,000. Large and very large farms have the fewest number of farmers, but produce the largest share of agricultural output. Very large classified farms between 1992 and 2007 have doubled from 7% to 14% of the farms producing 92% of the farm income in 2007.

Farms classified as large family farms, which is the traditional family farm, are decreasing in the County. This may be due to several factors such as competition in traditional agricultural commodities, competition with consolidated commodity markets, higher retail prices with direct markets, aging farmer population, and mostly where land was developed into housing.

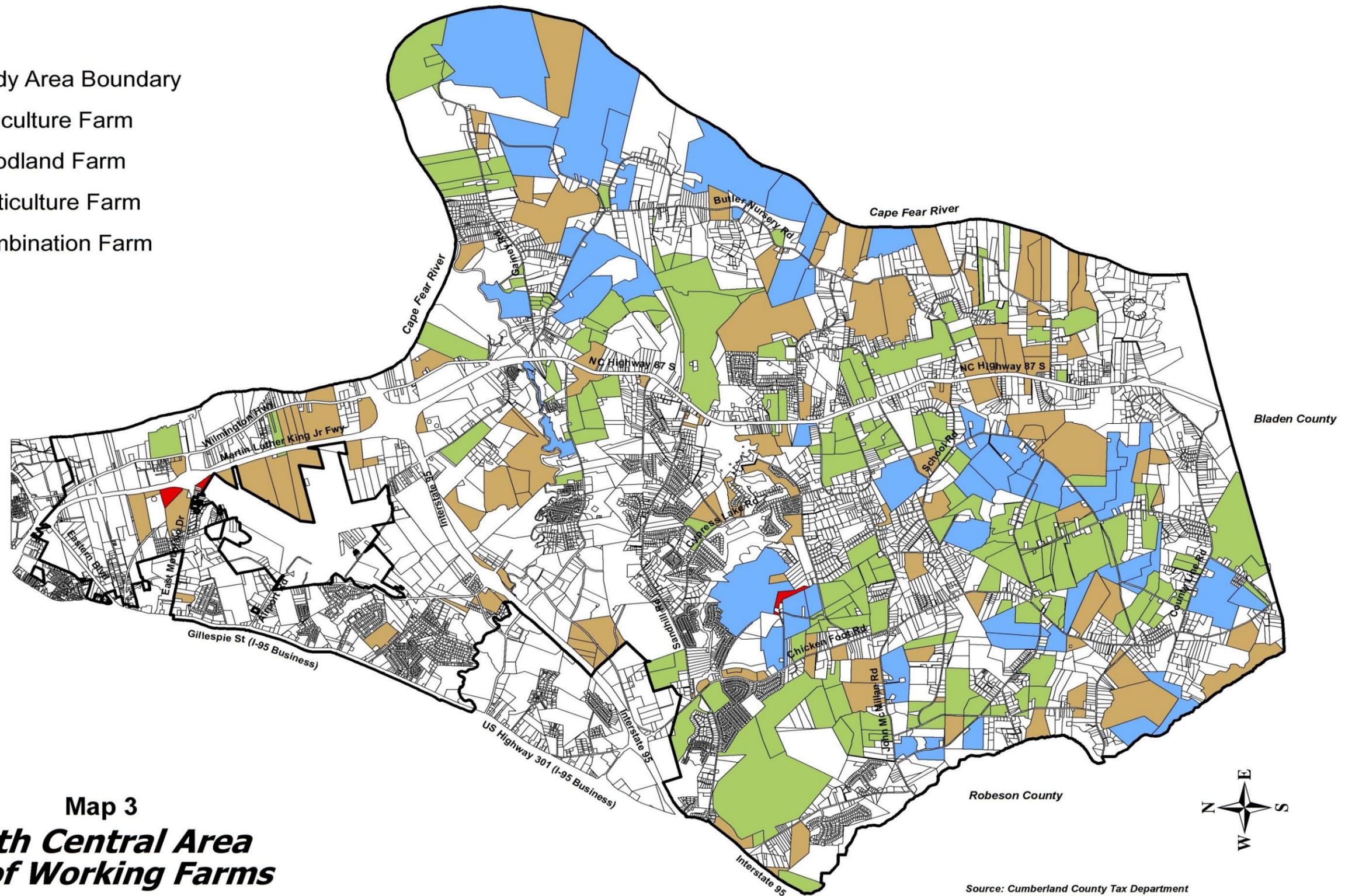
According the US Census **Department** and illustrated in Exhibit 24 - **Comparison of Agriculture Population 16 Years Old and Over, 1990-2010**

shows that there has been a change in individuals engaged in agricultural activities in the last 20 years in the Study Area. Between 1990 and 2010, the Study Area has experienced a 7% decrease in the number of persons participating in agricultural activities compared to a 49% decrease in the County.



Legend

-  Study Area Boundary
-  Agriculture Farm
-  Woodland Farm
-  Horticulture Farm
-  Combination Farm



Map 3
South Central Area
Type of Working Farms

Source: Cumberland County Tax Department
 Prepared By: Cumberland County Comprehensive Planning, September 2014

Over the years, programs have been developed to make farming more economically practical, stem conflicts between farmers and their new residential neighbors, slow the decline in the number of farms and farmers. These programs include the creation of the Present Use Taxation Program and the Voluntary Agricultural District (VAD).

The Present Use Taxation Program provides tax relief for farmers that participate in the program. Under this program, farmland is taxed at a lower rate than other properties. Most of the larger farm tracts are in the Present Use Tax Program. These tracts are located in the southern, central and eastern portions of the Area. According to tax records, approximately 17,242 acres (39%) in the Study Area participate in the Present Use Taxation Program. It should also be noted that agricultural lands require few public services; so the ad valorem property tax assessed on agricultural lands generally exceed the cost of providing those services by an average national ratio of \$1.00 to \$0.37, according to the American Farmland Trust, Cost of Community Services-2007.

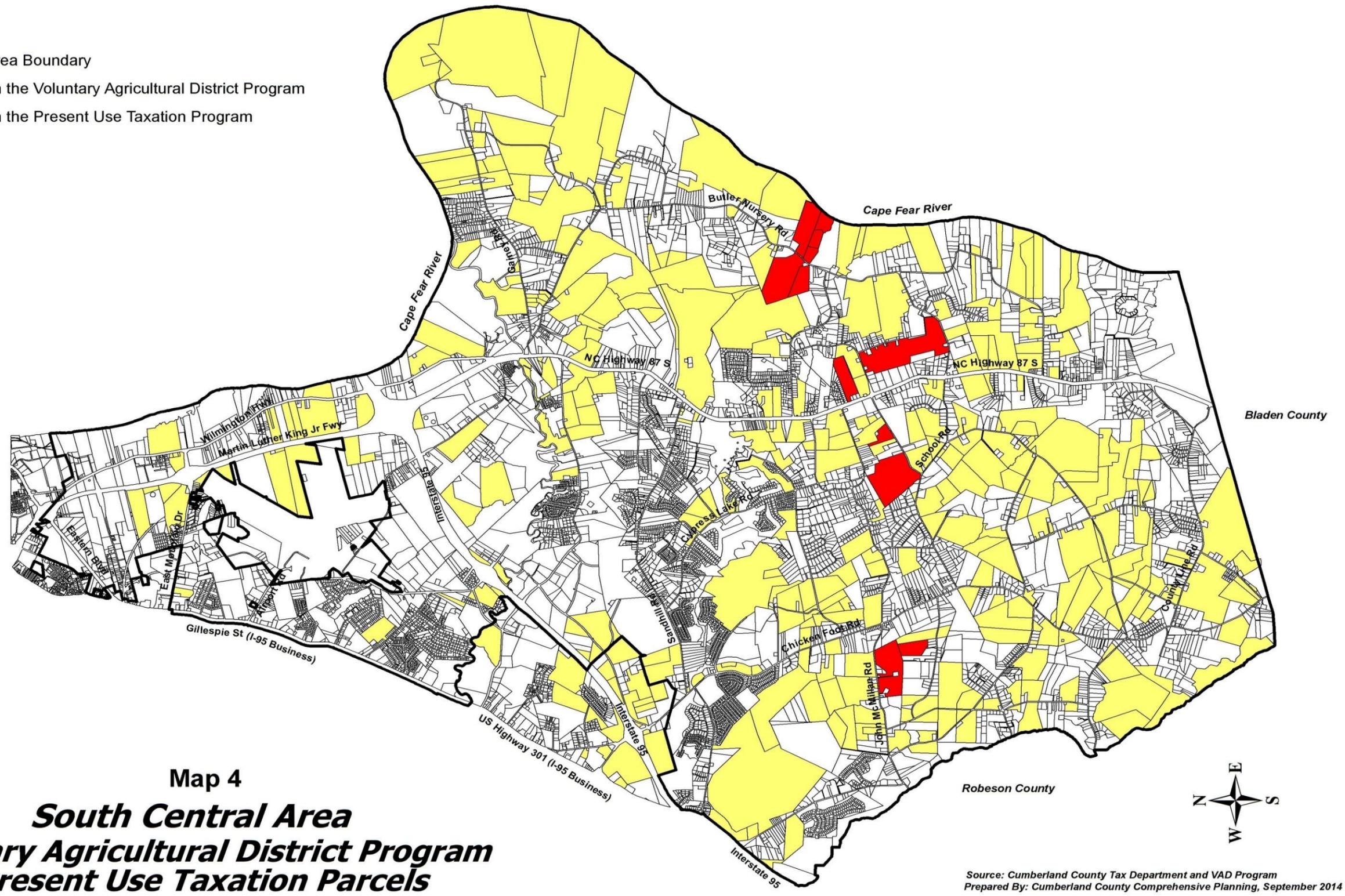
The purpose of the Voluntary Agricultural District Program (VAD) is, according to its by-laws, to “promote agricultural and environmental values and the general welfare of the County; and more specifically, increase identity and pride in the agricultural community and its way of life, encourage health of agriculture, increase protection from non-farm development and other negative impacts on properly managed farms.” These tracts are located on Butler Nursery Road, N.C. Highway 87 South, School Road and John McMillan Road as shown on **Map 4 - South Central Area Voluntary Agricultural District, and Present Use Value Parcels**. Approximately 917 acres (2%) of Study Area tracts participate in the Voluntary Agricultural District Program.

Another issue addressed in the South Central Area is the potential location of large scale swine operations. Although there are no large scale swine operations in the Study Area, there are, however, some sites available within the Study Area based on State criteria as shown on **Map 5 - South Central Area Designated Areas Suitable for Swine Farms**. Many of the areas that can meet the State’s criteria are not compatible with the surrounding land uses. The Areas near Interstate 95, Fayetteville Regional Airport, Eastern Blvd., the area south of Roslin Farm Road, and a minor site scattered in the eastern portion of the Study Area are not suitable for swine farms. The areas located along the Cape Fear River are suitable based on the terrain and soils types, but from an environmental standpoint, this is not the best place to locate swine farms.

The examination of agricultural interests in the Study Area also involved looking at soil suitability for farming. While the Area is rural in nature, about half of it does not have good soils for crop production. There are two important soil classifications important for farming: Prime Farmland and State and Locally Important Farmland. The best soils for growing crops in the Study Area are Prime Farmland Soils located along the Cape Fear River and Rockfish Creek.

Legend

- Study Area Boundary
- Farms in the Voluntary Agricultural District Program
- Farms in the Present Use Taxation Program



Map 4
South Central Area
Voluntary Agricultural District Program
and Present Use Taxation Parcels

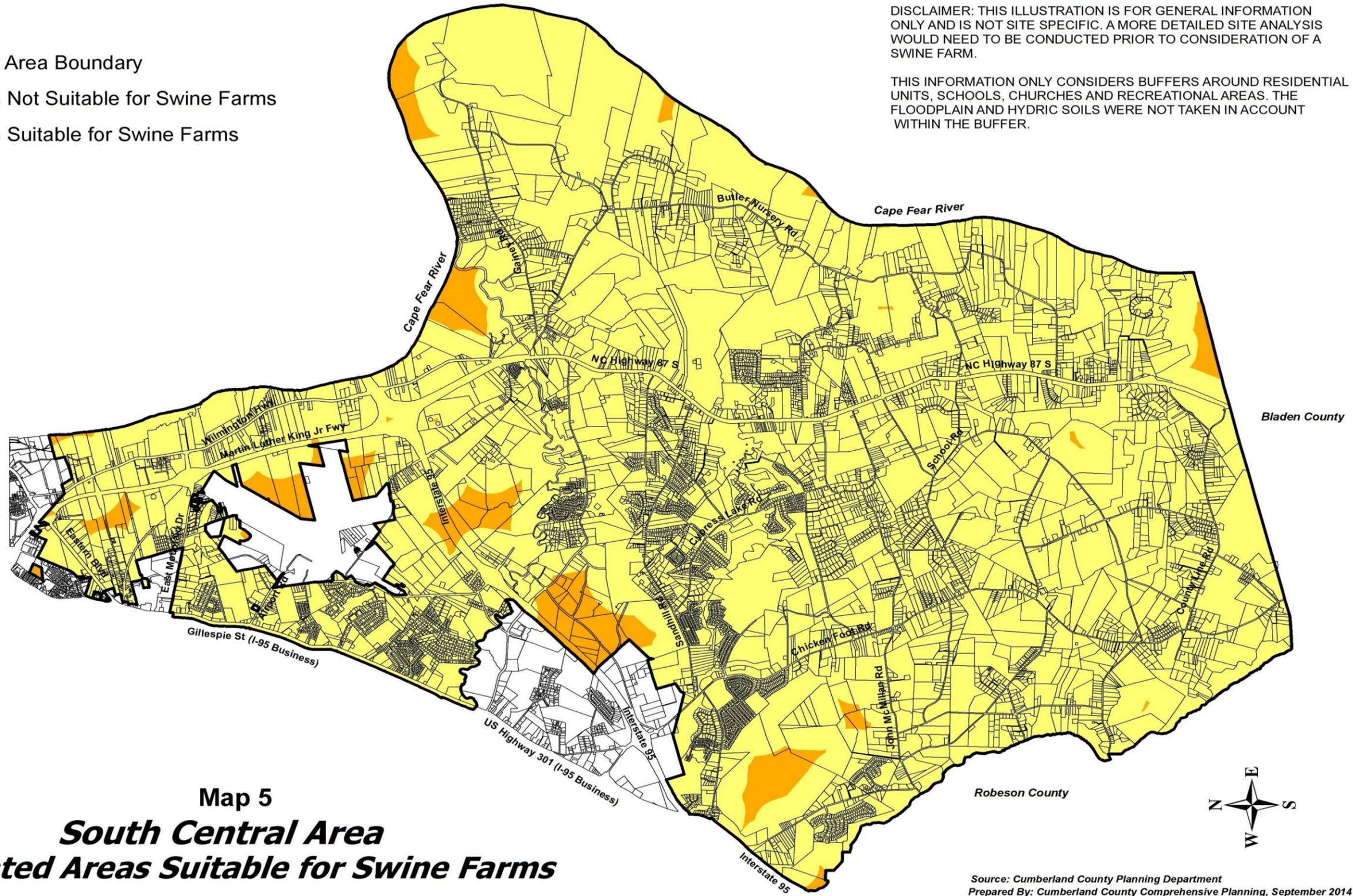
Source: Cumberland County Tax Department and VAD Program
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Areas Not Suitable for Swine Farms
- Areas Suitable for Swine Farms

DISCLAIMER: THIS ILLUSTRATION IS FOR GENERAL INFORMATION ONLY AND IS NOT SITE SPECIFIC. A MORE DETAILED SITE ANALYSIS WOULD NEED TO BE CONDUCTED PRIOR TO CONSIDERATION OF A SWINE FARM.

THIS INFORMATION ONLY CONSIDERS BUFFERS AROUND RESIDENTIAL UNITS, SCHOOLS, CHURCHES AND RECREATIONAL AREAS. THE FLOODPLAIN AND HYDRIC SOILS WERE NOT TAKEN IN ACCOUNT WITHIN THE BUFFER.



Map 5
South Central Area
Designated Areas Suitable for Swine Farms



Source: Cumberland County Planning Department
Prepared By: Cumberland County Comprehensive Planning, September 2014

Prime Farmland Soil is defined by the U.S. Department of Agriculture, “as soils that are best suited for producing food, fiber, feed forage, and oilseed crops. Such soils have qualities that are favorable for the economic production of sustained high yields of crops. It produces high yield with minimal input of energy and economic resources, and farming these soils results in the least damage to the environment.” Most of these Prime Farmland Soils are within the Special Flood Hazard area. There is another band of concentrated Prime Farmland Soils located in the central and southwestern part of the Study Area.

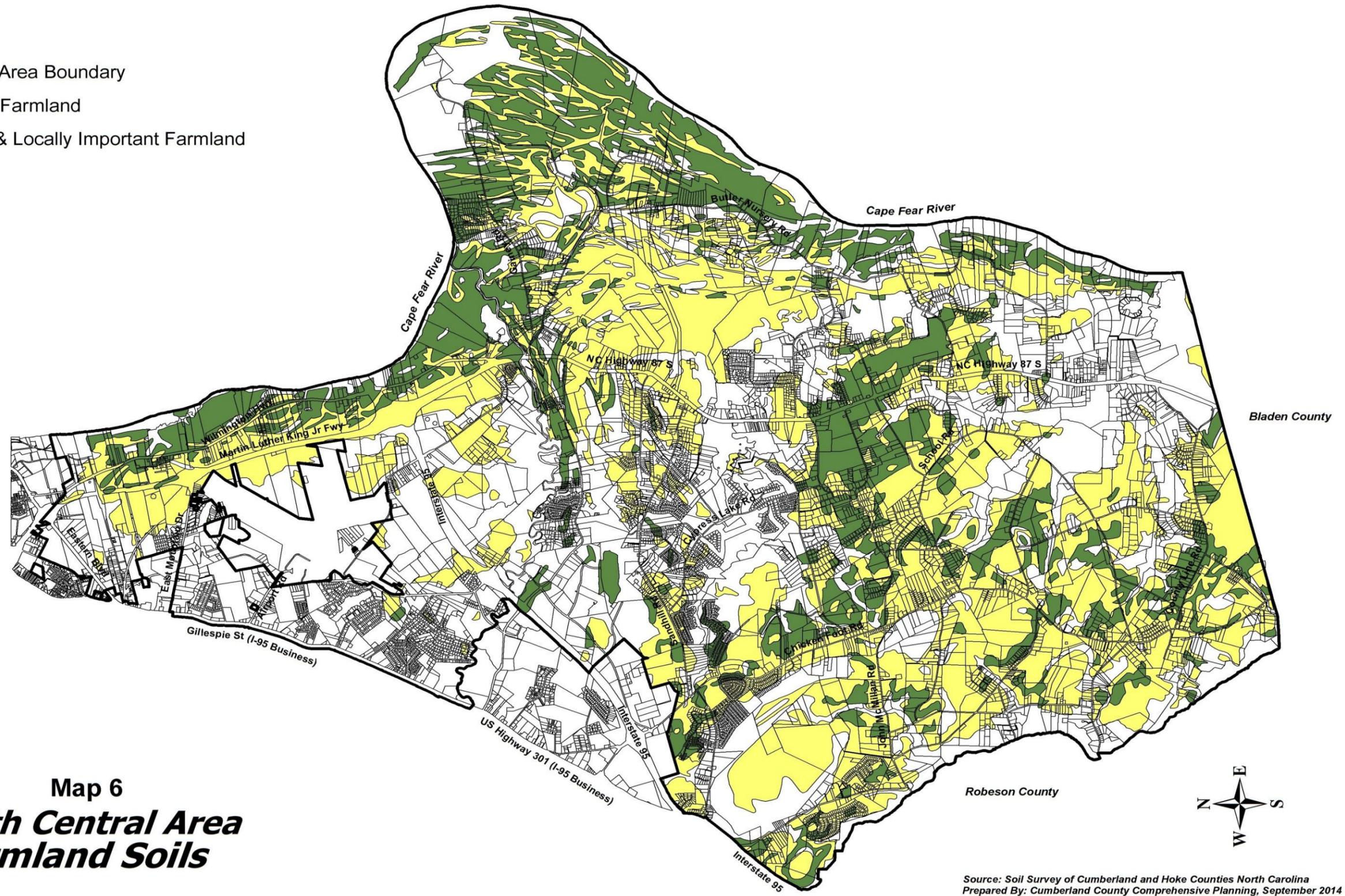
State and Locally Important Farmland are soils that do not meet the requirements for Prime Farmland, but are suited for the production of crops economically, when managed according to modern farming methods. State and Locally Important Farmland Soils are located in the southern and central portion of the Study Area and adjacent to the Prime Farmland Soils located along the Cape Fear River and the south side of Rockfish Creek. This information is illustrated on **Map 6 - South Central Area Farmland Soils**. According to GIS data, only 19% (8,398 acres) of the Study Area is Prime Farmland while 37% (16,494 acres) is State and Locally Important Farmland.

In summary, the amount of farmland and the number of farmers are decreasing; the number of farms producing less than \$1,000 in annual sales and very large farms are increasing; and the age of the average farmer is increasing. Farmers in the Study Area are facing the same issues as other farmers throughout the County, State, and Nation, including development pressure, increasing value of farmland, conflicts with non-farm neighbors, and aging farmers. However, farming is still a viable part of the economy of the Area and efforts should be made to protect valuable farmland, the family farm, and the agri-business industry in the Study Area.



Legend

- Study Area Boundary
- Prime Farmland
- State & Locally Important Farmland



Map 6
South Central Area
Farmland Soils

Source: Soil Survey of Cumberland and Hoke Counties North Carolina
Prepared By: Cumberland County Comprehensive Planning, September 2014



The natural environment consists of elements in the area that occur naturally. This section examines the natural conditions and features that impact the Study Area. These natural features includes soil suitability for various uses, hydric soils, flood hazard areas, geology, topography, drainage, significant natural heritage and managed areas, and endangered species.

BUILDING SITE SUITABILITY

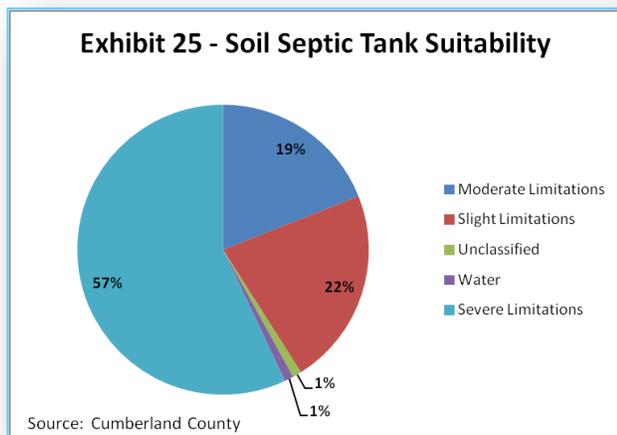
The Soil Survey of Cumberland and Hoke Counties North Carolina, 1984 rated soil types on their suitability for various uses. These ratings are based on soil properties, site features, and observed performance of the soils. The ratings are classified as slight, moderate, and severe. Slight limitations means soil properties and site features are generally favorable for the indicated use which are minor and very easily overcome. Moderate limitations mean soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations. Severe limitations means the soil properties or site features are so unfavorable or so difficult to overcome that special design, feasibility studies, significant increases in construction costs and possibly increased maintenance may be required. Soil suitability in the Study Area was examined for building sites, septic tanks, hydric soils, prime farmland, and flood hazards.

Soils ratings in the Area were examined for their building suitability. A high water table, flooding, shrink-swell potential, and an organic layer can cause the movement of footings, and affect excavation and construction. Based on these soil characteristics, these ratings were assessed for residential structures less than three stories and small commercial buildings, which are built on shallow foundations and undisturbed soil. According to **Map 7 - South Central Area Building Site Suitability**, most of the soils with

severe building site suitability limitations are concentrated along the Cape Fear River, Rockfish Creek, the tributary creeks that feed into them, and the pocosins which accounts for approximately 53% (23,547 acres) of the Study Area. Moderate and slight limitations are found primarily on the flat upland ridges and the area adjoining the steep slopes along the tributaries accounting for 12% and 35% respectively.

SEPTIC TANK SUITABILITY

Soils in the Area were examined for their suitability for septic systems. This is important because most of the Area does not have access to a public or private sewer system.



Soils in the Study Area are rated as having severe, moderate and slight limitations for septic tank use. According to data collected, there are approximately 25,433 acres (57%) of the Study Area that has soils with severe limitations; 8,606 acres (19%) has moderate limitations, 9,711 (22%) has slight limitations for septic tanks; while the remaining balance of 524 acres (1%) is water, and 440 acres (less than 1%) is unclassified as shown in **Exhibit 25 - Soil Septic Tank Suitability**. Soils with severe limitations are located in the

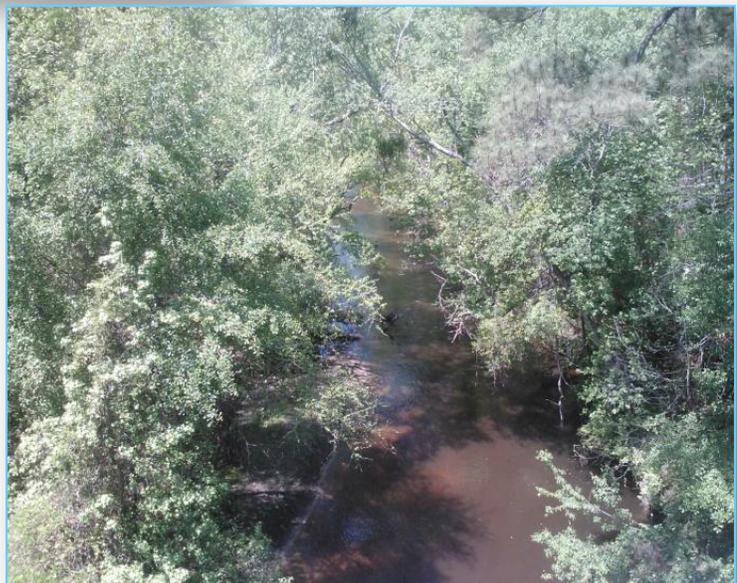
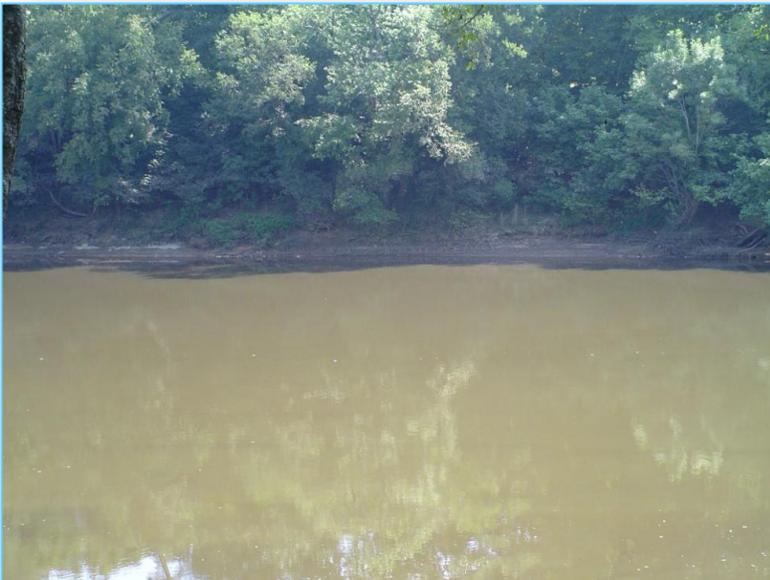
flood plain and low lying areas along the watercourses and the pocosins; while moderate and slight limitation soils are located in the central and western portion of the Study Area as shown on **Map 8 - South Central Area Septic Tank Suitability**. Due to these limitations there have been approximately 463 failed or repaired septic tanks in the Area.

HYDRIC SOILS

Hydric soils data shows that approximately 30% (13,604 acres) of the soils has a potential of being classified as wetland, while 8% (3,756 acres) have some wetland soil characteristics. The primary locations of hydric soils are along the watercourses and the pocosins in the Area. Soils that have potential wetland characteristics are primarily located along the Cape Fear River as shown on **Map 9 - South Central Area Hydric Soils**.

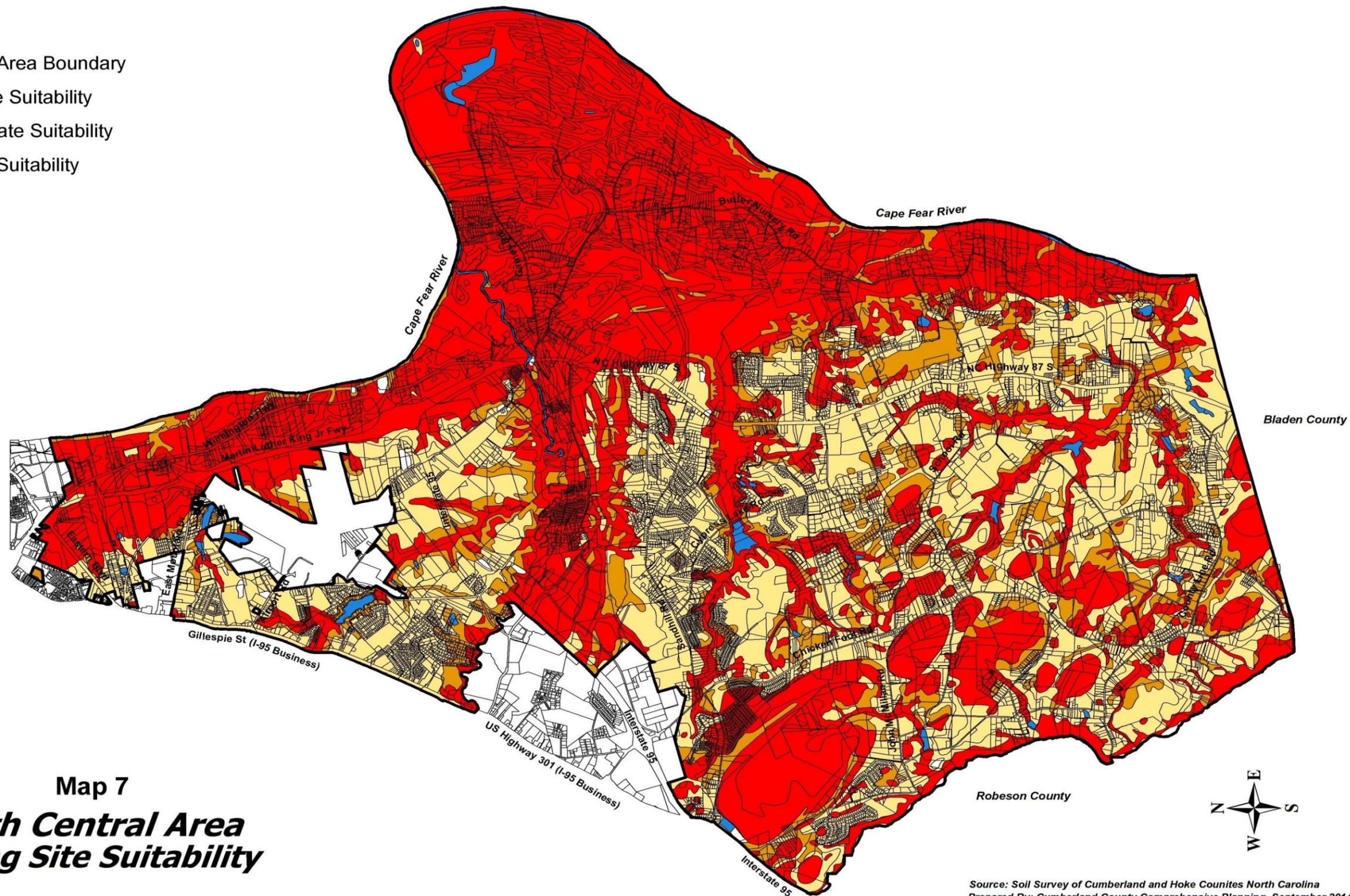
SPECIAL FLOOD HAZARD AREAS

The Area does have some designated Special Flood Hazard Areas that will impact development. There are certain building restrictions, additional permitting, and construction requirements for developing in flood prone areas. A Special Flood Hazard Area is defined by FEMA as land in the floodplain subject to a one percent or greater chance of being flooded in any given year. These Special Flood Hazard Areas are located along Rockfish, Cold Camp Creek, Willis, Swans, Long Branch, Kirk's Mill, Gallberry Swamp, Cold Camp Creeks, and with the major portion along the Cape Fear River and its tributaries. According to GIS data, approximately 5,413 acres (12%) of the Area is in a Special Flood Hazard Area as shown on **Map 10 - South Central Area Special Flood Hazard Area.**



Legend

-  Study Area Boundary
-  Severe Suitability
-  Moderate Suitability
-  Slight Suitability
-  Water

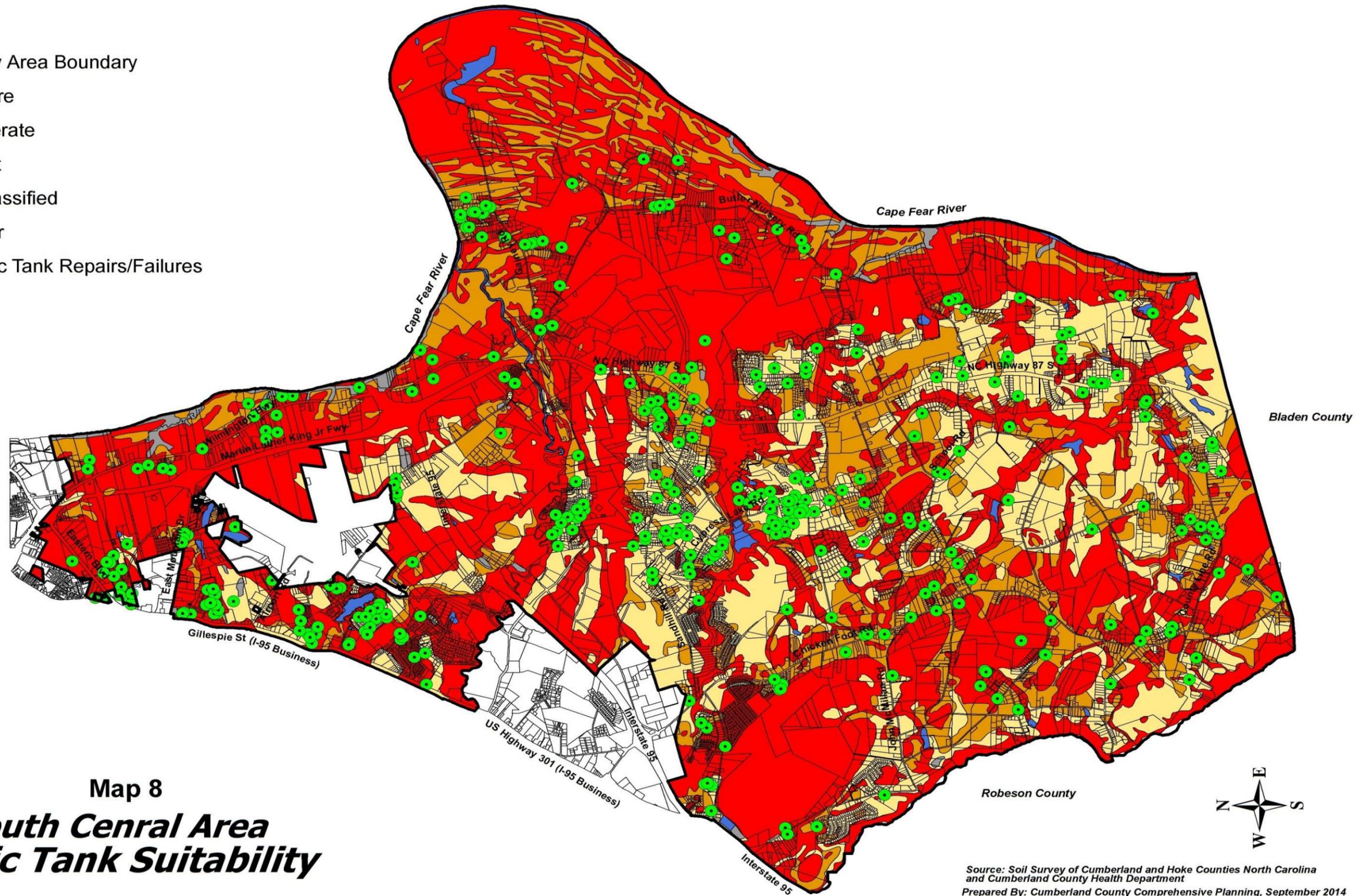


Map 7
South Central Area
Building Site Suitability

Source: Soil Survey of Cumberland and Hoke Counties North Carolina
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Severe
- Moderate
- Slight
- Unclassified
- Water
- Septic Tank Repairs/Failures

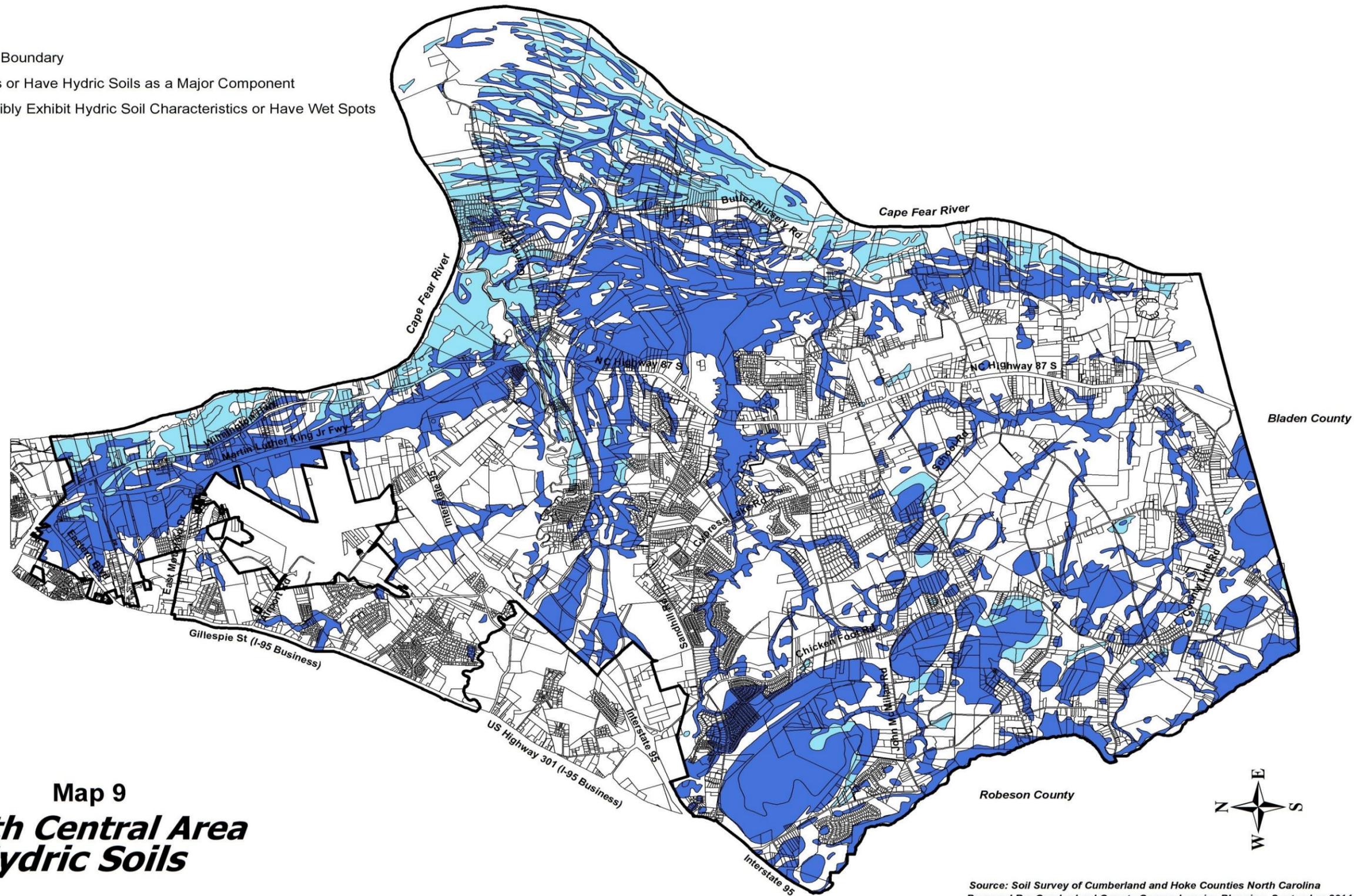


Map 8
South Central Area
Septic Tank Suitability

Source: Soil Survey of Cumberland and Hoke Counties North Carolina and Cumberland County Health Department
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Hydric Soils or Have Hydric Soils as a Major Component
- Could Possibly Exhibit Hydric Soil Characteristics or Have Wet Spots

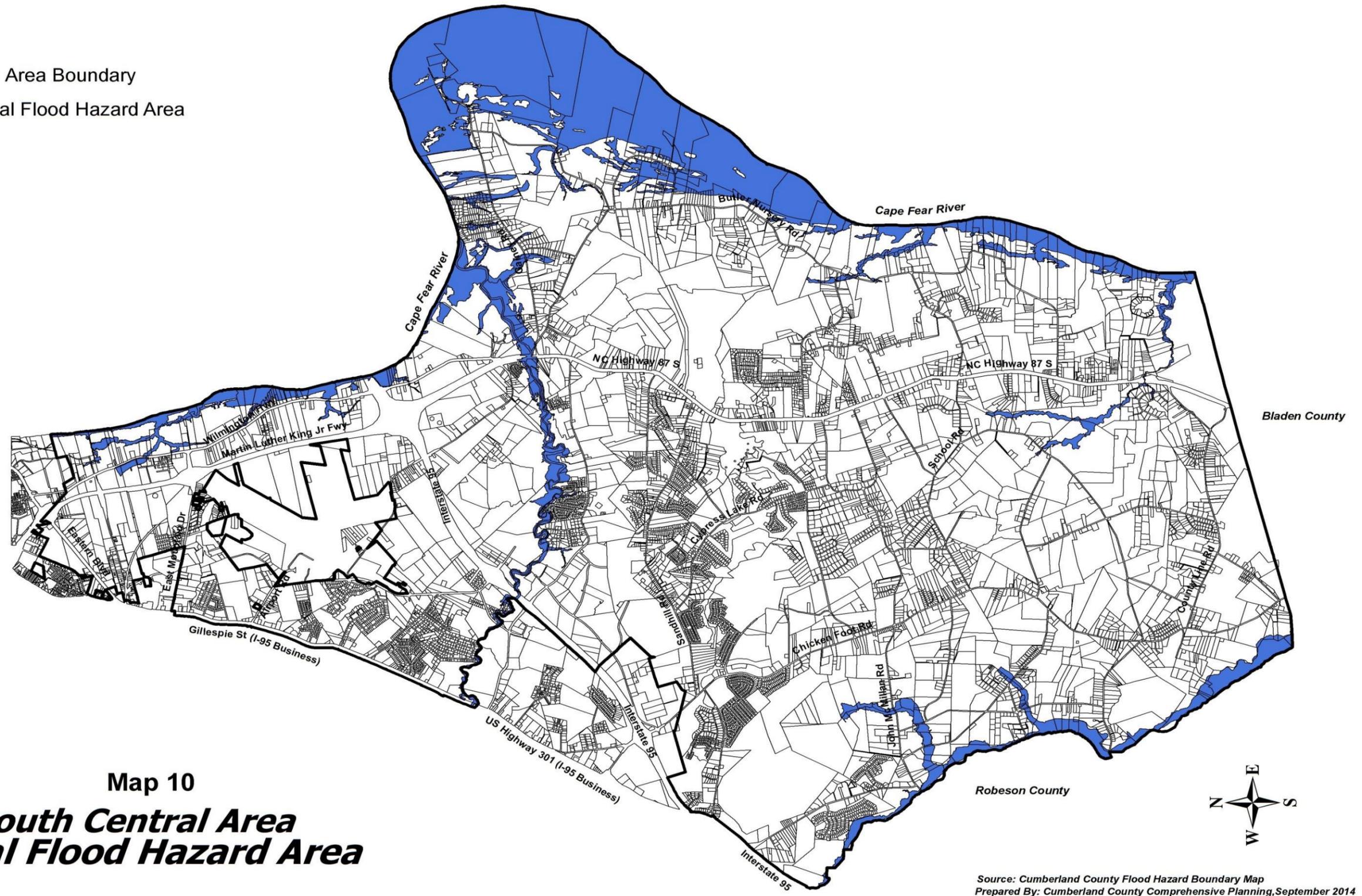


Map 9
South Central Area
Hydric Soils

Source: Soil Survey of Cumberland and Hoke Counties North Carolina
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Special Flood Hazard Area



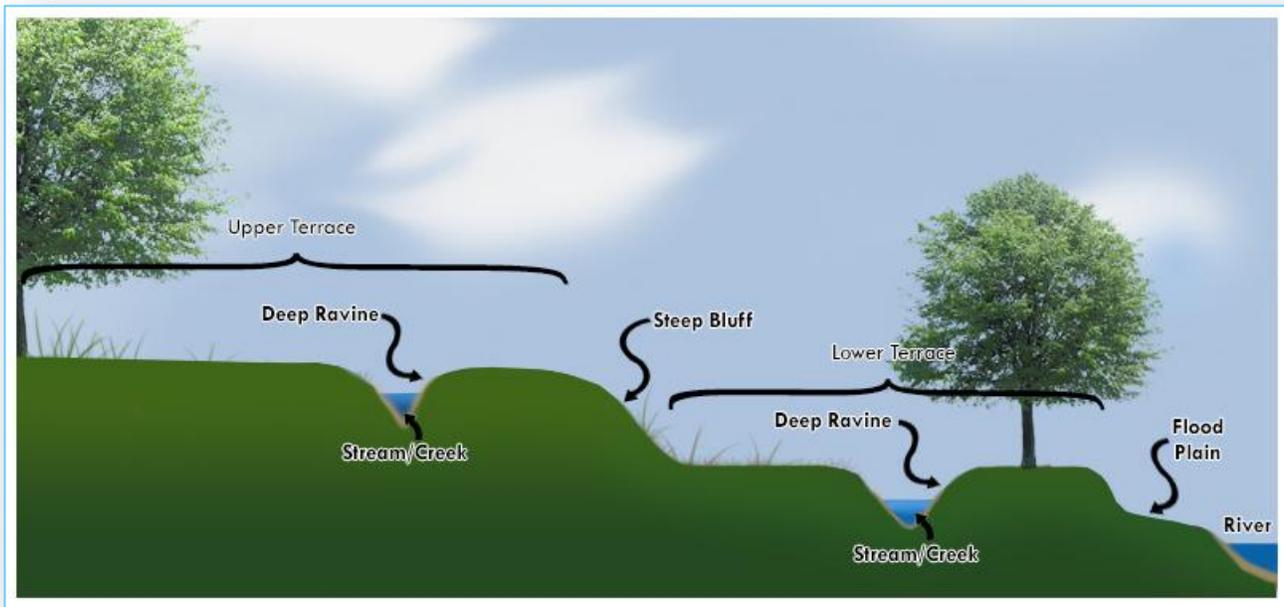
Map 10
South Central Area
Special Flood Hazard Area

Source: Cumberland County Flood Hazard Boundary Map
Prepared By: Cumberland County Comprehensive Planning, September 2014

GEOLOGY/TOPOGRAPHY/DRAINAGE

There are six basic geologic features in the Study Area. These features include terraces with ridges, steep slopes or bluffs, deep ravines, the Cape Fear River, flood plains, and pocosins as shown in **Map 11- South Central Area Topography** and as illustrated in **Exhibit 26 - South Central Study Area Geology Cross-Section**.

Exhibit 26 – South Central Study Area Geology Cross-Section



The slope analysis, as illustrated on **Map 12 - South Central Buildable Area and Slope Analysis**, delineates where these features are located. This information aids in deciding where the best place in the Study Area for development. The elevation in the Study Area varies from approximately 202 feet Mean Sea Level (MSL) in the Vineland Park Subdivision just south of East Mountain Drive to less than 34 feet MSL at the Cape Fear River at the Bladen County Line.

The terraces are usually the flattest areas and contain the most stable land base and are generally the best area for development. Their primary problem for development is nearly flat surfaces which hinders drainage. In the Study Area, there are two terraces. The upper terrace has more suitable slopes for drainage whereas the lower terrace is flatter and has more challenging drainage problems. The terraces were formed by the River as it meandered across the area over a period of many years resulting in a landscape characterized by old abandoned river channels, point bars, and long narrow ridges of sediment. Drainage for the terraces is by way of deep shady ravines.

Steep slopes or bluffs provide the dividing line between the upper and lower ridges, the lower terrace, and the flood plain area.

Legend

- Study Area Boundary
- Topography

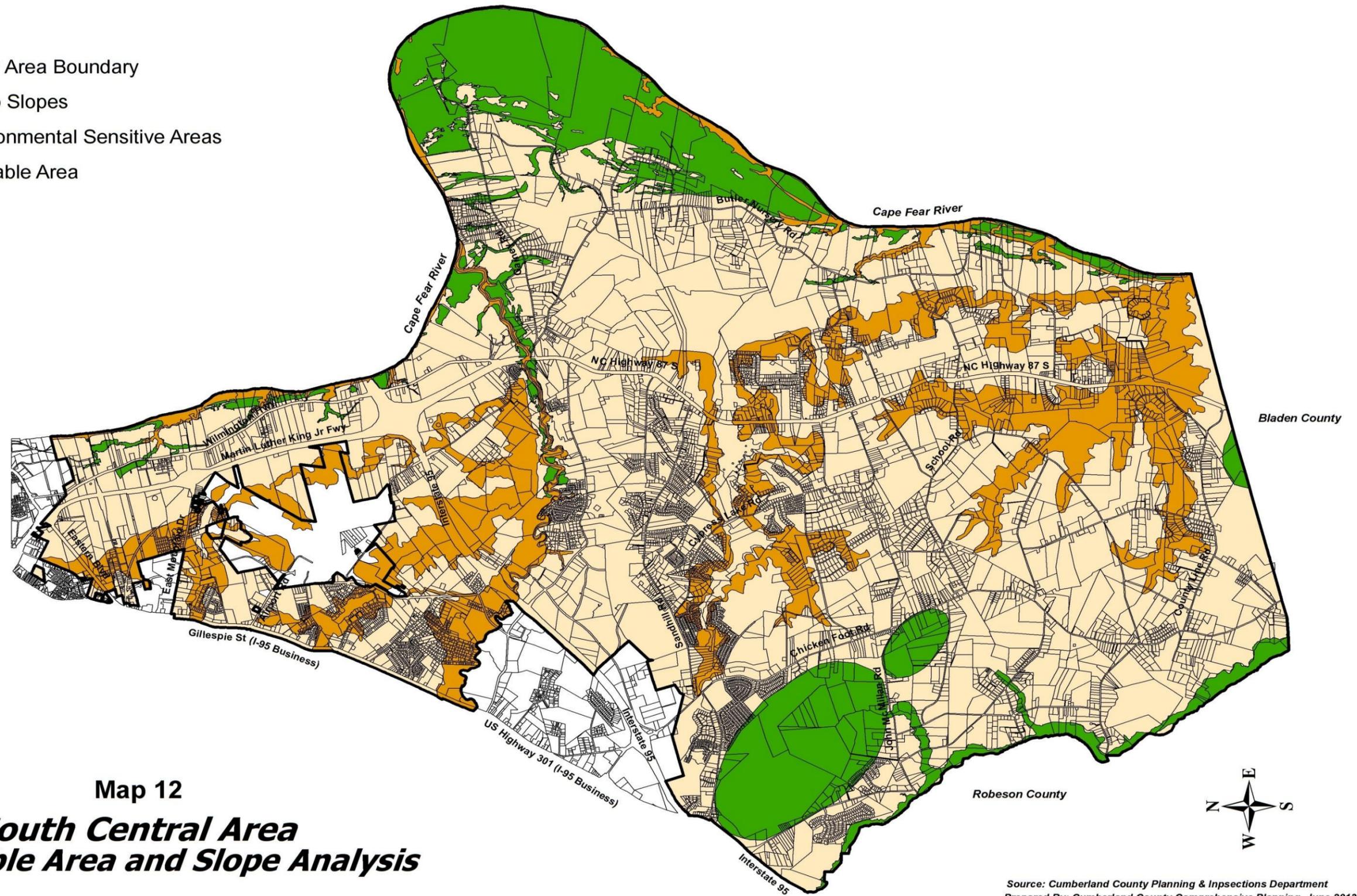


Map 11
**South Central Area
Topography**

Source: Cumberland County Geographic Information System
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Steep Slopes
- Environmental Sensitive Areas
- Buildable Area



Map 12
**South Central Area
Buildable Area and Slope Analysis**

Source: Cumberland County Planning & Inspections Department
Prepared By: Cumberland County Comprehensive Planning, June 2013

The natural vegetation on these steep slopes is necessary for the stabilization of the ridges; and is best left natural for wildlife, passive recreation, and scenic beauty.

Development on these steep slopes is both monetarily and ecologically expensive. Grading, deeper footings, bank stabilization, and erosion control add to construction costs, and it destroys the environment's unique natural feature and species habitats for this region. Access, human activity, and development should either be limited or should not occur within these areas.

The deep ravines provide drainage for the ridges on both terraces and channel it to the Cape Fear River. Some of these deep ravines have drainage area sufficient to function as a creek or tributary. Blockage of these deep ravines by development could create conditions for flooding and slippage during heavy rains. Vegetation along the banks of these deep ravines provides protection from sediment, farm chemicals contamination, and heavy metals from entering the Cape Fear River. A natural buffer along these deep shady ravines, creeks, tributaries and drainage ways should be maintained.

The Cape Fear River is the fourth significant geologic feature in the Study Area. The river has now become entrenched and is in a narrow winding channel more than 40 feet below the original terrace. The River characteristics include its large carrying capacity due to its well defined steep banks and broad channel. Prior to construction of the B. Everett Jordan Dam, the normal water level was 33 feet above sea level with a normal high water level of 50 feet above sea level. Since construction of the Jordan Dam, it ranges between 20-30 feet above sea level. Topography in the bend of the River is relatively flat with an elevation of about 10 feet above the river bank which accounts for a broad floodplain area at this location.

According to N.C. Department of Environment and Natural Resources (NCDENR) the Cape Fear River is the drinking water source for 94 municipalities in 19 counties. In the past, it served a major role in the economy of the State as a major shipping route to the Wilmington Port. It provides a natural habitat for many wildlife species and is being used today primarily for boating, recreation, and fishing.

The fifth feature in the Study Area is the floodplain or also referred to as the Special Flood Hazard Area. It is primarily the flat area adjacent to the River and creek banks. This feature provides recharge areas for groundwater; serve as a filter trap for sediments, pesticides and other non-point source pollutants; provides flood control; is a rich source of timber; provides a buffer zone between the upland development and the waterways; fights shoreline erosion; and provides food and shelter for wildlife.

The sixth geologic feature in the Study Area is the pocosins or sometimes called Carolina Bays. Despite years of scientific inquiry and debate, no one knows the origin of this feature. These pocosins are oval shaped depressions ranging in various sizes. The long

axis is oriented in a northwest-southeast direction. A sandy rim is on the southeastern end of each bay. Unless artificially drained, soils in the bays are wet throughout the year.

SIGNIFICANT NATURAL HERITAGE AND MANAGED AREAS

The South Central Study Area contains several designated Significant Natural Heritage and Managed Areas as shown on **Map 13 - South Central Area NC Natural Heritage Program Significant Natural Heritage and Managed Areas**. The North Carolina Natural Heritage Program defines Significant Natural Heritage Areas as “areas that contain the best example of natural habitats, and/or locations of rare plants, animals and natural communities.” They are critical for their recreational, ecological, educational, scientific, cultural, aesthetic, and environmental health values. Managed areas are fee-simple properties and easements where conservation is the goal. It is important with the growth and land development in the area that efforts are made to protect these natural and managed areas.

Significant Natural Heritage Areas

There are three Significant Natural Heritage areas within the Study Area: Rockfish Creek Corridor, Cypress Lakes and Willis Creek Ravine, totaling 1,311 acres. According to the Natural Area Inventory of Cumberland County, North Carolina, 2002 composed by the Department of Environment and Natural Resources, describes each of these natural areas:

Rockfish Creek Corridor

The Rockfish Creek Corridor is located on both sides of Rockfish Creek, encompassing 845 acres. The Rockfish Creek Corridor is designated as having State Significance by the North Carolina Natural Heritage Program, which means it “contains examples of natural communities, rare plant or animal populations, or other significant ecological features that are among the highest quality or best examples of their kind in North Carolina.” Rockfish Creek is deeply entrenched, creating mini-gorges with banks up to 50 feet high. The banks are covered with rare plant species and wet with seepage water. The rare species that inhabit Rockfish Creek includes the Sandhills Spiny Crayfish, Santee Chub, and American Alligator. It also supports the State’s largest population of native climbing fern. The climbing fern and Streamhead Beaksedge are on the North Carolina National Heritage Program Watch List. Additionally, the Sand Myrtle only occurs along Rockfish Creek, located along the bank crests and the adjacent terrace.

Cypress Lakes

Cypress Lakes is located off of Cypress Lakes Road and is a part of the Cypress Lakes development containing 220 acres. It is designated as having County Significance, meaning that it is “considered to contain significant biological resources at the county level, but which do not rank at the regional (or higher) level”. Cypress Lakes consist of two lakes that are filled with pond cypress, plus a swamp forest along its tributaries. The two lakes are dominated by growing pond cypress up to 50 feet tall. Many shrubs and

coarse herbs are perched on the bases of the cypress trunks. Among them are Fetterbush, Honeycups, and Leatherleaf. Leatherleaf is normally found in the northern states, but manages to survive this far south in pocosins and cypress wetlands. White waterlily is common in shallow water and is also found in these lakes. The swamp forest along the tributaries is composed of Swamp Tupelo, Red Maple, scattered Cypress, Loblolly Pines and some oaks over shrubs and vines. There is a small pocosin located in a swamp forest, near the southwest corner of the site that contains pond pines, Red Maple, Loblolly Bay, Sweetbay and Blaspheme Vine.

Willis Creek Ravine

Willis Creek Ravine located along Willis Creek between NC Highway 87 and the Cape Fear River contains 246 acres. This ravine has Regional Significance by North Carolina Natural Heritage Program meaning it “contains examples of natural communities, rare plant or animal populations, or other significant ecological features that are represented elsewhere in the state by better examples, but which are among the highest quality examples in their geographic region of the State.” There are two boundaries within this ravine, a primary and secondary boundary. The primary boundary is in good natural condition while the secondary boundary has a lesser natural value, but buffers the primary boundary. In several places along the creek, vertical clay banks exist and are kept wet by groundwater seepage. The glistening dark bank face is carpeted with mosses and liverworts that are mostly sparse to moderate with coverage. Netted Chainfern is located along the clayey slope at the base of the bank. Loblolly Pine, Swamp Red Maple and the Southern Red Oak dominate the canopy, with Water Oak, Mountain Laurel and American Holly forming the moderate to open undergrowth. The ground layer consists of Sphagnum Moss.

Managed Areas

The South Central Study Area contains four parcels that are labeled as Managed Areas, consisting of approximately 278 acres. Managed Areas are properties where land preservation and conservation is provided to protect its natural features and endangered and rare species. Two parcels are privately owned, with a conservation easement and the other two parcels are owned by North Carolina Coastal Land Trust. Sandhills Area Land Trust has a conservation easement on a privately owned 81 acre parcel located south of Marsh Road. The other conservation easement contains 89 acres, is with the North Carolina Coastal Land Trust, and is located on the west side of NC Highway 87, just north of the Cumberland County/Bladen County Line.

The remaining two parcels are owned by North Carolina Coastal Land Trust. One is located on the west side of NC Highway 87, bordering the Cumberland County/Bladen County Line, containing 62 acres. The other parcel contains 46 acres and is located at Willis Creek, east of NC Highway 87. A portion of this parcel is located within the Willis Creek Ravine Significant Natural Heritage Area.

ENDANGERED SPECIES

The South Central Study Area has a significant amount of North Carolina Endangered, Threatened, Special Concern, and Significantly Rare species, as outlined in the table below. The protection status for plants and animals in North Carolina differ. Animal protection statuses are handled by the Wildlife Resources Commission and the Natural Heritage Program. Endangered, Threatened, Special Concern species of mammals, birds, reptiles, amphibians, freshwater fishes, and freshwater and terrestrial mollusks have legal protection status administered by the Wildlife Resources Commission. Significantly Rare designation administration is handled by the North Carolina Natural Heritage Program.

Plants protection statuses are handled by the Plant Conservation Program in the N.C. Department of Agriculture and the Natural Heritage Program in the Department of Environment and Natural Resources. Endangered, Threatened, and Special Concern plant species are protected by the Plant Protection and Conservation Act of 1979. The definitions of these classifications for the various species explain their protection level. Endangered Species are defined as any native or once-native species whose continued existence as a viable component of the State's fauna or flora is determined by the Wildlife Resources Commission to be in jeopardy or meets the requirements of the "Endangered Species Act" (General Statutes 113 - Article 25).

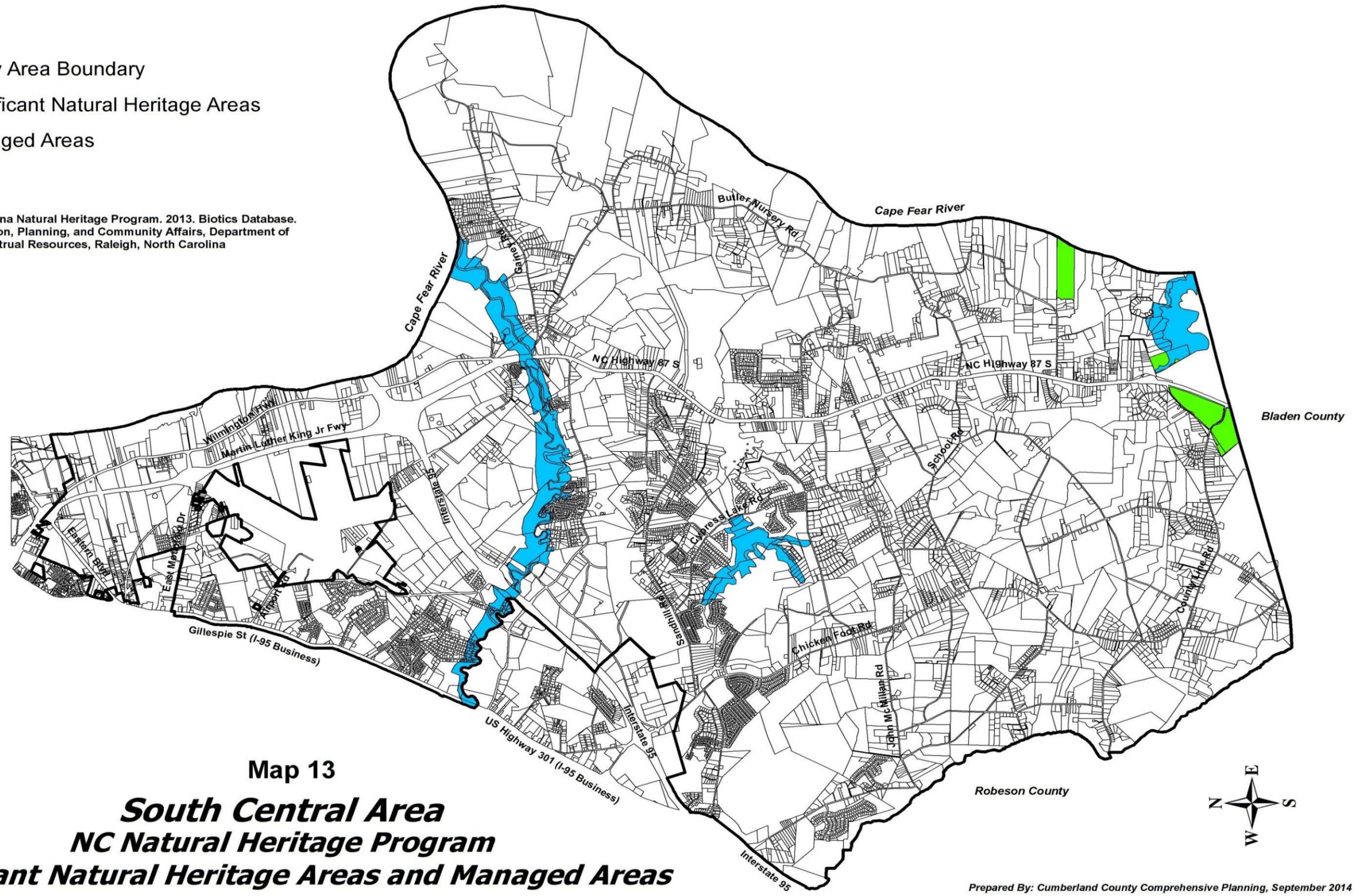
Threatened species are defined as any native or once-native species of flora and fauna which is likely to become an endangered species within a foreseeable future throughout all or a significant portion of its range or is designated a threatened species pursuant to the Endangered Species Act. Special Concern species are flora and fauna native or once-native to North Carolina which is determined by the Wildlife Resources Commission to require monitoring but which may be taken under regulations adopted under the provisions of the above mentioned General Statute.

Significantly Rare Species are any species which has not been listed by the N.C. Wildlife Resources Commission as an Endangered, Threatened, or Special Concern species, but which exist in the State (or recently occurred in the State) in small numbers and has been determined to need monitoring. Significantly rare species include "peripheral" species, whereby North Carolina lies at the periphery of the species range, as well as species of historical occurrences with some likelihood of re-discovery in the State.

Legend

- Study Area Boundary
- Significant Natural Heritage Areas
- Managed Areas

Source: North Carolina Natural Heritage Program. 2013. Biotics Database. Office of Conservation, Planning, and Community Affairs, Department of Environment and Natural Resources, Raleigh, North Carolina



Map 13
South Central Area
NC Natural Heritage Program
Significant Natural Heritage Areas and Managed Areas

Prepared By: Cumberland County Comprehensive Planning, September 2014

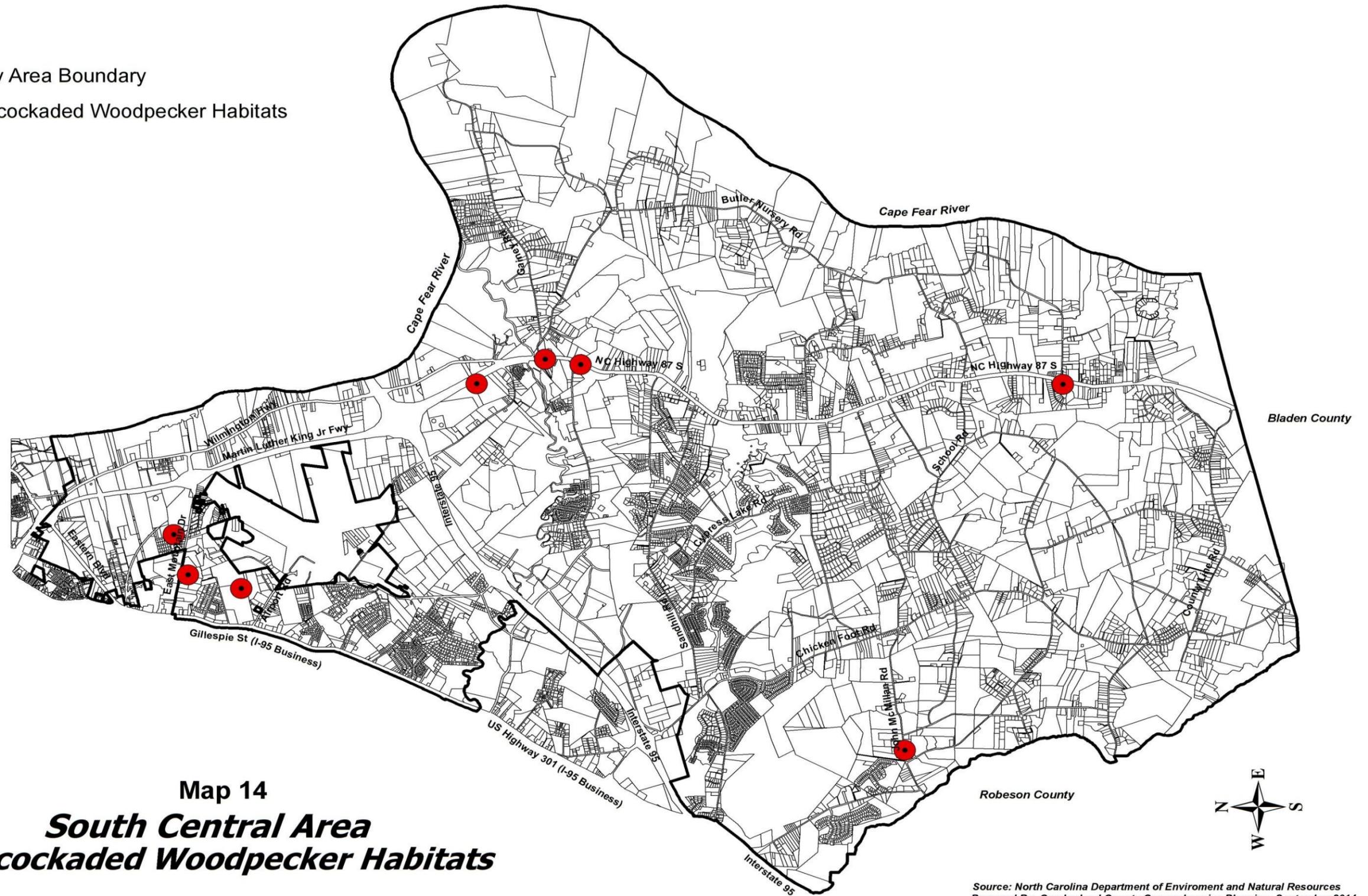
List of Endangered, Threatened, Special Concern, and Significantly Rare Species

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>TYPE</u>
Alligator mississippiensis	American Alligator	Animal
Eurycea quadridigitata	Dwarf Salamander	Animal
Anodonta couperiana	Barrel Floater	Animal
Masticophis flagellum	Coachwhip	Animal
Picoides borealis	Red-cockaded Woodpecker	Animal
Cyprinella sp. 1	Thinlip Chub	Animal
Eriogonum tomentosum	Southern Wild-buckwheat	Plant
Spiranthes eatonii	Eaton's Ladies'-tresses	Plant
Gelsemium rankinii	Swamp Jessamine	Plant
Crataegus munda	Batesburg Hawthorn	Plant
Pteroglossaspis ecristata	Spiked Medusa	Plant
Astragalus michauxii	Sandhills Milk-vetch	Plant
Hypericum fasciculatum	Peelbark St. John's-wort	Plant
Pyxidantha brevifolia	Sandhills Pyxie-moss	Plant
Lysimachia asperulifolia	Rough-leaf Loosestrife	Plant
Gaillardia aestivalis var. aestivalis	Sandhills Blanket-flower	Plant
Astragalus michauxii	Sandhills Milk-vetch	Plant
Galactia mollis	Soft Milk-pea	Plant
Carex projecta	Necklace Sedge	Plant
Crocianthemum carolinianum	Carolina Sunrose	Plant
Galactia mollis	Soft Milk-pea	Plant
Gaillardia aestivalis var. aestivalis	Sandhills Blanket-flower	Plant
Liatris squarrulosa	Earle's Blazing-star	Plant
Astragalus michauxii	Sandhills Milk-vetch	Plant
Lilium pyrophilum	Sandhills Lily	Plant
Solidago verna	Spring-flowering Goldenrod	Plant
Carex exilis	Coastal Sedge	Plant
Liatris squarrulosa	Earle's Blazing-star	Plant
Danthonia epilis	Bog Oatgrass	Plant
Eupatorium resinolum	Pine Barren Boneset	Plant
Lysimachia asperulifolia	Rough-leaf Loosestrife	Plant
Dichanthelium sp. 9	A Witch Grass	Plant
Cape Fear Valley Mixed Bluff Forest		Natural Community
Coastal Plain Small Stream Swamp		Natural Community
Mesic Mixed Hardwood Forest (Coastal Plain Subtype)		Natural Community
Coastal Plain Seepage Bank		Natural Community
Coastal Plain Semi permanent Impoundment (Cypress-Gum Subtype)		Natural Community

Most of these Endangered, Threatened, Special Concern, and Significantly Rare species are not mapped due to their rarity and to prevent poaching. The only endangered species that is mapped for the general public's knowledge is the Red-cockaded Woodpecker. According to data gathered, there are total of 13 Red-cockaded Woodpeckers' habitats in the Area. They are generally located just north of Fayetteville Regional Airport, along N. C. Highway 87 South near Gainey and Marsh Roads, and John McMillan Road at Canady Pond Road as shown on **Map 14 - South Central Area Red-cockaded Woodpecker Habitats.**

Legend

- Study Area Boundary
- Red-cockaded Woodpecker Habitats



Map 14
South Central Area
Red-cockaded Woodpecker Habitats

Source: North Carolina Department of Environment and Natural Resources
Prepared By: Cumberland County Comprehensive Planning, September 2014



BUILT ENVIRONMENT

The built environment consists of anything in the environments that are the results of human activities. It is the man-made elements used for humans living, working, and playing. This element plays a significant role in assessing the quality of life for an area. The built environment in the Study includes utilities (water, sewer, natural gas, electric), transportation (roads, airport, rail, pedestrian facilities, transit, river), zoning, land use, watershed, development activities, historic and scenic sites, community facilities and services (schools, fire, parks and recreation, law enforcement, emergency services), past land use plans, and political factors.

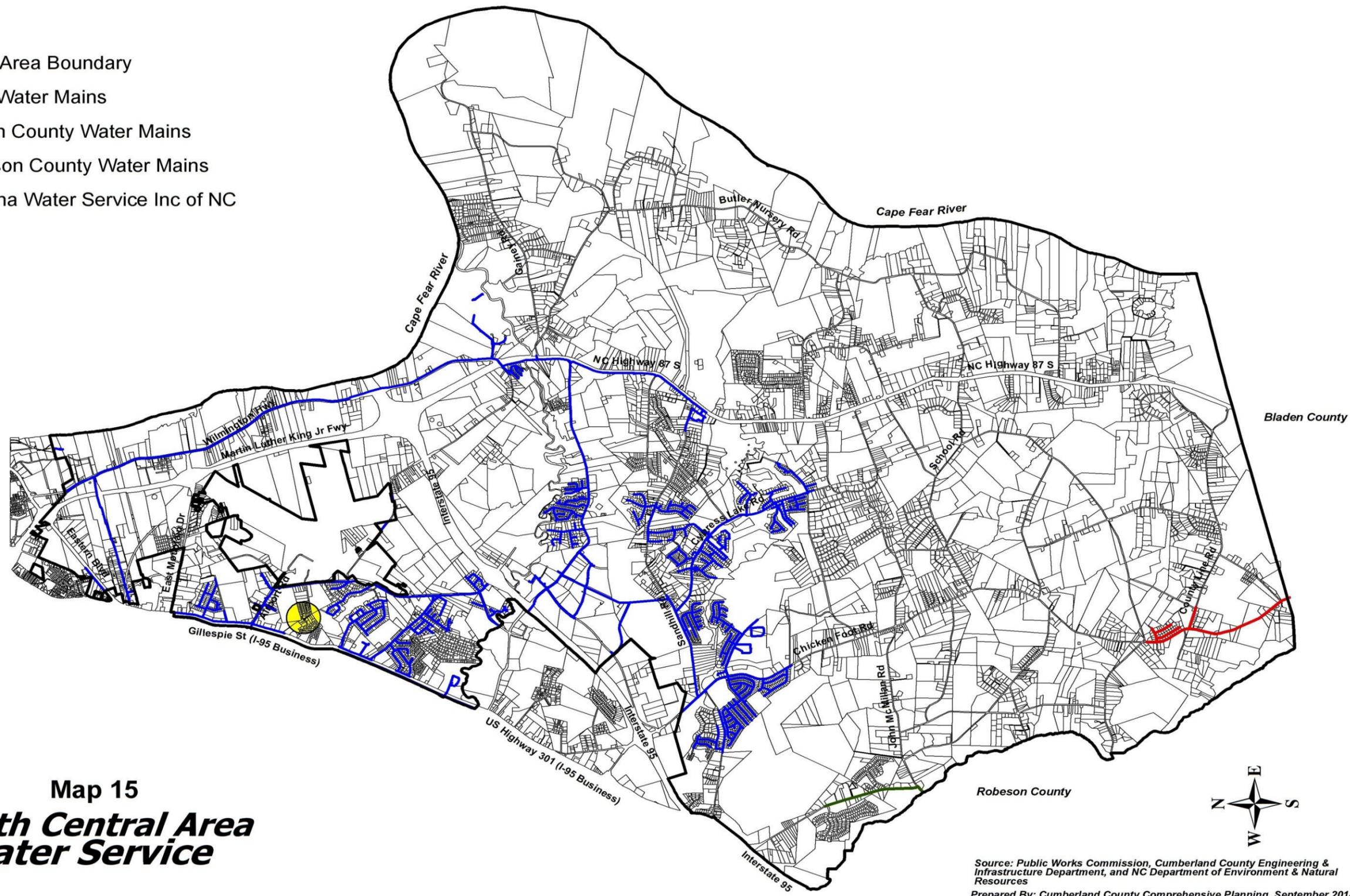
WATER SERVICE

Water service is provided to the Area by both public and private providers. The location and service area of the public and private water suppliers in the Area are shown on **Map 15 - South Central Area Water Service**. Public water providers include the Fayetteville Public Works Commission (PWC), Robeson County, and Bladen County.

PWC serves the northern and central part of the study area. It has trunk lines along Old Wilmington Road/NC Highway 87 South to Sandhill Road, Tom Starling Road from US 301 South to NC Highway 87 South, Chicken Foot Road south to Clifton McNeil Road, Cypress Lake Road to H. Bullard Road, Airport Road, Claude Lee Road, Wilkes Road, and Snow Hill Road. PWC's system serving the Area consists of approximately 379,393 linear feet of water lines.

Legend

- Study Area Boundary
- PWC Water Mains
- Bladen County Water Mains
- Robeson County Water Mains
- Carolina Water Service Inc of NC



Map 15
South Central Area
Water Service

Source: Public Works Commission, Cumberland County Engineering & Infrastructure Department, and NC Department of Environment & Natural Resources
 Prepared By: Cumberland County Comprehensive Planning, September 2014

The Robeson County Water System serves an area east of Interstate 95 at the Robeson County Line that includes Roslin Farm Road and parts of John McMillan Road. Its supply line enters Cumberland County at John McMillan Road. The Robeson County Water System comprises approximately 6,018 linear feet of water lines. Future expansion of this system is doubtful due to geographic limitations.

The Bladen County Water System serves an area along Chicken Foot Road from the County Line to Yarborough Road, County Line Road between Chicken Foot Road and Riddle Road, and all of Southpoint Subdivision located on the east side of Chicken Foot Road between County Line and Yarborough Road. The system comprises of approximately 13,947 linear feet of water lines. This service was installed in response to well contaminations in the area.

Private water is provided to Tanglewood Estates Subdivision and Gray's Creek Manufactured Home Park by Carolina Water Service of N.C. Other private individual entities that provide water that report to NCDENR are Lazy Acres Campground, Mt. Pisgah Baptist Church, Gray's Creek Baptist Church, Mt. Calvary Baptist Church, Marvin United Methodist Church, Gray's Creek Elementary School, Willis Creek AME Zion Church, Sherwood Presbyterian Church, First United Baptist Church of Gray's Creek, Short Trip, MJ Taylor Catering & Paradise Acres, the Crow's Nest, AAA Cooper Transportation, World Faith Clinic Church, Gray's Creek Church of God, Charity Baptist Church, and The Church of the Apostles. Alderman Road Elementary School and Gray's Creek Elementary School are served by wells that send water samples to the State. All other portions of the Study Area are provided water by private wells.

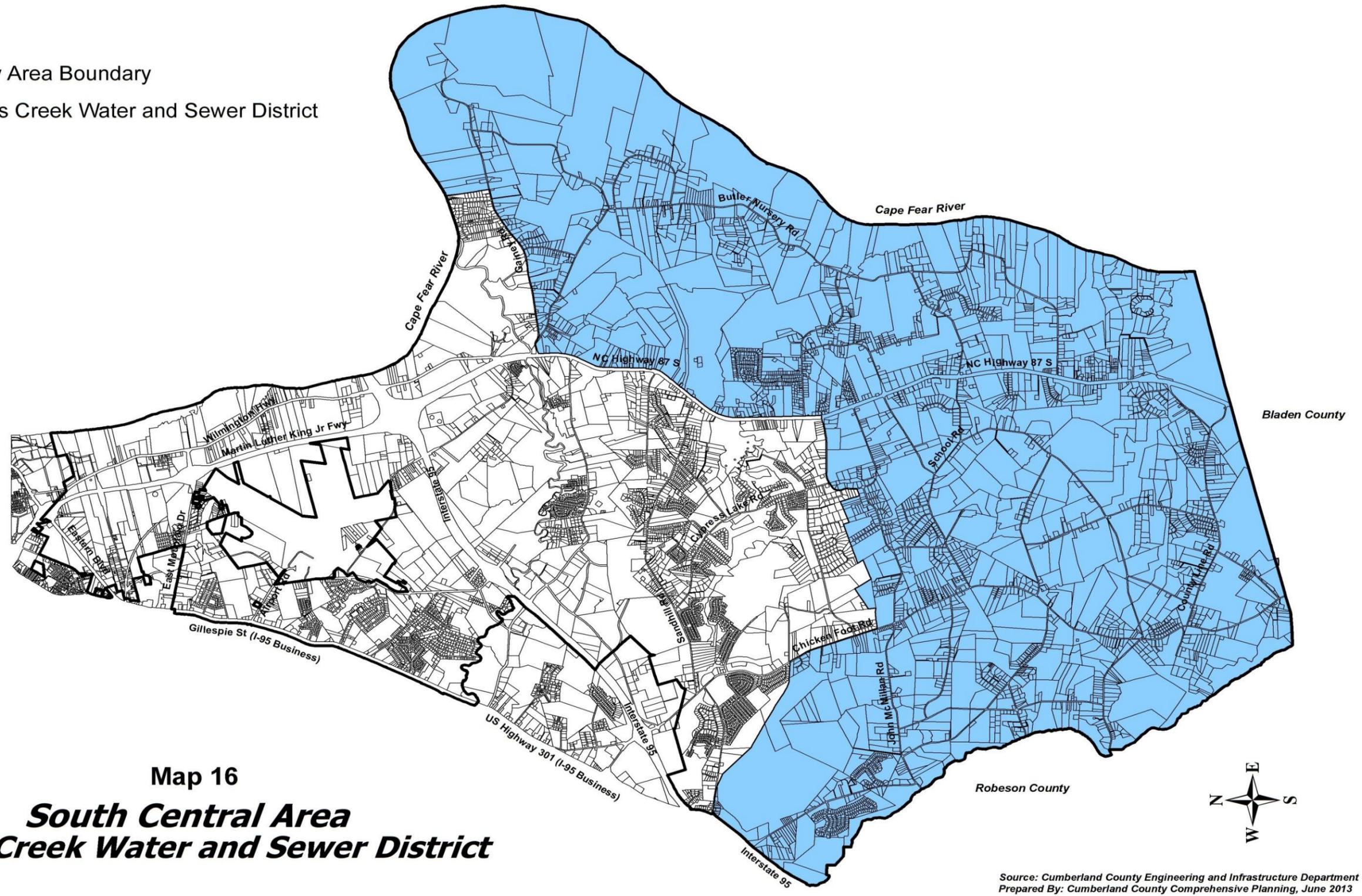
In 2009, the County established the Gray's Creek Water District. The District was defined on the east by the Cape Fear River, south by Bladen County, on the west by Robeson County and on the north by the PWC service area as shown on **Map 16 - Gray's Creek Water and Sewer District**, containing approximately 46.5 square miles and 5,812 homes. It was given top priority based on the density of development in the area and groundwater pollution in the Southpoint Subdivision. The planned source of the water was from PWC. In March 2011, a bond referendum was held to get support for establishing the district. The residents voted down the proposed bond. According to some participants in the plan development process, there is a need to reconsider the bond, but make sure the source of the water is from the Bladen Bluffs Water Treatment Plant and that it is totally controlled by residents in the Area.

GROUND WATER CONTAMINATION SITES

In 2008, a Safe Water Task Force was created by the Cumberland County Board of Commissioners to address contaminated private wells around the County Line/Chicken Foot Road area. The Cumberland County Safe Water Task Force, Interim Report established an initial plan of action that include a determination of the extent of current

Legend

- Study Area Boundary
- Gray's Creek Water and Sewer District



Map 16
South Central Area
Gray's Creek Water and Sewer District

Source: Cumberland County Engineering and Infrastructure Department
Prepared By: Cumberland County Comprehensive Planning, June 2013

ground water contamination in the County, updated the 2002 Rural Water Study, developed an inventory of water suppliers and their service area, identified potential funding sources for remediation, and developed a map of septic tank failures where the water source is private wells.

The Safe Water Task Force Report identified several sites within the Study Area as possible contaminated sites as shown on **Map 17 - South Central Area Ground Water Contamination Sites**. Wells in the Southpoint subdivision and the surrounding area were determined to be contaminated. The Cumberland County Board of Commissioners approved a water main extension from Bladen County to address the contaminated wells. This water main was installed in 2012.

SEWER SERVICE

Sewer is provided to the Area by the Fayetteville Public Works Commissions (PWC) and by individual septic tanks. The Rockfish Creek Water Reclamation Facility is located in the Study Area at the confluence of Rockfish Creek and the Cape Fear River, just off of Old Wilmington Highway at 2536 Tracy Hall Road. This facility was built in 1985 with an original capacity of 6 million gallons per day (MGD) and has been expanded three times to its current capacity of 21 MGD. The part of the Study Area that is currently served by public sewer is treated at this facility.

Map 18 - South Central Area Sewer Service shows the location of sewer service in the Area. Public sewer is provided in the central portion of the Study Area serving Braxton Cove, Braxton Farms, Bridlewood, Aspen Creek, and Cypress Lakes Villas Subdivisions; along Tom Starling Road serving Lakeside at Snow Hill, Tom Starling Estates, Rockfish Crossing, and Gray's Creek Villas; along N.C. Highway 87 South to the Gray's Creek Shopping Center, and along Airport Road and Fayetteville Regional Airport.

There is approximately 160,997 linear feet of sewer mains and approximately 37,706 linear feet of forced mains in the PWC system serving the Area. Approximately 13 lift stations are utilized in the provision of sewer to the Study Area. There are no long range plans to extend sewer in the Area by PWC, but there is a possibility that additional service will be extended by developers in the Area.

The remainder of the Area is served by septic tanks. Many of these septic systems are potentially located on soils with severe limitations for septic tank use. According to 2011 septic tank data (see page 35, **Map 8 - South Central Area Septic Tank Suitability Map**); approximately 463 septic systems have failed or required repair.

Legend

- Study Area Boundary
- Ground Water Contamination Sites

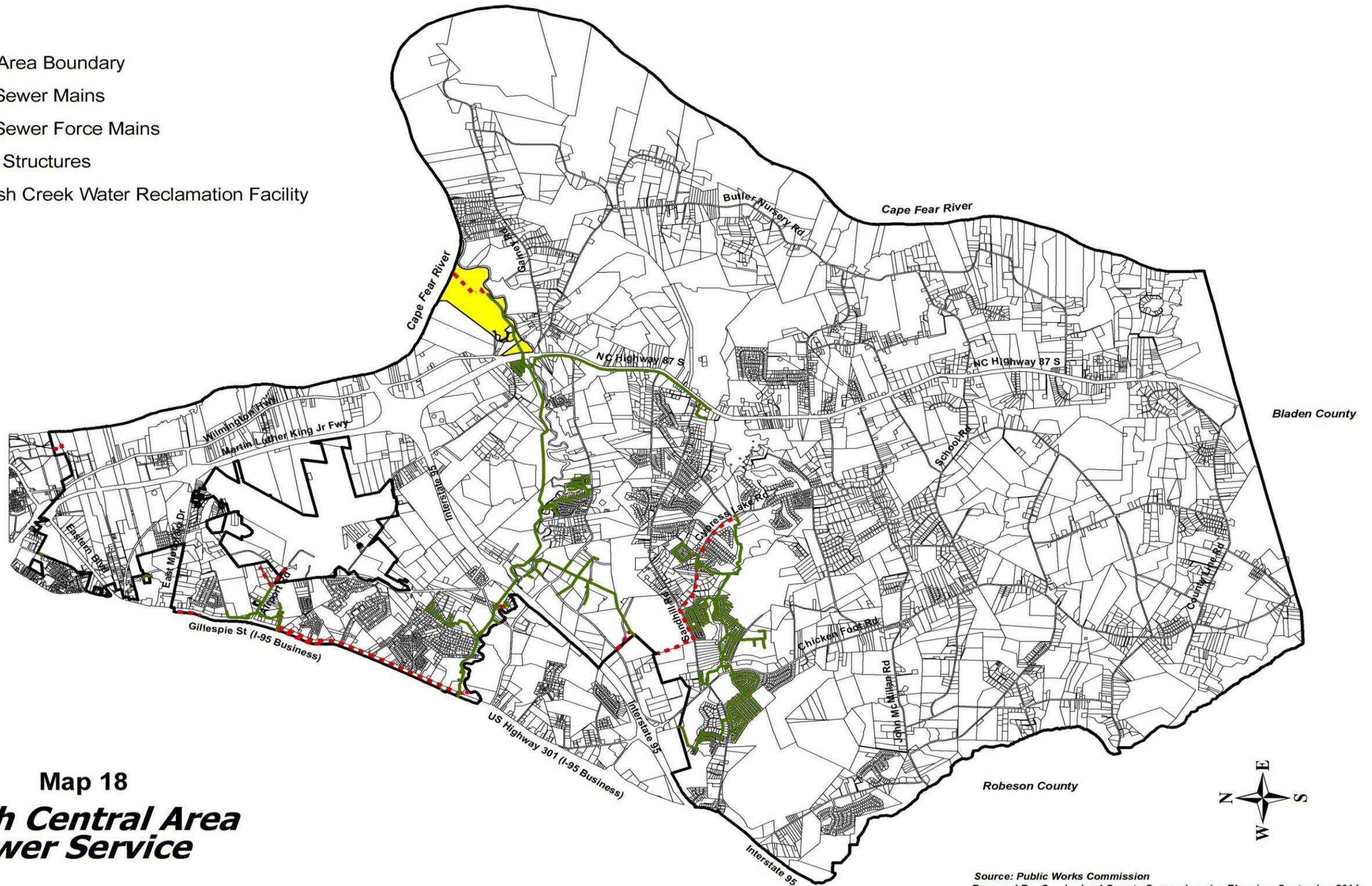


Map 17
South Central Area
Ground Water Contamination Sites

Source: Safe Water Task Force and Cumberland County Public Health Department
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- PWC Sewer Mains
- - - PWC Sewer Force Mains
- Sewer Structures
- Rockfish Creek Water Reclamation Facility



Map 18
South Central Area
Sewer Service

Source: Public Works Commission
Prepared By: Cumberland County Comprehensive Planning, September 2014

NATURAL GAS

Natural gas service is available to a limited portion of the Study Area as shown on **Map 19 - South Central Area Natural Gas Service**. There is a six-inch line that enters the area along Tom Starling Road and near the interchange at U.S. Highway 301 South and Chicken Foot Road (N.C. Highway 59). These two six-inch lines are tied together by an eight-inch line between Tom Starling Road and Walmart Drive, with a two-inch line servicing the Walmart Distribution Center. The service is provided by Piedmont Natural Gas, whose lines tap into the Transcontinental Gas Pipeline Corporation of Houston, Texas. There is approximately 23,818 linear feet of six-inch lines, 4,664 linear feet of eight-inch line, and 1,186 linear feet of four-inch natural gas lines in the Study Area. Recently, Piedmont Natural Gas installed a 6-inch non-pressure natural gas line from the existing line at the I-95/Chicken Foot Road intersection, continuing south along Chicken Foot Road to County Line Road and along County Line Road to DuPont Industries. Some of the subdivisions along the route have tapped into this line.

There is a proposed Atlantic Coastline Pipeline, bringing natural gas from West Virginia to the eastern part on North Carolina that will traverse the Study Area. This is a joint venture between Duke Energy, Dominion Power, Piedmont Natural Gas, and Virginia Natural Gas. This 36 inch line is scheduled for construction in 2016, with the service starting in 2018.

ELECTRIC SERVICE

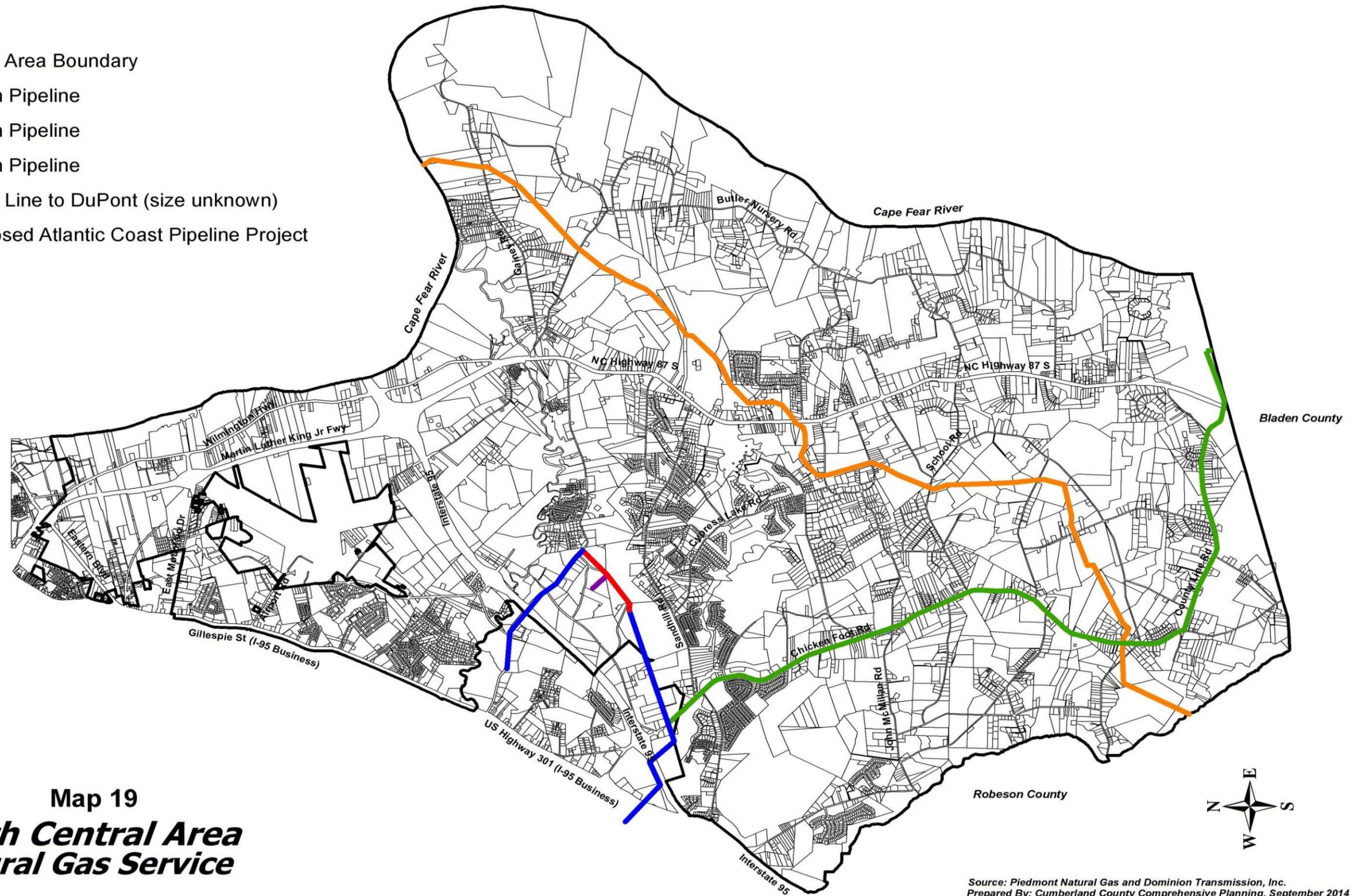
Electrical service to the South Central Study Area is provided by Duke Energy Progress, Public Works Commission (PWC) and South River Electric Membership Corporation (SREMC), with a portion of the area designated unassigned as shown on **Map 20 - South Central Area Electrical Providers**.

Duke Energy Progress serves the western portion of the Study Area along Gillespie Street (I-95 Business) and I-95, the area west and east of Claude Lee Road, east of I-95, to Rockfish Creek, including Lake Lynn, Pine Meadows, Tanglewood South, Riverview Estates, Lakeside@Snowhill and Snowhill Subdivisions. They also serve the area along Roslin Farm Road, including a portion of Roslin Farm West Subdivision and a portion of Braxton Road to the western study boundary.

PWC serves the northern portion of the study area, including north and west of Fayetteville Regional Airport, Doc Bennett Road, the Cumberland County Industrial Center; parcels east and west along NC Highway 87 South, parcels north and south of Thrower and Alderman Roads, and the east and west side of School Road.

Legend

- Study Area Boundary
- 4-inch Pipeline
- 6-inch Pipeline
- 8-inch Pipeline
- Trunk Line to DuPont (size unknown)
- Proposed Atlantic Coast Pipeline Project

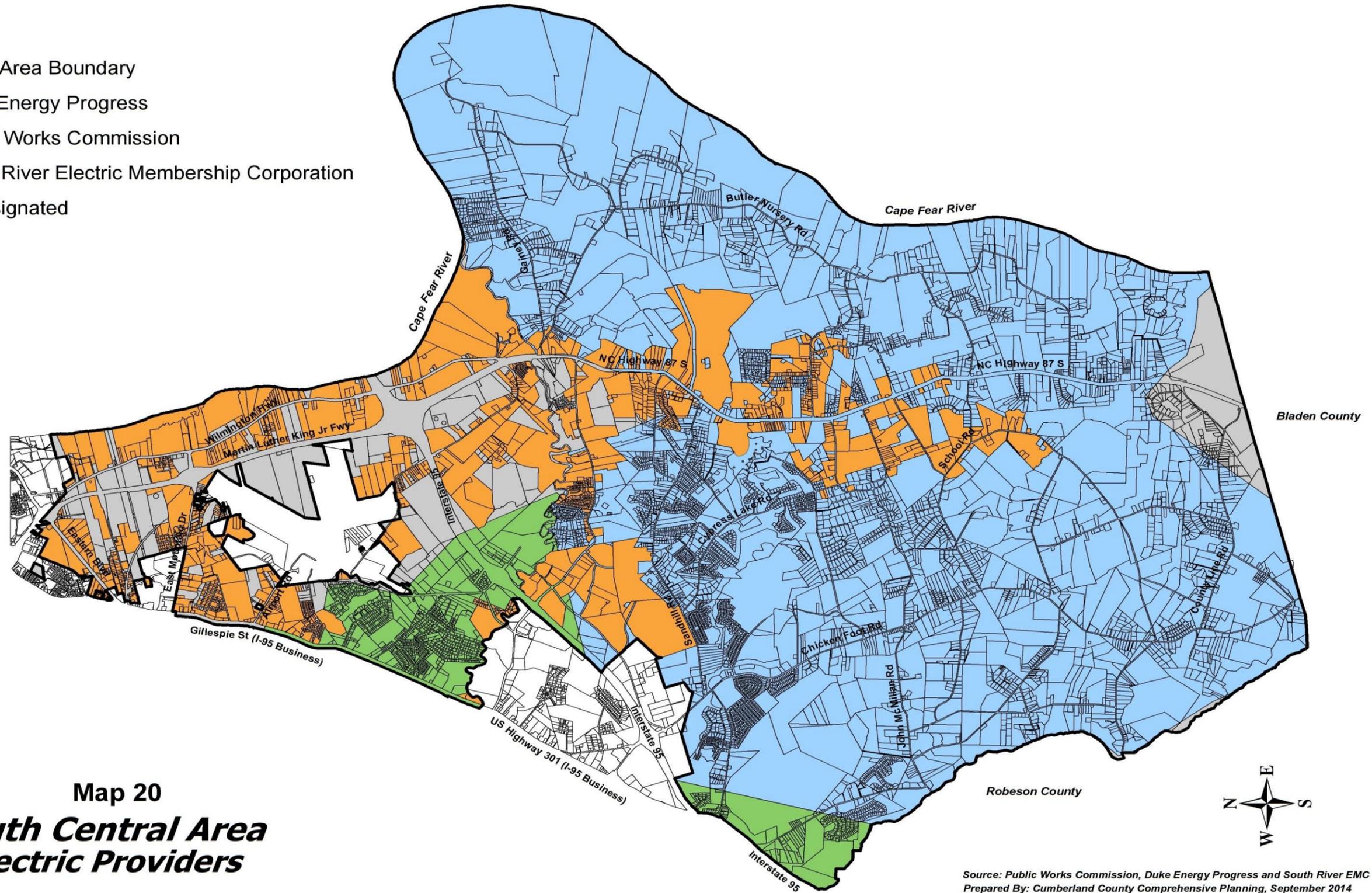


Map 19
South Central Area
Natural Gas Service

Source: Piedmont Natural Gas and Dominion Transmission, Inc.
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

-  Study Area Boundary
-  Duke Energy Progress
-  Public Works Commission
-  South River Electric Membership Corporation
-  Undesignated



Map 20
South Central Area
Electric Providers

Source: Public Works Commission, Duke Energy Progress and South River EMC
 Prepared By: Cumberland County Comprehensive Planning, September 2014

SREMC serves the majority of the Study Area. Its designated area is south of Rockfish Creek, east to the Cape Fear River, west to Robeson County Line and South to Bladen County Line.

The undesignated area is located in the northern and southern portion of the Study Area. The area is described as the west and east side of Martin Luther King, Jr. Freeway (NC Highway 87 South) to just south of Rockfish Creek and around the Fayetteville Regional Airport. The southern undesignated area is located in the most southern portion of the Study Area along NC Highway 87 to the Bladen County Line. The undesignated area is served by those providers with service available at that particular location.

TRANSPORTATION

Transportation elements in the Study Area included air, roads, river, pedestrian/bicycle, and transit service. Some of these services do not exist in the Study Area including the most urban portion of the Area.

Air

The Fayetteville Regional Airport contributes \$318 million dollars in economic impact to the region annually. The Fayetteville Regional Airport is not a part of this Study Area but its property and operations affect areas outside of its boundary. The Fayetteville Regional Airport Master Plan shows that 30% (13,210 acres) of the South Central Study Area is impacted by the operations of the airport. As shown on **Map 21 - South Central Area Fayetteville Regional Airport Operation Impact Zones**, the northern and western portions of the Study Area are impacted by Approach Zones One and Two, Horizontal Surface Zone, Conical Surface Zone and Transitional Zone.

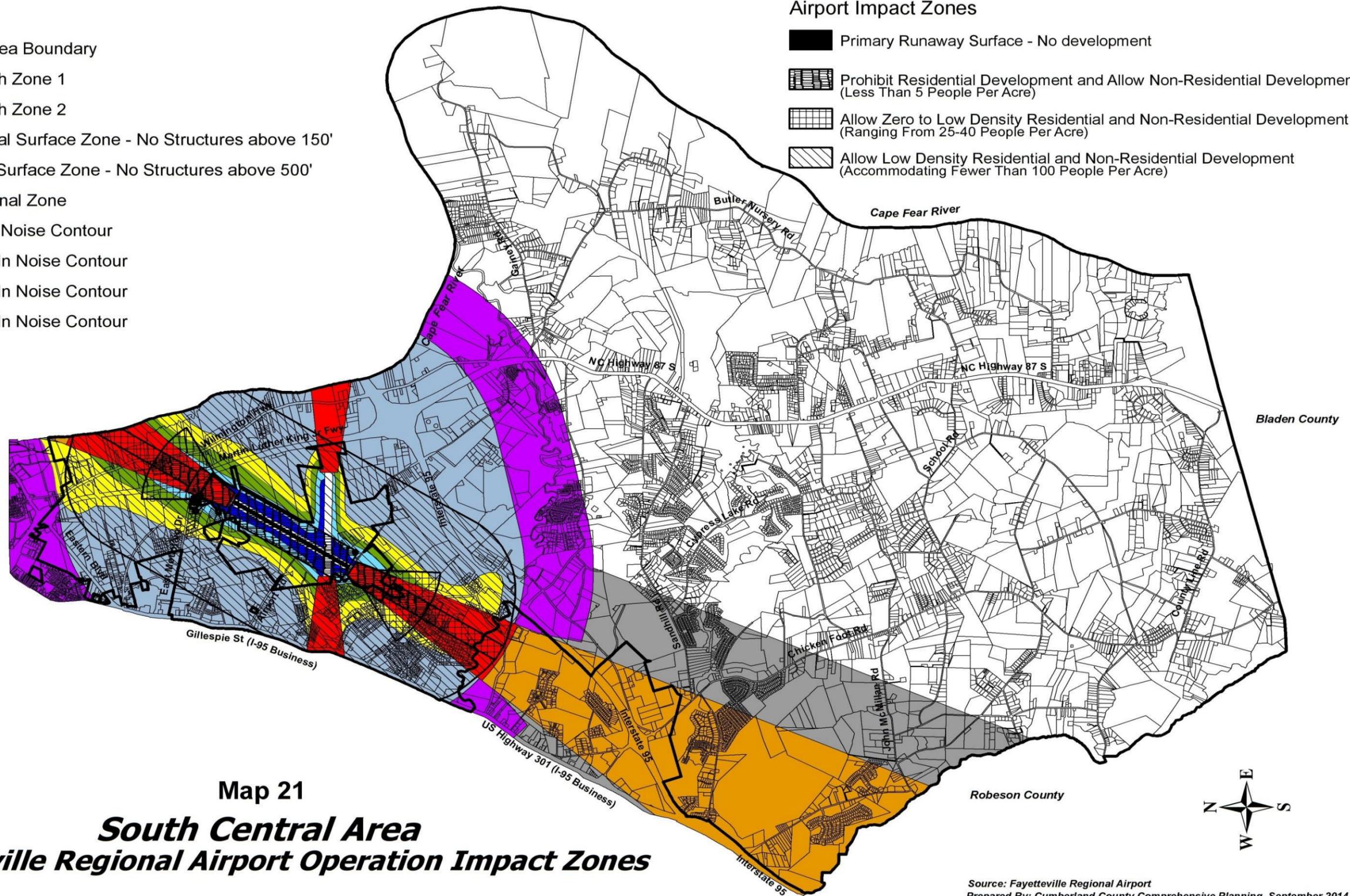
The Airport consists of two runways, a northeast-southwest designated as Runway 4-22, and the east-west designated as Runway 10-28. Runway 4-22 is the main runway used at the airport and is 7,204 feet long and 150 feet wide. Runway 10-28 is the crosswind runway and is 4,801 feet long and 150 feet wide. Both runways have an Approach Zone One, which is an inclined plane 50:1 slope for Runway 4-22 and 34:1 slope for Runway 10-28. This incline plane is located directly above the approach area and measured horizontally. Approach Zone One is the closest to the actual runways for landing and departures and is the most critical concerning development within this area. The areas affected by Approach Zone One for Runway 4-22 are Martin Luther King Jr. Freeway, Wilmington Highway and continuing northeast to Cape Fear River, north of Rockfish Creek to the southwest end of the main runway, and the eastern portion of Riverview Estates Subdivision. Runway 10-28 affects smaller parcels from the runway east to Cape Fear River and west to Gillespie Street (I-95 Business). Approach Zone Two is an incline plane at a 40:1 slope, located on Runway 4-22 only. The area affected by this is the southwest end of Approach Zone One to the Robeson County Line.

Legend

- Study Area Boundary
- Approach Zone 1
- Approach Zone 2
- Horizontal Surface Zone - No Structures above 150'
- Conical Surface Zone - No Structures above 500'
- Transitional Zone
- 75+ Ldn Noise Contour
- 70-75 Ldn Noise Contour
- 65-70 Ldn Noise Contour
- 60-65 Ldn Noise Contour

Airport Impact Zones

- Primary Runaway Surface - No development
- Prohibit Residential Development and Allow Non-Residential Development (Less Than 5 People Per Acre)
- Allow Zero to Low Density Residential and Non-Residential Development (Ranging From 25-40 People Per Acre)
- Allow Low Density Residential and Non-Residential Development (Accommodating Fewer Than 100 People Per Acre)



Map 21
South Central Area
Fayetteville Regional Airport Operation Impact Zones



Source: Fayetteville Regional Airport
 Prepared By: Cumberland County Comprehensive Planning, September 2014

The Horizontal Surface Zone is a plane circular in shape that limits the height of structures to 150 feet above the airport elevation. Most of the northern portion of the Study Area around the airport is located within the Horizontal Surface Zone. The Conical Surface Zone limits structures to a height of 350 feet. This zone surrounds the outside of the Horizontal Surface Zone and is approximately 200 feet in width. The Transitional Zone is an outward and upward incline at a 7:1 slope along both sides of Approach Zone Two and impacts the southwest portion of the Study Area, from the end of the Conical Surface Zone to the Robeson County line. It is imperative that the area surrounding the Fayetteville Regional Airport and its zones be protected from any encroachments that could hinder the operations of the airport and any proposed future expansions.

The airport has three carriers that provide service. The carriers are American, Delta, and United Airlines. US Airways offers eight flights daily to the Charlotte hub, Delta provides six flights daily to Atlanta hub, and United offers three flights daily to its Dulles hub in Washington D.C. The airport serves approximately 480,000 passengers per year. Fayetteville experiences passenger leakage to Raleigh-Durham International Airport. Leakage can be reduced as new service is offered at Fayetteville Regional Airport. In 2012 a direct flight to Reagan National Airport in Washington D.C. was added, however, due to the merger of US Airways with American, the Reagan National flight was eliminated in 2014.

Roads

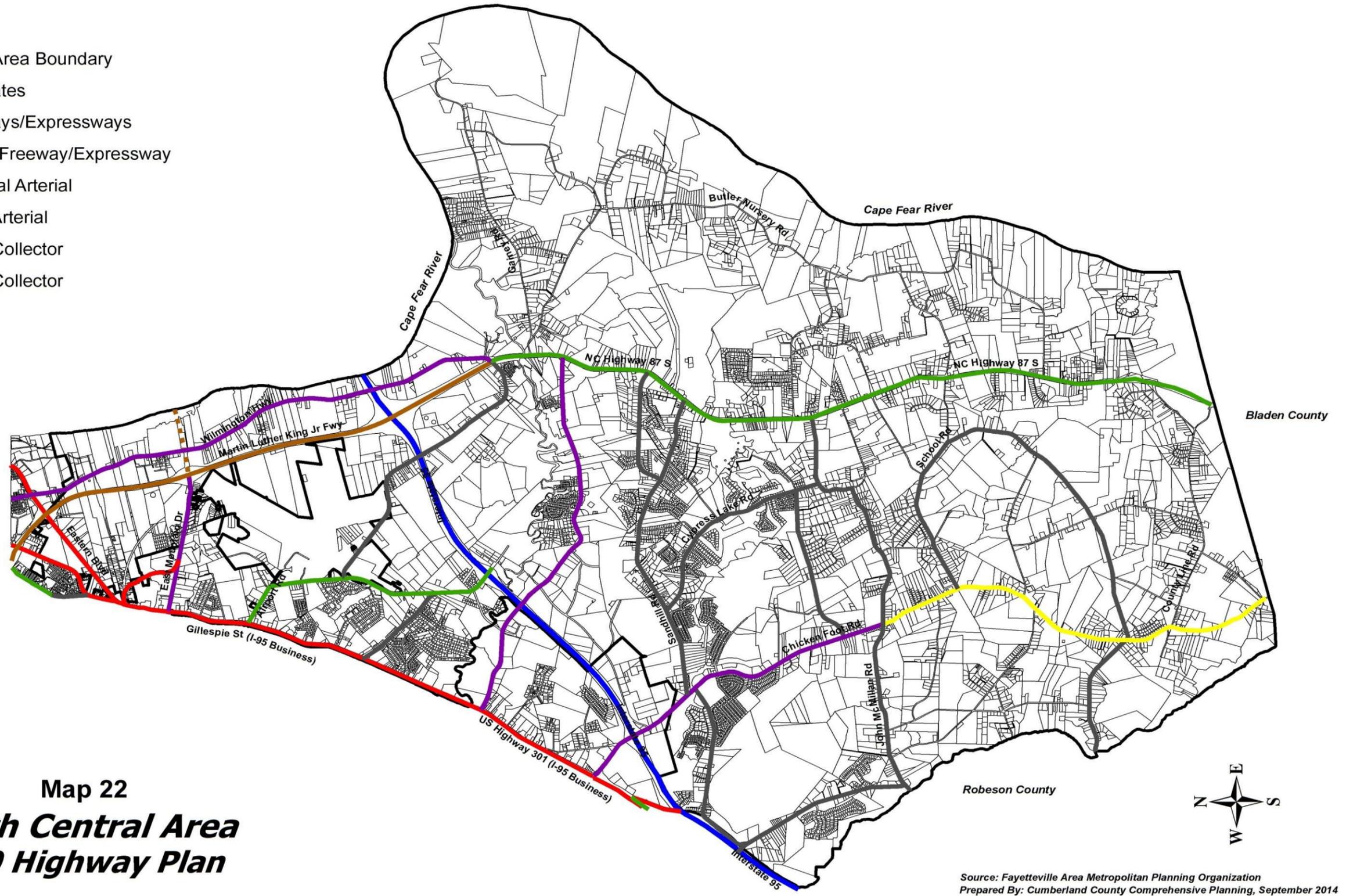
The Study Area consists of many different road classifications based on Fayetteville Area Metropolitan Planning Organization's (FAMPO), 2040 Highway Plan, 2014. These classifications consist of Interstates, Freeways/Expressways, Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors and Local Roads as shown on **Map 22 - South Central Area 2040 Highway Plan**.

Interstates are designed and constructed for mobility and long-distance travel. These limited access and divided highways link together major urban areas of the United States. I-95 that traverses the Study Area is classified as an Interstate. It is in need of improving, according to the I-95 Corridor and Finance Study, October 2012. Interstate 95 is currently proposed to be expanded to eight (8) lanes completely through Cumberland County. The corridor portion of the study has been completed, but the finance portion is currently under study.

Freeways/Expressways are roads that have directional travel lanes usually separated by some type of barrier with access and egress limited to on/off ramps or very limited number at-grade intersections. They also are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them. The only designated freeway/expressway in the Study Area is Martin Luther King, Jr. Freeway from the northern study boundary line south to Doc Bennett Road.

Legend

- Study Area Boundary
- Interstates
- Freeways/Expressways
- Future Freeway/Expressway
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local



Map 22
South Central Area
2040 Highway Plan

Source: Fayetteville Area Metropolitan Planning Organization
 Prepared By: Cumberland County Comprehensive Planning, September 2014

Principal Arterials are roadways that serve major metropolitan areas and provide a high degree of mobility through rural areas. These arterials allow abutting land uses to be served directly through driveways and at-grade intersections with other roadways. Designated principal arterials within the Study Area are Owen Drive, NC Highway 87 from Doc Bennett Road south to Blossom Road and I-95 Business/U.S. highway 301 South/Gillespie Street from the northern study area boundary to intersections with I-95. According to 2040 Highway Plan, March 2014, I-95 Business/U.S. Hwy.301 South/Gillespie Street is scheduled for safety improvements.

Minor Arterials provide for trips of moderate length, serve smaller geographic areas and offer connectivity to other arterials. Minor Arterials serve both urban and rural areas. In urban areas they interconnect and augment other arterials, provide continuity, and may carry local bus routes. In rural areas, they are spaced at intervals consistent with population density and designed to provide higher overall travel speed. The roads indicated on the 2040 Highway Plan, March 2014 as a Minor Arterial are NC Highway 87 from Blossom Road south to the County line, Wilmington Highway from the northern study area boundary line south to Owen Drive, Airport Road, Claude Lee Road and Chicken Foot Road from the Study Area boundary limit south to Clifton McNeill Road.

The function of Collectors is to gather traffic from local roads and disperse it to the arterial road network. These collectors serve both the rural and urban areas and are subdivided into two categories, Major and Minor. Major Collectors are usually longer in length, have less driveway connections, higher speed limits, are spaced further apart, have higher annual traffic volumes with more travel lanes, and offer more mobility. The roads designated as Major Collectors are Tom Starling Road, East Mountain Drive and Chicken Foot Road from Clifton McNeill Road to the County line. Minor Collectors are very similar to Major Collectors, except minor collectors offer more access. There are no designated Minor Collectors within the Study Area.

Local Roads account for the largest percentage of road mileage than any of the other classifications. These roads provide direct access to abutting land, discourage through traffic, is accessible for public use, provide access to arterial and collector roads, and provide travel service for short distances. Roads designated as local roads are all roads that are not classified as interstate, expressway/freeway, arterial, or collector.

Bicycle and Pedestrian Plan

FAMPO contracted with Stewart Engineering in 2010 to develop a Bicycle and Pedestrian Connectivity Plan for Cumberland County. This Plan calls for three types of pedestrian and bicycle facilities within the Study Area: a Creek Corridor, a Neighborhood Corridor, and Bicycle Connectors as shown on **Map 23 - South Central Area Bicycle and Pedestrian Connectivity Plan**. Bicycle Connectors are major bike routes that provide bike access to various locations within the Study Area and other destinations throughout the County and region.

The designated Bicycle Connectors within the Study Area include Wilmington Highway from the Fayetteville City Limits south to Doc Bennett Road, Doc Bennett Road, Airport Road, Claude Lee Road, Tom Starling Road, Chicken Foot Road from the Study Area Boundary south to John McMillan Road, and I-95 Business/U.S. Highway 301 South/Gillespie Street from Airport Road south to Elk Road.

Creek Corridors are generally located along creeks and streams. These corridors can evolve into pathways for bicycle and pedestrian use or greenways. Rockfish Creek is designated as a Creek Corridor.

Neighborhood Corridors are comprised of existing and proposed sidewalks, trails, greenways and safe roadways for walkers and bicyclists. These corridors make “cross-town” connections safe for walkers and bicyclists, while linking neighborhoods and destinations. In the Study Area, this corridor will be located along the Cape Fear River.

Transit

The Fayetteville Area System of Transit (FAST) does not provide bus routes that extend in the Study Area. FAST Routes 3, 8, and 30 serves the northern portion of the Study Area within the Fayetteville City Limits. These routes are within a ¼ mile of the Study Area and would be considered providing transit service to the northern parts of the Study Area according to FAST service standards. Transit routes, as they relate to the Study Area are shown on **Map 23 - South Central Area Bicycle and Pedestrian Connectivity Plan**.

River

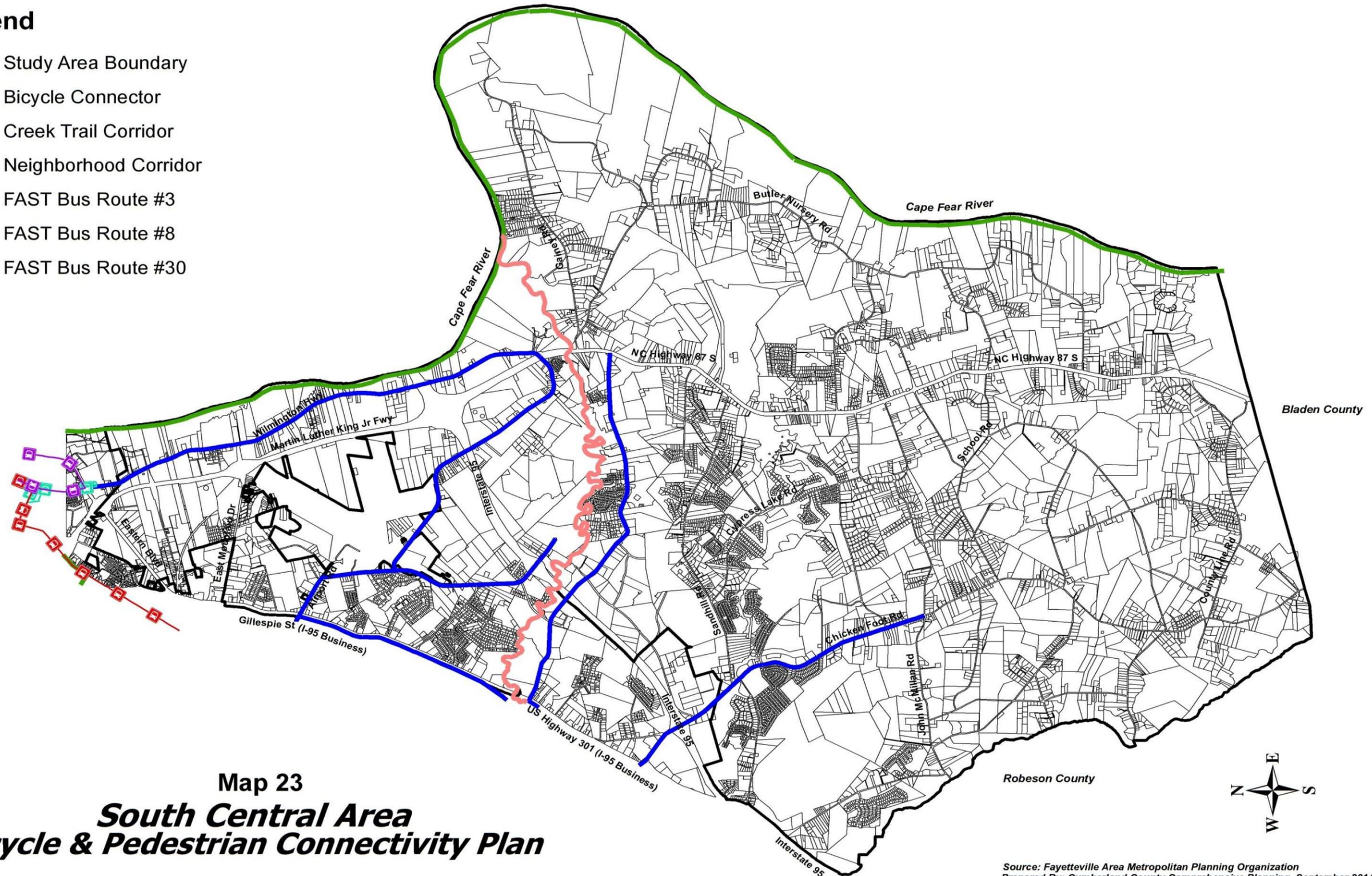
The Cape Fear River is a 202-mile long river that flows through 27 counties in the heart of North Carolina and forms the eastern boundary of the Study Area. The Cape Fear River has played an important role in the economy of Cumberland County since the 1730s. Starting in 1754, this portion of the upper Cape Fear River was a receiving and distribution center named Campbellton, the early settlement that would later become Fayetteville. Additionally the Cape Fear River was a transportation highway to the port at Wilmington, which shipped goods to other parts of the world. Transportation is now limited for recreational activities such as boating and canoeing. Cape Fear River Boat Cruises, a recreation business that departs from the Riverside Marine at Campbellton Landing, offers seasonal cruises down the River.

Currently, there are two public access sites to the Cape Fear River that are located within the South Central Study Area: the Arnette Park site located at 2165 Wilmington Highway and Public Boat Access site also located on Wilmington Highway.

Another significant fact about the Cape Fear River is that it is designated as part of the East Coast Greenway System, a pedestrian/bicycle trail that, when completed, will extend from Maine to Florida.

Legend

-  Study Area Boundary
-  Bicycle Connector
-  Creek Trail Corridor
-  Neighborhood Corridor
-  FAST Bus Route #3
-  FAST Bus Route #8
-  FAST Bus Route #30



Map 23
South Central Area
Bicycle & Pedestrian Connectivity Plan


 Source: Fayetteville Area Metropolitan Planning Organization
 Prepared By: Cumberland County Comprehensive Planning, September 2014

EXISTING ZONING

The Study Area was part of Areas 4, 6, 13 and 17 of the County Initial Zoning Program. Existing zoning in the Area is shown on **Map - 24 South Central Area Existing Zoning**. A detailed analysis of existing zoning districts are shown in **Exhibit 27 - Existing Study Area Zoning District Analysis**. Zoning districts in the Area include A1-Agricultural, A1A-Agricultural, R40-Residential, R40A-Residential, R30-Residential, RR-Rural Residential, R20-Residential, R10-Residential, R6-Residential, R6A-Residential, R5A-Residential, O&I(P)-Planned Office and Institutional, C1(P)-Commercial, C2(P)-Commercial, C(P)-Heavy Commercial, HS(P)-Highway Service, C3-Commercial, M(P)-Manufacturing, M1(P)-Manufacturing, M2-Manufacturing, and CD-Conservation Districts.

Currently there are two agricultural zoning districts: A1 and A1A-Agricultural Districts. The A1-Agricultural District allows a density of one unit per two acres and allows Class “A”&”B” manufactured home; while the A1A-Agricultural District allows an approximate density of one unit per acre and allows only Class “A” manufactured and stick built homes. Agricultural districts account for approximately 60% or 26,651 acres of the Study Area.

There are 10 residential zoning districts in the Area comprising approximately 23% or 10,312 acres. These districts along with their density, include the R40-Residential District - 1.09 unit per acre, R40A-Residential District - 1.09 unit per acre, R30 - Residential District - 1.45 units per acre, RR-Rural Residential District - 2.19 units per acre, R20-Residential District 2.19 units per acre, R15-Residential District - 2.9 units per acre, R10-Residential District (R7.5) - **5.81**units per acre, R6-Residential District - **9.64** units per acre, R6A-Residential District - **9.64** units per acre, and the R5A-Residential District - 14.52 units per acre. The A1, R40A, and RR allow all types of manufactured homes on individual lots, whereas A1A and

Exhibit 27 - Existing Study Area Zoning District Analysis

Land Use	Zoning District	Acres	Percent of Total
Agricultural	A1*	26,637	59.57%
	A1A*	14	0.04%
	TOTAL	26,651	59.61%
Residential	R40	1,215	2.72%
	R40A*	637	1.42%
	R30	54	0.12%
	RR*	4,696	10.50%
	R20	163	0.36%
	R15	1,011	2.26%
	R10**	1,488	3.33%
	R6	30	0.07%
	R6A*	1,004	2.25%
R5A	14	0.03%	
TOTAL	10,312	23.06%	
Office/Institutional	O&I(P)	28	0.06%
TOTAL	28	0.06%	
Commercial	C1(P)	51	0.11%
	C2(P)	9	0.02%
	C(P)	715	1.60%
	HS(P)**	69	0.15%
	C3**	81	0.18%
TOTAL	925	2.06%	
Manufacturing	M(P)	4,984	11.15%
	M1(P)	7	0.02%
	M2**	180	0.40%
TOTAL	5,171	11.57%	
Open Space	CD	1,627	3.64%
TOTAL	1,627	3.64%	

Source: Cumberland County

* allows manufactured homes (A1A allows Class A only)

** denotes dormant zoning district

R40A allow only Class “A” manufactured homes. Manufactured home parks are only allowed in the R6A–Residential District. The R10-Residential District is dormant and was replaced with R7.5 Residential District. Over half of residentially zoned land is classified as R40, R40A, or RR.

The O&I(P) - Planned Office and Institutional District comprise less than one percent or 28 acres of the zoning in the Study Area.

There are five commercial zoning districts in the Study Area. These five districts are HS(P)-Planned Highway Service, C(P) - Planned Commercial, C3-Heavy Commercial C2(P)-Planned Commercial, C(P)-Planned Light Commercial. The HS(P) and C3 districts are dormant. Approximately 2% (925 acres) of the Study Area is zoned for commercial use. Over 77% of the commercial zoned land is zoned C(P) - Planned Commercial.

Three manufacturing zoning districts are in the Study Area. They are M(P)-Planned Manufacturing, M2-Heavy Manufacturing (dormant district), and M1(P)-Planned Light Manufacturing containing approximately 12% (5,171 acres) of the Area. Many of these districts are located around Fayetteville Regional Airport and include the Cumberland County Industrial Center.

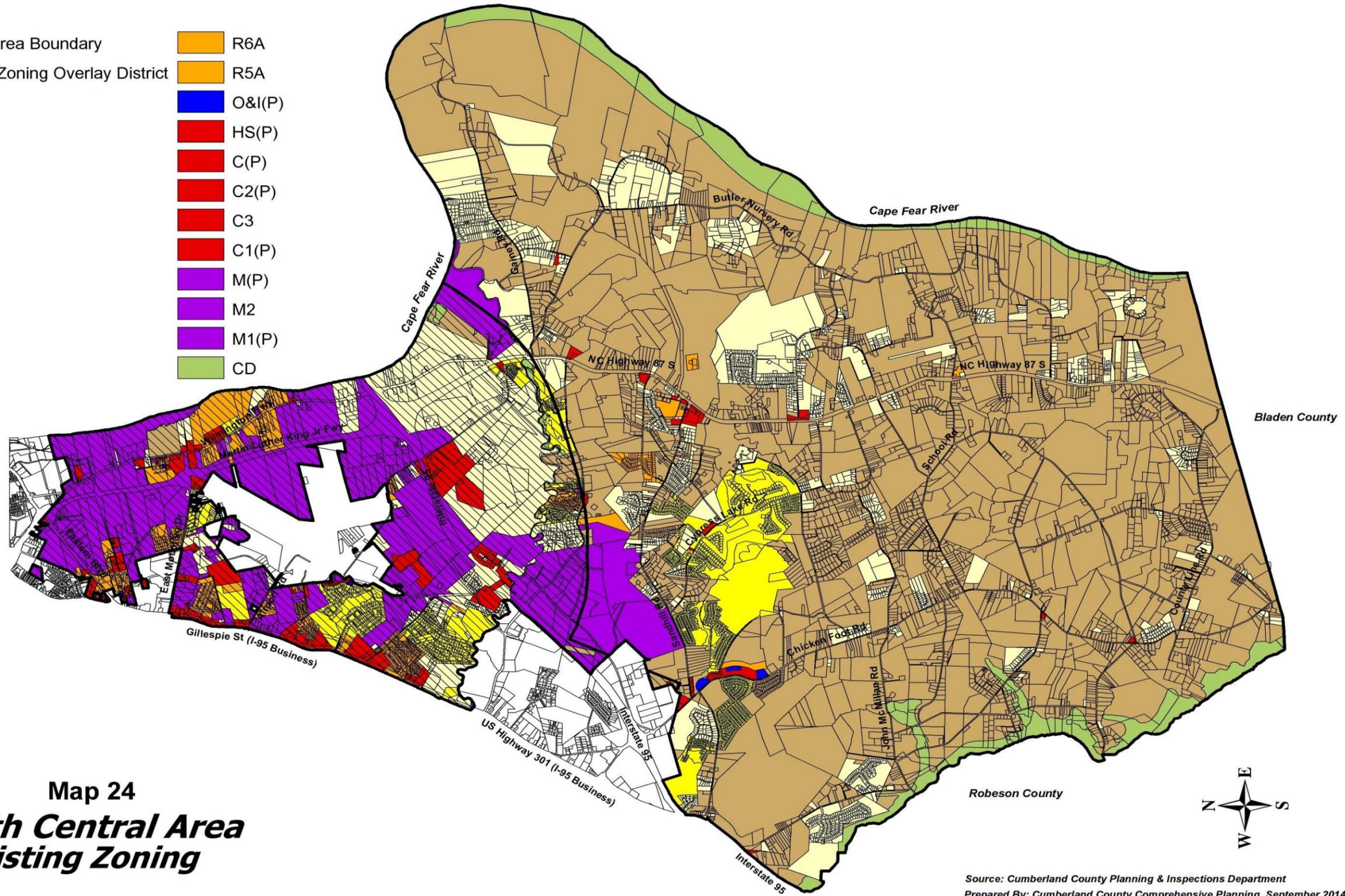
The CD-Conservation District’s purpose is to protect sensitive flood areas, which are located along the River, creeks, swamps, and drainageways accounts for 4% (1,627 acres) of the Study Area.

There is an Airport Overlay District surrounding Fayetteville Regional Airport containing approximately 22% (9,680 acres) the Study Area. This district is designed to protect the airport’s operations and human life.

In summary, Study Area zoning data shows that over 60% of the Area is zoned for Agricultural, 23% for residential use, less than one percent for office and institutional, 2% commercial, 11% for manufacturing and industrial, 4% percent for conservation, and over a quarter of the Area is impacted by overlay zoning around the airport.

Legend

- Study Area Boundary
- ▨ Airport Zoning Overlay District
- A1
- A1A
- R40
- R40A
- R30
- RR
- R20
- R15
- R10
- R6
- R6A
- R5A
- O&I(P)
- HS(P)
- C(P)
- C2(P)
- C3
- C1(P)
- M(P)
- M2
- M1(P)
- CD



Map 24
South Central Area
Existing Zoning



Source: Cumberland County Planning & Inspections Department
 Prepared By: Cumberland County Comprehensive Planning, September 2014

EXISTING LAND USE

Existing land use information provides a window into the type, ratio, quantity of development, and a basis for determining future land use needs for the Study Area. It also demonstrates the existing location and relationship between residential neighborhoods, commercial areas, open space systems, community facilities and services, and centers of employment in the Area. Existing land use data was obtained from the Cumberland County Tax Office records.

Exhibit 28 - Existing Land Use in the Study Area, 2014

shows that out of 9,387 parcels, there are 4,471 (48%) used for single family stick built residential, 844 (9%) parcels containing double-wide manufactured homes classified as real property, 113 (1%) parcels containing double-wide manufactured homes classified as personal property, 52 (0.5%) parcels

Exhibit 28 - Existing Land Use in the Study Area, 2014

Land Use	Type of Structure	Number of Parcels	Number of Units	Parcel Percentage
Residential	Single Family Residential	4,471		48%
	DW MH Real Property	844		9%
	DW MH Personal Property	113		1%
	SW MH Real Property	52		1%
	SW MH Personal Property	505		5%
	Multi-Family Apartments	4	12	0%
	Manufactured Home Parks	10	229	0%
TOTAL		5,999		64%
Office & Institutional		73		1%
TOTAL		73		1%
Commercial		115		1%
TOTAL		115		1%
Industrial		19		0%
TOTAL		19		0%
Vacant		3,181		34%
TOTAL		3,181		34%

Source: Cumberland County Tax Department
 DW: Double Wide/ SW: Single Wide/ MH: Manufactured Home

containing single-wide manufactured homes classified as real property, 505 (5%) parcels containing single-wide manufactured homes classified as personal property, 4 (0.1%) parcels are used as multi-family structures (apts.), 10 (0.1%) parcels manufactured home parks, 73 (1%) parcels Office and Institutional, 115 (1%) parcels Commercial, 19 (0.3%) parcels Industrial, and 3,181(34%) parcels that are currently vacant. The location of the existing land use is shown on **Map 25 - South Central Area Existing Land Use.**

WATERSHED

The Cumberland County Watershed Protection Map was revised and amended in December 2009 to protect the newly established Bladen Bluffs Regional Surface Water System on the Cape Fear River. Its primary customer is the Smithfield Packing Plant in Tarheel, NC. Establishing the Bladen Bluffs Regional Surface Water System watershed

protects this public water drinking supply from pollutants. The Bladen Bluffs watershed is designated as a Watershed IV - Protected Area (WS-IV-PA) and includes the area that is approximately ten miles upstream from the water supply intake. This watershed area extends northward, along the Cape Fear River and encompasses approximately 10,024 acres (22%) within the Study Area as shown on **Map 26 - South Central Area Bladen Bluffs Watershed**.

The Cumberland County Watershed Ordinance allows development within WS-IV-PA if it meets the following development criteria:

1. If an erosion/sedimentation control plan is required, watershed regulations must be applied.
2. Low Density Development
 - a. Development limited to two dwellings units per acre or up to 24% impervious area.
 - b. Planning Staff approval
3. High Density Development (with stormwater control measures)
 - a. Development limited to up to 70% impervious surface
 - b. County Board of Adjustment approval required

DEVELOPMENT ACTIVITIES

Development activities provide a window into the development pressure the Area has experienced over the years. These development activities include rezoning, development reviews such as site plans and subdivisions, and Board of Adjustment cases, as shown on **Map 27 - South Central Area Development Activities**.

Exhibit 29 - South Central Study Area Rezoning Data, 2013

Zoning Change	Cases		Acres	
	Number	Percent of Total	Number	Percent of Total
Agricultural to Residential	183	45%	4,778	49%
Agricultural to Commercial	14	3%	62	1%
Agricultural to Industrial	5	1%	1,198	12%
Residential to Commercial	32	8%	181	2%
Residential to Industrial	16	4%	418	4%
Residential to Higher Density Residential	15	4%	577	6%
Commercial to Residential	16	4%	120	1%
Commercial to Industrial	4	1%	18	0%
Industrial to Residential	34	8%	406	4%
Industrial to Commercial	13	3%	144	1%
Other Cases	71	18%	1,866	19%
TOTALS	403	100%	9,768	100%

Source: Cumberland County

Data shows that there have been 403 rezoning cases containing 9,768 acres (22% of the Land area) in the Study Area between 1979 and May 2013, as illustrated in **Exhibit 29 - South Central Study Area Rezoning Data**. Major concentrations of these rezoning cases are along Sandhill Road, Cypress Lakes Road, U.S. Highway

301 South, Chicken Foot Road, County Line Road, Old Wilmington Road, N.C. Highway 87 South, and East Mountain Drive.

Rezoning data was analyzed by the number of cases, amount of acreage, and the requested zoning district. Analyzing the number of cases reveal 45% (183 cases) have been from agricultural to residential, 17.62% (71 cases) other cases, 8.44% (34 cases) from industrial to residential, 7.94% (32 cases) from residential to commercial, 3.47% (14 cases) agricultural to commercial, 3.97% (16 cases) from residential to industrial, 3.72% (15 cases) residential to a higher density residential, and 3.97% (16 cases) from commercial to residential. It should be noted that the number of cases listed as other are cases of rezoning to a similar district such as R40 to R40A Residential or C (P) to C3 Commercial.

Concluding rezoning data shows the number of rezoning changes to residential or residential to a higher density residential indicates, there is development pressure in the area for residential development. In the Study Area approximately 62% of the rezoning cases were to a residential zoning district consisting of 5,881 acres.

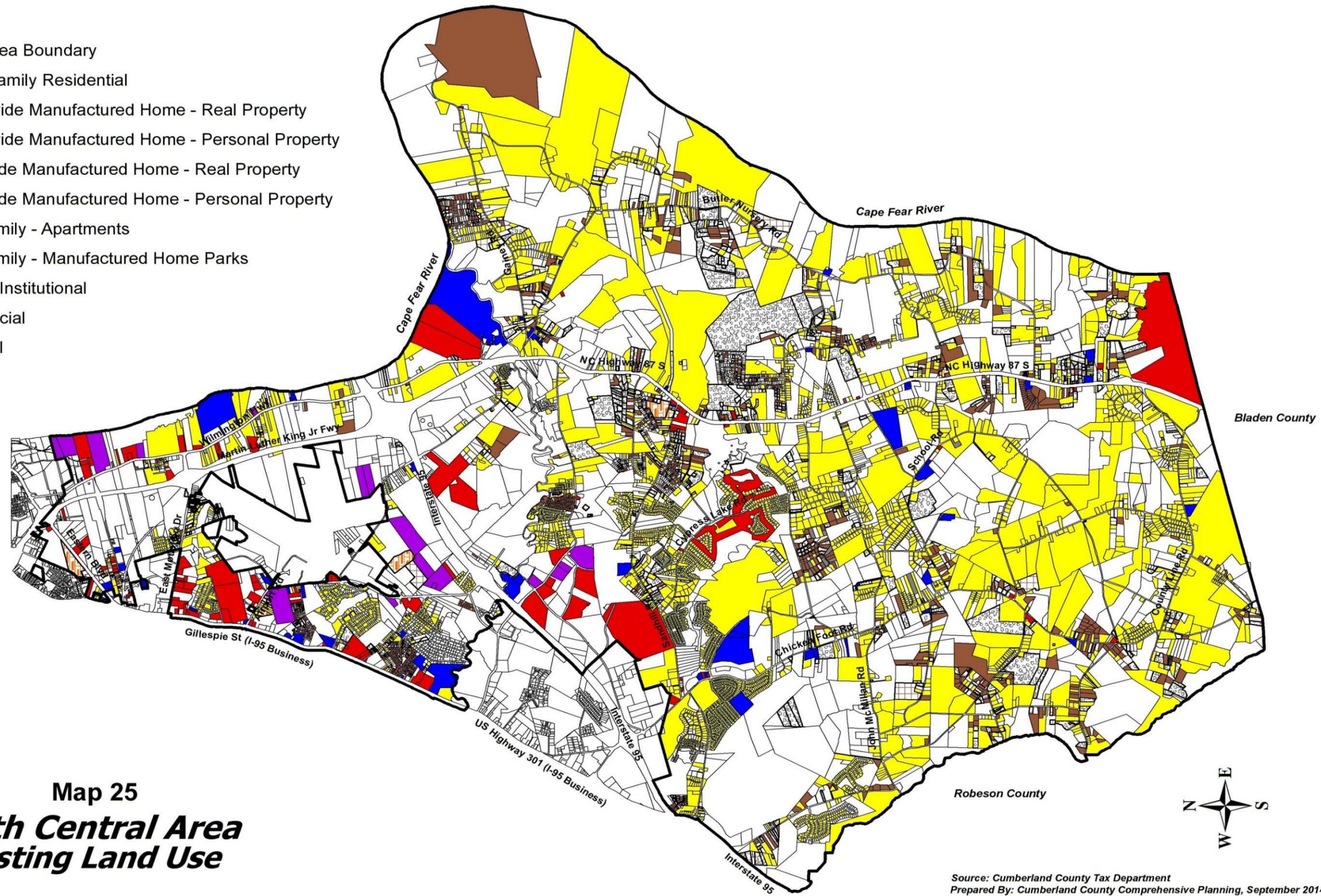
The data for development reviews indicates that there have been 1,221 site plans or subdivision reviews since 1970. An analysis of development reviews shows that 662 (54.2%) were subdivisions reviews, 68 (5.5%) site plans, 107 (8.7%) group developments, 12 (.98%) manufactured home parks, 328 (26.8%) no approval required subdivisions, and 44 (3.6%) were revisions. This reinforces the fact that the greatest demand in the Study Area has been residential use.

Another development activity in the Area is the number of cases presented to the Board of Adjustments. The Board of Adjustment addresses cases that need variances, special use permits, and appeals. Between 1988 and 2013, there were 124 Board of Adjustment cases.

In conclusion, the development activities show that there is a great demand in the Area for residential development. The majority of the rezoning cases have been to residential zoning classifications and subdivisions have accounted for over 50% of the development reviews in the Study Area. If past trends continue, residential will be the largest demand for land in the Study Area. Existing and potential employment in the Area may influence this growth with the location of the Cumberland County Industrial Center, the Wal-Mart Distribution Center, and the many acres in the Area zoned for commercial, industrial and manufacturing use.

Legend

- Study Area Boundary
- Single Family Residential
- Doublewide Manufactured Home - Real Property
- Doublewide Manufactured Home - Personal Property
- Singlewide Manufactured Home - Real Property
- Singlewide Manufactured Home - Personal Property
- Multi-Family - Apartments
- Multi-Family - Manufactured Home Parks
- Office & Institutional
- Commercial
- Industrial

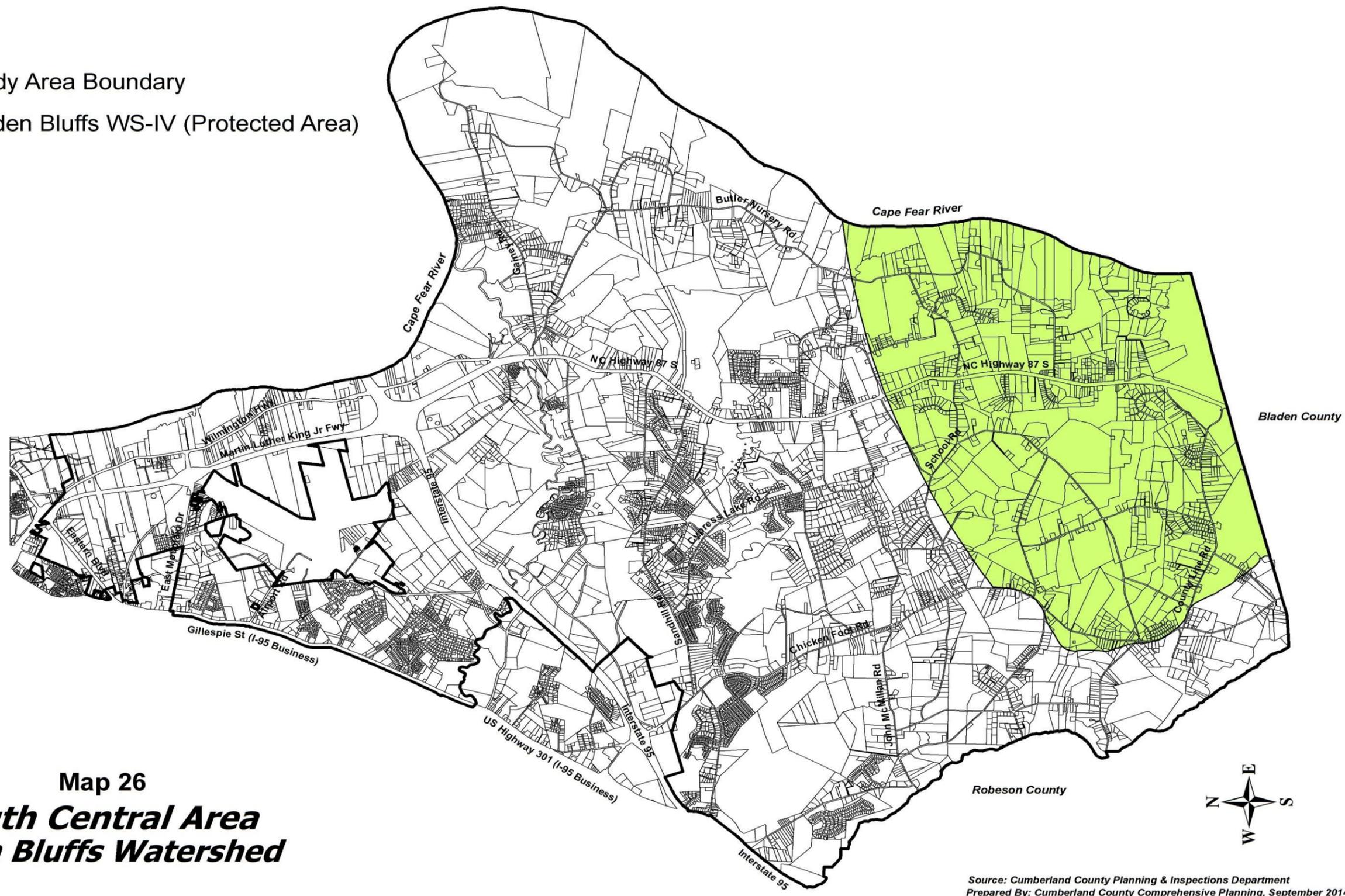


Map 25
South Central Area
Existing Land Use

Source: Cumberland County Tax Department
 Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Bladen Bluffs WS-IV (Protected Area)

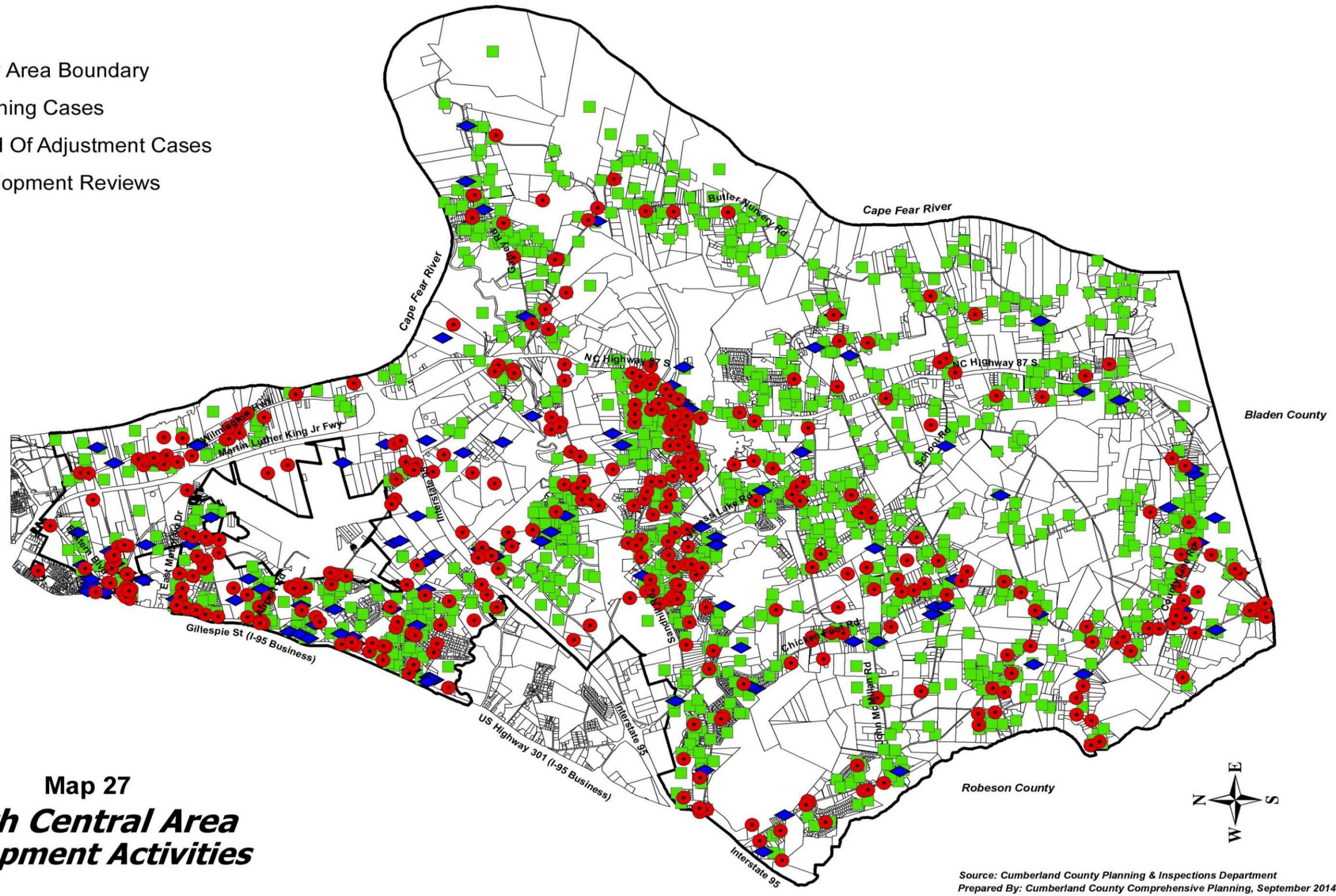


Map 26
South Central Area
Bladen Bluffs Watershed

Source: Cumberland County Planning & Inspections Department
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Rezoning Cases
- ◆ Board Of Adjustment Cases
- Development Reviews



HISTORIC AND SCENIC SITES

The Study Area contains several historic and scenic sites. These sites include historical buildings over 100 years old, National Register Properties, Historical Markers, Rockfish Creek, Cypress Lakes and Swamp, Cape Fear River and Willis Creek Ravine as shown on **Map 28 - South Central Area Historic and Scenic Sites**.

The study area contains two properties that are on the National Register of Historic Places: Cape Fear Baptist Church and the DeVane-McQueen House. Cape Fear Baptist Church was established in January 1756 and is among the oldest Particular Baptist Congregations in the State. The original church was replaced in 1859 by the present structure and is located on Blossom Road.

The DeVane-MacQueen House is a private residence and is located on NC Highway 87 South. This residence is known for its Greek Revival architectural style (1875-1899) and was added to the National Register of Historic Places in 1983.

There are a total of 26 structures that are over 100 years old within the Study Area. GIS data shows that one structure was built in 1858, one in 1895, 15 in 1900, one in 1908, six in 1910 and two in 1915. An assessment of these structures should be conducted to see if they are of any architectural or historical significance.

Two historical markers are located on the east and west side of NC Highway 87 South, south of Rockfish Creek describing two historical events that took place in the area. They are Dunn's Camp Quaker Meeting and Moore's Camp. According to the North Carolina Department of Cultural Resources' Office of Archives and History, Dunn's Creek Quaker Meeting was started around 1746 and discontinued in 1781. Early Quaker settlers found their way to this region because of the fertile land and ease of navigation, but by 1781 the meeting's membership moved to other counties and States.

The second marker describes Moore's Camp that occurred between February 15 and 21, 1776, leading up to the Battle of Moore's Creek Bridge. Whig forces, under the commander of Colonel James Moore camped on Rockfish Creek and by fortifying the camp on Rockfish Creek with men and artillery, Colonel Moore was able to block the Loyalists most direct route to the coast (Wilmington), where the Loyalists had plan to defeat the Patriots and return North Carolina to British rule. At Moore's Creek Bridge the Patriots were able to defeat the Loyalists and save North Carolina from being overrun by the British.

Scenic sites for the Study Area included the Cape Fear River, Rockfish Creek, Cypress Lakes and Swamp, and Willis Creek Ravine. The Cape Fear River is the eastern boundary of the Study Area and is a viable resource to the Study Area, County, and Region. The Cape Fear River and its environs are used for recreation, drinking water, habitats for wildlife and endangered species. The confluence of the Cape Fear River with Rockfish Creek has been noted as a prime location for an Indian mound, but no site investigation has been done.

COMMUNITY FACILITIES & SERVICES

Community facilities in the Study Area consist of schools, fire services, park and recreation facilities, open space and health and human services as shown on **Map 29 - South Central Area Community Facilities**.

Schools

The Study Area is served by eleven schools: four elementary, four middle and three high schools. Five of these schools are physically located in the Study Area, with their district boundary extending outside of the area. Gray's Creek Elementary is the only school with its district totally within the Study Area. The remaining six schools are outside the Study Area, but their district extends inside the area.

The elementary schools that are physically located within the Study Area are Alderman Road located at 2860 Alderman Road (capacity/enrollment: 750/646); Gallberry Farm located at 8019 Byerly Drive (capacity/enrollment: 900/828); and Gray's Creek located at 2964 School Road (capacity/enrollment: 495/422). Alderman Road and Gallberry Farm School Districts extend outside the area. Elizabeth Cashwell Elementary located at 2970 Legion Road (capacity/enrollment: 800/726) is located outside of the area, but its district serves the area.

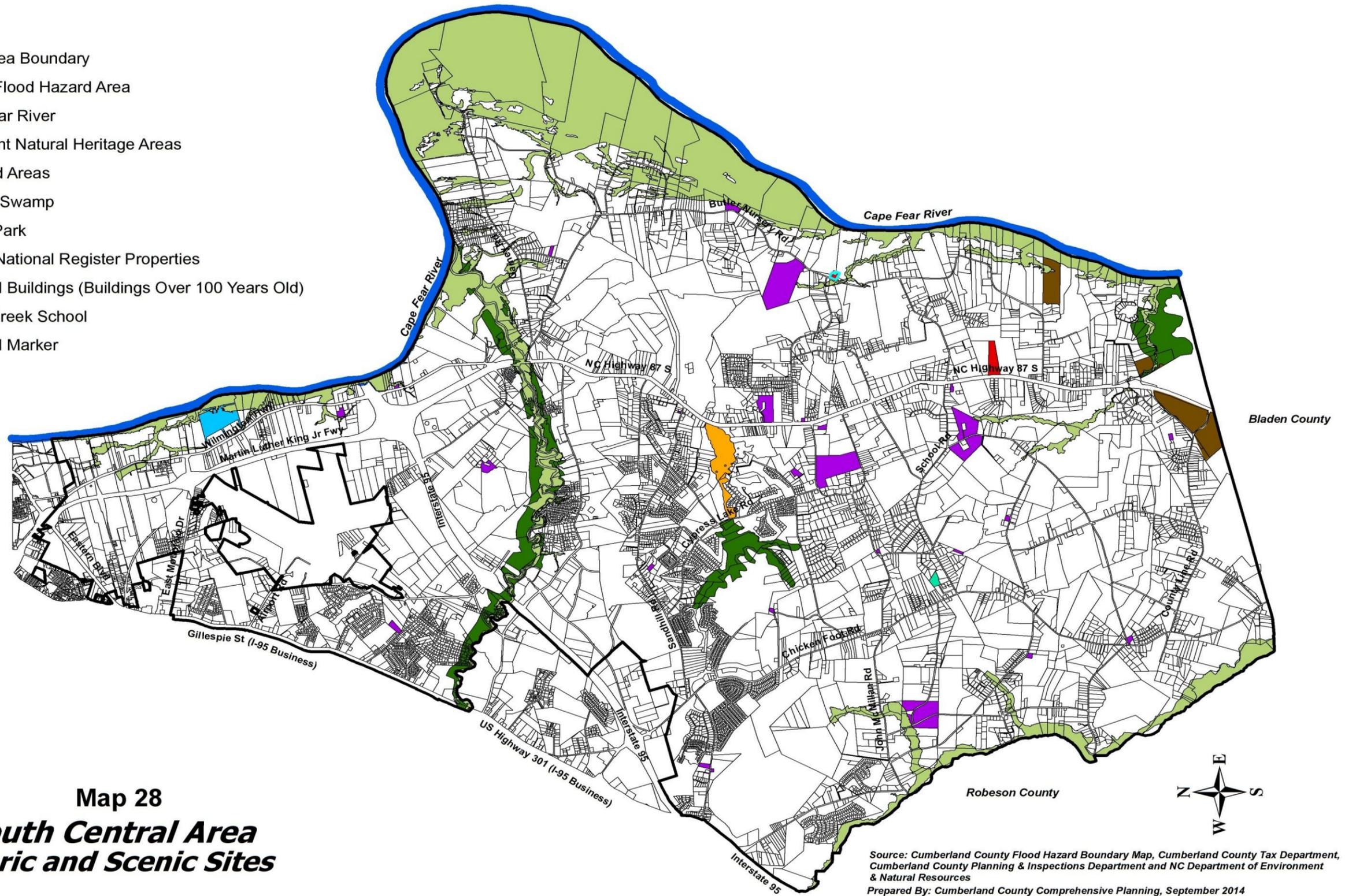
Only one of the four middle schools is located inside the Study Area boundary which is Gray's Creek Middle located at 5151 Celebration Drive (capacity/enrollment: 1000/999). The Gray's Creek Middle School District also serves a small area outside of the Study Area. The remaining three middle schools are located outside, but their district extends into the Area. They are South View Middle located at 4100 Elk Road (capacity/enrollment: 900/783); Ireland Drive Middle located at 1606 Ireland Drive (capacity/enrollment: 340/406); and Douglas Byrd Middle located at 1616 Ireland Drive (capacity/enrollment: 600/731).

The high schools that serve the Area are Douglas Byrd High located at 1624 Ireland Drive (capacity/enrollment: 1280/1232); South View High located at 4184 Elk Road (capacity/enrollment: 1800/1791); and Gray's Creek High located at 5301 Celebration Drive (capacity/enrollment: 1270/1227). The only high school located within the Study Area is Gray's Creek, with its district boundary extending outside the area. Douglas Byrd and South View are physically located outside of the Study Area, but serve a part of the area.

Based on the enrollment capacity figures, all of the elementary schools are below enrollment capacity. Two of the four middle schools are overcrowded, but a majority of their district is within a more urban area outside of the Study Area. Considering the two remaining middle schools, the one located in and serves most of the area is at capacity, whereas the other one outside is below capacity. All three high schools are below capacity at this time, with some room to grow. The projected growth in the area will require redistricting, building new schools, or making additions to the existing schools.

Legend

- Study Area Boundary
- Special Flood Hazard Area
- Cape Fear River
- Significant Natural Heritage Areas
- Managed Areas
- Cypress Swamp
- Arnette Park
- Historic National Register Properties
- Historical Buildings (Buildings Over 100 Years Old)
- Swans Creek School
- Historical Marker

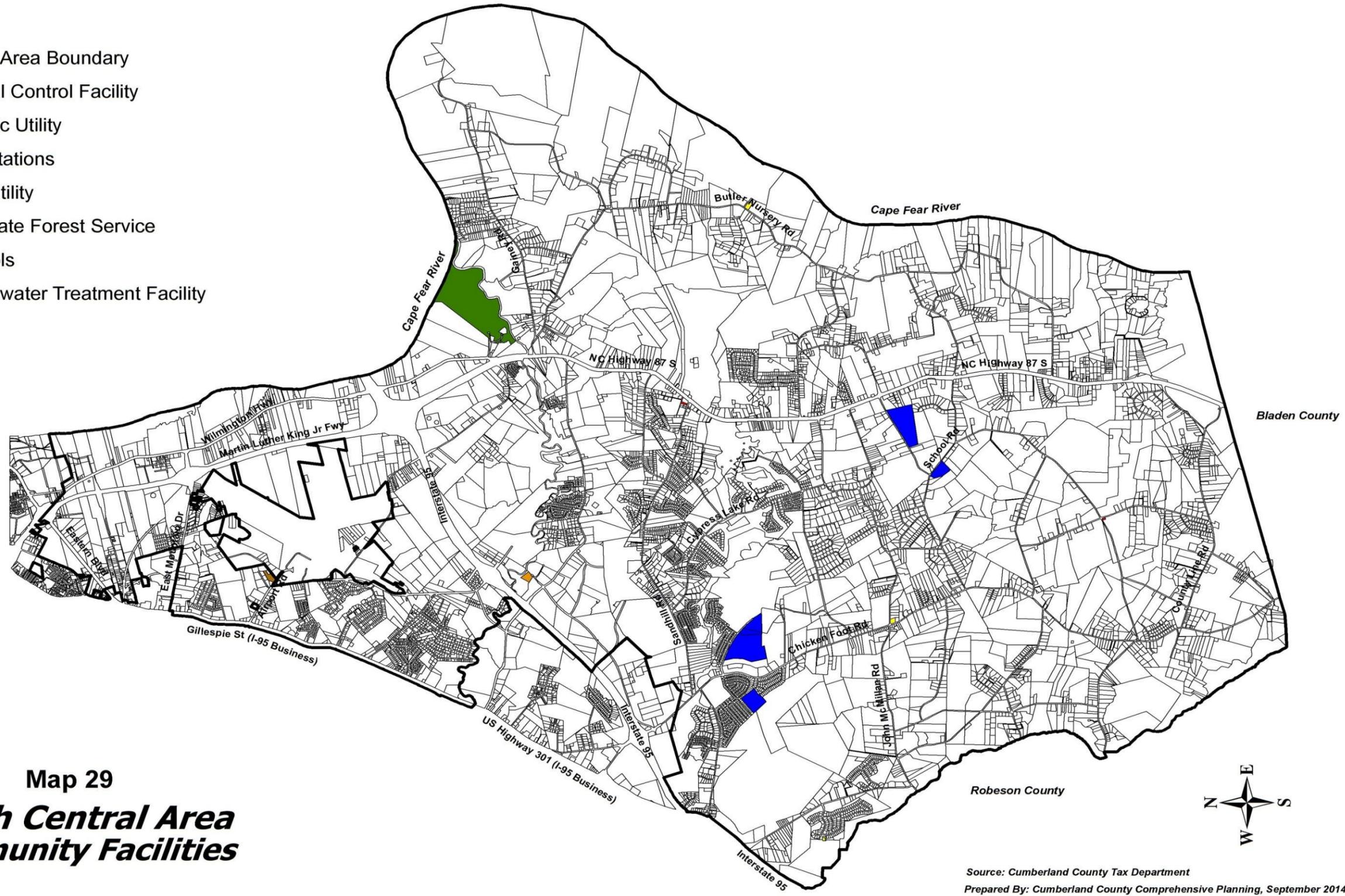


Map 28
South Central Area
Historic and Scenic Sites

Source: Cumberland County Flood Hazard Boundary Map, Cumberland County Tax Department, Cumberland County Planning & Inspections Department and NC Department of Environment & Natural Resources
 Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

-  Study Area Boundary
-  Animal Control Facility
-  Electric Utility
-  Fire Stations
-  Gas Utility
-  NC State Forest Service
-  Schools
-  Wastewater Treatment Facility



Map 29
South Central Area
Community Facilities



Source: Cumberland County Tax Department
 Prepared By: Cumberland County Comprehensive Planning, September 2014

Fire Service

Fire protection for the area is provided by three fire districts. These districts include the Gray's Creek, Pearces Mills, and Cotton Voluntary Fire Districts as shown on **Map 30 - South Central Area Fire Districts**. The Fayetteville Regional Airport property is served by the City of Fayetteville Fire Department. The majority of the Study Area is served by the Gray's Creek Fire District.

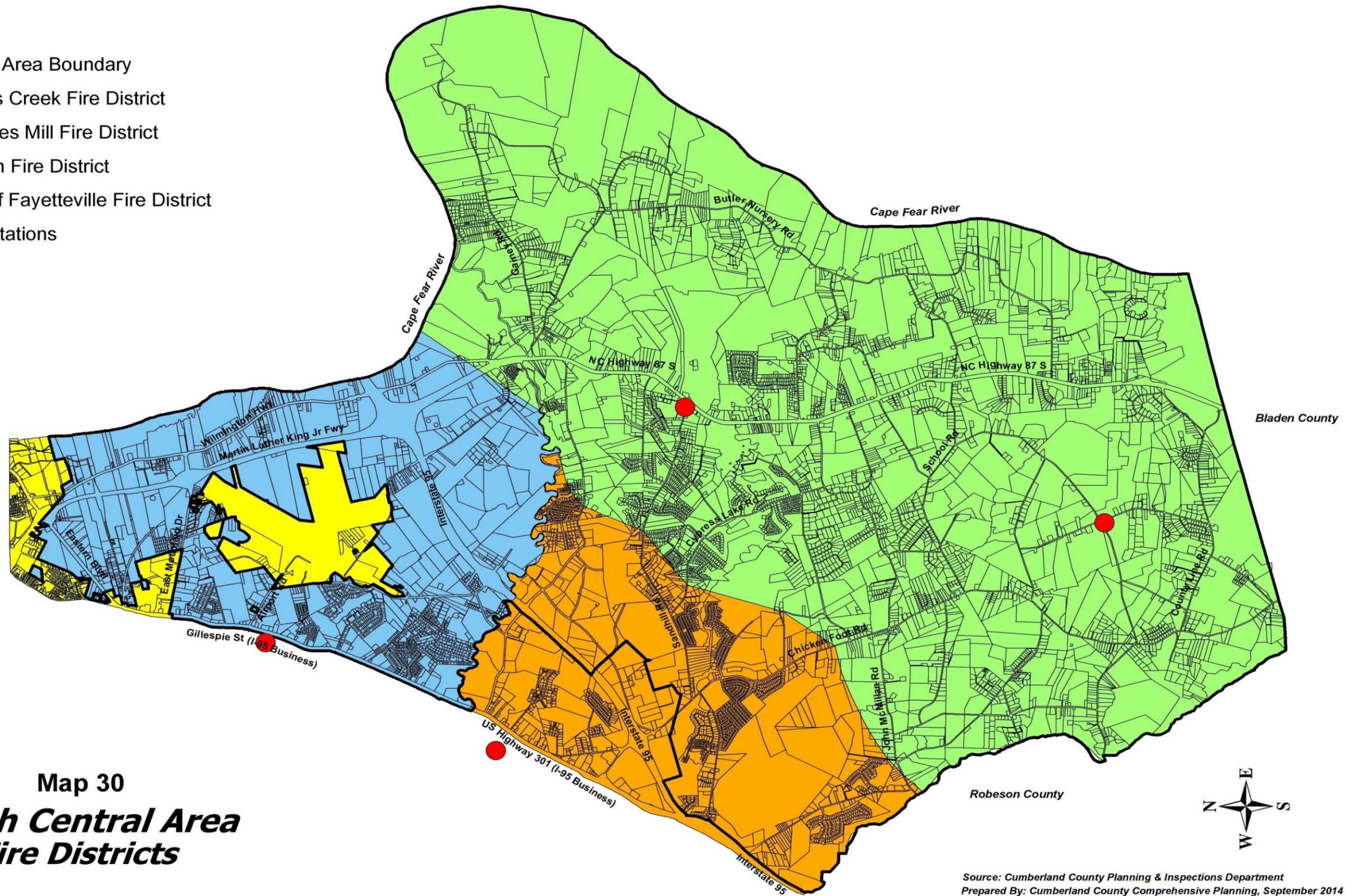
The Gray's Creek Fire District was created in 1965 to serve the southern portion of the Gray's Creek Township as well as the northern portion which was being served by the Cotton Fire District. The District is defined on the east by the Cape Fear River, to the south by Bladen County, on the west by Robeson County and the Cotton Volunteer Fire District, and on the north by the Cape Fear River and the Pearces Mill Volunteer Fire Department. It has two stations located at 2661 Sandhill Road (Station 24) and 7010 Fire Department Road (Station 18). Station 24 was originally a 1,800 square foot facility constructed in 1979. Since then, four additions have been completed and the current station is 5,594 square feet. The district has 4 full-time and 40 volunteer firefighters. Station Number 18 was originally constructed in 1972 with 2,952 square feet. Additions to the station were completed and it currently contains 6,336 square feet. The station has 3 full-time and 34 volunteer firefighters. The number of responses has increased .47%, from 418 in 2000 to 420 in 2012 for Station 18, and 70% from 460 to 780 for Station 24. The Stations combined budget increased from \$280,694 in 2000 to \$715,870 in 2014. The fire ratings for Station 18 and 24 is 7 and 5 respectively.

Future plans for the district are specific for each station. Station 18 future plans are to provide 24 hour full-time shifts, construct a new building and upgrade fire apparatus. Station 24 future plans calls for upgrading the fire apparatus, finish an addition to the existing fire station and hiring part-time firefighters as the area grows.

The Cotton Volunteer Fire District was established in 1957 to serve the Cotton Fire District which at the time included the Gray's Creek Fire District. The Cotton Fire District is currently defined on the west by the Stoney Point and Hope Mills Fire Department service area, east by the Gray's Creek Fire District, south by Robeson County, and north by Pearces Mills Fire District. The Cotton Fire District is served by Station 4 located at 4618 Calico Street. This facility contains approximately 4,800 square feet. The District has 5 full-time, 12 part-time, and 42 volunteer firefighters. Since 2000, the number of responses has risen by 81% from 1,104 to 2000. The budget has increased from \$359,667 in 2000 to \$796,244 in 2014, a 121% increase. The current fire rating for the Station is 5. Future plans is to either build a new fire station or move the current station to a more central location, increase staffing, and upgrade the fire apparatus.

Legend

- Study Area Boundary
- Gray's Creek Fire District
- Pearces Mill Fire District
- Cotton Fire District
- City of Fayetteville Fire District
- Fire Stations



Map 30
**South Central Area
Fire Districts**



Source: Cumberland County Planning & Inspections Department
Prepared By: Cumberland County Comprehensive Planning, September 2014

The Pearces Mill Fire District was established in 1955. In 1959 it became the first fire district to contract with the County for the provision of fire service and to be funded by property taxes. The first station was located at the intersection of Trade Street and Gillespie Street. The Pearces Mills Fire District serves the northern portion of the Study Area. It serves the area from Gillespie Street (U.S. Hwy 301 South) on the west, City of Fayetteville Fire District to the north, Cape Fear River to the east, and Cotton and Gray's Creek Fire District to the south. Station 3 serves the Study Area and is located at 168 Dedication Drive. This is a 6,000 square foot structure built in 1979 in the approximate center of the fire district. Over the years, the District size has decrease due to annexations by the City of Fayetteville. The Fayetteville Regional Airport property is located in the center portion of Pearces Mills Fire District but it is served by the Fayetteville Fire Department. The Pearces Mills Fire District's current personnel include six full-time, 12 part-time, and 15 volunteers. Since 2000, the number of responses has risen 217% from 346 to 1,100. The budget increased from \$487,414 in 2000 to \$780,279 in 2014 or 60%. The current fire rating is 5. Future plans for the District include keeping the existing fire station at its current location, upgrade fire apparatus, and regular maintenance.

Parks and Recreation Facilities and Open Space

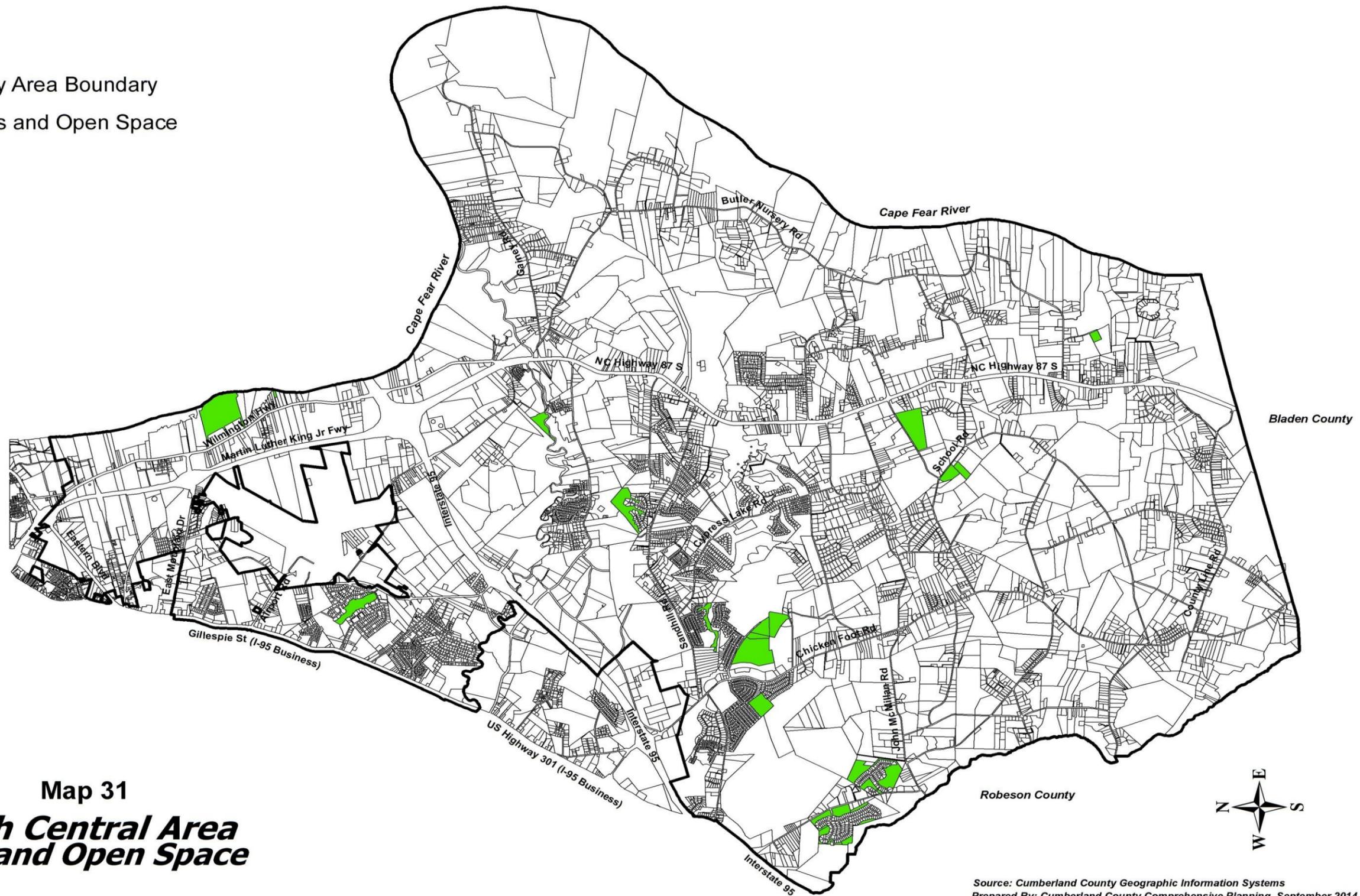
There are numerous parks, recreation facilities, and open space in the Study Area as shown on **Map 31 - South Central Area Parks and Open Space**. The study area contains one regional park, three school/parks, and one neighborhood park.

Arnette Park, considered a regional park was constructed in 1981 by Cumberland County, consists of 100 acres, and is located at 2165 Old Wilmington Road. The park is a combination of recreation facilities and natural area. Facilities in the park consists of baseball/softball fields, sand volleyball courts, a concession stand, horseshoe pits, disc golf, picnic pavilions, playgrounds, tennis courts, nature trails, walking trails/track (one mile perimeter road), and restrooms. Several special award-winning events are held at Arnette Park that include a "Haunted Hayride" held in October and "Christmas in the Park" held in December.

There are three school/parks located in the Study Area. They are Gray's Creek Elementary, Gray's Creek Middle, and Alderman Road Elementary. Gray's Creek Elementary is ten acres in size and located at 2964 School Road. The amenities consist of a recreation center, gymnasium, program/meeting rooms, a practice baseball field, football/soccer field, and green space. Gray's Creek Middle School is located at 5151 Celebration Drive and consists of 48 acres. Amenities include junior baseball/adult softball field, and football/soccer field. Alderman Road Elementary School is located at 2860 Alderman Road is 60 acres in size and consist of a practice baseball/softball field.

Legend

- Study Area Boundary
- Parks and Open Space



Map 31
South Central Area
Parks and Open Space



Source: Cumberland County Geographic Information Systems
Prepared By: Cumberland County Comprehensive Planning, September 2014

Hall Park, considered a neighborhood park is located in the Study Area. This park is seven acres in size, owned by Gray's Creek Ruritan Club, and located at 6060 Hall Park Road. The amenities consist of lighted youth baseball/girls softball fields, picnic shelters, a concession stand, and restrooms.

Several parcels within the Study Area are designated as open space and account for approximately 195 acres. Several subdivisions in the Area were developed as Density Development-Conditional Zoning District that requires 40% of the total tract to be designated as open space. The Density Development-Conditional Zoning District is intended to promote the preservation of open space and the rural area. These subdivisions are Roslin Farms, Roslin Farms West, The Village on Asphens Creek and Sand Hill Preserve.

Roslin Farms subdivision is located on the east side of Roslin Farm Road near John McMillan Road and contains approximately 63 acres. Roslin Farms West Subdivision located along the west side of Roslin Farm Road near the Robeson County Line, contains approximately 25 acres.

The Village on Asphens Creek subdivision contains approximately 16 acres of open space and located on the south side of Sandhill Road, west of Cypress Lake Road. This open space is mostly wetlands.

Sand Hill Preserve subdivision is located on the north side of Sandhill Road, just west of Smith Road. This subdivision has approximately 43 acres designated as open space, which is mostly wetland.

Lake Lynn is located east of Gillespie Street near the southern end of the Fayetteville Regional Airport property, within the Lake Lynn Subdivision and containing approximately 29 acres.

Other recreation facilities in the Study Area include the Special Forces Association land containing approximately 17 acres located on the southwest side of Doc Bennett Road; and the State of North Carolina which owns a 2 acre tract located on Old Wilmington Highway that provide boat access to the Cape Fear River.

Based on information provided by Fayetteville/Cumberland County Parks and Recreation Department, future parks for the South Central Study Area include three neighborhood parks and two mini parks. A neighborhood parks is defined as being 7-15 acres in size equipped with a playground, an informal playfield, trails, picnic shelters and tables, and 50% of site left natural. Mini parks are the smallest park and are .5-3 acres in size that includes a playground, an open play area, picnic tables and a landscaped public use area.

Health and Human Services

The only health care facility located within the Study Area is the Southeastern Regional Medical Clinic, a primary care clinic located at 1249 Chicken Foot Road. All other medical needs are serviced by local-area hospitals and doctors' offices.

Police Protection and Emergency Services

The Cumberland County Sheriff's Office Operations Division provides twenty-four hour police protection within the Study Area. The Detective Division provides criminal investigations throughout the South Central Study Area. The Study Area is located within Service Zones Seven and Four, and is patrolled by up to four deputies at any given time. In 2013, the two most common incidents within the study area were larceny and traffic collisions.

The Cumberland County Emergency Management Service (EMS) is under the umbrella of the Cape Fear Valley Health System which provides service throughout the Study Area. The Gray's Creek Fire Department No. 24 has an EMS ambulance stationed on-site twenty-four hours a day, seven days a week to decrease response time.

ADJACENT JURISDICTION'S AND PAST PLANS

The South Central Study Area is adjacent to two counties and other Cumberland County plans that will impact the area by their actions, developments, or plans. Efforts should be made to coordinate the Plan with adjacent jurisdictions plans and other County plans. The South Central Study Area is bound by Robeson and Bladen Counties, the City of Fayetteville, and by the Southwest Cumberland Land Use Plan, 2013. In addition to these adjacent plans there are past plans of the area or parts of the area that should be revisited.

Adjacent Plans

The Robeson County Land Use Plan is currently being developed, but the proposed land use is shown on **Map 32 - Proposed Robeson County Land Use Plan**. While the plan is being developed, it is important to look at development in Robeson for the area adjacent to the Study Area. The adjacent area in Robeson County bordering the Study Area is mostly developed as residential and farmland. It is anticipated that there will be some modest growth in this area. In 2010, a portion of Robeson County became a part of the Fayetteville Area Metropolitan Planning Organization planning area, which indicates an anticipation of growth within this area over the next 20 years.

The Bladen County Updated Land Use Plan 2013-2030 denotes the northern portion of Bladen County as undeveloped, residential, manufactured home, commercial and industrial as shown on **Map 33 - Bladen County Land Use Plan 2013-2030**. Undeveloped accounts for most of the land with scattered clustered residential and commercial development, small nodes of manufactured homes, and industrial at the Bladen County/Cumberland County Line. The Bladen Bluffs Regional Surface Water

System will spur some development in northern Bladen County and perhaps in the southern part of the Study Area.

The City of Fayetteville plans that impact the Study Area are reflected in the Fayetteville Regional Airport Master Plan, the Coliseum Overlay District, the land use plan, and the Unified Development Ordinance.

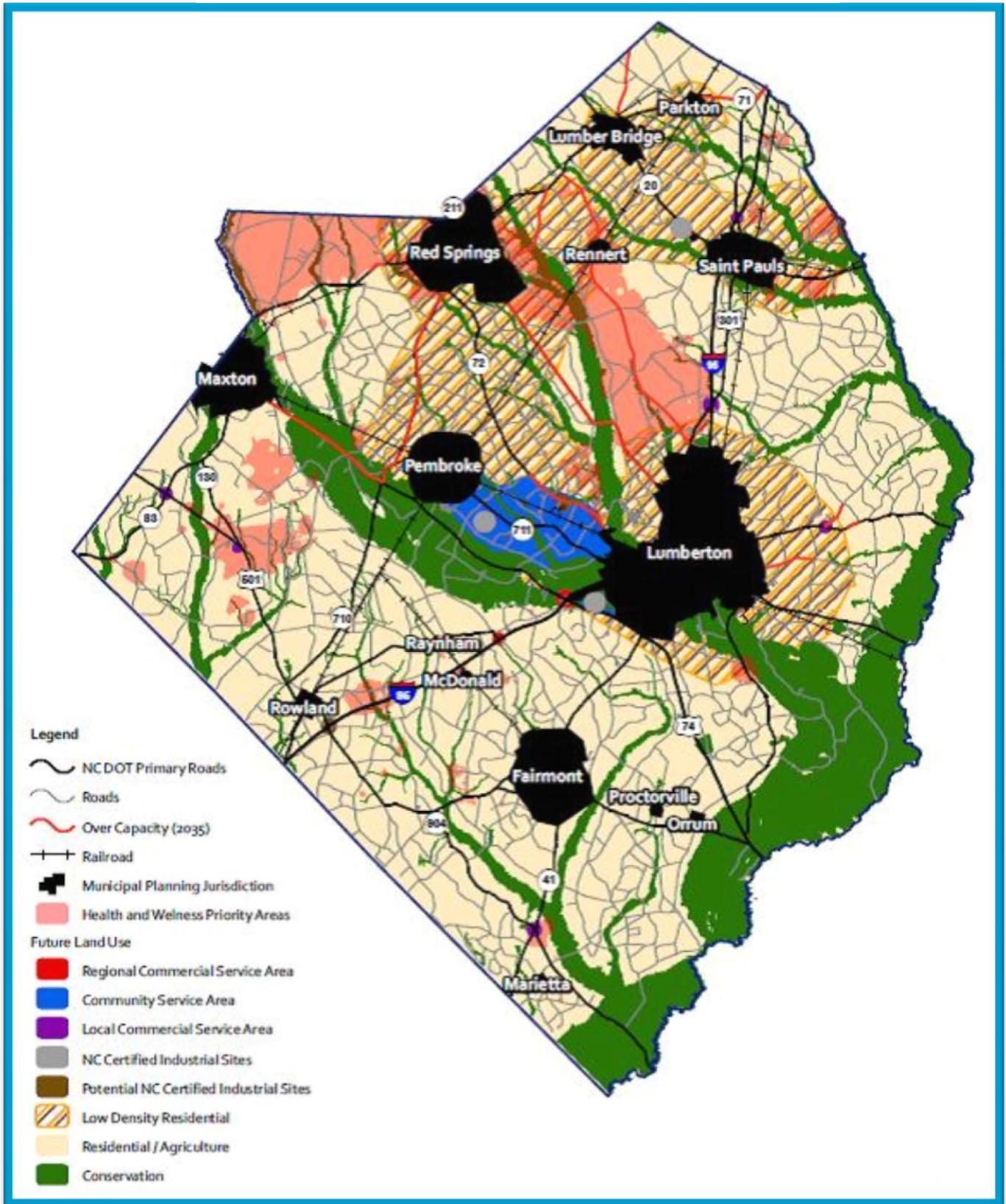
The recently adopted Southwest Cumberland Land Use Plan borders the South Central Study Area to the west. The Southwest Cumberland Land Use Plan denotes farmland, suburban density residential, a large commercial area at the I-95 and U.S. 301 South interchanges with Chickenfoot Road, industrial, medium density mixed housing types, and open space along its eastern study boundary line adjacent to the Study Area as shown on **Map 34 - Southwest Cumberland Land Use Plan**.

The South Central Land Use Plan needs to mesh, as much as possible, with the Southwest Cumberland Land Use Plan, the City of Fayetteville plans, and the plans of Bladen and Robeson Counties.

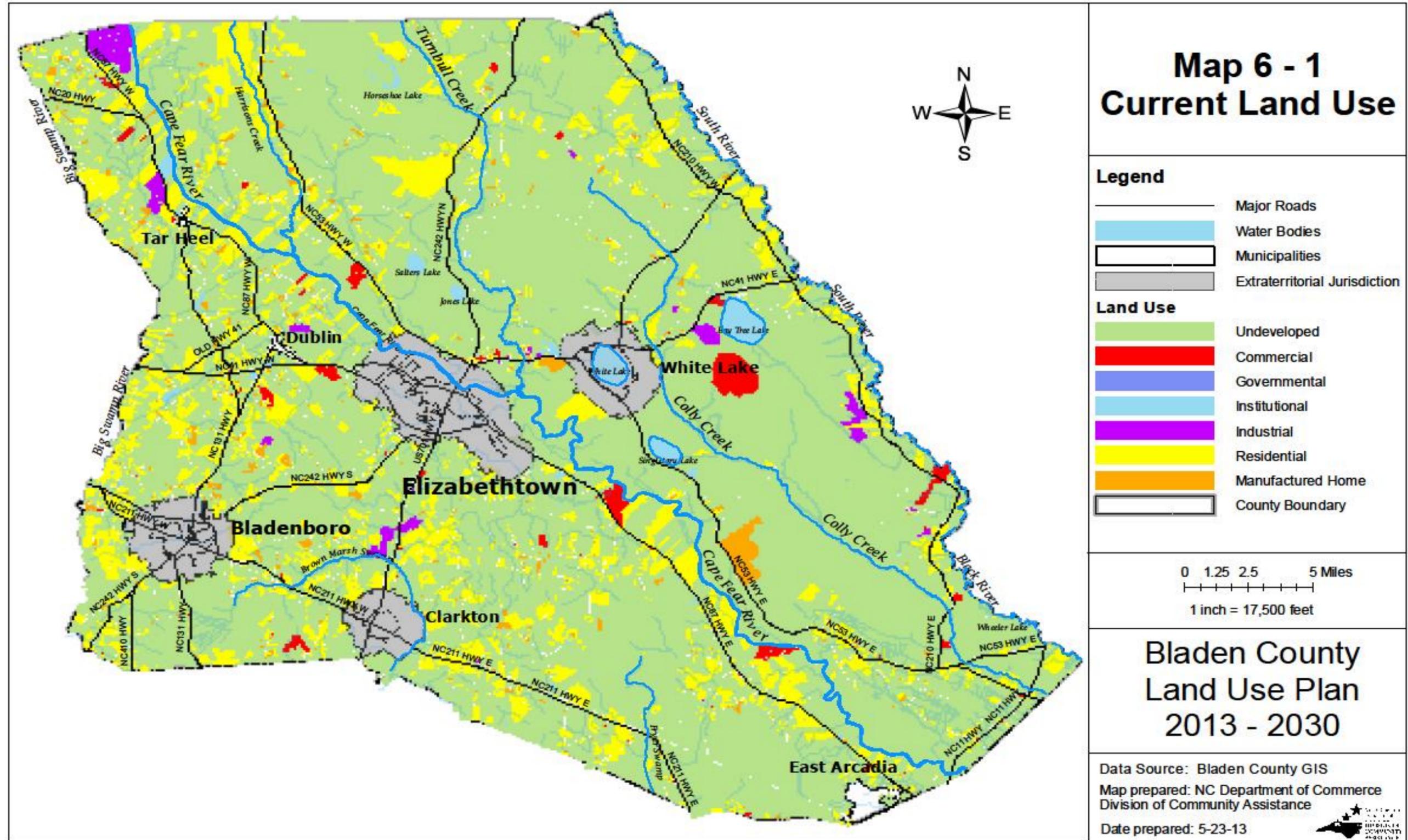
Past Plans

Since 1967, the Cumberland County Joint Planning Board has been responsible for the planning within the South Central Study Area. There have been many plans developed and adopted for the whole or a portion of the Area by the planning staff and/or consultants that include: 1971 Cumberland County Land Use Plan, 1978 Land Use Policies Plan, 2005 Fayetteville Regional Airport Master Plan, 1983 Airport Area Plan, Cumberland County 2010 Land Use Plan, 1996, the Cumberland County 2030 Growth Vision Plan, 2008, and the Cumberland County Land Use Policies Plan, 2009. The most recent land use plan maps are the Cumberland County 2010 Land Use Plan, 1996 as shown on **Map 35 - South Central Area 2010 Land Use Plan** and the Cumberland County 2030 Growth Vision Plan, 2008, shown on **Map 36 - South Central Area 2030 Growth Strategy Map**.

Map 32 Proposed Robeson County Land Use Plan



Map 33 Bladen County Land Use Plan



Map 6 - 1 Current Land Use

- Legend**
- Major Roads
 - Water Bodies
 - Municipalities
 - Extraterritorial Jurisdiction
- Land Use**
- Undeveloped
 - Commercial
 - Governmental
 - Institutional
 - Industrial
 - Residential
 - Manufactured Home
 - County Boundary

0 1.25 2.5 5 Miles
1 inch = 17,500 feet

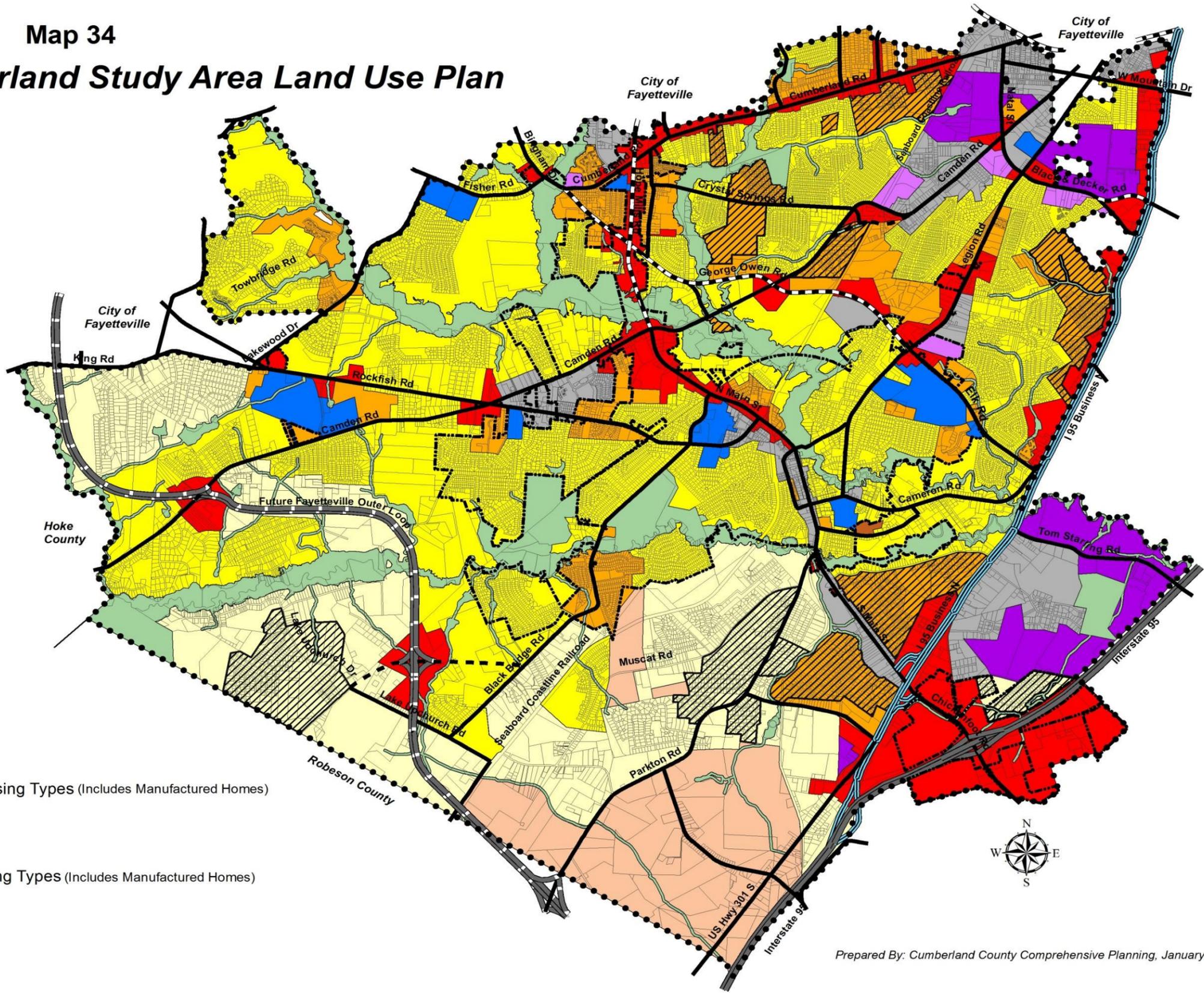
Bladen County Land Use Plan 2013 - 2030

Data Source: Bladen County GIS
Map prepared: NC Department of Commerce
Division of Community Assistance
Date prepared: 5-23-13

Map 34 Southwest Cumberland Study Area Land Use Plan

Legend

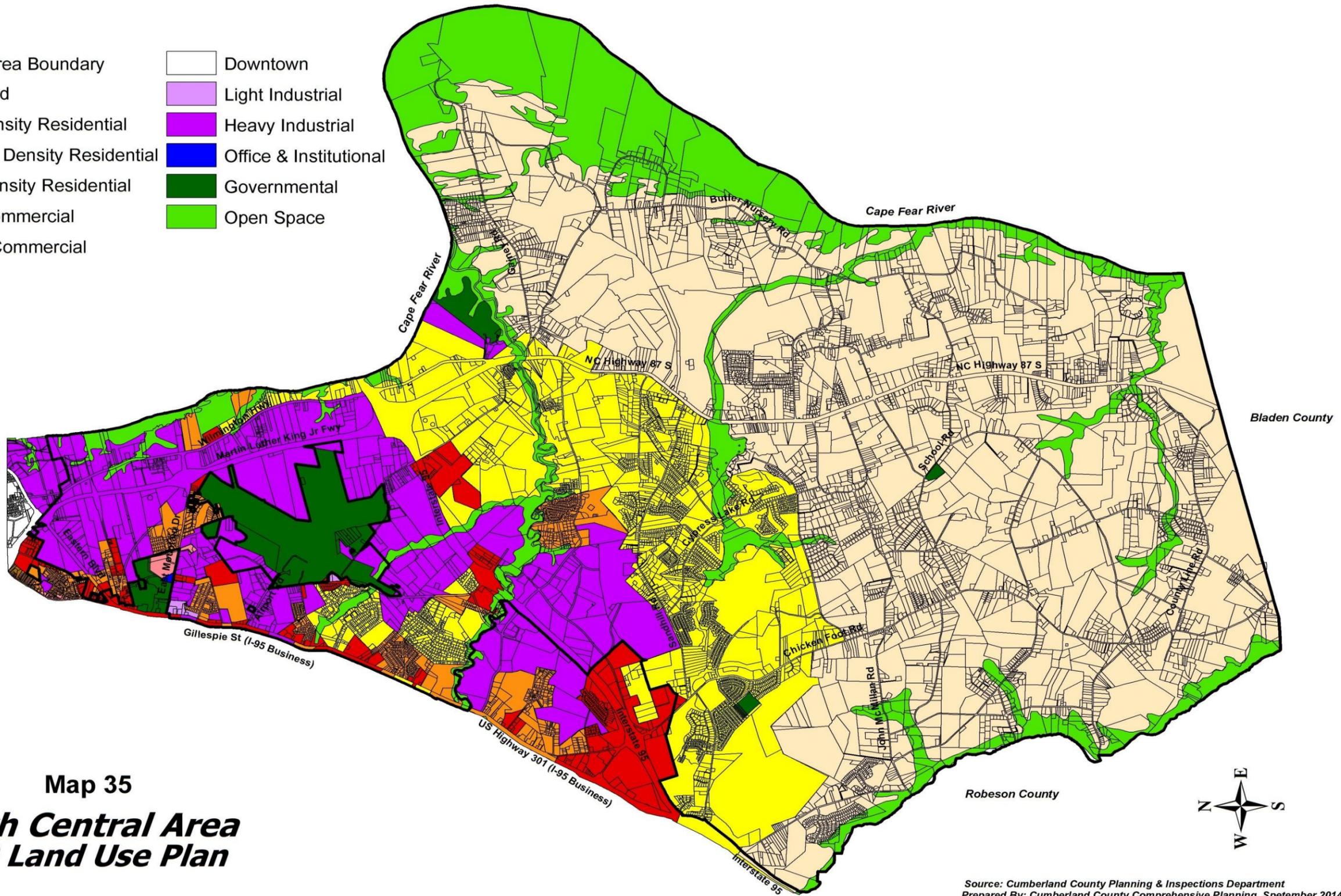
- Study Area Boundary
- Hope Mills Town Limit
- Existing Freeway
- ▬ Future Freeway
- Existing Expressway
- ▬ Existing Boulevard
- Existing Thoroughfare
- ▬ Future Thoroughfare
- Office Institutional & Parks
- Heavy Commercial
- Industrial
- Light Industrial
- Farmland
- Open Space
- Suburban Density Residential
- ▨ Suburban Density Mixed Housing Types (Includes Manufactured Homes)
- Low Density Residential
- Medium Density Residential
- ▨ Medium Density Mixed Housing Types (Includes Manufactured Homes)
- High Density Residential
- Mixed Use Development



Prepared By: Cumberland County Comprehensive Planning, January 2013

Legend

- Study Area Boundary
- Farmland
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Light Commercial
- Heavy Commercial
- Downtown
- Light Industrial
- Heavy Industrial
- Office & Institutional
- Governmental
- Open Space

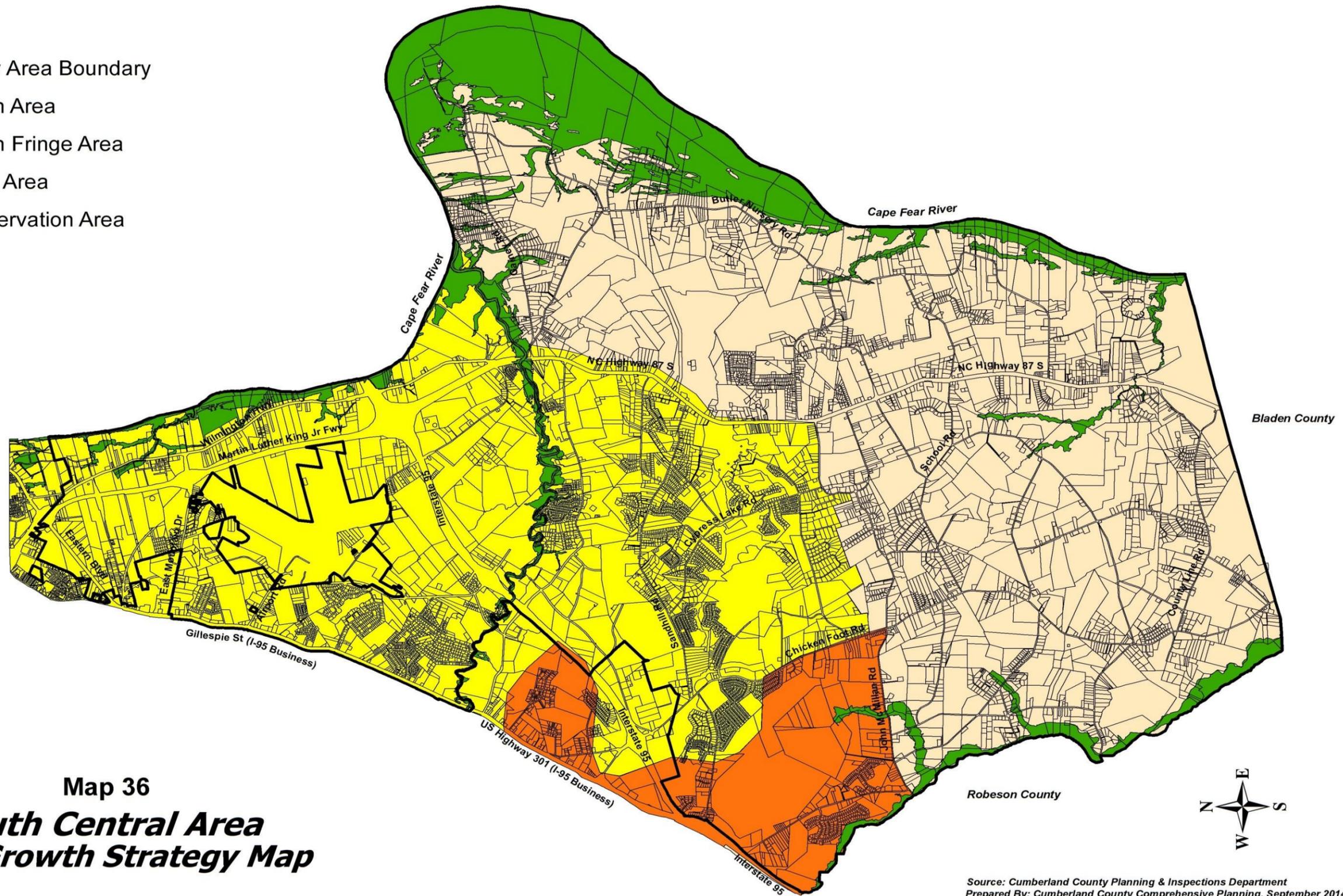


Map 35
South Central Area
2010 Land Use Plan

Source: Cumberland County Planning & Inspections Department
 Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Urban Area
- Urban Fringe Area
- Rural Area
- Conservation Area



Map 36
**South Central Area
2030 Growth Strategy Map**

Source: Cumberland County Planning & Inspections Department
Prepared By: Cumberland County Comprehensive Planning, September 2014

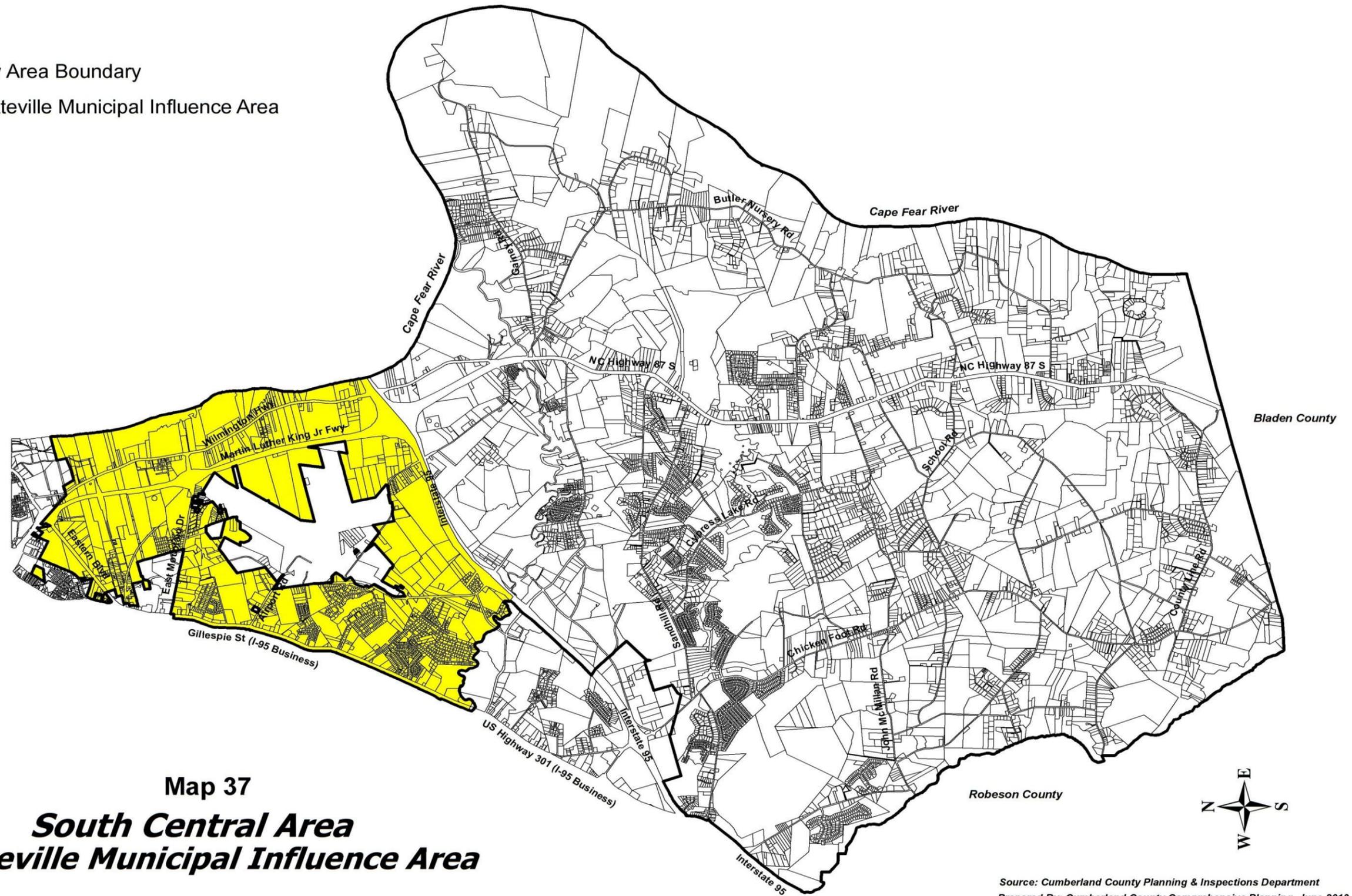
MUNICIPAL INFLUENCE AREAS

A portion of the Study Area is located in the Municipal Influence Area (MIA) of the City of Fayetteville, as shown on **Map 37 - South Central Area Municipal Influence Area**. An MIA provides the municipality some influence on development in the area such as requiring their development standards to be enforced. In the case of the Fayetteville, it determines whether property requiring PWC water or sewer has to be annexed prior to development.

Annexation laws for the State of North Carolina were recently changed by the General Assembly. Due to this change, the City of Fayetteville has adopted new guidelines on utility extensions within their MIA. In order to get PWC water or sewer, the property must first be annexed into Fayetteville prior to development. While this policy seems beneficial to Fayetteville, it has in the past lead to large areas being developed without public services. This same policy was in force during the development of the western portion of the County. Today, Fayetteville, PWC and the residents are paying a costly price for the installation of these services. A much more financially viable policy may be to provide the service at much higher rate so that the infrastructure is installed by the developer during construction; if the law is reversed and the City has annexation powers, it can be achieved at no cost to the City and the property owners. If these areas are not annexed, they will provide an income stream for PWC. This also means the City development standards outlined in the Fayetteville Unified Development Ordinance (UDO) will have to be followed.

Legend

- Study Area Boundary
- Fayetteville Municipal Influence Area

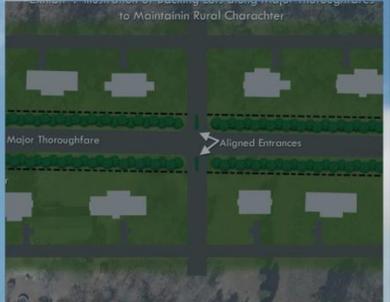


Map 37
South Central Area
Fayetteville Municipal Influence Area

Source: Cumberland County Planning & Inspections Department
Prepared By: Cumberland County Comprehensive Planning, June 2013



“a society grows
GREAT
 when old men plant trees
 whose shade they know
 they will never sit in.”
 greek proverb



GOALS & OBJECTIVES

The process of developing goals and objectives provides guidance for the overall Plan and specifically is helpful in the development of the Land Use Plan Map and a means of evaluating the progress in the Plan's implementation. These goals and objectives were developed by information gathered through the public participation process, questionnaires and formulated by the South Central Citizen Planning Committee.

A goal is a long term vision that explains what is going to be achieved; whereas the objectives are more specific actions and strategies to obtain the goal. Plans and actions that are based on well-articulated goals and objectives are more likely to succeed in meeting the community's needs, values, and aspirations.

Specific goals and objectives developed for the Study Area include residential, commercial, open space, farmland, transportation, industrial/manufacturing, community appearance, and community facilities and services.

Residential Development Goal

Provide a complete range of residential housing types that accommodates the needs of all residents with adequate infrastructure while preserving the character of the area and protecting environmentally sensitive areas.

Objectives:

- Any residential development greater than two units per acre must have public or private water and sewer.
- Encourage the use of low impact developments techniques.
- Strengthen and enforce minimum housing standards.
- Promote the building of quality housing.
- Provide flexibility for mixed-use and higher density developments to locate close to existing or future commercial centers.
- Locate residential areas with respect to natural and environmental sensitive areas.
- Promote infill development.
- Promote sidewalks and pedestrian facilities, where appropriate to provide access to facilities such as schools, commercial areas, and recreation facilities.
- Provide and preserve natural vegetative buffer areas between single and multi-story residential development and non-residential uses.

Commercial Development Goal

Provide quality, attractive commercial development that meets market demand, is harmonious with its surrounding area, has supporting infrastructure, preserves the natural environment, and is concentrated in nodes near major intersections and existing commercial development.

Objectives:

- Allow small, concentrated commercial nodes for “Rural Area Centers” at selected major intersections in the rural portion of the Study Area to serve the needs of the residents.
- Promote the concentration of intense commercial development in nodes at the intersections of major thoroughfares, interchanges, and other designated areas along US Highway 301 South with public water and sewer.
- Discourage commercial development in wetlands, Special Flood Hazard Areas, and other environmentally sensitive areas.
- Permit commercial establishments on tracts of land sufficient in size to accommodate vehicular and pedestrian circulation, landscaping, buffering, signs, and other required development standards.
- Commercial buildings’ size should be based on context of surrounding land uses.
- Strengthen existing landscape standards for commercial developments.
- Protect established residential areas from the encroachment of non-residential developments.
- Mixed-use development should be permitted in or near intense commercial developments and large centers of population or urban area.
- Encourage the reuse of vacant commercial structures.
- No large malls.
- Require all new commercial developments to retain or reforest a natural area along its road frontage.

Open Space/Parks Goal

Provide a diversified parks and open space system that protects, preserves, and enhances environmentally sensitive areas, wildlife habitats, agricultural lands, and air and water quality; while providing new facilities such as greenways, parks, and similar amenities that serves the betterment of all citizens, rural and urban, in the Study Area.

Objectives:

- Support measures that protect Special Flood Hazard Areas, natural areas, wildlife habitats, endangered species, water quality, open space, historic features, and scenic sites.
- Co-locate parks and recreation facilities with other community facilities such as schools, fire and police stations, libraries, and etc., whenever feasible.
- Provide a range of parks, recreation facilities, and open spaces near densely populated areas and commercial centers while providing connectivity to other facilities.
- Consider using existing infrastructure for bicycle/pedestrian facilities as a linkage to the open space system in the Study Area, County, and Region.
- Promote incentives that will encourage developers to provide usable open space in developments.

- Encourage the protection and preservation of existing trees.
- Utilize parks, unique natural areas, scenic sites, and other amenities to attract economic development and tourism.

Farmland Goal

Preserve and protect farmland to ensure the continued viability of the farming and agri-business industry in the Study Area.

Objectives:

- Create a significant designated farmland area (“farm zone”) to provide a sustainable environment for agricultural operations.
- Support the establishment of a local farmers’ market and local roadside produce stands.
- Support the Cumberland County Voluntary Agricultural District Program (VAD).
- Support policies that will help farms provide affordable, fresh commodities to local schools, businesses, military, etc.
- Promote a natural or reforested buffer area between development and farming operations.
- Utilize agriculture as a means to protect critical land around the Fayetteville Regional Airport from development.
- Promote the concentration of development in areas with sufficient services such as water, sewer, roads, and nearby commercial establishments.
- Promote the awareness of the benefits of farmland to the environment and in maintaining the rural character of the area.
- Create family farm subdivisions standards.
- Promote agri-tourism.
- Support efforts that protect the family farm.

Transportation Goal

Provide safe, adequate, and accessible multi-modal transportation facilities for the movement of people, goods, and services that meets the needs of residents while preserving the urban and rural character of the Study Area.

Objectives:

- Maintain and enhance the existing rural road network within the Study Area.
- Support a study for a potential park and ride facility that serves the Crown Coliseum area, Fort Bragg, Downtown Fayetteville, Fayetteville Technical Community College, Fayetteville State University, and Methodist College.
- Recommend existing and new roadways that will be capable of handling expected traffic growth prior to development occurring.
- Support any expansion and protection efforts of land immediately surrounding Fayetteville Regional Airport.

- Require sidewalks to be constructed on both sides of streets in new subdivisions, and along the frontage of any new commercial development.
- Provide signalization and other improvements at major intersections and high traffic roads to alleviate traffic congestion.
- Restrict new billboards within the Study Area, especially along NC Hwy 87 South, US Hwy 301 South, Martin Luther King Jr. Freeway, and I-95.
- Ensure that adequate signals, signage, crosswalks, and other recommended safety devices are installed to protect the well-being of all types of travel modes within the Study Area.
- Promote transportation improvements that provide for the needs of the elderly and disabled.
- Enhance tourist travel and access to scenic sites, cultural facilities, recreation areas, retail, entertainment and other local sites of interest.
- Provide an efficient and effective network of roads and pedestrian facilities, that is in harmony with the character of the Area, and that provide connectivity within and beyond the Study Area.
- Promote the paving of all dirt roads.
- Support bus service to the urban portion of the Study Area to better serve the residents and the commercial, industrial and entertainment facilities in the area.
- Restrict subdivision lots from having direct access along designated thoroughfares, freeways, expressways, and boulevards (based on FAMPO 2040 Highway Plan, 2014), and limited direct access for non-residential development.
- Improve safety for cyclists by marking lanes and widening and hardening shoulders on designated bicycles connectors.
- Improve connectivity between the Crown Coliseum Complex, Downtown, the Mall, the Military Reservation, and Fayetteville Regional Airport.

Community Facilities and Services Goal

Support a range of community facilities and services that are adequate, accessible, and cost effective that will meet the needs of its present and future residents who visit, live, or work in the Study Area.

Objectives:

- Develop a plan to extend affordable water to the rural parts of the Study Area where private wells are contaminated or not potable.
- Explore the establishment of a Gray's Creek citizen controlled Sanitary District to provide safe drinking water from Bladen Bluff Regional Surface Water System to the area.
- Ensure an adequate level of fire and police protection.
- Provide community facilities in a way that serves the underserved, and co-locate them with other facilities such as schools, fire stations, law enforcement facilities, medical and social services, libraries and other compatible services.

- Utilize the perimeter of school properties for walking trails so as not to interfere with school operations during normal school hours.
- Utilize school buildings for after-hours uses such as community meeting sites and recreational activities.
- Explore the possibility of expanding trash service, recycling, and other efforts to prevent roadway littering in the Study Area.
- Encourage the use of solar powered street lights on all new streets and roads.
- Promote improvements around the Crown Coliseum complex that will enhance its marketability and attractiveness for new development.
- Develop a plan to provide affordable water and sewer to the urban portion of the Study Area where it currently does not exist.
- Limit the provisions of facilities and services in the rural portion of the Study Area that are not efficient investments in services or which might encourage more growth than is desired.
- Promote cooperation between municipalities, the Board of Education, State, Federal, and private entities in providing facilities and programs to area residents.

Industrial/Manufacturing Goal

Provide areas for clean high-tech industries and manufacturing where infrastructure is adequate, that does not impact the environment or natural areas, utilizes existing vacant structures when feasible, complements existing industrial development, and is in harmony with surrounding development.

Objectives:

- Promote incentives for industries to locate in existing vacant structures within designated and zoned industrial areas.
- Promote the use of existing buildings by reducing permitting and bonding fees.
- Support efforts to retain and expand existing industries.
- Identify sites that are unique in size and location that provide special opportunities for industrial development within the Study Area, County, and Region.

Community Appearance Goal

Provide an attractive living environment by protecting the existing natural beauty, improving the landscaping and site design requirements for new development, and reducing litter and sign clutter along the roadways in the Study Area.

Objectives:

- Develop ordinances and regulations that will require new commercial buildings to have specific architectural features that will match the character of the Area. This will allow for a seamless adaptive reuse.
- Promote the provision of open spaces, urban spaces, and landscaping to soften, beautify, and enhance the Area's image.

- Enforce Cumberland County’s Minimum Housing and Junk Car Ordinances to eliminate abandoned and neglected residential properties and vehicles.
- Restrict the proliferation of billboards in the Area.
- Require parking lots to have landscaped islands to soften their appearance, improve air quality, reduce the heat island effect, and to filter runoff.
- Enforce litter laws and promote other programs to clean up existing roadway litter and educate the citizenry of the cost and impact of littering.
- Promote a pilot program that would encourage civic groups, businesses, and other entities to adopt interchanges for beautification and maintenance.
- Utilize the Conservation District, Special Flood Hazard Areas, public and non-profit lands and development concepts such as open space subdivisions to maintain rural character in the Area.
- Promote the planting and maintaining of native plants as a natural vegetative buffer along major corridors.
- Create incentives that encourage developers to retain mature trees within their developments.
- Promote a center median with landscaping and street trees for any widening of an existing or new major thoroughfare.
- Develop a sign ordinance that will regulate the size, height, style, illumination, and appearance of signage in the Area.

ENTRANCE CORRIDORS

Attractive entrance corridors speak volumes about a community. First impressions of a community are formed by the initial streetscape at its entrance. Streetscape is a general term applied to all of the elements that make up the public realm. They include street, paving, sidewalks, planting strips, lighting, traffic signals, outdoor street furniture, public signs, and utilities. It could also include structures in the private sector such as parking lots, signs, and structures and their relationship to the streetscape.

Exhibit 30 - Illustration of Claude Lee Road /I-95 Interchange Enhancements



It is recommended that all entrance corridors in the County, the City of Fayetteville and Hope

Mills be enhanced by street trees, natural vegetation, landscaping, sign control, lighting, and pedestrian facilities where applicable. Good architectural design of structures and site planning should be encouraged. Entrance streets in the Study Area should include Interstate 95, U.S. Highway 301 South/Eastern Boulevard, N.C. Highway 87 South, John McMillan Road, Yarborough Road, and Chicken Foot Road at their entrance into the County, Claude Lee Road, Martin Luther King Jr. Freeway, U.S. Highway 301 South/Eastern Boulevard, Wilmington Highway, Doc Bennett Road, East Mountain Drive, Owen Drive, and Airport Road as they enter the City of Fayetteville, and Chicken Foot Road at its entrance into the Town of Hope Mills.

It is also recommended that the City of Fayetteville enhance the Claude Lee Road/I-95 Interchange as a major gateway into the City and airport. These enhancements should include, but not be limited to, wayfinding signs, lighting, landscaping, and restricting billboards as illustrated in **Exhibit 30 - Illustration of Claude Lee Road/I-95 Interchange Enhancement**.

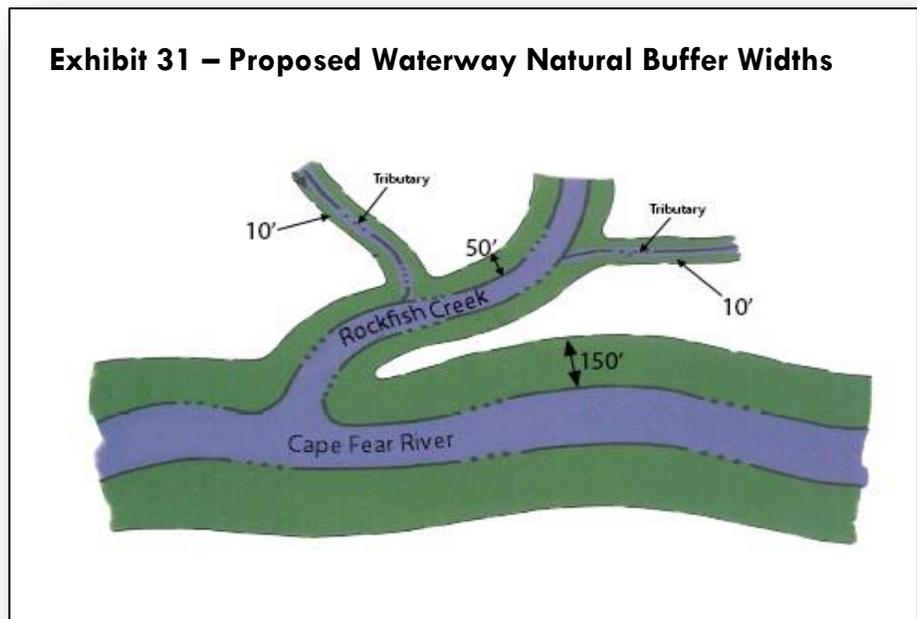
Further recommendations include banning billboards on Martin Luther King Jr. Boulevard, I-95, U.S. Highway 301 South, Claude Lee Road, Airport Road, Chicken Foot Road, Owen Drive Extension, and the proposed Coliseum/Downtown Connector Road.

WATERWAY NATURAL BUFFERS

The Study Area contains many water courses within its boundary. Those included are Rockfish Creek, Cold Camp Creek, Gallberry Swamp, Willis Creek, Swans Creek, Long Branch Creek, Kirk's Mill Creek, and the Cape Fear River. It is important that these waterways be protected to ensure bank stabilization, filtration of storm water and providing for aquatic and wildlife habitats. The protection area for these waterways should be based on their importance and size. Since Rockfish Creek and the Cape Fear River are considered

major waterways within the Study Area, Region, and County, the buffer should be of significant width to protect them.

It is recommended that the buffer of protection for the Cape Fear River should be a minimum of 150 feet or the width of Special Flood Hazard Area, whichever is greater. The creek buffer area shall be a minimum of 50 feet



from the top of the creek bank. Streams and drainage ways (tributaries) buffers should a minimum of 10 feet from the top of the bank. These waterways natural buffers are illustrated in **Exhibit 31 - Proposed Waterway Natural Buffer Widths.**

RECOMMENDED DESIGNATED FARMLAND AREA DEVELOPMENT

The designated farmland area should be protected and preserved from normal development. Development in this area should be limited and be in character with a farming community. The majority of the designated farmland in the Study Area is zoned A1-Agricultural District. This district requires a minimum of a two-acre lot, or a density of one unit per two acres.

The Planning Board's current policy is to allow rezoning to one acre lots on tracts 10 acres or less in the farmland area. It is recommended that the Planning Board's current policy should be enforced with a modification. This modification is to disallow tracts 10 acres or less that request one acre minimum lot size or one unit per acre in the farmland designated area when the soils are unsuitable for septic tanks.

Tracts greater than ten acres that request permission to subdivide one acre lots or a density of one unit per acre would be considered more favorable if soil conditions are suitable for septic tanks, the subdivision access is approved by the North Carolina Department of Transportation, the land is not in the Present Use Value Tax Program, is located on a public street/road, and be approved as a density development/conditional zoning.

In addition, it is recommended that a zoning district be created in the farmland designated area that would allow only stick built homes. This is in response to the community's concerns that many upscale homes have been built in the farmland area on large lots that later had manufactured homes placed next door. It is hoped that this will help maintain property values in the area.

CONCENTRATE COMMERCIAL DEVELOPMENT IN NODES AT INTERSECTIONS AND INTERCHANGES

Commercial development is inevitable in some locations in the area. Efforts should be made to ensure that this commercial development is located in the most convenient location, has access to public utilities and urban services, has the transportation network to handle the expected traffic volume, is not encroaching in an established residential area, is compatible with its surrounding uses, is conveniently located, and not stripped along the roadways. Commercial development should be concentrated in nodes at major intersections or interchanges near the most densely developed areas. This is reflected in the proposed South Central Land Use Plan.

The Plan shows very little commercial development in the designated farmland area. Since most of the Plan's designated farmland is zoned A1-Agricultural District, there are many commercial uses already allowed. If there are other desired commercial uses not allowed in the A1- Agricultural District, the change may be supported on a limited basis if it is located at an intersection with at least one of the roads classified as a principal arterial, major collector, or higher, is compatible with the surrounding uses, and does not promote strip commercial development. All commercial development must blend with the surrounding land uses in scale, appearance and size.

CO-LOCATE COMMUNITY FACILITIES AND SERVICES

Community facilities and services should be planned and conveniently located near the population. These services may include law enforcement protection, schools, recreation centers, parks, social services, mental health services, libraries, and etc. These facilities should be interconnected by pedestrian paths and amenities.

PROTECT NATURAL AREAS, ENVIRONMENTALLY SENSITIVE AREAS, HISTORIC AND SCENIC SITES

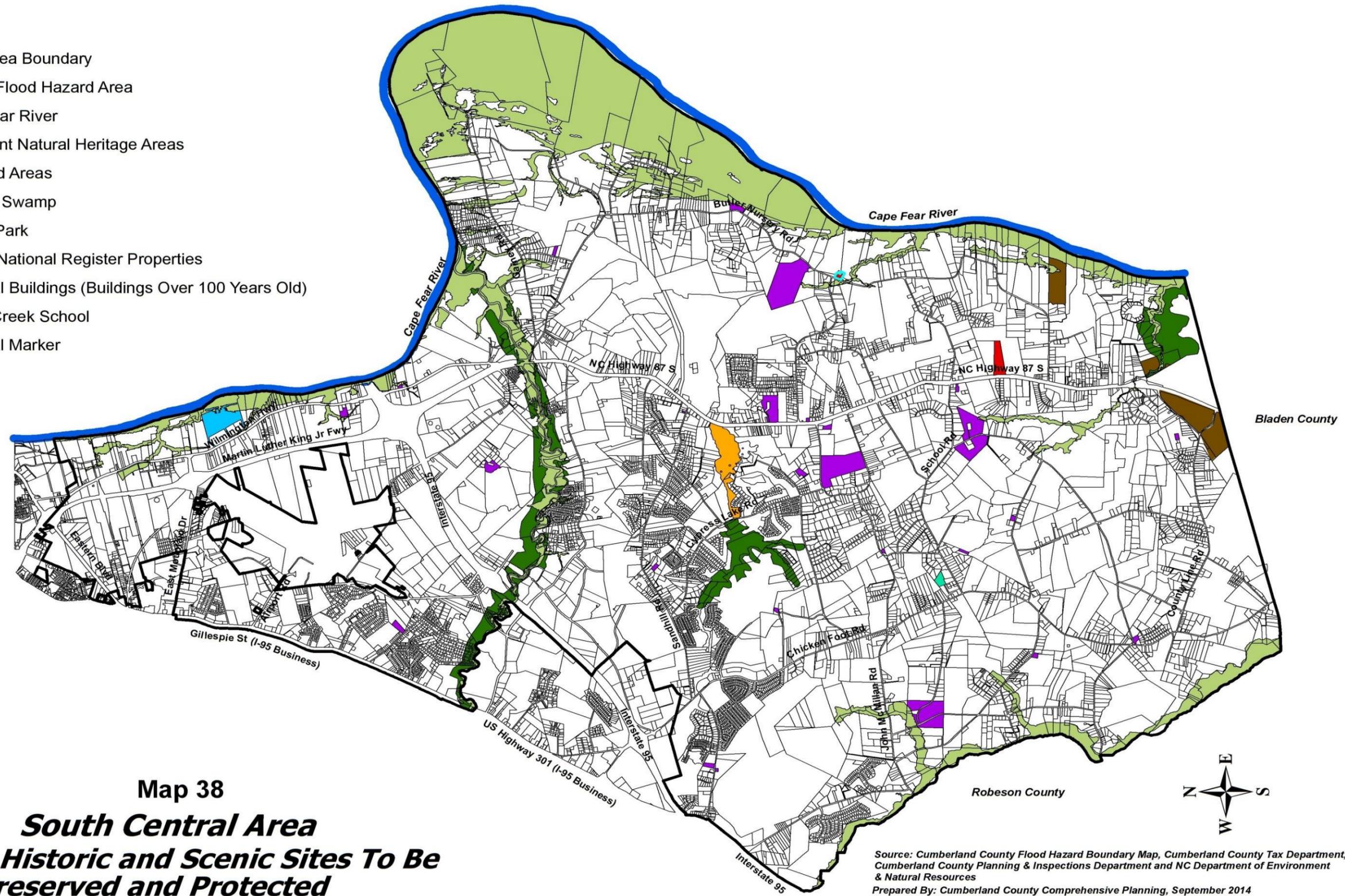
The Study Area has an abundance of natural areas, environmentally sensitive areas, scenic sites and some historic structures that need to be protected and preserved as shown on **Map 38 - South Central Area Natural, Historic and Scenic Sites To Be Preserved and Protected**. Environmentally sensitive and natural areas help protect water supplies, reduce sedimentation and soil erosion, replenish soils, clean the air, nourish wildlife, and provide habitats. The Cape Fear River and Special Flood Hazard Area are significant natural areas that are viable resources to the economy of the Study Area, County, and Region for their use as recreation, drinking water, and wildlife habitats. The Study Area also contains several other unique water bodies, a regional park, plus scenic and historical sites that should be protected and preserved.

WATER AND SEWER POLICY

In order to protect the rural area and allow for urban development in designated areas, the provision of water and sewer must be addressed. The South Central Citizen Planning Committee recognizes that growth will come to the Area, but it must be controlled, and the timing of water and sewer extension is critical. It is recommended that any density greater than two units/lots per acre should have public or community water and sewer. Areas in the Study Area that currently have available sewer and water should be developed first and should be the most densely developed. Any future water and sewer

Legend

- Study Area Boundary
- Special Flood Hazard Area
- Cape Fear River
- Significant Natural Heritage Areas
- Managed Areas
- Cypress Swamp
- Amette Park
- Historic National Register Properties
- Historical Buildings (Buildings Over 100 Years Old)
- Swans Creek School
- Historical Marker



Map 38
South Central Area
Natural, Historic and Scenic Sites To Be
Preserved and Protected

Source: Cumberland County Flood Hazard Boundary Map, Cumberland County Tax Department, Cumberland County Planning & Inspections Department and NC Department of Environment & Natural Resources
 Prepared By: Cumberland County Comprehensive Planning, September 2014

extensions should be done incrementally and systematically to prevent “leapfrog development”. It is recommended that the Gray’s Creek Sanitary District pursue the establishment of a sanitary district with a water source from Bladen Bluffs Regional Surface Water System that will be owned , operated, and controlled by the residents. Rural water should be extended only to provide potable water, eliminate water contamination issues, and it should be explicit that it will be only for rural development. Sewer should only be permitted in the designated farmland area when there is a health risk due to septic tank failure.

ENCOURAGE THE REUSE OF VACANT COMMERCIAL AND INDUSTRIAL SITES

Since there are vacant manufacturing/industrial facilities and other commercial structures within the Study Area, consideration should be given to the reuse or conversion of these facilities to a usable structure. The marketing for the reuse of these structures is viable to the economic development of the County and Study Area. An inventory and database of these vacant structures should be conducted and maintained as well as incentives developed to encourage investment in these structures.

PROMOTE INFILL DEVELOPMENT

Protecting rural character in the southern portion of the Study Area is of paramount importance for the residents. In an effort to protect the rural character, prevent haphazard development in the farmland designated area, and prevent urban sprawl, it is recommended that existing areas and lots that have sewer and water available now should be developed first. These lots and tracts are shown in **Map 39 – South Central Area Buildable Lots One Acre or Less with Available Public Water and Sewer**. Some type of incentives should be crafted to encourage their development. There are approximately 169 existing lots (one acre or less) with water and sewer available.

Tracts greater than one acre were also inventoried on **Map 40 – South Central Area Tracts Greater than One Acre with Available Public Water and Sewer within 300 Feet**. These tracts of land can support higher density and should be promoted first for development before tracts that require the extension of these services are considered. There are about 165 tracts in the Study Area that have public water and sewer within 300 feet.

INDUSTRIAL PARK

The Cumberland Industrial Center (CIG) is the largest employment concentration in the Study Area. It was founded in 1987 and consists of approximately 620 acres. The park currently has approximately 10 active tenants employing between 500-1000 persons. The Cumberland Industrial Center and some surrounding land could provide future

employment opportunities for South Central Cumberland Study Area residents. Most of the sites are developed, however there are some vacant structures available for new clients. The Park has approximately 80 acres for additional tenants; there are currently three vacant available structures in the Park, and there is an adjacent 290 acres of privately owned land available for development.

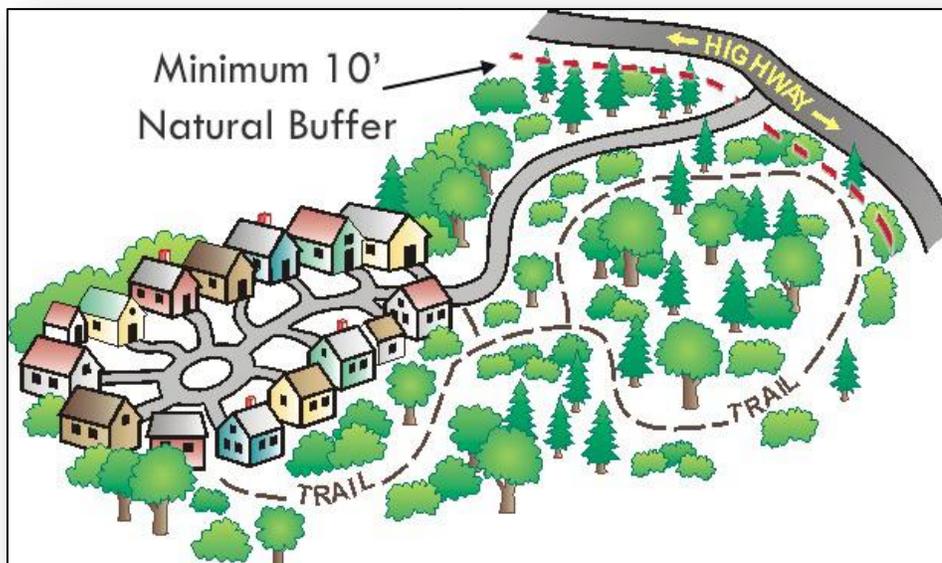
In order to continue the effective development of Cumberland Industrial Center, a systematic beautification and maintenance plan should be instituted. The result of this plan will reflect the image of a prosperous community, a thriving development and an effective management that demonstrates a well-planned, cohesive industrial center. In an effort to enhance the visual appearance of the center, façade improvements, landscaping, signage, and manicured grass areas should be included in the maintenance.

PROTECT RURAL CHARACTER IN THE FARMLAND DESIGNATED AREA

During the Citizen Vision Session there was considerable interest in protecting the rural character of the Area. The Plan acknowledged this desire by designating the rural portion of the Study Area as farmland. These actions can be supplemented by the use of cluster or open space subdivisions. The Plan recommends that open space and cluster subdivisions be the method of development in the farmland area. Open space and cluster development allows for the preservation of open space, protects the rural landscape, is a more cost effective method of development, and can be a method to keep more land in agricultural use, as shown in **Exhibit 32 - Illustration of Open Space & Cluster Development.**

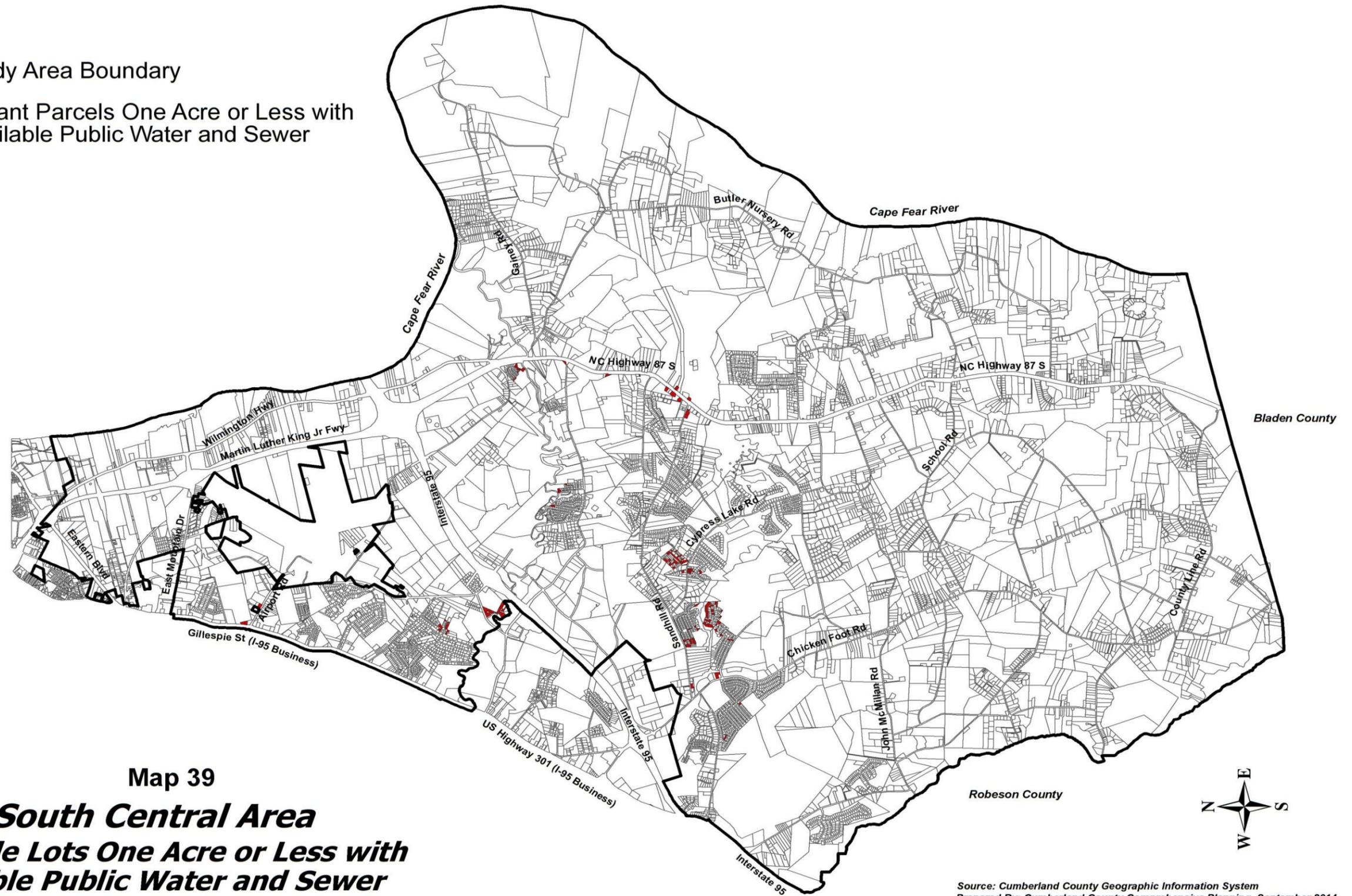
In order to protect the rural character in the farmland designated portion of the Study Area, it is recommended that a minimum 10 feet wide natural buffer be left when the development is along a State maintained road.

Exhibit 32 – Illustration of Open Space & Cluster



Legend

- Study Area Boundary
- Vacant Parcels One Acre or Less with Available Public Water and Sewer

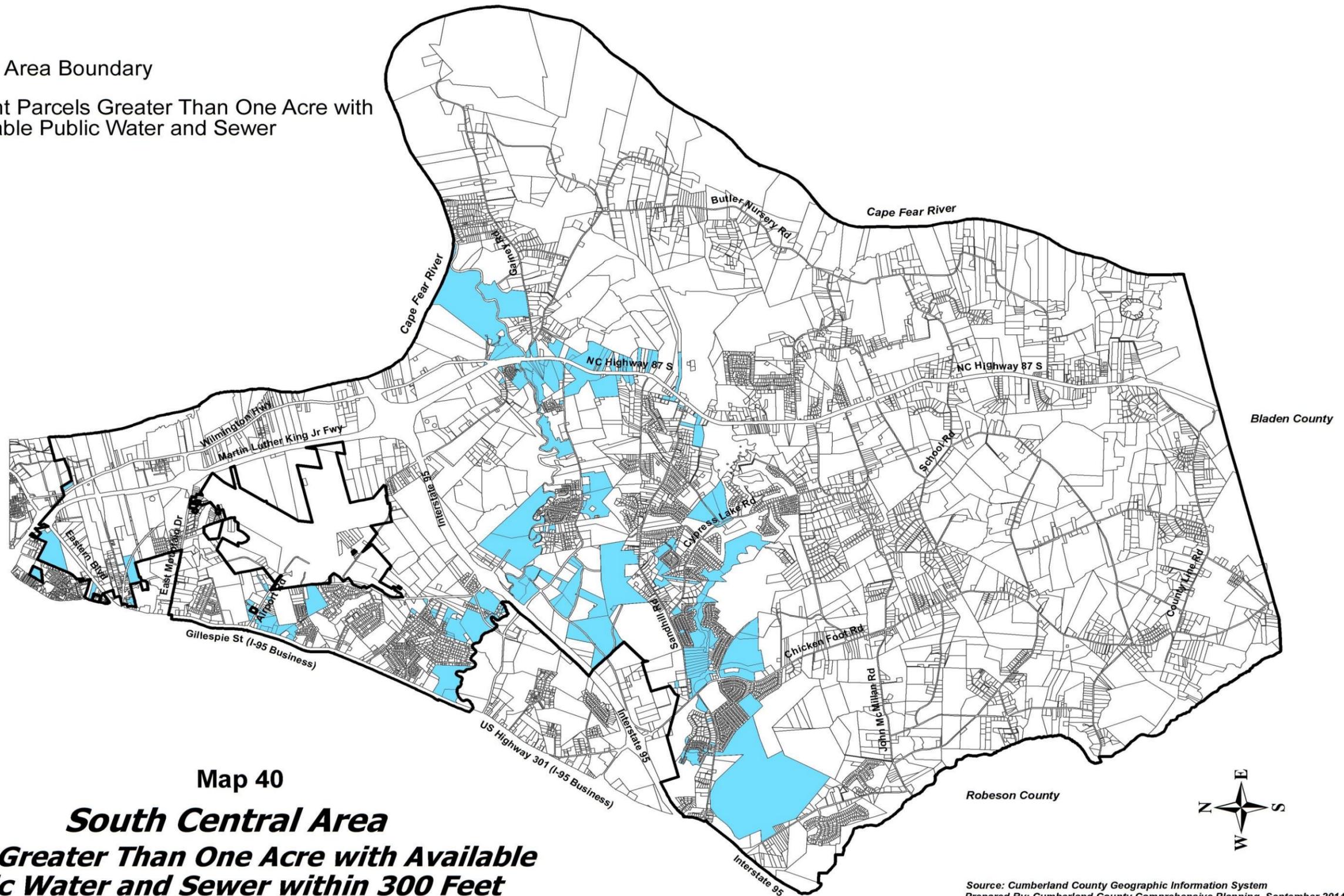


Map 39
South Central Area
Buildable Lots One Acre or Less with
Available Public Water and Sewer

Source: Cumberland County Geographic Information System
Prepared By: Cumberland County Comprehensive Planning, September 2014

Legend

- Study Area Boundary
- Vacant Parcels Greater Than One Acre with Available Public Water and Sewer



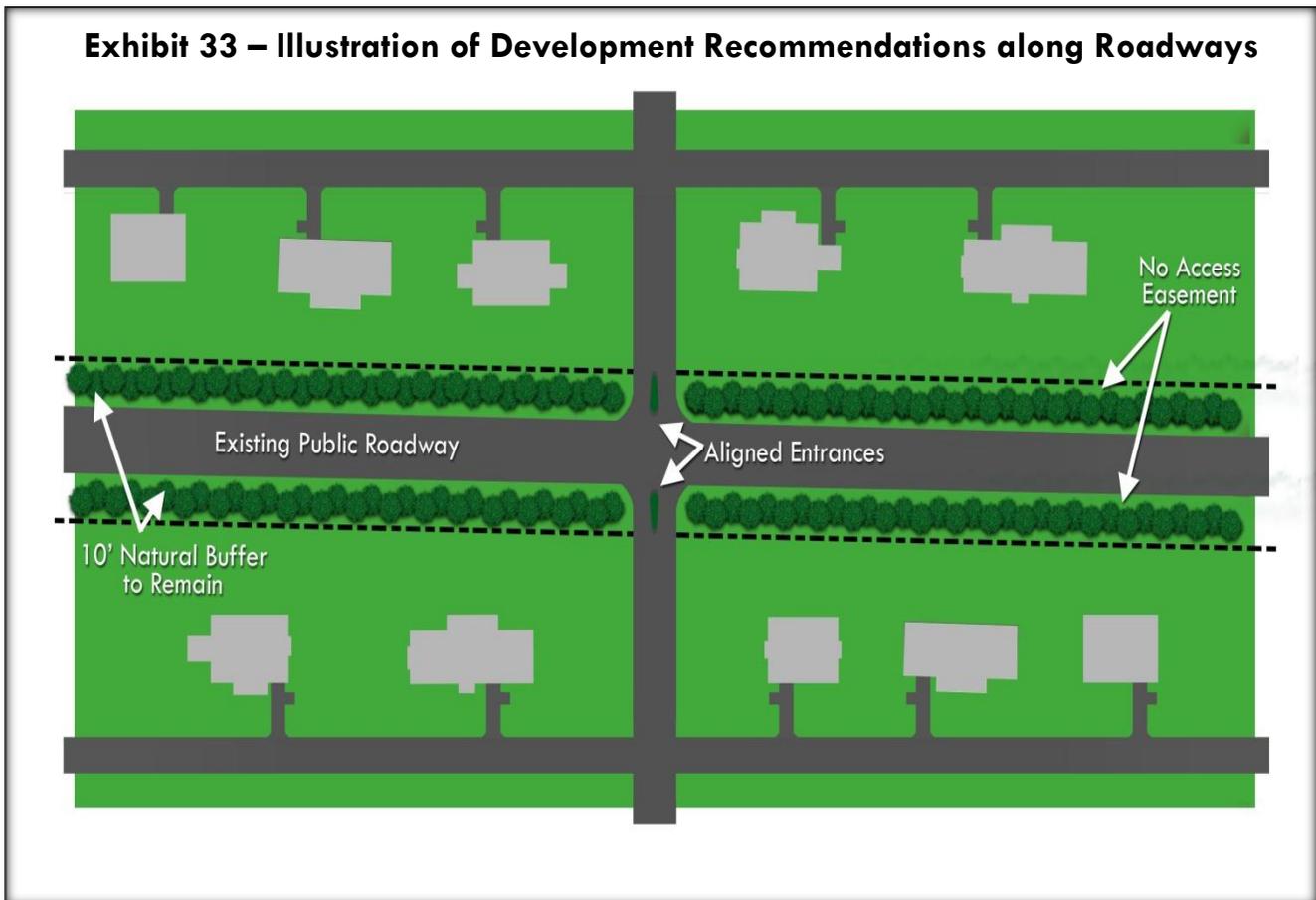
Map 40
South Central Area
Tracts Greater Than One Acre with Available
Public Water and Sewer within 300 Feet

Source: Cumberland County Geographic Information System
Prepared By: Cumberland County Comprehensive Planning, September 2014

NO ACCESS EASEMENT FOR RESIDENTIAL DEVELOPMENTS ALONG ROADWAYS

The Study Area, although rural in many areas, does have roads that carry traffic to, from, and within the Area. Some are classified as “arterials” and “collector” streets according to the 2040 Highway Plan, 2014. In order to preserve the functionality of these roads as development increases, it is imperative that driveways be limited and conflict points reduced. All existing State maintained roads should require all subdivisions with more than three adjacent lots to back to the road.

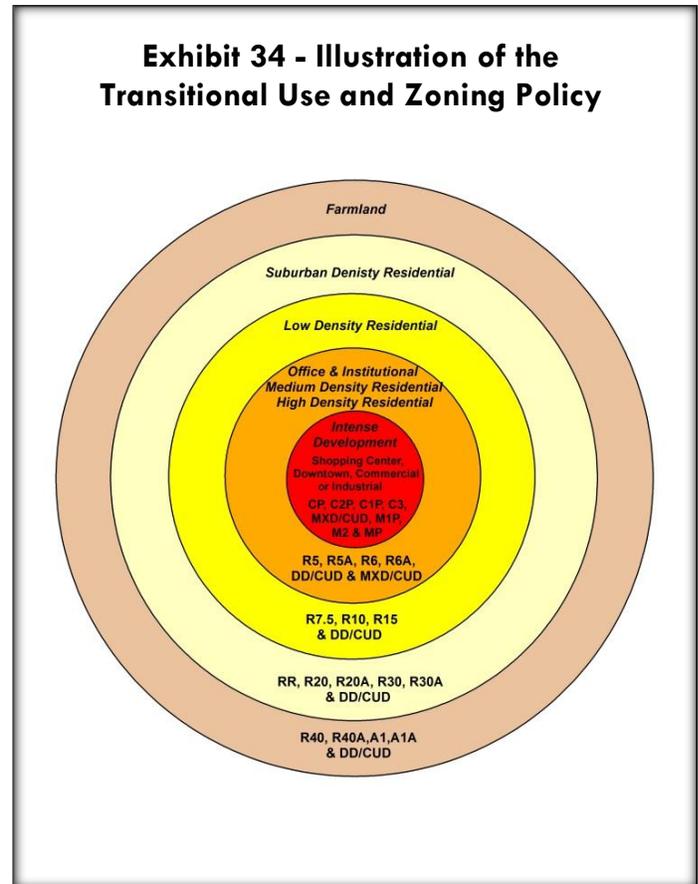
The recorded plats should contain a “no access easement” clause to these roads. In the rural portion of the study area when lots are created, there should be a minimum 10 feet wide natural buffer left along the roadway as shown in **Exhibit 33 - Illustration of Development Recommendations Along Roadways**. Corresponding subdivision entrances on opposite sides of the street should align directly with each other whenever possible.



PROTECT RESIDENTIAL AREAS FROM COMMERCIAL AND INDUSTRIAL DEVELOPMENT.

Residents and Citizen's Committee members expressed a need to protect residential development from encroachment by commercial and industrial development. Upon review of vision session questionnaires, the desire to control development and the growth of shopping centers were listed numerous times, while the rural and non-commercialized nature of the southern part of the Study Area is viewed as an asset by Study Area residents.

It is recommended that applying the Traditional Use and Zoning Policy when making planning and zoning recommendations is a means to achieve those objectives. Under this policy, centralized, concentrated commercial development is surrounded by less concentrated development of differing types as shown in **Exhibit 34 - Illustration of the Transitional Use and Zoning Policy**. Conceptually, this policy results in a land use form that is similar to concentric circles, where suburban density residential development and farmland radiate outward from more intense development. It also assists in creating a buffer to minimize impacts between residential areas and incompatible uses.



PROTECT FARMLAND AND AGRICULTURAL INTEREST IN THE AREA.

There is a real need to protect farmland, farming operations, and agricultural related activities in the Area. While the Plan is not a “No Growth Plan”, there is an area designated as farmland where development should be limited. This will help keep farming viable, prevent urban sprawl, and protect the rural character of the Area.

It is recommended that Cumberland County Subdivision Ordinance be amended to include a “family subdivision” that would allow farmers to provide residential lots to immediate family members and farm workers. Family members that build on the farm are more likely to become farmers and continue the operation than members that reside off the farm. It is also recommended the continued support of the Voluntary Agricultural District Program and development of some additional local incentives to farmers that participate in the program such as free booths at the local farmers market, cash incentives, free advertizing in the local media, and promote a local farm produce section as part of all local festivals. Utilization of the Agri-Expo Center as a regional hub for

agricultural and agribusiness gatherings and developing training classes for individual to learn farming practices, techniques, farm commodity pricing, mentoring, and any other activities that prepares interested individuals in pursuing farming is strongly recommended.

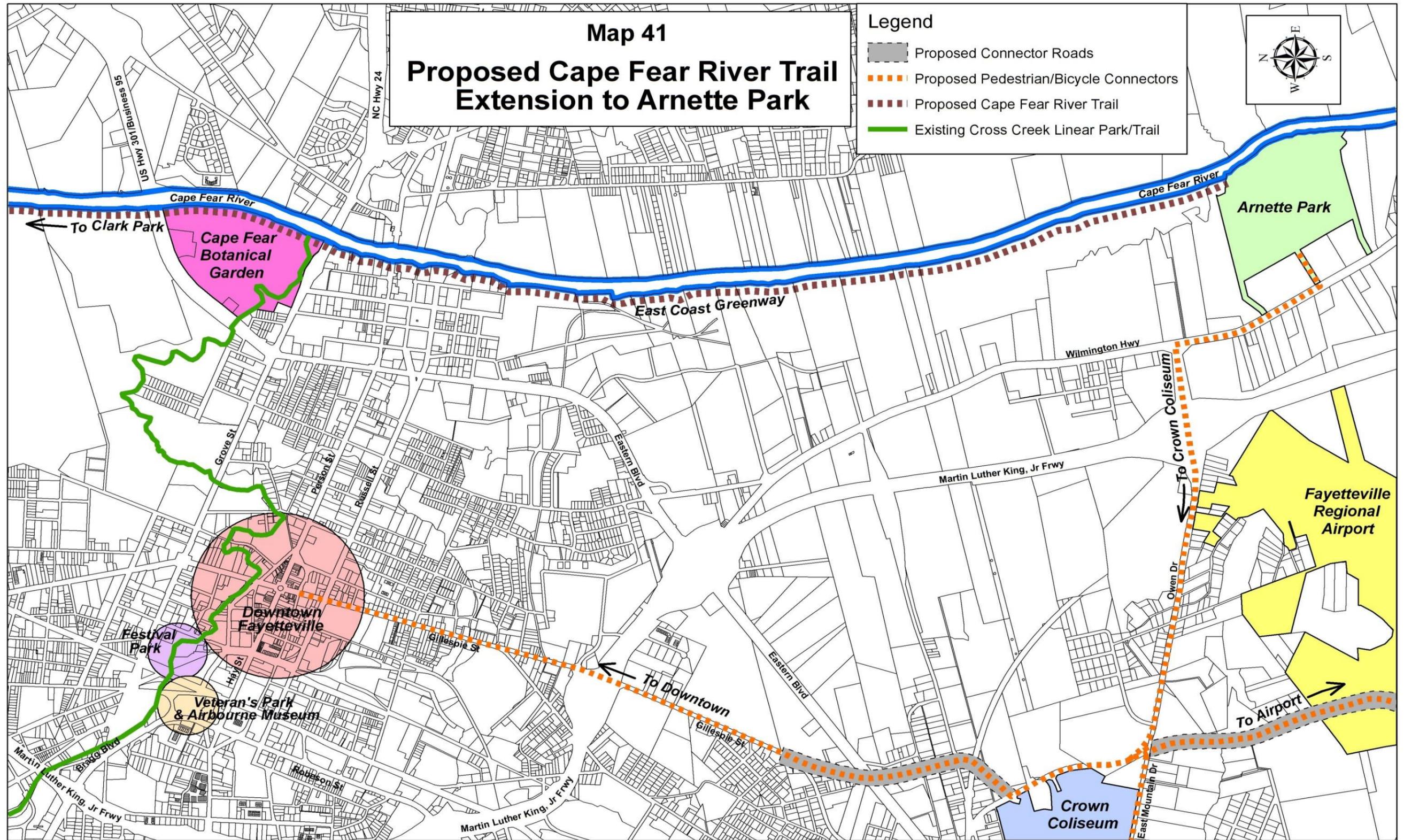
Many solutions to protect farmland and the agricultural industry are beyond the scope of planning. Examples include treating farming and agribusinesses as an industry and recruiting farmers. Agribusiness, like other businesses, requires having farmers at the table for economic decisions and as such, they should be represented on the Economic Development Alliance of Fayetteville and Cumberland County that recruits and retain businesses. Other actions should include promoting “farm to table” programs, promoting an understanding and appreciation of agriculture, recruiting industries that utilize locally grown and produced farm products, and promoting a home for a local farmer’s market. The Farm Advisory Board should have a very active role in all farming and agricultural related matters in the County.

SUPPORT THE ADOPTED BIKE & PEDESTRIAN CONNECTIVITY PLAN

During the public outreach process of the FAMPO Bicycle and Pedestrian Connectivity Plan, 2011 the public expressed their desire for accessible bicycle and pedestrian routes and facilities that would offer them safe transportation to employment, schools, shopping, and recreation. A system of sidewalks and bicycle facilities that connect origins and destinations provide users with choices that provide more direct convenient and safe travel routes, increase the ability to walk to key destinations, provide children an alternative route to school, improve access to public transit, provide alternatives for those individuals unable to drive, provide a stronger sense of community by encouraging people to walk or bike thus increasing the opportunity for interaction with neighbors, and improve the quality of life. It is recommended that the Bicycle and Pedestrian Plan as shown on **Map 23 - South Central Area Bicycle & Pedestrian Connectivity Plan** be implemented within the Study Area.

EXTEND THE CAPE FEAR RIVER TRAIL TO ARNETTE PARK

The northern portion of the Study Area is more urban in nature and is where public services and amenities are more accessible to the residents. The Cape Fear River Trail, while very significant locally, also has national prominence. It is part of the East Coast Greenway that is planned to provide a bicycle and pedestrian route from Maine to Miami, Florida. Extending the Cape Fear River Trail to Arnette Park will tie it to the Botanical Garden, Downtown Fayetteville, Clark Park, Methodist University, the Soccer Complex, and eventually to Carver’s Falls and Carver’s Creek State Park, as shown in **Map 41 - Proposed Cape Fear River Trail Extension to Arnette Park**. This proposed pedestrian connector between the Crown Coliseum Complex and Arnette Park provides patrons access to all the above mentioned facilities.



CROWN COLISEUM COMPLEX AND AIRPORT AREA POSSIBILITIES

The Study Area is a contrast of rural and urban development with the northern portion being the most urban and the southern portion most rural. The residents in the rural area strongly emphasized maintaining the rural character and keeping farming as much as possible. Most of the denser development is recommended to be concentrated in more urban northern portion of the Study Area and at the interchanges.

The northern portion of the Study Area has two major entities that impact the Area: the Crown Coliseum Complex and Fayetteville Regional Airport. Both of these facilities are important for the economic health of the entire County and this Region. Special consideration should be directed to these facilities to ensure their viability. Each of these facilities is governed by two separate entities, the City of Fayetteville over the Airport and Cumberland County over the Crown Coliseum Complex. In order for both of these facilities to serve the public and function to their fullest potential, there must be a joint vision, cooperation, shared financial responsibility, land use and regulations decisions made that positively impact the area, compatibility, and joint public-private partnerships between all stakeholders.

Fayetteville Regional Airport Environs

Fayetteville Regional Airport has had many studies completed to address the long range plans for the airport and its surrounding land use compatibility. There are existing areas already developed around the airport that will remain, but non-compatible areas should not be allowed to expand. In the long-term, some areas should be acquired by the airport and used for compatible uses such as farming, nurseries, non-people intensive manufacturing or assembly, and etc.

Most of the past studies done on the airport fail to address issues unrelated to airport operations. There have been few studies looking at the airport as a major gateway into the City of Fayetteville. The City of Fayetteville has made efforts to enhance Airport Road, but there are some less attractive areas on the south side of the road that needs addressing. This area is under the County's jurisdiction. Therefore addressing this issue will require action from Fayetteville and Cumberland County. The south side of Airport Road should be landscaped to screen and soften unattractive areas facing the road. Long range plans should include the redevelopment of the area to non-residential uses compatible with the Airport's plan.

While much attention has focused on Airport Road, the airport entrance off Interstate 95 (Exit 44) is by way of Claude Lee Road should be recognized. This is a two lane road at the present and is in FAMPO's 2040 Highway Plan, 2014 to be upgraded to multi-lanes. This should have wayfinding signs installed, landscaped, and lighted as illustrated in **Exhibit 35A & 35B - Illustration of Recommended Roadway Improvements**. Claude Lee Road should be designated an entrance corridor and be enhanced as such. At the confluence of Doc Bennett Road and Airport Road, a large traffic circle containing an

attractive sculpture, art piece, a “Welcome to Fayetteville” sign, or attractive landscaping is recommended.

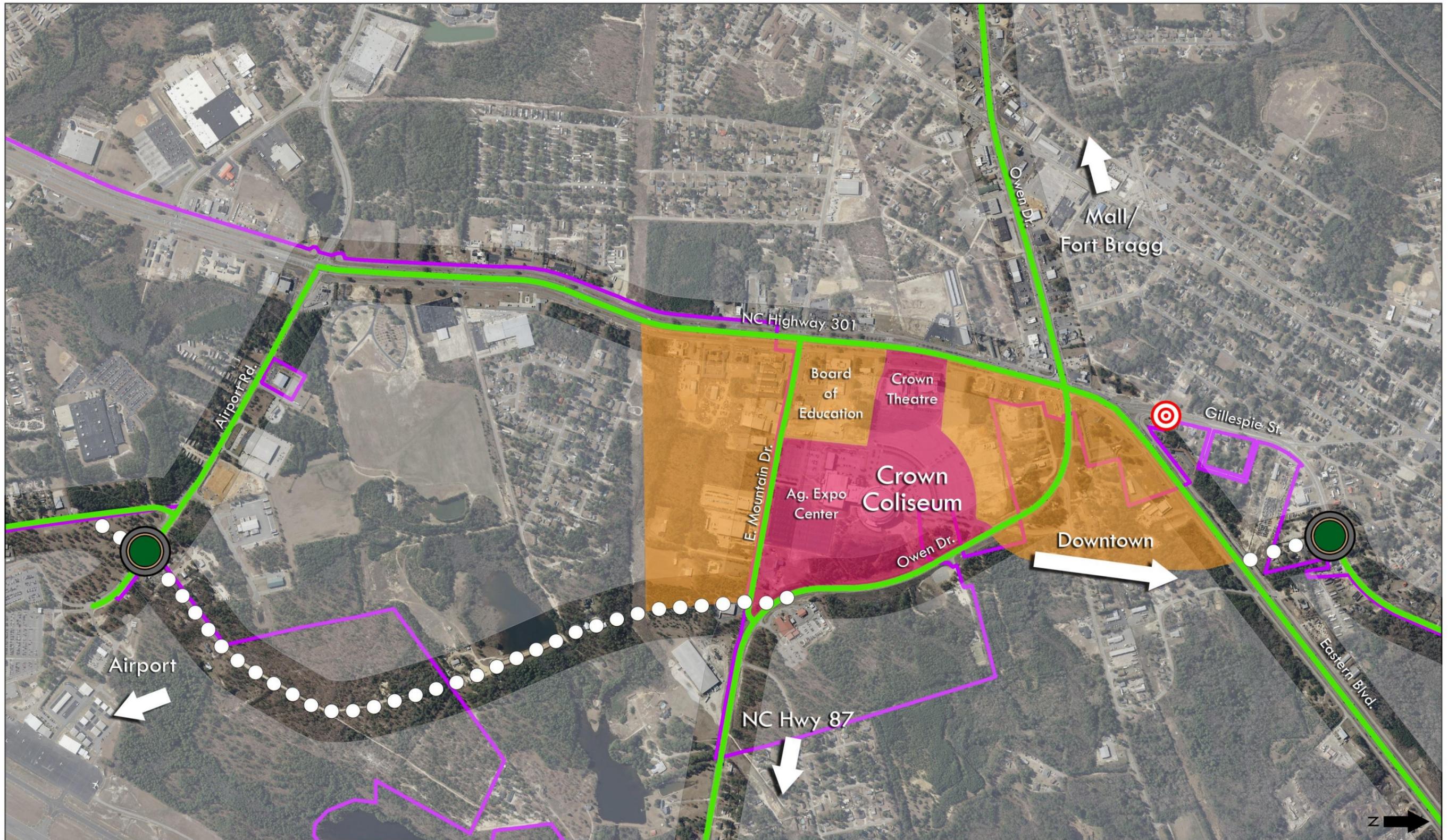
Additionally, a new road is proposed that will tie Airport Road to Owen Drive linking the Airport directly to the Coliseum Complex and downtown Fayetteville as shown on **Map 42 – Coliseum Area Recommendations**.

Exhibit 35A - Illustration of Recommended Roadway Improvements



Exhibit 35B - Illustration of Recommended Roadway Improvements





- Map 42
- Crown Coliseum Complex
 - Proposed Support Facilities
 - Proposed Roundabout
 - Proposed Cul-de-sac
 - Proposed Landscaping/ Streetscape Impr.
 - South Central Study Area
 - Proposed Roads

Coliseum/Airport Area Recommendations

Coliseum Complex Environs

The Crown Coliseum Complex is a major County and Regional facility that has a great economic benefits and enhancements to the County resident's quality of life. While it is not in the actual Study Area, the Plan will address its impact on the Area. The objective of this Plan is not to address all the challenges facing the Complex; that would require a more detailed in-depth study beyond the capability of this study and staff.

The Complex has many strengths and some Plan identified challenges that should be addressed for it to achieve its full potential. Some of the strengths of the Complex include:

- a. It is a nice public gathering place
- b. Has the potential ability to bring big name acts
- c. It has a variety of venues (i.e. Theater, expo-center, ect.) to attract different types of entertainment utilized by many people.
- d. Recent management change has proved to be initially successful
- e. Has an approved special overly zoning district
- f. Improvements to the Crown Center and the Crown Theater are scheduled
- g. Has the ability to enhance the economy of the County

Some challenges facing the Complex include isolation, limited access, lack of beautification, lack of pedestrian facilities, no mass transit service, the condition and type of surrounding land uses, and the lack of amenities such as food and lodging facilities.

Isolation is one of the challenges keeping the complex reaching its fullest potential. Currently, there are no supporting facilities near the Complex for guest to patronize. The viability and success of the complex requires a connection to other activity centers in the County. Downtown Fayetteville, the Mall Area, Airport, and the Military Reservation should all be linked to the Complex through transit, road connections, and wayfinding signs for motorists.

The linkage between the Mall area and the Military Reservation to the Complex is recommended to be enhanced. Due to distance, these connections are vehicular based and could best achieved through bus service, a new trolley service, or personal vehicle. The primary roadway linking these facilities is Owen Drive. It is recommended that the Owen Drive Corridor be upgraded as a "super street" with the center median heavily landscaped. Street trees, code enforcement to eliminate unsightly structures, enhanced sign regulations, sidewalks, intersection treatment with pedestrian crosswalks and brick pavers, and wayfinding signs should be included in the treatment of Owen Drive. These improvements should be applied to Owen Drive beginning at Martin Luther King Jr. Freeway to All American Expressway. Improvements on this segment of road will provide primary access to the Coliseum Complex for patrons coming from the Military Reservation and points north from Sanford and Greensboro. More importantly, it will provide patrons using the Complex direct access to the Mall, shopping facilities, and amenities.

Another link recommended is from the Crown Complex to Downtown Fayetteville. Downtown Fayetteville and its environs have the cultural, historical, and urban core that can sustain patrons looking for activities during their stay.

The Plan proposes that a new direct connector road beginning at Owen Drive crossing Eastern Boulevard and terminating with a large round-about with an attractive focal element (similar to the one proposed at the Airport Road/Doc Bennett Road intersection) at Gillespie Street should be

Exhibit 36 - Illustration of Potential Gillespie Street Improvements

installed. This proposed road will tie the Airport, the Crown Complex to Downtown Fayetteville together. The cross-section for this facility should be pedestrian oriented with sidewalks with brick paver strips, pedestrian lighting, benches, landscaping and street trees, bike lanes, crosswalks, and wayfinding signs. The cross-section of this road should be extended along Gillespie Street into Downtown Fayetteville as shown in **Exhibit 36 -**



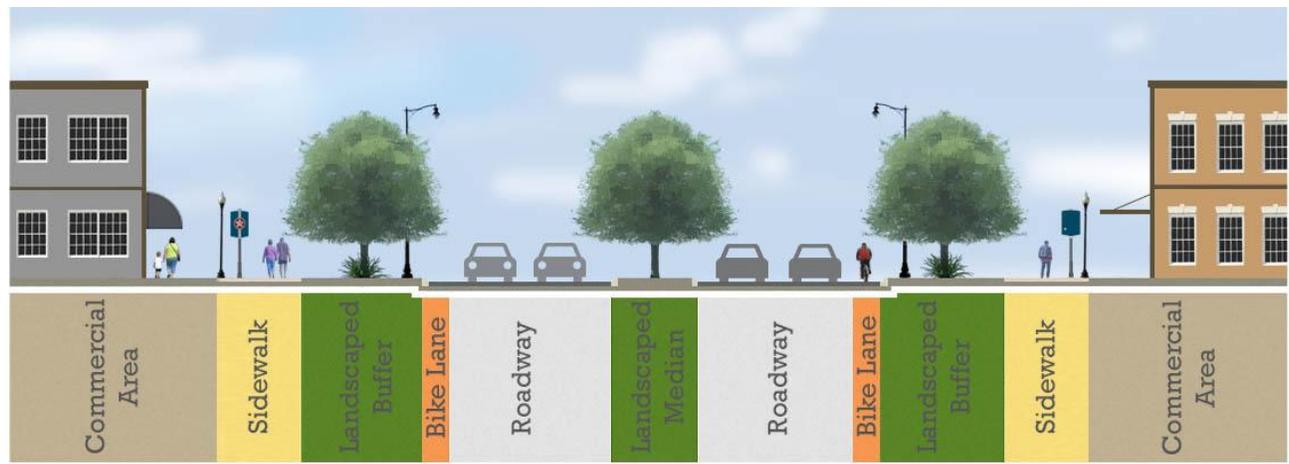
Illustration of Potential Gillespie Street Improvements. Unattractive areas and land use along Gillespie Street should also be addressed. An overall vision for this proposed new corridor linking the Crown Coliseum Complex to Downtown Fayetteville should be developed. That vision should address all elements of the streetscape. Any new structures should be compatible in mass, scale, colors, and materials. Long range plans should also include bus or a trolley service between the Coliseum Complex and Downtown Fayetteville.

Incentives should be developed for existing structures along Gillespie Street to upgrade to these standards. Design plans for this street should contain common elements that provide continuity throughout the corridor linking the Airport, the Crown Coliseum Complex to Downtown Fayetteville.

Consideration should be given to the structure's scale, height, mass, complexity of form, and architectural details, the impact of spaces created, and how it will be experienced by the public. Structural elements to consider include the size, placement, and number of doors, windows, portals and openings and number of ground-floor pedestrian access.

Development along the corridor should be encouraged to retain as many of the mature trees as possible, and blend in with the natural topography. The signage should be harmonious and in scale with building elements and landscaping features. Parking when feasible should be behind buildings. Buildings should be encouraged to be multi-storied and adjacent to a wide public walk with pedestrian facilities, as shown in **Exhibit 37 - Recommended Urban Boulevard Cross-Section**.

Exhibit 37 - Recommended Urban Boulevard Cross-Section



In addition to linkages to the Downtown, Mall environs, and Military Reservation, it is also recommended that a pedestrian/bicycle connection be made to Arnette Park and the Cape Fear River. Pedestrian/bicycle facilities may include sidewalks, bike lanes, bike trails or greenways. This connection to the Cape Fear River Trail will provide pedestrian access to the Botanical Garden, Downtown Fayetteville, Clark Park, and the Methodist College Soccer Complex and provides East Coast Greenway travelers' access to the Complex. This connection can be made during the installation of street trees along Owen Drive from East Mountain Drive to Wilmington Highway (Old NC Highway 87) down to the entrance of Arnette Park. A boating operation for dinner and nature tours could add an additional attraction for Crown Complex Coliseum visitors.

AREAS REQUIRING MORE IN DEPTH PLANNING AND RESOURCES

There are some areas in the Study Area that require more in-depth planning and resources that will generate a specific action plan to address issues beyond this study. These areas include the Crown Coliseum Area, the area south of the Coliseum between U.S. Highway 301 South/Gillespie Street and Fayetteville Regional Airport, and a predominantly manufactured home development between Gainey Road and the Cape Fear River, as shown on **Map 43 - South Central Area Areas Requiring More In-Depth Planning**.

ADOPT THE PROPOSED SOUTH CENTRAL AREA LAND USE PLAN MAP

The land use plan map is a vital part of the Study's recommendations. Its purpose is to enhance the community, preserve the existing natural environment, scheme the growth of the Area in a systematic approach by indicating where the various land uses or proposed developments can occur, and how it will blend and meet the needs of the residents and existing conditions in the Area.

The proposed land use plan outlines the desired future land use for the South Central Area. This Plan takes into consideration the goals and objectives developed by the Planning Committee and the existing or planned infrastructure for the Area. The Plan also acknowledges that it was developed in the absence of any future water and sewer extension plans that would have some significance in the placement of certain land uses. Whenever public water & sewer is extended, the Plan should be re-evaluated for its proposed use and be changed or modified if necessary.

The proposed Plan land use classifications include Farmland, Suburban Density Residential, Suburban Density Residential with Mixed Housing Types, Low Density Residential, Medium Density Residential, Mixed-Use Development, Heavy Commercial, Light Commercial, Heavy Industrial, Light Industrial, Airport Oriented Uses, Coliseum Development Area, and Open Space as shown on **Map 44 - Proposed South Central Area Land Use Plan**.

The Farmland area is generally an agricultural and farming area which allows a mixture of residential development of manufactured and stick built homes. The density is generally one house or unit per two acres. There is an exception that allows a density of one unit or house per acre for tracts of land less than 10 acres and tracts greater than 10 acres that have favorable soil conditions, are approved as a Conditional Zoning/Density Development, has public or community water, and has its access approved by the North Carolina Department of Transportation. The Farmland designated area also allows some limited commercial uses that are oriented specifically for a rural community such as convenient general merchandise stores, farm supplies and machinery sales, fish hatcheries, milling & grinding, wholesale sales, and etc. It is recommended that these allowed commercial uses be located at the intersection of two roads. The Farmland designated area is located in the southern and eastern portion of the Area consisting of approximately 51% (22,807 acres) of the Study Area.

Suburban Density Residential allows for a density of approximately two units per acre (1/2 acre lots) and permits stick-built homes only. It is proposed in the southwestern portion of the Study Area between I-95 and John McMillan Road; and on the eastern side of Wilmington Highway near the Martin Luther King Jr. Freeway Interchange at I-95 consisting of approximately .3% (148 acres).

Suburban Density Residential Mixed Housing Types is designated in the northeast quadrant of the MLK, Jr. Freeway and I-95 Interchange. This designation allows stick built and manufactured homes on approximately .08% (41 acres).

Low Density Residential allows a residential development with a density of 2.2 to 6 units/acre. Only stick-built homes are permitted in this land use classification. Public or community water and sewer is required. The Plan shows Low Density Residential development primarily east of I-95 to NC Highway 87 south, between Gainey Road and the Cape Fear River and south to encompass the Sewer Service Area. There is a pocket of Low Density Residential just east of Fayetteville Regional Airport. Approximately 17% (7,542 acres) of the Study Area is denoted as Low Density Residential.

Medium Density Residential is denoted along Gillespie Street/Business I-95 between East Mountain Drive and Rockfish Creek. This area allows a density of approximately 6 to 15 units per acre. It allows for all types of multi-family development including manufactured home on individual lots and manufactured home parks. Public or community water and sewer is required. This area comprises of approximately .5% (223 acres) of the Study Area. Most of the Medium Density Residential area is already developed and consist of a mixture of housing types.

Mixed-Use development is proposed at the intersection of Sandhill and Chicken Foot Roads. A Mixed-Use area allows a mixture of light commercial, office and institutional and residential uses on the same parcel; and vertical mixed-use, which allows light commercial/office and institutional/residential uses in the same building. Public water and sewer is required. Approximately .5% (222 acres) of the Study Area is designated as Mixed-Use development.

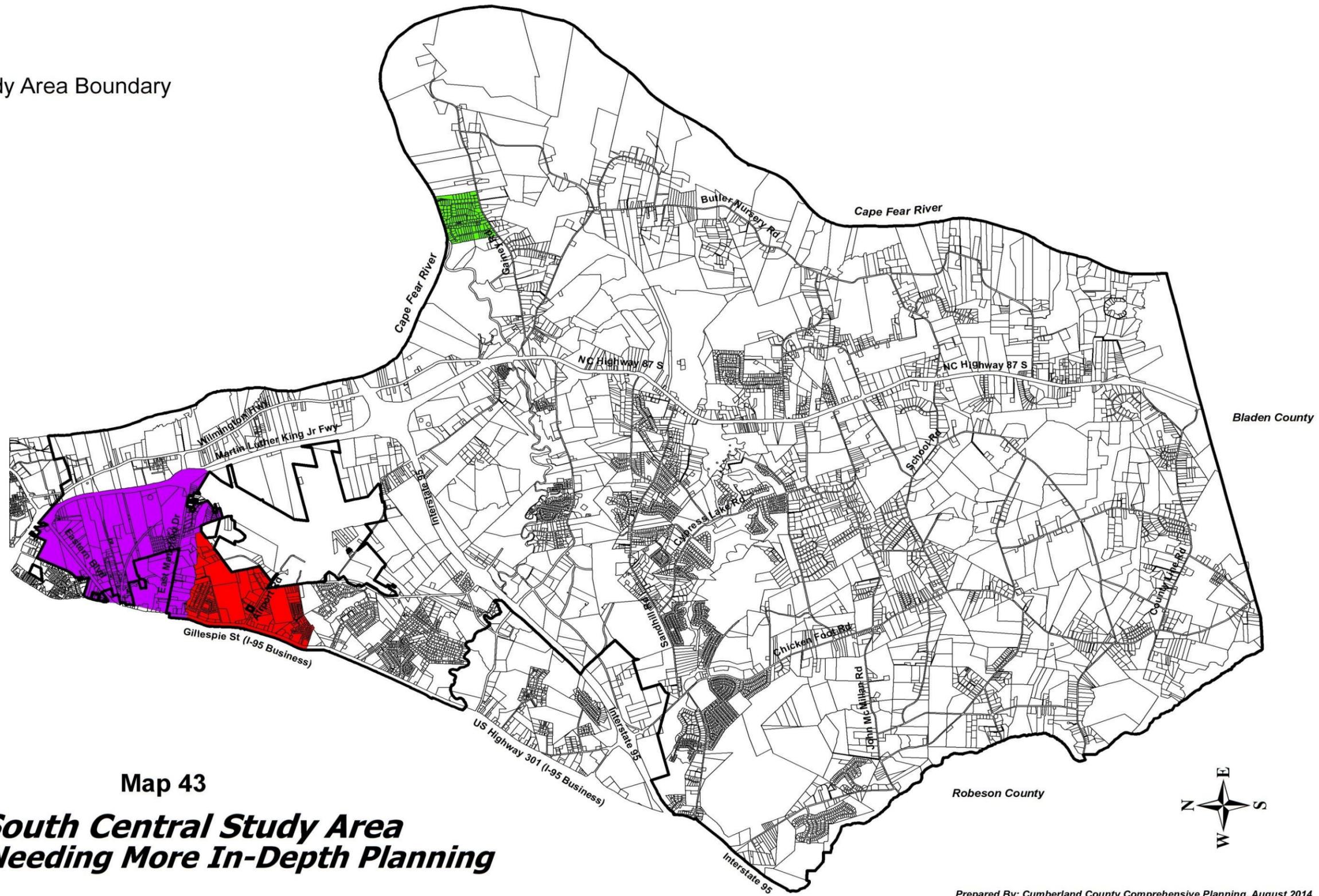
The Office and Institutional designated area consumes only .02% (10 acres) of the Study Area. It allows both general office uses such as doctor offices, banks, and institutional uses such as schools and government offices.

Commercial designation consists of Light and Heavy Commercial. Light Commercial caters to the ordinary needs of the immediate neighborhood with emphasis on convenient goods. Light Commercial is generally located in the Study Area at the intersection of Tom Starling and Smith Roads with NC Highway 87 South consisting of .1% (46 acres).

Heavy Commercial is designated at the intersection of Sandhill Road and NC Highway 87 South, concentrated near the I-95/Chicken Foot Road/Sandhill Road Interchange area, along US Highway 301 South between East Mountain Drive and Rockfish Creek, and along the south side of I-95 from Rockfish Creek to the Martin Luther King, Jr. Freeway interchange containing approximately 2.8% (1,153 acres) of the Study Area. Heavy Commercial allows a variety of heavy retail uses, service, and wholesale establishments. It does not allow any billboards and must have public water and sewer.

Legend

— Study Area Boundary

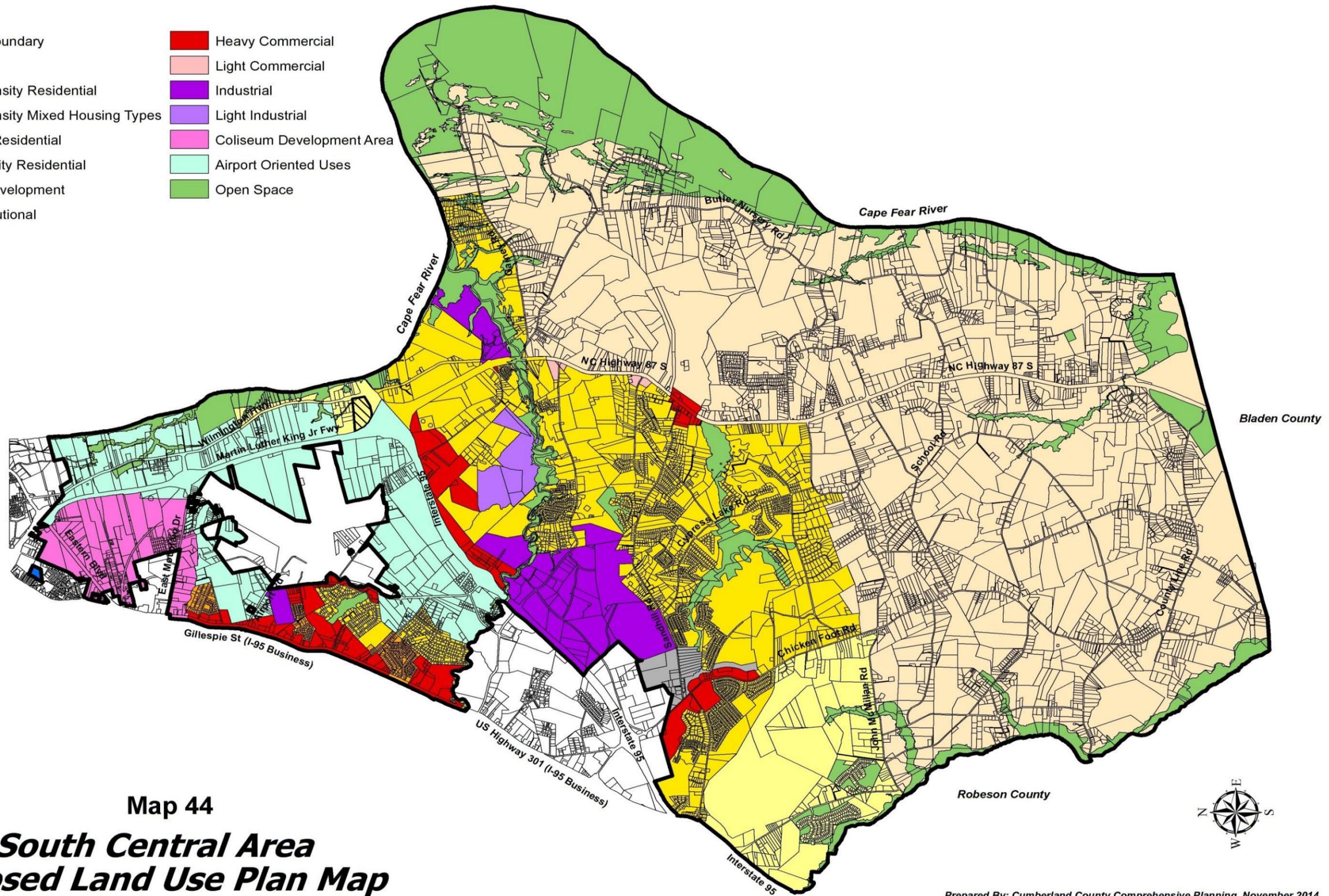


Map 43
South Central Study Area
Areas Needing More In-Depth Planning

Prepared By: Cumberland County Comprehensive Planning, August 2014

Legend

-  Study Area Boundary
-  Farmland
-  Suburban Density Residential
-  Suburban Density Mixed Housing Types
-  Low Density Residential
-  Medium Density Residential
-  Mixed Use Development
-  Office & Institutional
-  Heavy Commercial
-  Light Commercial
-  Industrial
-  Light Industrial
-  Coliseum Development Area
-  Airport Oriented Uses
-  Open Space



Map 44
South Central Area
Proposed Land Use Plan Map

Prepared By: Cumberland County Comprehensive Planning, November 2014

Industrial and manufacturing classifications include heavy and light industrial/manufacturing. Light Industrial/Manufacturing involves manufacturing and processing small items, warehousing, and wholesaling. It should not generate odor, loud noise, or be detrimental to the environment. There is only one Light Industrial/Manufacturing designated area on the Plan which is located south of I-95 near Doc Bennett Road containing .7% (291 acres) of the Study Area.

Heavy Industrial/Manufacturing areas allow for industries that operate on larger tracts, produce large quantities of items, may generate heavy traffic volumes, noise, smoke, odor and other nuisances. The primary area denoted for Heavy Industrial/Manufacturing is the Cumberland County Industrial Center and the adjacent properties, the east side of Martin Luther King Jr. Freeway at Rockfish Creek, and the Eaton Corporation site on Doc Bennett Road containing approximately 3% (1,462 acres) in the Study Area. Public water and sewer is required.

The Coliseum Development Area is designated on the Plan for the area immediately surrounding the Crown Coliseum Complex. This area is critical for the long term success of the Complex and is recommended for more detailed study. Uses allowed in this area include any use that is compatible, compliments, and enhances the Crown Coliseum Complex. The area contains approximately 2% (1,022 acres).

The proposed Plan denotes an Airport Oriented Use area immediately adjacent to Fayetteville Regional Airport. Its purpose is to protect the Airport from unwanted encroachment, protect human life, and allow for future expansion. Its area is determined by the Airport's Plan which defines critical areas around the airport based on safety and the protection of human life. Uses allowed in the area must be compatible with the Airport's operation, compatible with other uses in the area, and does not impact the area negatively. Approximately 8% (3,409 acres) is in the Airport Oriented Use area.

Open space is denoted on the Plan to protect the Special Flood Hazard Areas, environmentally sensitive areas, parks, public or non-profit natural areas, scenic sites, and other protected lands. The Open space designated area contains approximately 14% (6,338 acres).

South Central Land Use Plan Implementation

An important part of the South Central Land Use Plan is the implementation of the recommendations. In order for the recommendations to be implemented, it will require a concerted effort between citizens, Cumberland County, the City of Fayetteville, local, state, and federal agencies, the business community, and other public/private agencies.

The matrix below outlines the responsible parties for achieving these recommendations and ensuring implementation. The roles that responsible persons/agency play will vary and may be that of an advisory, financial, decision making, coordination, ordinance writing, grant writing or planning.

<u>Recommendation</u>	<u>Responsible Entity</u>
Entrance Corridors	Cumberland County, City of Fayetteville, Town of Hope Mills, North Carolina Department of Transportation, Fayetteville Area Convention & Visitors Bureau and Fayetteville Regional Chamber of Commerce
Waterway Natural Buffers	Cumberland County Planning & Inspections Department, Cumberland County Infrastructure and Public Utilities Department, North Carolina Department of Environment and Natural Resources and North Carolina Wildlife Commission
Designated Farmland Area Development	Cumberland County Planning & Inspections Department, Cumberland County Board of Commissioners, Cumberland County Farm Advisory Board, Cumberland County Joint Planning Board and Cumberland County Cooperative Extension Service
Concentrate Commercial Development in Nodes at Intersections and Interchanges	Cumberland County Planning & Inspections Department, Cumberland County Joint Planning Board, Fayetteville Planning Department, Cumberland County, City of Fayetteville and Town of Hope Mills
Co-Locate Community Facilities and Services	Cumberland County Planning & Inspections Department, Cumberland County Board of Education, Cumberland County Sheriff Department, Cumberland County Social Services, Cumberland County Library and Fayetteville/Cumberland County Parks & Recreation
Protect Natural Areas, Environmentally Sensitive Areas, Historic and Scenic Sites	North Carolina Department of Environment and Natural Resources, North Carolina Heritage Program, Cape Fear River Assembly, Sandhills Area Land Trust (SALT), North Carolina Department of Cultural Resources and Cumberland County Planning & Inspections Department
Water and Sewer Policy	Cumberland County Planning & Inspections Department, Cumberland County Infrastructure & Public Utilities Department, Fayetteville Public Works Commission, City of Fayetteville, Cumberland County and Existing and Future Sanitary Districts
Encourage the reuse of Vacant and Industrial Sites	Economic Development Alliance of Fayetteville & Cumberland County and Fayetteville Area Chamber of Commerce
Promote Infill Development	Cumberland County Planning & Inspections Department and Developers
Industrial Park	Cumberland County and Economic Development Alliance of Fayetteville & Cumberland County
Protect Rural Character in the Farmland Designated Area	Cumberland County Planning & Inspections Department, Cumberland County Farm Advisory Board, Cumberland County Cooperative Extension Service and Cumberland County Soil & Water Conservation District and Farmers
No Access Easement for Residential Development along Roadways	Cumberland County Planning & Inspections Department, North Carolina Department of Transportation and Fayetteville Area Metropolitan Planning Organization

Protect Residential Areas from Commercial and Industrial Development	Cumberland County Planning & Inspections Department, Cumberland County Joint Planning Board, Cumberland County Board of Commissioners, Fayetteville Planning Department, Hope Mills Town Board and Fayetteville City Council
Protect Farmland and Agricultural Interest in the Area	Cumberland County Planning & Inspections Department, Cumberland County Farm Advisory Board, Cumberland County Cooperative Extension Service, Cumberland County Board of Commissioners, Economic Development Alliance of Fayetteville & Cumberland County and Farmers
Support the Adopted Bike & Pedestrian Connectivity Plan	Cumberland County Planning & Inspections Department, Fayetteville Area Metropolitan Planning Organization, Cumberland County Board of Commissioners and City of Fayetteville
Extend the Cape Fear River Trail to Arnette Park	Fayetteville/Cumberland County Parks & Recreation Department, Cumberland County, City of Fayetteville, Fayetteville Area Metropolitan Planning Organization
Fayetteville Regional Airport Environs	City of Fayetteville, Fayetteville Airport Commission, North Carolina Department of Transportation and Cumberland County Joint Planning Board
Coliseum Complex Environs	Cumberland County Coliseum Board, Cumberland County Board of Commissioners, City of Fayetteville City Council, North Carolina Department of Transportation, Fayetteville Planning Department, Cumberland County Planning & Inspections Department, Fayetteville Area Metropolitan Planning Organization and Fayetteville Area System of Transit (FAST)
Areas Requiring More In-depth Planning and Resources	Cumberland County Planning & Inspections Department, Cumberland County Board of Commissioners and Cumberland County Community Development Department
Adopted the Proposed South Central Land Use Plan Map	Cumberland County Joint Planning Board and Cumberland County Board of Commissioners

**RESOLUTION OF ADOPTION
SOUTH CENTRAL AREA LAND USE PLAN
CUMBERLAND COUNTY JOINT PLANNING BOARD**

WHEREAS, the Cumberland County Joint Planning Board is empowered to prepare and recommend plans for the County of Cumberland, including all municipalities therein and portions thereof, in accordance with G.S. 153A-321, G.S. 160A-361 and G.S. 160A-464 of the North Carolina General Statutes; and

WHEREAS, the Planning Board has prepared a specific document entitled the South Central Area Land Use Plan designed to provide the County of Cumberland a statement of desirable objectives to guide future growth, change, and development within the defined South Central Study Area; and

WHEREAS, the South Central Citizens Planning Committee consisting of citizens within the Study Area boundary developed and endorses the South Central Area Land Use Plan; and

WHEREAS, the Plan is subject to future re-evaluation and changes by existing and future Planning Boards and the Cumberland County Board of Commissioners;

NOW, THEREFORE, BE IT RESOLVED that the Cumberland County Joint Planning Board hereby recommends the adoption of the South Central Area Land Use Plan.

On this 19th day of May, 2015.

BY: Patricia Hall

Patricia Hall, Chair

CUMBERLAND COUNTY JOINT PLANNING BOARD

ATTEST: Thomas J. Lloyd

Thomas J. Lloyd, Director

CUMBERLAND COUNTY PLANNING & INSPECTIONS DEPARTMENT

**RESOLUTION OF ADOPTION
SOUTH CENTRAL AREA LAND USE PLAN
COUNTY OF CUMBERLAND**

WHEREAS, the Cumberland County Joint Planning Board is empowered to prepare and recommend plans for the County of Cumberland in accordance with G.S. 153A-321 of the North Carolina General Statutes; and

WHEREAS, the Planning Board has prepared a specific document entitled the South Central Area Land Use Plan designed to provide the County of Cumberland a statement of desirable objectives to guide future growth, change, and development within the South Central Study Area; and

WHEREAS, the South Central Citizens Planning Committee consisting of citizens within the Study Area boundary developed and endorses the South Central Land Use Plan; and

WHEREAS, the Plan is subject to future re-evaluation and changes by existing and future Planning Boards, and the Cumberland County Board of Commissioners;

NOW, THEREFORE, BE IT RESOLVED that the Cumberland County Board of Commissioners hereby adopts the South Central Area Land Use Plan.

On this 15th day of June, 2015.

BY: Kenneth S. Edge
Kenneth S. Edge, Chairman
BOARD OF COUNTY COMMISSIONERS



ATTEST Candice N. White
Candice White, Clerk to the Board

**SOUTH CENTRAL CUMBERLAND AREA
CITIZEN'S PLANNING COMMITTEE**

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Mr. William Phipps Senior Planner
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Mr. Philip MulhallStreet Sign Installation Tech

GIS

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Mrs. Denise Sykes Senior Planner
Mr. William Linville Planner
Ms. Pier Varner Planner

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Mr. Johnny Scott Planner
Mr. Jeff Barnhill Planner
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