



Moore County

*Our Land,
Our Home*



2013 Land Use Plan

Moore County | North Carolina

Adopted: November 19, 2013

Prepared by:
Moore County Land Use Plan Steering Committee
Moore County Planning & Community Development

Cover Images were provided by:
Sandhills Photography Club

Several members of the Sandhills Photography Club provided many valuable photographs of our citizens, cultural events, historical assets, economy, natural resources, housing, transportation, utility infrastructure, etc. that were greatly appreciated and thoroughly utilized throughout the land use plan process. The County of Moore would like to extend a sincere thank you to the members of the Sandhills Photography Club that freely contributed their time, talents, and many photographs in this regard.

2013 Land Use Plan

Moore County | North Carolina

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Table of Contents

Introduction

Moore County Land Use Planning Process	1
The 1999 Land Use Plan	1
The Need for an Updated Plan	1
Appointment of a Citizen Steering Committee	1
Its Purpose	2
Its Mission	2
The Process	2
Executive Summary of Recommendations	4
Goals & Recommendations	5

Our People and Cultural Resources

Demography	7
Population and Growth Rates	8
Tax Districts and Taxable Value	10
Future Growth Projections	11
Population by Race	12
Age & Gender	13
Housing	15
Households & Families	15
Residential Construction Rates	16
Household Income	17
Affordable Housing	18
Poverty & Disability	22
Moore County Veterans	22
Educational Attainment	22
Employment	23
Historical & Cultural Assets	24
Towns, Villages & Communities	25
Cultural Activities	29
Golf & Resorts	29
Farming & Agriculture	29
Forestry	30
Equestrian	31
Pottery	31
Military Training	32
Historical Structures, Places & Districts	33
Outdoor Recreation, Parks, Greenways, & Open Space	37
Educational System	39
Public Schools	39
School Capacities	40
Charter & Private Schools	44
Home School Students	44
Sandhills Community College	45
Future Needs	45

Our Economy and Infrastructure

Economy and Workforce 47
 Tourism 48
 Health Care and Community Health 48
 Agriculture 50
 Services 50
 Retirement 51
 Innovation 51
 Military 51
 Infrastructure 52
 Roads 52
 Railways 53
 Airport 54
 Water Systems 55
 Sanitary Sewerage 59
 Energy 61
 Wireless Communication Facilities 62
 Fire & Rescue Departments & Emergency Services 62

Our Natural Resources and Environment

Regional Geology, Soils & Topographical Relief 63
 River Basins and Sub-Basins 65
 Public Water Supply Watersheds 66
 Lakes, Rivers, Streams, & Dams 67
 Floodplains and Wetlands 68
 Rare, Threatened, & Endangered Species 69
 Significant Natural Heritage Areas 70
 Sandhills Area Land Trust (SALT) 71

Our Future

Goals, Recommendations & Actions 73
 Future Land Use Map 81
 Future Land Use Comparison Map 85

Figures

Figure 2.1: Moore County’s & Neighboring Counties’ Growth Rates 8
 Figure 2.2: Moore County Decennial Growth Rate 8
 Figure 2.3: Growth Rate of Municipalities 9
 Figure 2.4: Moore County Market Value per Acre 10
 Figure 2.5: Historical Moore County Population Estimates 11
 Figure 2.6: Moore County Population Change 11
 Figure 2.7: Moore County Future Population Estimates 11
 Figure 2.8: Moore County Population by Race 12
 Figure 2.9: Moore County Age Populations (by Gender) - 1980 13
 Figure 2.10: Moore County Age Populations (by Gender) - 1990 13
 Figure 2.11: Moore County Age Populations (by Gender) - 2000 14
 Figure 2.12: Moore County Age Populations (by Gender) - 2010 14
 Figure 2.13: Percentage of Site Built vs. Manufactured Homes (2000 - 2011) 16
 Figure 2.14: Residential Permits Issued (2000 - 2011) 16
 Figure 2.15: Moore County Household Incomes 17
 Figure 2.16: Households with Retirement Income 17
 Figure 2.17: Percentage of Population Below Poverty Line (2010) 22
 Figure 2.18: Moore County Percentage of Educational Attainment Level 22

Figure 2.19: Proportion of Moore County Forestland by Forest Type 30
 Figure 2.20: Moore County Horse Country Boundary 31
 Figure 2.21: Moore County Historic Districts & Properties 33
 Figure 2.22: Moore County Public Schools 39
 Figure 2.23: Moore County Charter & Private Schools 44

Figure 3.1: Moore County Highways and Streets 53
 Figure 3.2: Moore County Railroads 54
 Figure 3.3: Moore County Public Water Systems 56
 Figure 3.4: Moore County River Basins & Sub-Basins 57
 Figure 3.5: Typical Bored Well (sand well) 58
 Figure 3.6: Typical Drilled Well (rock well) 58
 Figure 3.7: Existing Public Infrastructure 60
 Figure 3.8: Existing Public Water & Sewer Infrastructure 60
 Figure 3.9: Generalized Locations of Triassic Basins in North Carolina 61
 Figure 3.10: Generalized Locations of Triassic Basins in Moore County 61

Figure 4.1: Geology of Moore County 66
 Figure 4.2: Moore County Soil Types 66
 Figure 4.3: Moore County River Basins & Sub-Basins 68
 Figure 4.4: Moore County Public Water Supply Watersheds 69
 Figure 4.5: Moore County 100-Year Floodplain & Wet Soils 70
 Figure 4.6: Significant Natural Heritage Areas 72
 Figure 4.7: Sandhills Area Land Trust (SALT) Tracts 73

Tables

Table 2.1: Population Change by Municipality & County 9
 Table 2.2: Moore County Taxable Value 10
 Table 2.3: Housing Comparison 15
 Table 2.4: Affordable Senior (62+) Housing Options 19
 Table 2.5: Placed-Based & Tenant-Based Subsidized Housing 19
 Table 2.6: Placed-Based & Tenant-Based Housing Options (Non-Homeowners) 20
 Table 2.7: Non-Homeowners in Poverty (Aged 55 to 64 & 65+) 20
 Table 2.8: Population at 100%, 125%, and 150% of Poverty Threshold 20
 Table 2.9: Estimated Average Starting Salary by Profession (Moore County) 21
 Table 2.10: Moore County’s Top Ten Employers by Employment Level 23
 Table 2.11: Moore County School Enrollment Growth 40
 Table 2.12: First 10-Days of Enrollment 40
 Table 2.13: Moore County School Capacity-Related Projects 41

Table 3.1: Healthy Eating and Access to Foods 49
 Table 3.2: Active Living 49
 Table 3.3: Summary of Water Systems, Usage & Capacities 55
 Table 3.4: Existing Wastewater Treatment Facilities & Respective Capacities 59

Table 4.1: Moore County Rare, Threatened, and Endangered Species 71

Appendices 87

Our County's commitment to sound land use policies is embedded in understanding and leveraging Moore County as one place of special places. The findings and information in this plan recognizes the wide range of factors affecting land uses. Its primary objectives are optimization principles, inter-governmental collaboration benefits, and the County's need to be a leader in enhancing the quality of life through land use policies.

The 2013 update of the Moore County Land Use Plan is therefore intended to serve as a tool for making decisions about land development and future growth. The plan provides existing conditions of the County and offers guidance for Governmental leaders to make sound land use decisions. The plan provides goals and actions that can guide growth into the future. This plan has been developed to reflect the long-range plans of the incorporated areas of Moore County, in context of the County's towns, villages, and communities, focusing on current and future trends, existing infrastructure and current/future land values.

Moore County, North Carolina has a current population of approximately 89,000 people and has grown steadily over the past decades. The County is unique in that it is situated in a very centralized area between several large metropolitan areas, including Charlotte, Winston-Salem, Greensboro, Raleigh-Durham area, and Fayetteville. Moore County has participated in the planning efforts of multiple planning organizations within central North Carolina, including the Triangle J Council of Governments (TJCOG) and the Fort Bragg Regional Alliance, formerly known as the Base Re-Alignment and Closure – Regional Task Force (BRAC-RTF).

Moore County Land Use Planning Process

The 1999 Land Use Plan

The Moore County Land Use Plan adopted by the Moore County Board of Commissioners on March 15, 1999 was developed to be used as a guide for policy decisions in developing and implementing land use policies for Moore County's unincorporated areas. The primary goal of the plan, along with adopting a zoning code, was to preserve and protect the County's rural agricultural nature, as well as 2) protect property rights; 3) protect the environment, open space, and recreation; 4) address development concerns, with respect to economic development and transportation; 5) encourage information and citizen participation; 6) address housing; and 7) preserve the County's heritage.

The Need for an Updated Plan

In 1999 Moore County adopted a Land Use Plan that met the needs of the citizens and future generations, while acknowledging the diverse areas throughout the County. However, the County has seen a steady increase in development, within both the

incorporated and unincorporated areas since 1999. Since the adoption of the 1999 Land Use Plan, a number of new pressures and development issues have been raised that need to be addressed within the Land Use Plan update. As a matter of keeping the Land Use Plan relative to current trends and to development activities, the Plan should be updated, at a minimum, every five (5) to ten (10) years.

Appointment of a Citizen Steering Committee

The Commissioners appointed both voting and non-voting (ex-officio) citizens to a Land Use Plan Steering Committee (LUPSC) to provide information and feedback that should be included in a revised Land Use Plan. Twenty (20) voting members were appointed, many of whom resided in the unincorporated areas within the Moore County planning jurisdiction. The remainder of the overall Committee was made up of seven (7) ex-officio, non-voting members, whom represented other aspects of

land use planning through their specific knowledge of the County's: water and sewer infrastructure, airport, land planning and zoning law, cooperative extension, municipal governments, and interest in maintaining its citizens private property rights through the land use planning process.



LUPSC members hard at work highlighting important aspects of the draft land use plan at the March 2013 meeting.

Its Purpose

The Moore County Land Use Steering Committee was formed to update the 1999 Land Use Plan, providing insight on land use optimization and how it affects Moore County holistically. The committee consisted of citizens of Moore County, who had the background on various topics as it related to land use, including agriculture, environmental, economics, education, infrastructure, and land planning. The blending of these topics led to the development of the 2013 Moore County Land Use Plan.



Its Mission

To provide information and recommendations for **sound land use planning** in Moore County.

Sound Land Use Planning means:

1. **Ensure the highest respect and consideration for public and private land ownership and property rights.**
2. **Ensuring our County's culture, health, economy and natural resources are considered equally.**
3. **Recognizing that all the County's towns, villages, communities, and rural areas are unique and valued places.**
4. **Development policies should result in optimization of public services and infrastructure.**

The Process

The Moore County Land Use Plan Steering Committee (LUPSC) met monthly on one of the last two Mondays of the month at 6:00PM at the Moore County Senior Enrichment Center. The Moore County Planning and Community Development Staff assisted in preparation of each meeting with an overview of various topics, directed by Chairman Robert Hayter. The first four months of the process were utilized to review and critique the 1999 Land Use Plan, evaluating the goals and objectives that were created at that time. The LUPSC provided feedback and recommendations on the relevancy of each goal as it related to the present day.

Presentations

Moore County Planning and Community Development staff prepared and made several presentations. Panel discussions from a variety of community interests and organizations were also part of the information gathering throughout the Land Use Planning update process. The topics included the following:

- *What Affects Land Use in Moore County: The Natural Environment and The Cultural & Regulatory Environment*
- *Land Use Plan Public Participation*
- *Land Use Optimization*
- *Moore County Land Use Charrette Presentation (and Small Group Charrette Exercise)*
- *Moore County Future Land Use Map Charrette Report/Results*
- *Panel Discussion: Moore County's Municipalities (Mayors or their designees)*
- *Panel Discussion: Education*
(*Moore County Board of Education - Chairman and Moore County Schools - Superintendent*)
- *Panel Discussion: Moore County's Economy*
(*Moore County Chamber of Commerce, First Bank, MooreForward, Convention and Visitors Bureau, and Home Builders Association*)
- *Panel Discussion: Moore County's Natural & Cultural Resources*
(*Wildlife Habitat & Conservation, Soil and Water, Land Conservation, and Community Health*)

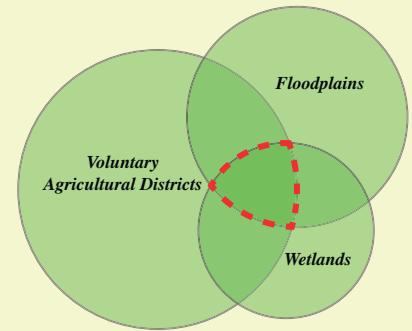
Facilitation

In September of 2012 Moore County contracted with Mr. Mark Molitor to assist with the facilitation of the Land Use Plan Steering Committee's subsequent meetings.

Development of a Future Land Use Map

The first step toward developing a future land use map to incorporate into the plan was to conduct a charrette for the LUPSC. In October the LUPSC participated in a charrette exercise developed by the Moore County Planning and Community Development, focusing on future growth of the county. The charrette was used to determine where residential, commercial and industrial growth would be foreseen in the next 18 years, utilizing growth projections. Each group was given pins based on certain categories (residential, industrial, and non-industrial), which were allocated a certain number of units (dwelling units and jobs). The base map that was developed utilized existing environmental, cultural and natural resources, creating a “GreenPRINT” of Moore County. This map depicted the unique features of Moore County, and provided layers of information, including items such as wetlands, floodplains, and voluntary agricultural districts (VAD). These were layers set to a green opacity and were overlaid with each other, creating darker green areas where these features were to be preserved or were more prevalent in Moore County.

The charrette was created to project the future growth of Moore County out 18 years to the year 2030. Based on a current population growth rate of 1.4%, to the year 2030, Moore County is projected to grow by over 28,000 people. This projection is based on the review of projections from Office of State Management and Budget (OSMB). Using the current rate of 2.35 persons per household, this would require a total of 12,000 new residential units by the year 2030. To maintain the growth rate, 9,400 new non-industrial jobs and 1,500 new industrial jobs would have to be created. The committee was divided into five (5) groups and given a map of Moore County, along with these pins. The groups were given an hour to develop their map, and then present the results to the LUPSC for comments and discussion. This charrette was useful in developing a first draft of the future land use map, based on a general consensus of the Moore County LUPSC. Further research into these projections since the charrette was conducted, has found that the population will increase by 34,000, with an 18% per decade growth rate, which is based on historical projections, TARPO and Office of State Management and Budget.



“I loved when we did our maps and our planning and how there was so much agreement on that. It was a great opportunity to serve our County.”

*Carolyn Mealing
(April 29, 2013)*



Executive Summary of Recommendations

The 2013 Land Use Planning Steering Committee (LUPSC), having been authorized by the Commissioners of Moore County to update and generate a new land use plan for the County, has developed this plan based upon these guiding principles:

Ensure the highest respect and consideration for public and private land ownership and property rights.

Ensure our County's culture, economy, and natural resources are considered equally.

Recognize that all the County's towns, villages, communities, and natural areas are unique and valued places.

Development policies should result in optimization of public services and infrastructure.

It is the committee's intent to guide the development of policies that will lead to the growth, progress, and economic well-being of Moore County based on the principles above. To that end, the committee identified five goals that should guide the thought processes and development of policy for land use in Moore County. These five (5) goals are:

- 1. Preserve and Protect the Ambiance and Heritage of the County of Moore (inclusive of areas around municipalities)*
- 2. Enhance the Union of the Built and Natural Environments to Improve Citizen Health through the Use of Open Space and Recreational Opportunities*
- 3. Optimize the Uses of Land Within the County of Moore*
- 4. Provide Information and Seek Citizen Participation*
- 5. Accommodate a Variety of Housing Types*

To accomplish these goals, several recommendations for policy action were developed by the Committee. These recommendations can be found on the following pages. For specific policy action (see page 75). These recommendations were organized around the areas and issues of Agriculture, Natural and Cultural Resources, Economy, Infrastructure, Schools, Parks Recreation and Open Space, Housing, People, Municipal Collaboration, and Growth and Development.

The work of this committee has been, in many respects, an update to the land use plan that was developed for Moore County in 1999. We are indebted to the work of those in 1999. However, as Moore County has evolved over the last 14 years, there has developed a need for a new plan and thus the work of this committee. Similarly, we do not assume that this plan will stand forever. To do so would exhibit incredible ignorance of the history of this County. However, while the recommendations and action steps may change with time, the guiding principles for the development of this plan should exhibit little change and should be the bedrock on which future Planning Boards, County Commissioners, and other policy makers build.

The Committee also wishes to express its appreciation to the Moore County Planning Department staff for their competence, diligence, work ethic, and professionalism. They are a credit to the home and County we call Moore.



Jeremy Rust, Planning Supervisor, gives a presentation on the evening's charrette exercise in developing a future land use map.

Goals & Recommendations

GOAL 1: Preserve and Protect the Ambiance and Heritage of the County of Moore (inclusive of areas around municipalities)

Over the past three decades, Moore County has experienced the conversion of substantial amounts of agricultural land into residential and commercial development, which impacts the ambiance and heritage of Moore County. Historical evidence of a community's efforts to preserve its heritage often conveys to visitors and prospective businesses a sense of priorities, pride and a high quality of life. Visitors from all over the country and the world visit the area yearly, not only to experience the charm found in the historical areas of the community, but also to enjoy the agricultural and pastoral land uses, straddling the division of the Sandhills and piedmont regions of the State. This area is also known for its gentle horse country character, traditions of pottery-making, and small town atmospheres within the county's towns and villages.



Recommendation(s):

Encourage the conservation of farmland for farming and forestland for forestry.

Continue to encourage agriculture and agri-business throughout Moore County

Preserve large tracts of prime agricultural land to ensure that farming remains a viable part of the local economy.

Preserve regional agriculture and farmland as a source of healthy, local fruits and vegetables, and other food crops.

Encourage and support development and land use principles by ensuring Moore County's cultural, economical and natural resources are factored equally.

Preserve and maintain the rural character of Moore County, including historic sites and structures, crossroad communities, and other physical features that reflect the County's heritage.

Support and promote local businesses.

Discourage undesirable or unattractive land uses, especially within high visibility areas.

GOAL 2: Enhance the Union of the Built and Natural Environments to Improve Citizen Health through the Use of Open Space and Recreational Opportunities

Much concern has been expressed over the lack of publicly accessible open space and recreational opportunities within Moore County and disconnect of plans. Providing opportunities for the citizens of Moore County to enjoy the natural environment leads to healthier lifestyles. At the same time, protection of these resources is vital in guaranteeing adequate water supplies and enjoyable environments for the future.



Recommendation(s):

Support and participate in conservation easement programs that protect public water supply watersheds and important open space areas.

Promote the health and welfare of the County through collaborative planning efforts between the County and municipalities.

Provide both passive and active recreational opportunities for County residents by protecting natural resources that have recreational, environmental, or aesthetic value.

GOAL 3: Optimize the Uses of Land Within the County of Moore

Development has an impact on the desirable tax base, quality of life and the environment if not properly planned and managed. Future growth should be focused around existing and planned infrastructure, as well as schools. Managing growth within the more developed areas of Moore County, leads to the preservation of farmland and forestry, and ensures a stronger tax base. In focusing on land use optimization, all planning efforts should be made between the county and municipalities to help guide future growth, where public services and infrastructure are least costly to provide or expand.



Recommendation(s):

Maximize accessibility among living, working, and shopping areas.

Assure an adequate quality & quantity of water is available to support the desired growth of the County.

Encourage a functional railway system.

Encourage development in areas where the necessary infrastructure (roads, water, sewer, and schools) are available, planned or most cost-efficiently be provided and extended to serve development.

Coordinate transportation planning to ensure that adequate transportation options are provided to serve existing, developing, and proposed activity centers and densely populated areas.

Provide for the orderly development of major transportation routes such that disruption of free flow of traffic on major arteries is minimized.

Promote the implementation of transportation methods to provide for alternate methods of transportation where appropriate and feasible.

Encourage and support collaborative future planning efforts between the County, municipalities, and Board of Education.

Establish a procedure for managing land use information to ensure coordinated planning and growth.

GOAL 4: Provide information and Seek Citizen Participation

Citizen participation and assisting residents with an understanding of land development helps to encourage and manage growth throughout the county. Every reasonable effort should be made to involve citizens in the development of future plans and modifications of ordinances.

Recommendation(s):

Promote efforts to involve and inform citizens throughout various planning and permitting processes.

GOAL 5: Accommodate for a Variety of Housing Types

The provision of affordable housing is complicated and sometimes a divisive issue. There is a general consensus that manufactured homes provide a very real need in the County, yet there is an impression that it reduces property values. Clearly some areas of the county will endorse the location of manufactured homes while other areas will expect restrictions.

Recommendation(s):

Properly plan for and accommodate a variety of affordable housing types.

Our People and Cultural Resources

2

Chapter Highlights

- *The County's population has more than doubled over the past 50 years, and this plan projects the growth to continue at approximately 18% per decade over the next 20 years.*
- *The municipalities make up 9.94% of the total land area in the tax district, but account for 62.39% of the County's total tax value.*
- *Preserving open space, not only provides protection of the environment and natural resources, but provides economic value to the County through higher property values. At the same time, generating value via the consumer benefit that residents enjoy by engaging in recreation and exercise, improving the overall health and quality of life of Moore County citizens.*
- *The County must closely collaborate with the Moore County Board of Education to plan for the facility needs of the County schools in the future. The siting of school facilities is important due to its influence on community growth, the costs associated with school construction, maintenance, transportation costs, the quality of development, and safety.*

The United States, as a whole, saw its population increase by 2.3 million from 2011 to 2012, to 313.9 million, for a growth rate of 0.75 percent. Texas gained more people than any other state in the year ending July 1 (427,400), followed by California (357,500), Florida (235,300), Georgia (107,500) and **North Carolina (101,000)**. These five states combined, accounted for more than half of the nation's total population growth. In 2012, **Raleigh**, our capital city and largest metropolitan area within our planning region was the fastest growing city in the United States. (see Appendices page 87 - Planning Region)

Moore County encompasses over 700 square miles in North Carolina, with a population density of 126 people per square mile. This population density has increased by 19 people per square mile since 2000, and is expected to grow to 149 people per square mile by 2030. The highest concentration of people is located in southern Moore County, which is largely made up of the municipalities of Aberdeen (6,350), Pinehurst (13,124), and Southern Pines (12,334). Over 35% of the residents live within one of these three municipalities. However, of the total current population living in Moore County, over 47% live within one of the eleven municipalities' city limits, excluding extra-territorial jurisdictions (ETJ). Moore County also has (2) two village-like, unincorporated communities (Seven Lakes and Woodlake). These two communities contribute to a large amount of the County's overall population. Moore County can continue to see growth within these areas and the County's municipalities, due to close proximity to existing major roads, available water/sewer capacity, and potential annexations. On the other hand, since 2000, some of the municipalities (Robbins and Taylortown) have seen negative growth change.



Demography

Population & Growth Rates

Moore County has a steadily, yet healthy growing population. The county had a population of 88,247 people, according to the 2010 data from the U.S. Census Bureau and has grown at a rate of 18.0% from 2000 to 2010. This rate has kept pace with the growth of North Carolina, which grew by 18.5% over the same years. However, from 1990 to 2000 the population change for Moore County was at 26.7%, which equated to a 2.4% annual growth rate. The County's growth rate has been fairly high compared to other neighboring counties, excluding Hoke, Harnett, and Chatham Counties. The County's population has more than doubled over the last fifty years, from 36,733 to 88,247 (71% increase) and is expected to almost double again over the next fifty years. As of February 2012, Moore County ranks 32nd in the State for total population.



Courtesy of: Sandhills Photo Club (German)

Moore County's and Neighboring Counties' Growth Rates (2000 - 2010)

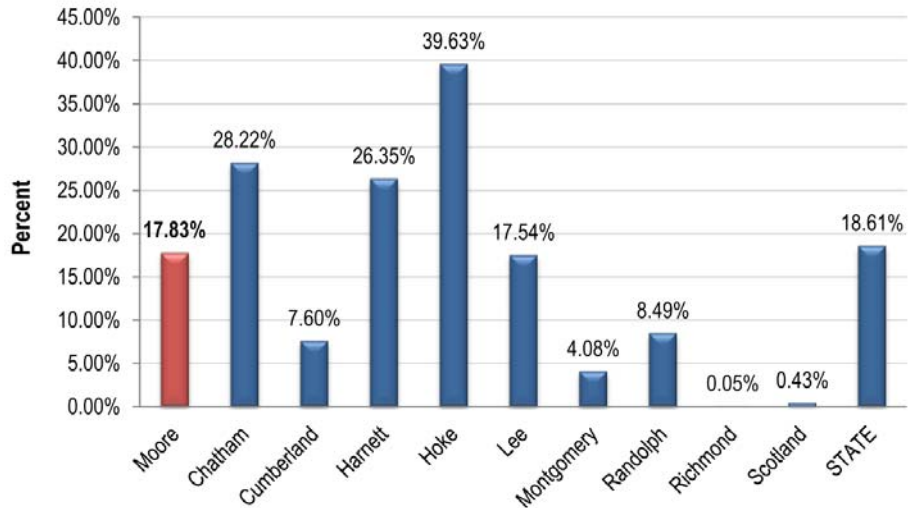


Figure 2.1: Moore County's & Neighboring Counties' Growth Rates (2000-2010)
Source: U.S. Census Bureau

Moore County Decennial Growth Rate (1980-2010)

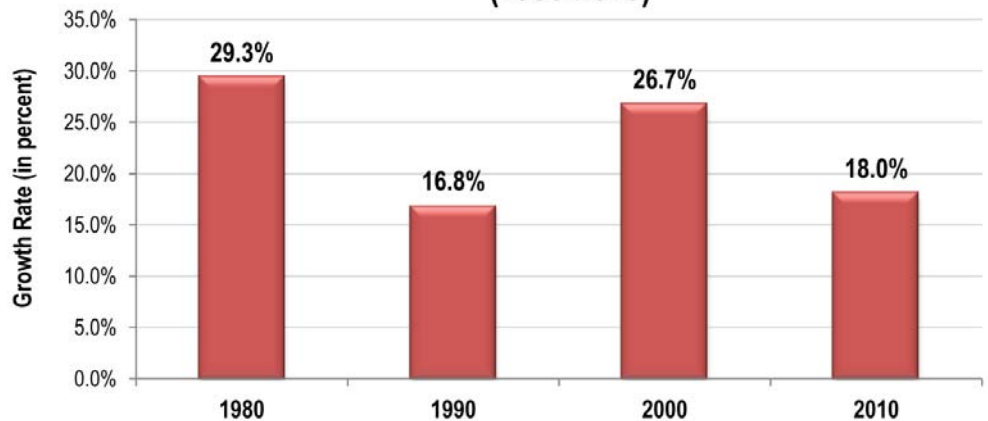


Figure 2.2: Moore County Decennial Growth Rate (1980-2010)
Source: U.S. Census Bureau

Growth Rate of Municipalities (2000-2010)

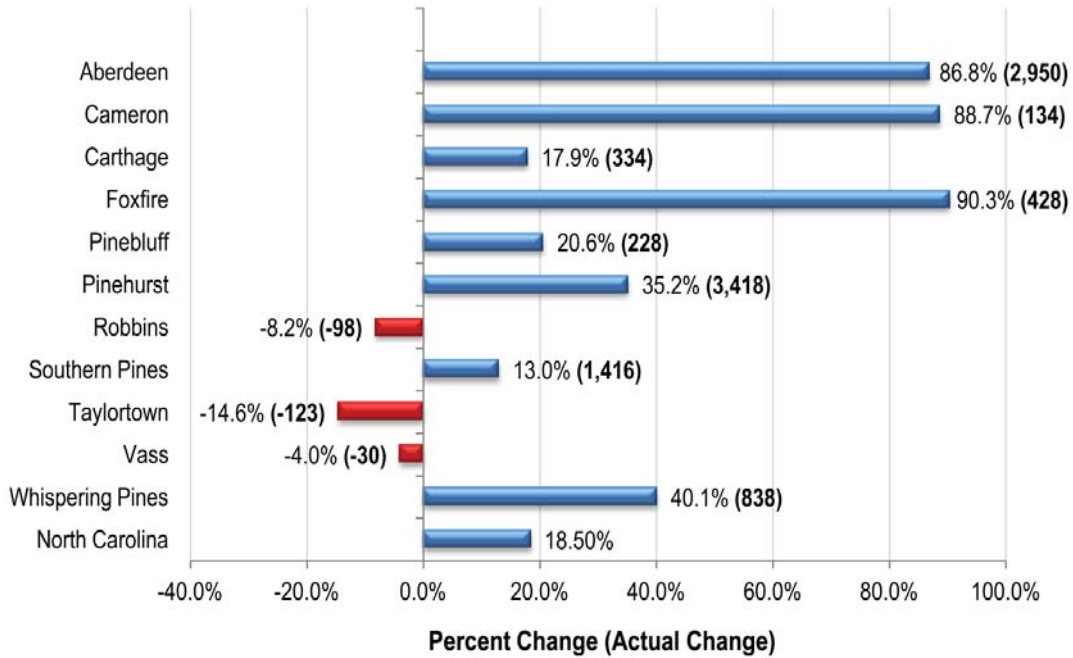


Figure 2.3: Growth Rate of Municipalities
Source: U.S. Census Bureau

Population Change by Municipality & County					
Municipality	1990	2000	% Change 1990-2000	2010	% Change 2000-2010
Aberdeen	2,700	3,400	25.9%	6,350	86.8%
Cameron	215	151	(29.8%)	285	88.7%
Carthage	976	1,871	91.7%	2,205	17.9%
Foxfire	334	474	41.9%	902	90.3%
Pinebluff	876	1,109	26.6%	1,337	20.6%
Pinehurst	5,103	9,706	90.2%	13,124	35.2%
Robbins	970	1,195	23.2%	1,097	(8.2%)
Southern Pines	9,129	10,918	19.6%	12,334	13.0%
Taylortown	543	845	55.6%	722	(14.6%)
Vass	670	750	11.9%	720	(4.0%)
Whispering Pines	1,243	2,090	68.1%	2,928	40.1%
Un-incorporated					
Moore County	36,241	42,259	16.6%	46,243	9.4%
Total	59,000	74,768	26.7%	88,247	18.0%

Table 2.1: Population Change by Municipality & County
Source: U.S. Census Bureau Decennial Growth Rates

Tax Districts and Taxable Value of Moore County

Moore County's eleven (11) incorporated municipalities make up only 9.94% of the land area in the tax district, but account for 62.39% of the County's total tax value at \$6,701,884,940. The rest of Moore County (90.06% of the tax district) accounts for just 37.61% of the total tax value at \$4,039,848,680. Almost half of the total population (46.3%) of Moore County pays almost two-thirds (62.39%) of the total county taxes.

Tax Area	Actual Amount of Taxable Value (Total Taxable - Exempt)	Total County Property Taxes Paid	Land Area of Tax District (Acres)	Tax District's Percentage of Whole County's Total Tax Value	Percentage of Total Land Area in Tax District	Moore County Population (2010 Census)
City Tax District						
Aberdeen	\$595,955,140	\$2,771,191	5,918.4	5.55%	1.31%	6,350
Cameron	\$15,755,140	\$73,261	776.7	0.15%	0.17%	285
Carthage	\$187,728,480	\$872,937	4,217.3	1.75%	0.93%	2,205
Foxfire	\$150,848,160	\$701,444	4,357.0	1.40%	0.97%	902
Pinebluff	\$84,203,780	\$391,548	1,668.6	0.78%	0.37%	1,337
Pinehurst	\$3,164,195,080	\$14,713,507	11,025.7	29.46%	2.44%	13,124
Robbins	\$46,439,910	\$215,946	880.1	0.43%	0.19%	1,097
Southern Pines	\$1,951,372,460	\$9,073,882	10,654.1	18.17%	2.36%	12,334
Taylortown	\$73,451,100	\$341,548	837.9	0.68%	0.19%	722
Vass	\$53,049,460	\$246,680	2,069.3	0.49%	0.46%	720
Whispering Pines	\$378,886,230	\$1,761,821	2,564.7	3.53%	0.57%	2,928
Municipal Total	\$6,701,884,940			62.39%	9.96%	42,004
Balance of County	\$4,039,848,680	\$18,785,296	406,476.2	37.61%	90.04%	46,243
Whole County Totals	\$10,741,733,620	\$49,949,061	451,446.0	100.00%	100.00%	88,247

Table 2.2: Moore County Taxable Value

Moore County's municipalities account for 62.39% of the County's total tax value at \$6,701,884,940.

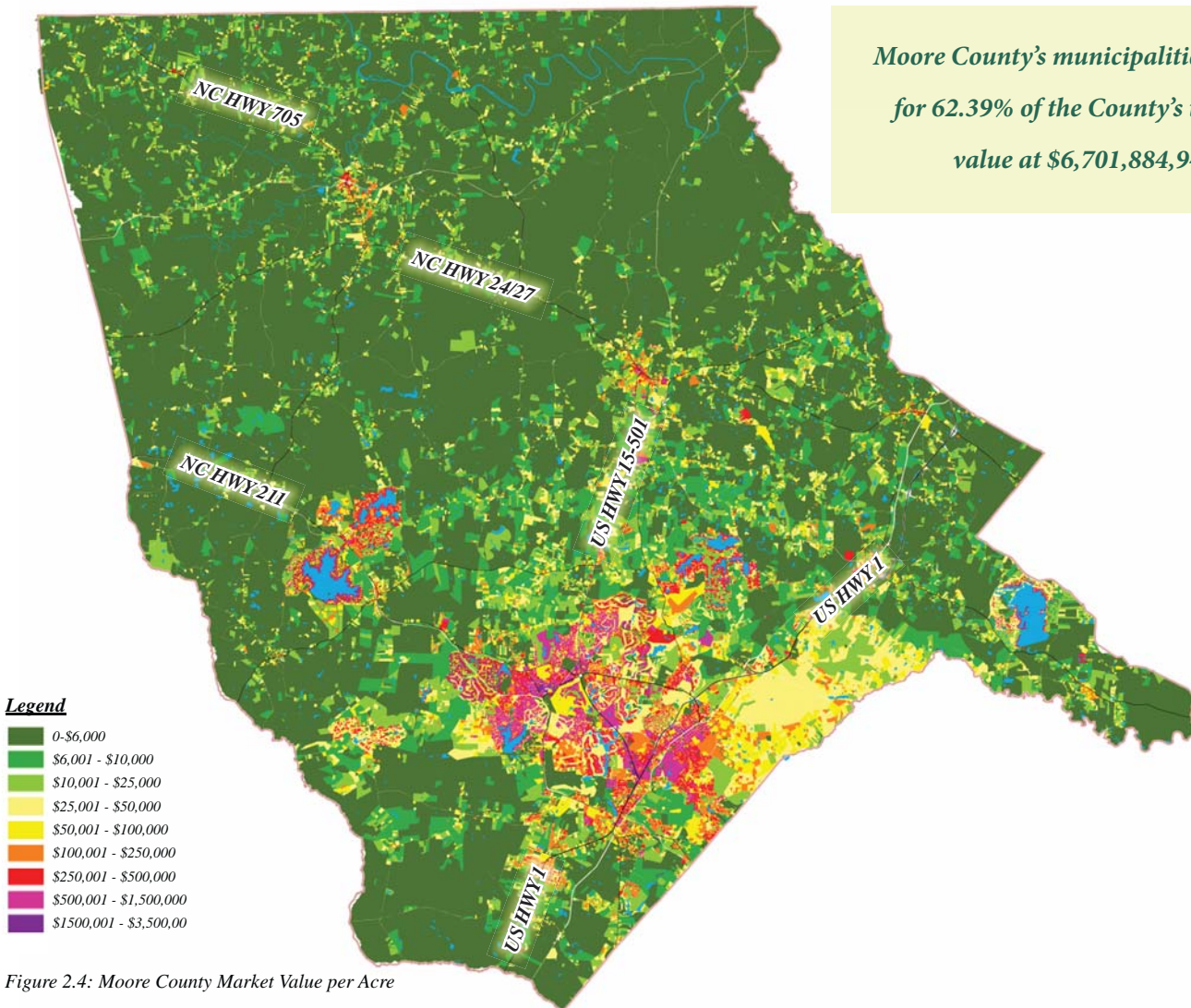


Figure 2.4: Moore County Market Value per Acre

Historical Moore County Population Estimates

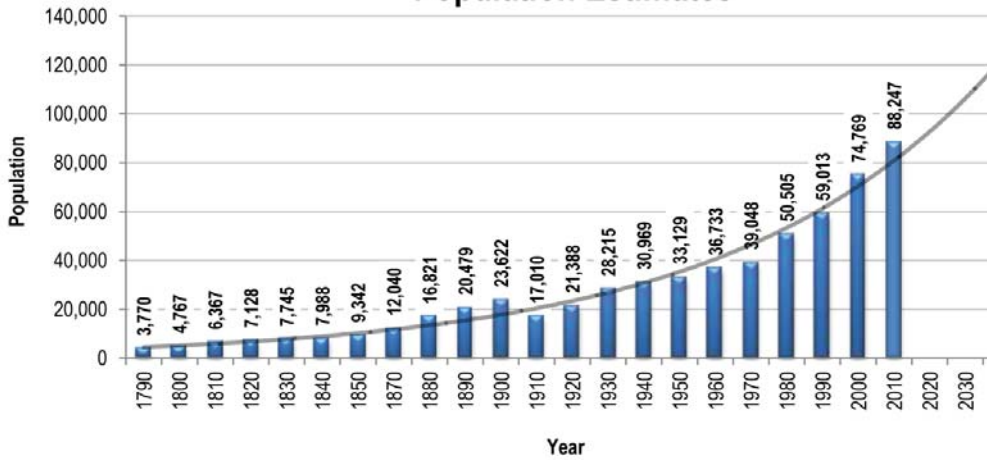


Figure 2.5: Historical Moore County Population Estimates
Source: U.S. Census Bureau - Decennial Census Data

Moore County Population Change

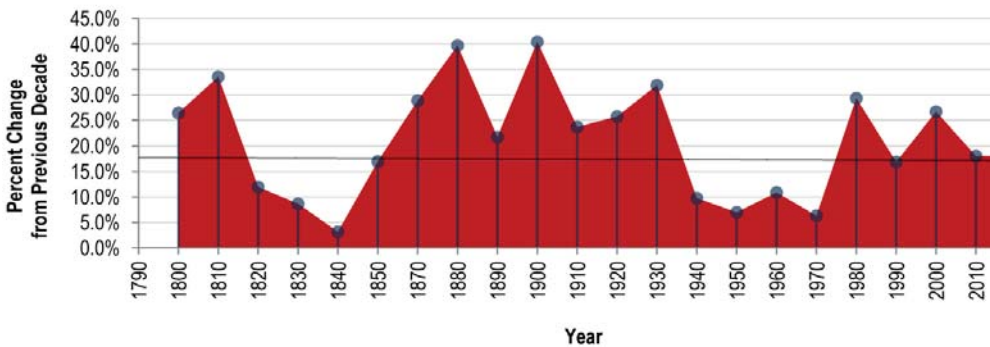


Figure 2.6: Moore County Population Change
Source: U.S. Census Bureau - Decennial Census Data

Moore County Future Population Estimates

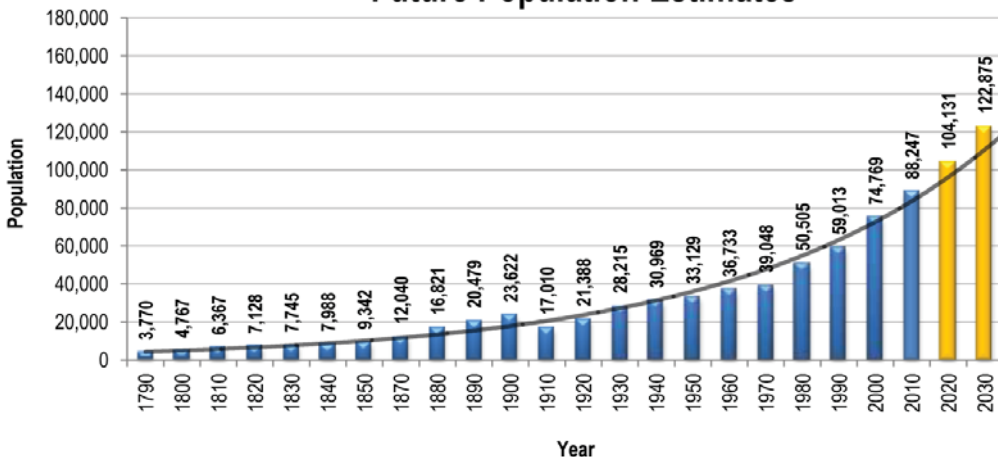


Figure 2.7: Moore County Future Population Estimates
Source: Moore County Planning & Community Development

Future Growth Projections

Moore County’s growth has fluctuated over the past 50 years, but has maintained an average growth rate of 18.0% per decade. The chart below shows that population growth since 1790 of Moore County to 2010. Since 1960, Moore County has grown by 51,514 people.

Utilizing the 18.0% average growth rate, Moore County could potentially see a population of more than 122,000 people by 2030. The projected growth rate of Moore County is slightly higher than the exponential trend line that was generated based on historical census data.

Moore County could potentially see a population of more than 122,000 people by 2030.



Courtesy of: Sandhills Photo Club (Margeson)

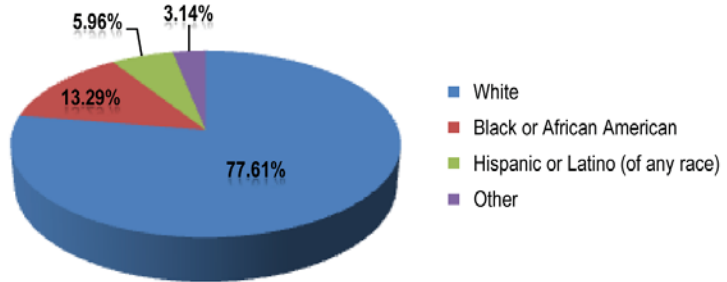
Population by Race

The largest majority of Moore County’s population is non-Hispanic whites, making up 80% of the total. However, 13.4% of the total population is African American, with a 6% Hispanic/Latino population. The black or African-American population has actually dropped since 1990, when they made up over 18% of the total Moore County population, but is still the largest minority group. The Hispanic or Latino (of any race) is low in Moore County as compared to Cumberland, Harnett and Randolph Counties.

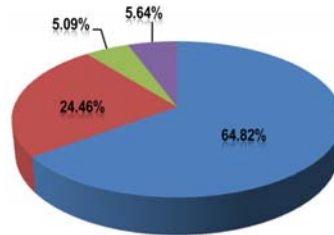
Robbins, in northern Moore County, and Siler City in western Chatham County are approximately 50 percent Hispanic. Currently, Robbins has a population of 1,097 with 552 (50.3%) being Hispanic. This growth in Robbins is valuable to the viability of the Town, as opposed to the potential decline that could occur due to the loss of important manufacturing jobs. The Town of Vass has also seen an increase in the Hispanic population, which is above the state average.

Figure 2.8: Moore County Population by Race
Source: 2010 Census Redistricting Data (Public Law 94-171) Summary File

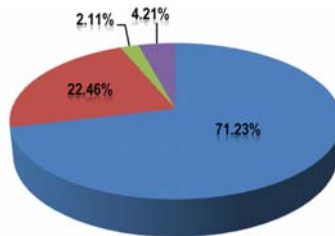
**Moore County
Population by Race**



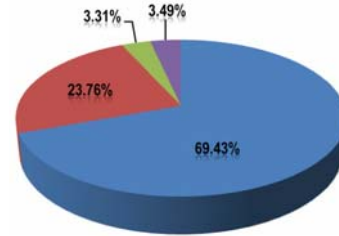
Aberdeen



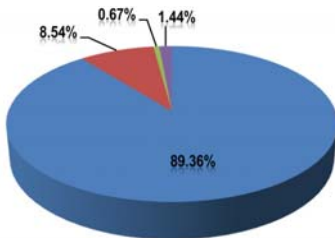
Cameron



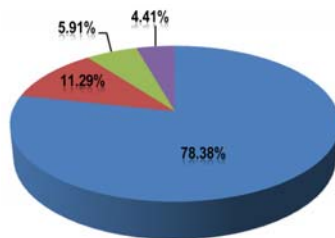
Carthage



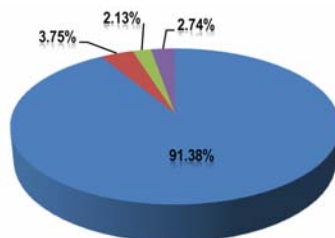
Foxfire



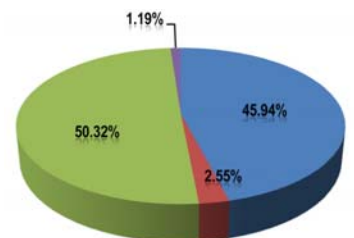
Pinebluff



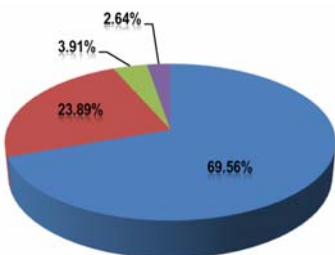
Pinehurst



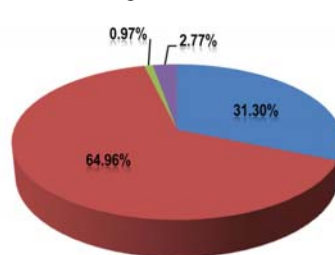
Robbins



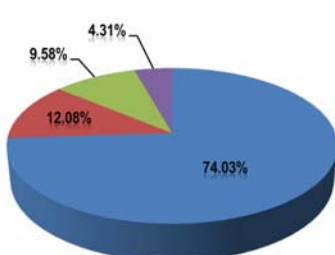
Southern Pines



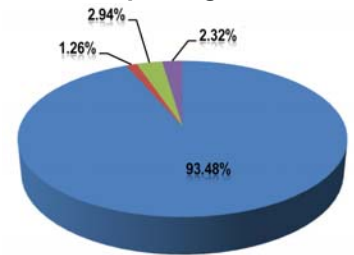
Taylorstown



Vass



Whispering Pines



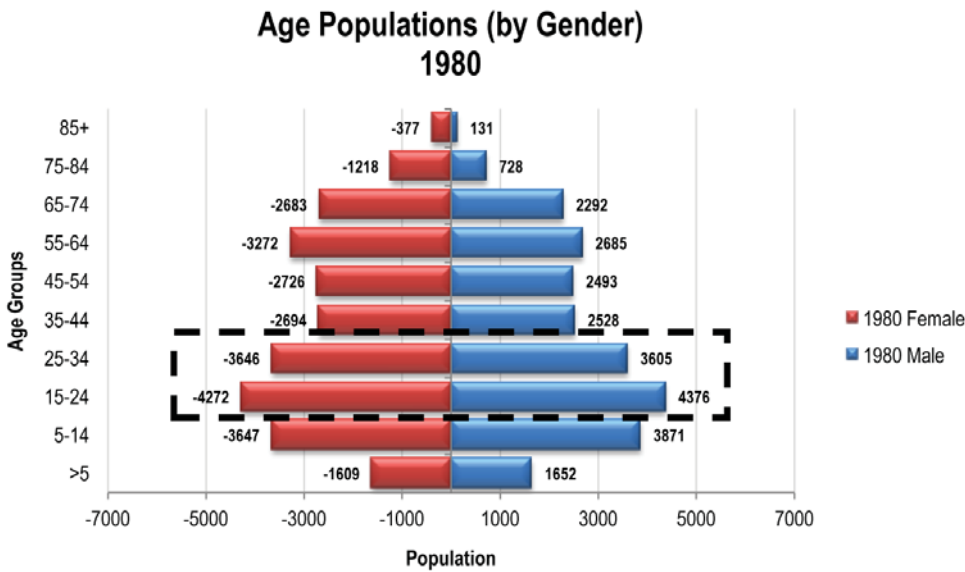


Figure 2.9: Moore County Age Populations (by Gender) - 1980
Source: U.S. Census Bureau

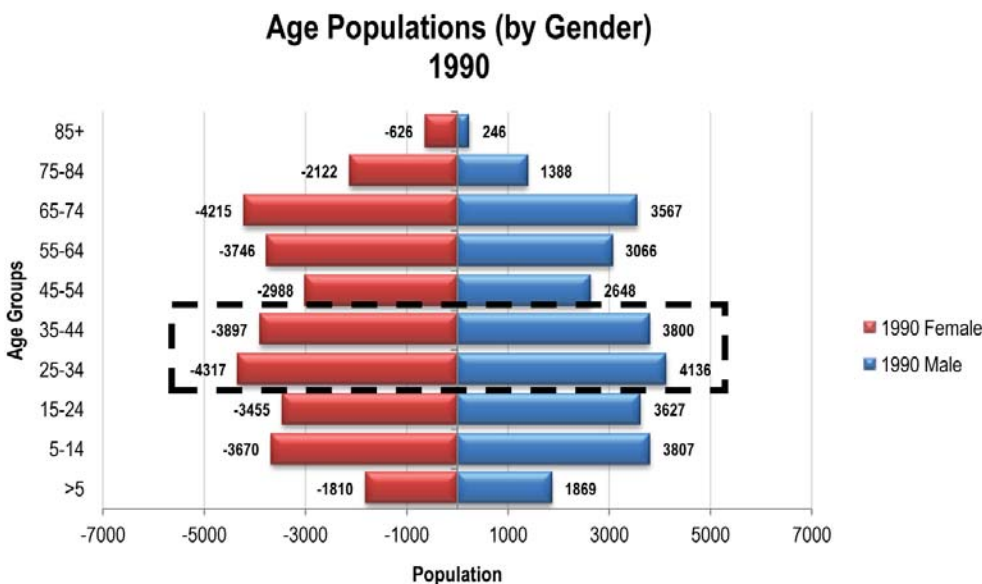


Figure 2.10: Moore County Age Populations (by Gender) - 1990
Source: U.S. Census Bureau

Population by Age/Gender

Since 1980, the 55-64 age population (5,957 pop.), also the core of the Baby Boomer generation, has more than doubled, with a current population of 12,141. This age demographic has seen a large growth surge due to the retirement nature of the Pinehurst area to the point that one in every four residents of the county are considered elderly. Moore County is well-known as a retirement destination with the resort lifestyle and many golf course oriented communities throughout the county. Almost 23% of Moore County’s population is over 65 years of age compared to little more than 13% statewide. The median age has increased from 42 to 45 in the last ten years and the county’s median age is the highest of almost any county in North Carolina. During that time the 65+ segment of the population grew by 29.5%. With the ‘Baby Boomer’ generation beginning to retire, future growth in this age demographic is anticipated.

This exceeds the top five states in the nation (Florida, West Virginia, Maine, Pennsylvania and Iowa) who have the largest percentage of people 65 years or older. The older population grew 15.1%, while the total population grew just 9.7%. Moore County’s 85 years and older population is also highest among the nation, with 3.4% of the total County population, or 2,958 people. The female gender makes up 52.2% (46,071) of the total Moore County population with a median age of 46.5. This is largely due to the retirees and longer life expectancy for women. The following charts depict the County’s population by age class over the past four decades. The dashed line denotes the “Boomer Generation” as their age increases over the decades. A notable point about the Baby Boomer generation in Moore County is that it is a steadily growing demographic. In the planning profession much attention is being brought to the issue of how

planners should respond and plan for this trend. As people age their ability to be mobile often diminishes making it more difficult for the aged to access goods, services and social opportunities. Much of this age group in Moore County lives in neighborhoods that are not conducive to walking to obtain goods and services nor are they planned to be efficient for public transportation. Responding to this issue through land use planning is one of the best ways to deal with this concern facing the County's aging population.

Not only has the older population grown, but so has the younger demographic as families continue to grow and re-locate in Moore County. The 5-14 age population has grown by 44%, indicating a change in the overall demography, meaning one in every six residents is school age. This increase is expected to continue for the 5-14 year old cohort in the future. This is an important factor to consider in the land use planning process as an increase in this age class will require the County to consider the impacts on the existing school infrastructure. Additional students mean increases in school attendance, leading to the need for additional classroom space, new schools and more teachers. When, where and how to pay for the new school infrastructure will need to be at the forefront of the topic surrounding the County's growth in regards to this age class.



Courtesy of: Sandhills Photo Club (Barnard)

Age Populations (by Gender)
2000

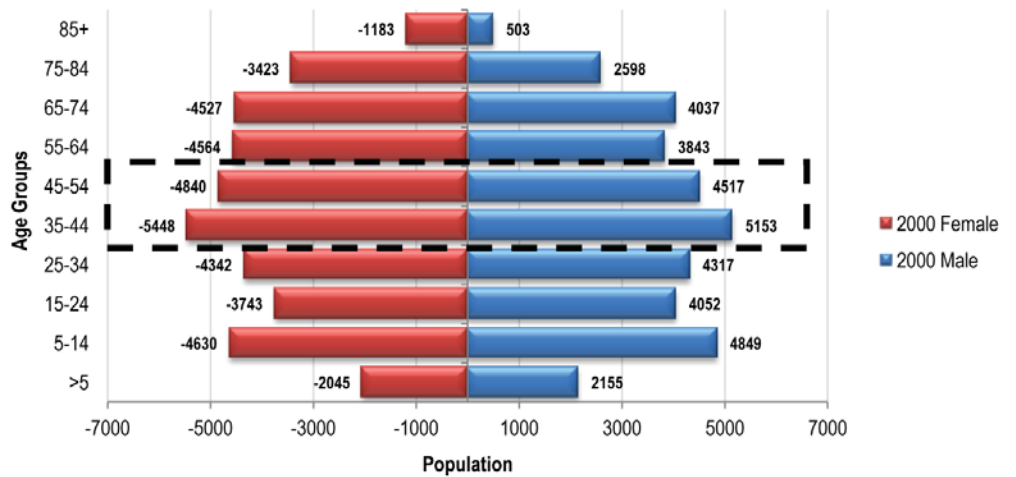


Figure 2.11: Moore County Age Populations (by Gender) - 2000
Source: U.S. Census Bureau

Age Populations (by Gender)
2010

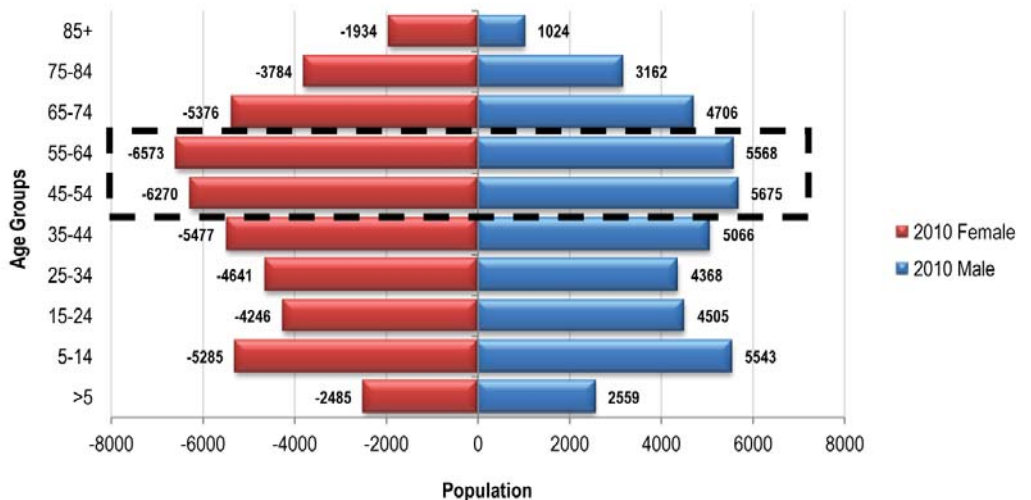


Figure 2.12: Moore County Age Populations (by Gender) - 2010
Source: U.S. Census Bureau

Housing

Moore County had a total number of 43,473 housing units in 2011. Of those housing units, only 34,625 were occupied housing units (85.4%), with 8,848 vacant housing units. Currently, Moore County has a 2.53 average household size for owner-occupied units. According to the American Community Survey 5-Year Estimates, of the 34,625 occupied housing units, 26,213 (75.7%) are owner-occupied versus 8,412 being renter-occupied.

The median value of homes in Moore County is \$192,500, which is high compared to adjacent counties. Chatham County was the only other county in the region that had a higher median home value of \$204,100. The median rent for a rental unit within Moore County was \$683 which is approximately the average of all the median rents from surrounding counties. When compared to the median home value for Moore County, the median gross rent is quite low yielding a viable option for people that can't afford to purchase a home.

Households and Families

Families (married-couples and other families) made up 69 percent of the households in Moore County in 2011. Of the other families, seven (7) percent are female householder families with no

husband present and have children under the age of 18. Non-family households made up 31 percent of all households in Moore County. Most of the non-family households were people living alone, with some being comprised of people living in households in which no one was related to the householder. Of all the households, 26 percent have one or more people under the age of 18, with 38 percent of all households having one or more people 65 years or older. Among the age group 15 years or older, 57 percent are males and 55 percent are females, whom are currently married.

The median value of homes in Moore County is \$192,500, which is high as compared to adjacent counties.

*Images (top to bottom):
Courtesy of: H&H Homes, Savvy Homes,
Bowness Custom Homes*



Housing Comparison Chart									
Counties	Total Housing Units	Occupied Housing Units	Owner-Occupied	Vacant	Single-Unit Structures	Multi-Unit Structures	Mobile Homes /Other	Median Home Value	Median Gross Rent
Moore	43,473	34,625	75.7%	20.4%	75.0%	11.2%	13.8%	\$192,500	\$683
Chatham	28,304	25,251	79.7%	10.8%	78.9%	6.4%	14.7%	\$204,100	\$769
Cumberland	134,705	118,117	57.8%	12.3%	68.3%	20.8%	10.9%	\$123,400	\$820
Harnett	46,209	40,262	67.6%	12.9%	68.2%	7.6%	24.2%	\$128,500	\$724
Hoke	17,789	14,808	72.7%	16.8%	70.6%	4.4%	25.0%	\$126,700	\$735
Lee	23,940	21,069	68.8%	12.0%	68.8%	14.0%	17.2%	\$135,500	\$677
Montgomery	15,826	10,166	73.1%	35.8%	59.3%	4.3%	36.4%	\$87,800	\$524
Randolph	60,833	54,897	73.8%	9.8%	69.6%	9.5%	20.9%	\$122,400	\$622
Richmond	20,771	17,292	69.0%	16.7%	66.5%	8.1%	25.4%	\$74,000	\$535
Scotland	15,211	13,075	66.2%	14.0%	60.0%	11.9%	28.1%	\$75,600	\$621

Table 2.3: Housing Comparison

Residential Construction Rates

Since 2000, Moore County has seen a decrease in the construction or addition of manufactured homes, while a steady increase of site built homes until 2008, due to the economic downturn in the late 2000 time frame. In 2007, the County saw the construction of over 440 site built residential units, as opposed to the 212 constructed in 2008. Since that time, the number of site built homes has maintained a steady level of construction, but nothing compared to 2007 permit numbers. The chart (right) does not include the permits issued for Aberdeen, Pinehurst, Pinebluff, or Southern Pines.

**Percentage of Site Built vs. Manufactured Homes
(Excludes Aberdeen, Pinehurst, Pinebluff & Southern Pines)
2000-2011**

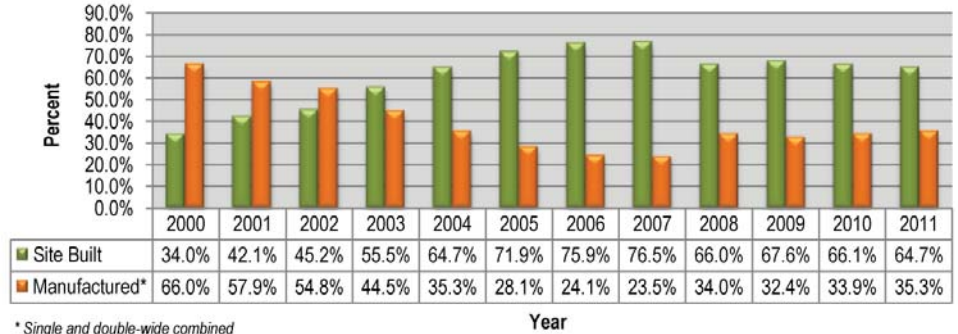


Figure 2.13: Percentage of Site Built vs. Manufactured Homes (2000 - 2011)
Source: Moore County Planning & Community Development (2000 - 2011)

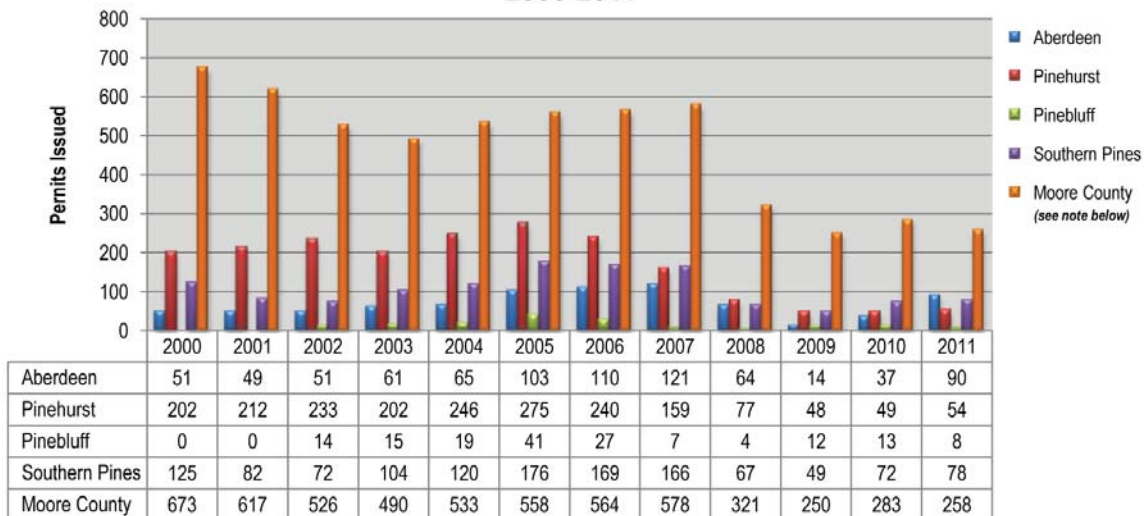
The chart below (Figure 2.14) depicts the number of residential permits issued since 2000 within Aberdeen, Pinehurst, Pinebluff, Southern Pines and Moore County. Each municipality showed an increase in residential permits until 2007, which was the time of the late 2000 economic downturn. Since that time, permits have steadily increased at a slower rate than the previous years.



Courtesy of: Sandhills Photo Club (German)



**Residential Permits Issued
2000-2011**



Note: Moore County Building Permits include the following municipalities: Cameron, Carthage, Foxfire, Robbins, Taylortown, Vass, and Whispering Pines

Figure 2.14: Residential Permits Issued (2000 - 2011)
Source: U.S. Census Bureau - Annual New Privately-Owned Residential Building Permits

Household Incomes

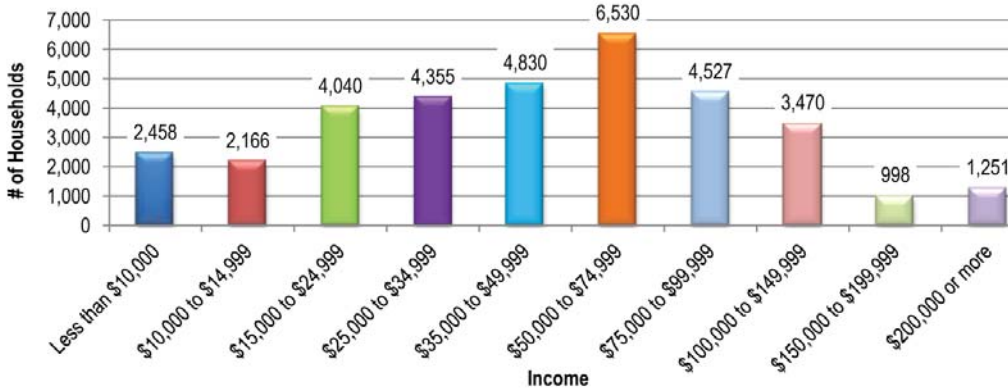


Figure 2.15: Moore County Household Incomes
 Source: U.S. Census Bureau - American Community Survey 2011, 5-Year Estimates (DP03)

Household Income

Based on the total number of households (34,625), the median household income in Moore County is \$48,348, which is slightly higher than the North Carolina average. Chatham County is the only adjacent county that has a higher median household income of \$56,935, mostly due to the county’s close proximity to the Research Triangle Park (RTP). The current mean household income for Moore County is \$64,779. Based on the total number of families (23,619), the median family income is \$63,139 with a mean family income of \$78,163. Less than 40% of all households make less than \$35,000 per year, while 16.6% of households make at least \$100,000 per year.

With Moore County having a large amount of retirees, more households have a higher mean retirement income compared to adjacent counties. The chart below depicts the total number of households in each county, with the mean retirement income. Moore County has a significantly higher retirement income compared to the number of households. Over 9,300 Moore County residents currently have a retirement income.

Based on the total number of households (34,625), the median household income in Moore County is \$48,348, which is slightly higher than the North Carolina average.

Households With Retirement Income

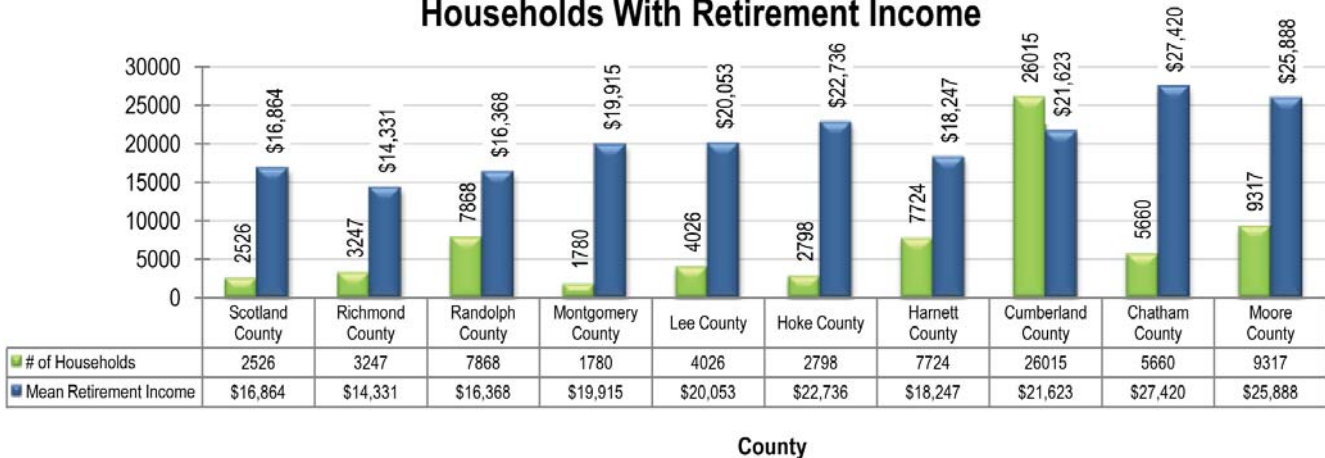


Figure 2.16: Households with Retirement Income
 Source: U.S. Census Bureau - American Community Survey, 2007 - 2011, 5-Year Estimates (DP03)

Affordable Housing

A discussion surrounding the need for affordable housing must begin with an understanding for whom this housing is intended for, what housing options currently are available to fill the existing need, and what will be necessary in the future in these regards. This section of the plan identifies three main segments of the County's population that are in need of affordable housing options: elderly, children, and members of the County's workforce.

Elderly

A community's elderly population may be particularly in need of affordable housing as their income is often fixed or decreased later in life making people more vulnerable to costs associated with housing. The following examines available Census data from 2000 and 2010 specifically for Moore County in regards to age, income and poverty status, housing types and associated costs, and household status for Moore County's elderly population in an effort to assess the need for more affordable housing options targeted toward certain segments of this population.

Age

Moore County's median age has grown from 42 to 45 over the past ten years from 2000 to 2010, and is one of the highest County median age statistics in the State. This significant change is due to the growth of the County's 45 and older population segment which grew by 29.5% from 2000 to 2010 underscoring Moore County's popularity as a destination for the retiree population.

Of those individuals in the County over 45, the 45-64 age group, commonly referred to as the baby boomer generation, grew at a rate of 35.6% from 2000 to 2010 compared to a growth rate of 18.2% for the County as a whole. The 55-64 year old population grew at an astounding 44.4% during this same time period. While these two age groups may have seen the highest population growth by sheer numbers, the County's 85+ year old population grew at the most astounding rate of 75.4%, almost double that of the State, bringing Moore County's 85+ population to 2,958 as

published by the 2010 U.S. Census Bureau.

Income & Poverty Status

In 2010, 9.7% of the population (or 1,861) over the age of 65 was listed as employed in the work force while the remaining 90.3% were either unemployed or retired. In 2010, 40% of households held by someone over the age of 65 made less than \$30,000 per year while 7% made less than \$10,000 per year. The 7% of householders making less than \$10,000 per year is almost synonymous with the individuals over the age of 65 living in poverty, or about 1,268 people. However, this last statistic is about three percentage points less than the State average. Lastly, of those in poverty 27% is made up of those individuals over the age of 65.

However, the number of individuals over the age of 65 living in poverty decreased (by 21%) from the 2000 to the 2010 Census. This situation may be due in part to the transfer of wealth to the baby boomer population from their parents or other family members (aunts/uncles). Projecting into the future statistics show this fact may be a bit of a phenomenon because baby boomers are living longer during a period of time when healthcare costs are at an all-time high and returns on investments are at an all-time low. This means that the baby boomer generation may spend much of its inherited wealth rather than being able to pass it along to their children or families. Furthermore, based on current income for

the age groups of 45-55 (12% make less than \$20,000) and 55-65 (13% make less than \$15,000) these two groups may be prone to live in or near the poverty level once they reach the age of 65. In turn, this may drive up the County's statistics for those in poverty over the age of 65 in the future.

Lastly, 29.2% (or 5,835) of people over the age of 65 reported to the 2010 Census that they have a disability, far less than the State's overall percentage of 43.4% for those over 65. Those over the age of 65 with a disability are often times those who are on a fixed income making them some of the most susceptible to the rising costs of healthcare, home ownership or rent, and other necessary goods and services.

Housing & Household Status

Over 38% of all owner-occupied households in Moore County are owned by those over the age of 65 and 58.9% of all owner-occupied households in Moore County are owned by those over the age of 55. This is an important statistic to analyze in regards to affordable housing because of the costs associated with homeownership for the elderly population who are often on a fixed income. Most elderly individuals' fixed incomes can't absorb the high cost of a new roof, heating and/or cooling systems, new windows, or even handicap up-fits around the house.

Conversely to the owner-occupied householder, those over the age of 65 occupy only about 23% of renter-occupied housing units in the County according to the 2010 Census. Furthermore, a growing trend exists in Moore County that individuals 45-54 and 55-64 age groups are renting at a higher rate than in the past.

Both the costs of home ownership as well as gross



Moore County Community Development Housing Rehabilitation Project

rent costs increased by about 4% for the over 65 population from 2000 to 2010. However, renting appeared to be significantly more costly than owning your own home for those over 65. Our research noted that 44.4% of renters over the age of 65 pay more than 30% of their household income to rent. This compares to just 21% of those over 65 who pay more than 30% of their household income toward owning their own home.

In the 2000 Census, it was noted through research that 23% (or 637) of women over the age of 65 living alone lived in poverty compared to just 14.3% of males who lived alone. It is important to note that women live longer than men and therefore, will incur more housing costs (and other costs, such as health/medical) over an average lifespan. Therefore, single females living alone over the age of 65 comprise some of the greatest need for affordable housing in the County.

As people age they require more diverse types of housing. Owning a home is one option, but another is housing with services attached, including various levels of independent living and nursing home care. There is typically a broad demand for rental housing and subsidized rental housing in particular. Unfortunately, the market for both these types of housing has declined in recent years. Housing and Urban Development has significantly reduced funding for subsidized rental projects in the mold of Providence Place (a subsidiary of St. Joseph of the Pines) here in Moore County. The Low Income Housing Tax Credit market, another option for the provision of affordable housing for seniors, has also experienced a severe decline in interest by investors. In addition, the private market itself has not kept pace with demand resulting in a severe shortage of affordable housing and an increase in rent costs nationwide.

Current Opportunities

There are two basic types of affordable housing opportunities for seniors in Moore County not requiring assisted-living. One type is place based, this is housing with property management and, in some instances, management of the community of persons living at the property. Place based assistance has age limits attached to it. The federal agencies providing the funding for affordable senior housing, including Housing and Urban Development (HUD) and the Rural Development branch of the United States Department of Agriculture (USDA), both have 62 years of age as a minimum age of admittance to their place based affordable senior housing. Another type of opportunity is tenant based, this is a voucher system that is not age restricted, but which persons of any age (including seniors) can access.

Those over the age of 62 who are not homeowners have the following place based affordable senior housing options in Moore County:

Affordable Senior (62+) Housing Options in Moore County			
NAME	LOCATION	UNITS	SERVING
Jackson Terrace (I & II)	Carthage	38	Seniors (62+)
Pinebrook Apartments	Southern Pines	34	Seniors (62+)
Pine Hill Apartments	Aberdeen	40	Seniors (62+)
Providence Place	Aberdeen/Carthage/Robbins	117	Seniors (62+)
TOTAL:		229	

Table 2.4

In total there are 229 units in place based housing in the county dedicated to those aged 62+. The Southern Pines Housing Authority has place based subsidized housing that is not dedicated to any particular age group, they presently serve 15 persons aged 55 to 61 and 20 persons aged 62+. Sandhills Community Action Program (SCAP) indicated their Section 8 tenant based rental voucher program serves 57 persons aged 55 to 61 and 102 persons aged 62 and older.

Place Based and Tenant Based Subsidized Housing in Moore County			
NAME	TYPE	# SERVED	AGE RANGE
SP Housing Authority	Place Based	15	55 to 61
SP Housing Authority	Place Based	20	62+
SCAP	Tenant Based	57	55 to 61
SCAP	Tenant Based	102	62+

Table 2.5



Furthermore, a growing trend exists in Moore County that individuals 45-54 and 55-64 age groups are renting at a higher rate than in the past.

Consolidating the information from this survey of local housing provides the following summary of housing opportunities:

Place Based and Tenant Based Housing Options for Non-Homeowners in Moore County Aged 55 to 61 & 62+		
AGE	VOUCHERS	PLACE BASED
55 to 61	57	15
62+	102	249
TOTAL:	159	264

Table 2.6

It is difficult to compare the amount of need for affordable senior housing in Moore County with the available units. First, the American Community Survey (ACS) reports poverty data for persons from 55 to 64 and from age 65 and older. This spans the 62 years of age threshold provided by the affordable place based housing in the area and means that some residents in place based housing are located in the 55 to 64 bracket and others in the 65 and older bracket. Second, the ACS does not indicate homeownership as a qualifier in its data for poverty and age. Some in these age and income brackets are homeowners. As a result a conservative estimate (below) can be made to determine homeownership for this population.

Moore County's Non-Homeowners in Poverty Aged 55 to 64 & 65+		
AGE ¹	# IN POVERTY	NOT HOMEOWNERS ²
55 to 64	1247	748
65+	1230	738

Table 2.7

Another difficulty with assessing the need is that the poverty threshold (which is the same for all 48 contiguous states) is not the measure used by place- or tenant-based housing administrators to determine eligibility. The measure used by these administrators is a percentage of the area's median income; this measure is determined for the county by HUD and is based on number of persons in the home. The lowest percentage of area median income is often higher than the poverty threshold, as a result a count of those below the poverty line actually under counts the number of persons who are eligible and in need.

Population at 100%, 125%, and 150% of Poverty Threshold In Moore County Aged 55 to 64 & 65+		
% OF POVERTY THRESHOLD	55 to 64	65+
Poverty Threshold	1,247	1,230
125% of Poverty Threshold ⁴	379	889
150% of Poverty Threshold ⁵	582	1,307

Table 2.8

From this information, there are approximately 2,500 persons aged 55 and above in Moore County that have income below the poverty line. Of this population, approximately 1,500 are not homeowners and thus in need of affordable housing options. There is a strong potential for having under counted the number of persons in this age category who are eligible for, and in need of, affordable place based housing. For those aged 62 and older there are 229 dedicated units and 102 persons currently availing themselves of the Section 8 voucher program. For those aged 55 to 61 there are 57 persons currently utilizing Section 8 vouchers. This means there are at least 1,500 persons potentially in need of affordable housing in these age brackets and less than a third of that need (423 persons) is currently being met. Further, there are no dedicated placed based affordable housing options for the 55 to 61 age group.



For those aged 62 and older there are 229 dedicated units and 102 persons currently availing themselves of the Section 8 voucher program.



1 American Community Survey 5-year estimates from 2007 to 2011. Table B17001. The 1230 persons over the age of 65 in poverty are comprised of 313 men and 917 women. The 1247 persons between the ages of 55 and 64 are comprised of 642 men and 605 women.

2 Applied 40% rate of homeownership to total population in poverty based on findings in "Understanding Poverty in the United States: Surprising Facts About America's Poor", Robert Rector & Rachel Sheffield: Heritage Foundation. September 13, 2011. The homeownership rate for all Americans is approximately 67%.

3 For example, the poverty threshold for one person in 2012 was \$11,170 and the lowest Area Median Income threshold for Moore County was \$13,250.

4 125% of the poverty threshold for a 1 person household is \$13,883.

5 150% of the poverty threshold for a 1 person household is \$16,660.

Children

Additionally, certain segments of the Moore County population under the age of 18 are in need of more affordable housing options as well. There is a significant and growing number of children under the age of 18 that are living in poverty. In 2010, 16.6% (or 14,649 of 88,247) of Moore County’s population lived in poverty. Of that, approximately 20.7% (3,832) of children under the age of 18 living in poverty, which has grown from 17.0% since 2000. At the same time, 2.9% (or 539) of all children living in Moore County do not have health insurance.

In the 2009-2010 school year, approximately 205 (or 1.7%) children in the Moore County school system had been identified as homeless according to MCS Administration. This number could be higher if adequate funding was available to more consistently and thoroughly document need. In 2012, approximately 2.2% (or 277) of all children aged 5-18 in the Moore County School System had been identified as McKinney-Vento students. During the 2010 – 2011 school year, 44.9% (or 5,746) of children in the Moore County School system were enrolled in the Free and Reduced Lunch Program, which was a 10-year high for the program.

There are currently a total of 1,629 subsidized housing units available to all Moore County residents who qualify based on need. However, there are only 1,434 privately owned subsidized apartments dedicated to those under the age of 65 in Moore County. Assuming on average, there are 2.5 children per household in Moore County, there would be a current need for an additional 277-865 affordable housing units just to house children in poverty.

Workforce

Another population segment of Moore County includes the general workforce and the need for workforce housing. Moderate income workers, which include teachers, nurses, firefighters, police officers, EMTs, as well as entry-level retail and commercial employees, etc. tend to make less than other segments of the workforce. (See Chart: Estimated Average Starting Salary, By Profession (Moore County) below). In 2000, approximately 18.2% (or 13,620) of the County’s population earned between \$15,000 and \$35,000. During this same time period, 69% of workforce households were owned by someone under the age of 44 years old. In 2010, only about 17% (or 15,000) of the County’s population made between \$20,000 and \$45,000 that year. Only 62.5% of the workforce households were owned by someone under the age of 44 years old the same year.

Estimated Average Starting Annual Salary By Profession (Moore County)	
Profession	Salary
Teacher	\$31,529
Registered Nurse	\$28,000
EMT-Basic	\$29,095
Sheriff's Deputy	\$33,697
Municipal Police Officer	\$28,536
Firefighter	\$28,849

Table 2.9

Future Considerations for Affordable Housing

Assuring the option of affordable housing within a community creates opportunity for citizens to establish a safe and stable living environment for the various age segments identified above. It is important as a community that affordable housing options are available to people at different stages of their life cycle, people with different needs, and different incomes. For instance, elderly adults and children that are too young to work still require adequate housing. Additionally, economic developers find it necessary to have affordable housing options available to attract and retain young professionals to our community. Stable and affordable housing that meets the needs of the identified segments of the population from above creates the opportunity for a stronger community of engaged citizens.

Second to housing costs for these segments of the population described above is the cost of transportation. So, from a land use planning perspective, it is important to consider that affordable housing options exist within neighborhoods that are in close proximity to public services, schools, places of employment, as well as goods and services.

Throughout the land use planning process, it was discussed that affordable housing needs to be a component of the plan. However, a more in-depth county-wide analysis should be conducted to determine how new affordable housing options could be incorporated into the community, as well as a comprehensive study of the County’s demographics to identify trends and support assertions in regards to this need.

Poverty and Disability

Moore County ranks just behind Chatham County for percentage of population below poverty level at 13.0% for surrounding counties. North Carolina as a whole has 15.5% of its total population below the poverty line, which is higher than Moore County. In 2011, 16 percent of people were at or below poverty. 23% percent of related children under 18 were below the poverty level, compared with 7% of people 65 years old and over. 13% of all families and 52% of families with a female householder and no husband present had incomes below the poverty level.

According to the Disability Status ACS 3-Year Estimate (2005-2007), the civilian, non-institutionalized population between 16-64 years of age had 7,046 people listed with some sort of disability. Of that 3,827 were male and 3,219 were female. Nearly 3,900 people were unemployed between the ages of 35-64, which is more than half of the total people with a disability. Only 17% of the unemployed were younger than 35 years old.

Moore County Veterans

Moore County has a civilian population (18 years or over) of 67,387. Of that 14.7% (9,880) are civilian veterans. According to the US Census, American Community Survey 2009-2011, almost 1,500 civilian veterans had a service-connected disability rating. This means that the civilian veteran had reported having a VA service-connected disability. Service-connected means the disability was a result of disease or injury incurred or aggravated during active military service. Of all the Moore County veterans, 17.5% (or 1,725) are disabled.

Percentage of Population Below Poverty Line (2010)

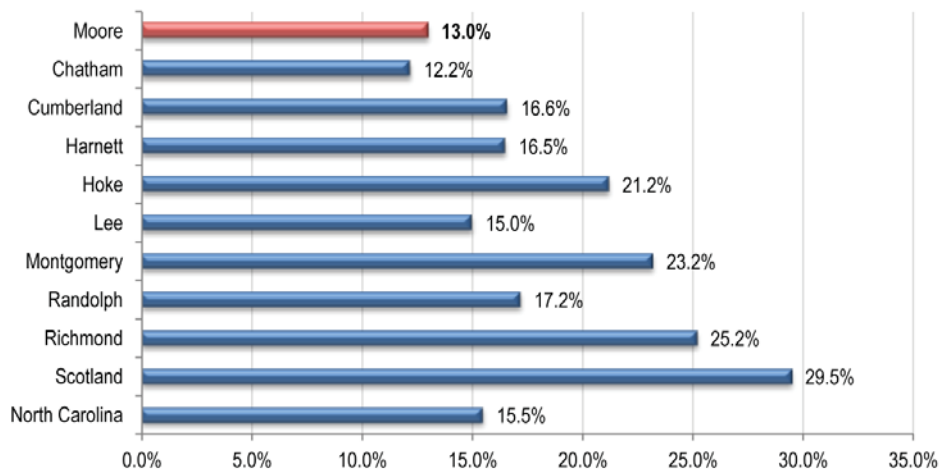


Figure 2.17: Percentage of Population Below Poverty Line (2010)
Source: U.S. Census Bureau - American Community Survey 2007 - 2011, 5-Year Estimates (DP03)

Educational Attainment

Over 20,000 people are enrolled in a school (e.g. pre-k, kindergarten, elementary, high school, or college) within Moore County. Moore County schools are dedicated to meeting the diverse needs of students while instilling the skills necessary for future success in business and industry. The County is served by (23) public schools, (2) charter schools, (8) private schools, and a community college. Based on performance measures such as SAT scores, Moore County continually exceeds state and national averages.

Of the age population 25 years and older (63,098), over 90% has at least graduated high school, with 38.6% of those graduating with a degree (Associate's, Bachelor's, or Graduate) from some institution. Only 84.7% of the North Carolina population 25 and older is a high school graduate or higher.

Moore County Percentage of Educational Attainment Level (Population over 25 years old)

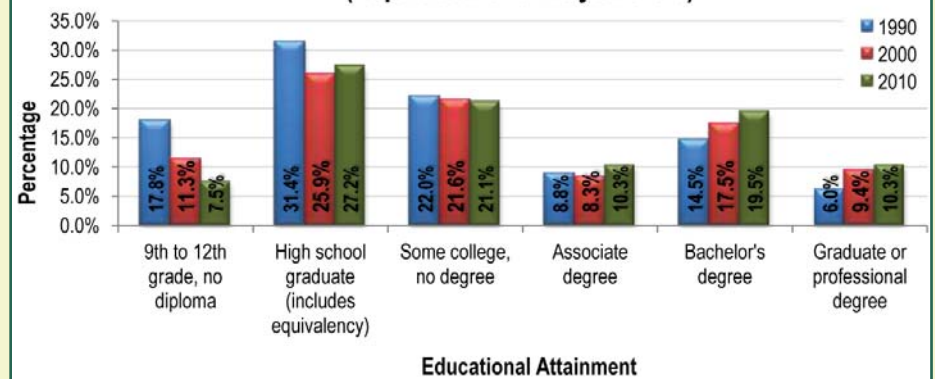


Figure 2.18: Moore County Percentage of Educational Attainment Level
Source: U.S. Census Bureau

Employment

The education and health services industries make up 33% of employment within the county. The leisure and hospitality industry makes up the second most employed industry, which supports the strong presence of golf in the area. Below is a current list of the top ten employers in Moore County. First Health of the Carolinas, Inc. is the largest employer in the county with over 3,000 total employees, which is almost 10% of the total civilian labor force.

In October 2012, there was a civilian labor force of 38,561. Of that labor force, over 35,000 people were employed with 3,087 unemployed (8.0% unemployment rate). This is less than the current unemployment rate of the State of North Carolina of 8.8%. Moore County has fared better than most of their neighbors except Chatham

County, which had an unemployment rate in October of 6.4 percent. Harnett, Lee, Montgomery, Richmond and Scotland counties all had double-digit unemployment rates in October 2012.

Since October of 2011, Moore County has seen a 2.0% increase in job creation in comparison to the 3.4% increase within the North Carolina. However, the unemployment rate is still currently 3.5% higher than in 2007 when the unemployment rate was at 4.5%. The civilian labor force has increased over the past five years by 1,219 people.

Many of the employed of Moore County live and work within the county itself. However, over 9,000 workers commute out of Moore County, with over 900 workers each commuting to Wake and Cumberland Counties. Cumberland

County is home to Fort Bragg, with many soldiers and officers living within Moore County. On the flip-side, almost 15,000 workers commute into Moore County, with over 1,100 workers each commuting directly from Richmond, Hoke, Lee, and Cumberland counties. In Moore County, North Carolina, 47 percent of the populations 16 and over were employed; 47 percent were not currently in the labor force. 78 percent of the people employed were private wage and salary workers; 15 percent were federal, state, or local government workers; and 8 percent were self-employed in their own (not incorporated) business.

	Employer Name	Industry Description	Employment Level
1.	FirstHealth of the Carolinas, Inc.	Hospital & Affiliated Entities	3,000+
2.	Moore County Schools	Public Education	1,794
3.	Pinehurst LLC	Hotel & Resort	500-999
4.	County of Moore	Governmental	500-999
5.	St. Joseph of the Pines	Senior Living & Health Services	500-999
6.	Sandhills Community College	Community College	500-999
7.	Wal-Mart Stores, Inc.	Mass Retail	250-499
8.	Pinehurst Medical Clinic, Inc.	Medical Center	250-499
9.	Trident Management, Inc.	Professional & Business Services	250-499
10.	Food Lion, LLC	Grocery Stores	250-499

Table 2.10: Moore County's Top Ten Employers by Employment Level
Source: NCDOC Division of Employment Security Workforce In-Depth



Historical & Cultural Assets

History of Moore County

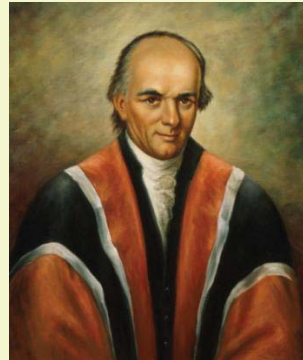
Archaeological findings indicate that Indians of the Siouan family inhabited the area that is now Moore County for more than a thousand years. They hunted and camped throughout the area and, in places, settled in villages. A well-used Indian trail, which crosses the County, is thought to have first been beaten out by buffaloes on their annual migrations from the piedmont to the coastal marshes. This trail, which later came to be known as the Yadkin Road, played an important role in the early settlement of Moore County.

Between the 1750's and the 1770's there was an influx of settlers, particularly Highland Scots, who immigrated to the colonies to escape harsh economic and political conditions, which existed in Scotland at the time. The Highlanders found the production of turpentine made for a more viable economic alternative to large scale agriculture in the poor soil of the Sandhills. The manufacture of naval stores, a term applied to the resin-based components used in building and maintaining wooden sailing ships, was established as a major industry of the vast forests of longleaf pine.

The American Revolution curtailed the arrival of settlers to the area and set the stage for bitter conflict. The Highlanders, who had taken an oath of allegiance to the King of England before leaving Scotland, remained loyal to the British throne; settlers in the "clay country" supported independence. Although no major battles were fought in Moore County the guerilla warfare between the two factions was bloody. The highlanders paid dearly for their political views after the defeat of the British, facing the scorn of their neighbors, and in some cases, confiscation of their property and exile from the State.

In 1783, shortly after the end of the

American Revolution, Cumberland County released the area now known as Moore County. The new County was named for Alfred Moore of Brunswick, a famous militia colonel in the Revolution, and later a Judge of the Supreme Court of the United States. The citizens quickly set about establishing their government. As the area recovered



Alfred Moore
Courtesy of: John Locke Foundation
(www.northcarolinahistory.org)

from the disrupting effects of the war and began to prosper, some schools were built and several industries flourished in the northern part of the County, including a gun factory in Robbins and a carriage factory in Carthage. The Sandhills area further south continued undeveloped.

The Civil War put an end to all progress, as every able-bodied man went to war. After the war, Moore County had a long struggle to recovery. Lumber manufacturers were attracted to the virgin forests that had been established under the naval stores industry of the mid-late 1800s. Entrepreneurs found that land values were so low in this area; they could purchase the land as cheap as they could purchase the timber.

After cutting the timber, the majority moved south following the longleaf pine forests as they were opened up by transportation facilities. Little towns sprang up every ten miles or so along these rail lines to serve as shipping points. During the 1880s another industry developed in the Sandhills. At that time, there were a number of human ailments for which the only treatment was fresh air and mineral water. The area had an abundance of both. Soon, people wishing to improve their health or seeking "refuge from the northern air

quality and harsh winters" began to flock to resort towns. Jackson Springs is one such example. The natural spring having been found accidentally by a hunter named Jackson became the venue of a rich cultural community. The mineral water was recognized at the 1904 Louisiana Purchase Exposition in St. Louis, winning a silver medal for best medicinal water in America. Around this theme the community's amenities included a hotel, a 9-hole golf course, a large lake dotted with private cottages and an electric plant illuminating the hotel and annex. A young talented violinist

entertained guests while other recreational opportunities such as boating, swimming, croquet, tennis, horseback riding, bridge, dancing and bowling also drew visitors for the day or for an entire summer. Guests arrived by horseback, carriage or rail, sometimes at the rate of six trains per day. It was something to see with the train exiting onto the spur for Jackson Springs, then backing back out to proceed further down the line toward Star. The advent of the automobile allowing travelers a greater variety of vacation locations began the decline for Jackson Springs.

Hunt clubs became popular following World War II. Prior to that time, people were generally welcome to hunt the wild lands in their region. This open invitation was curtailed following the War. In response owners of large tracts or conglomerate owners of adjacent tracts opened their lands up to sport and subsistence hunting opportunities.



Moore County Courthouse (1898)
Courtesy of: www.carolana.com

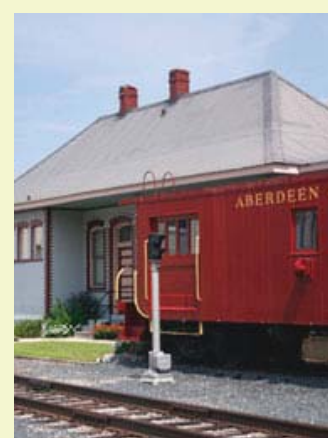
Towns, Villages, & Communities

Moore County has 11 incorporated municipalities, as well other villages and communities throughout the County. These areas have developed over the last 300 years, as Moore County has grown to what it is today. Below are brief historical backgrounds and descriptions of cultural assets of each community. **These summaries were obtained from the Convention & Visitors Bureau (www.homeofgolf.com).**

Aberdeen

Aberdeen’s humble beginnings date back as early as the 1700s when Highlanders fled Scotland for the shores of North Carolina and migrated up the Cape Fear River. Originally called Bethesda, in the mid-1850’s the name was changed to Blue’s Crossing, in honor of Malcolm Blue. Soon after, the Civil War brought turmoil and decimation to the area as many of the local men fought and died in battle. The men that survived returned to the area and started new businesses, laying the foundation for the era of prosperity to come.

With the completion of the Raleigh & Augusta Railroad after the Civil War, the improved transportation transformed Aberdeen into the commercial center of Moore County, allowing the tar, pitch and turpentine industry to blossom. Soon after, farming became a staple of the area, followed by the birth of the resort industry. Today, Aberdeen has embraced the history found in the downtown district, but has also progressed with



Union Station
 Courtesy of: Convention & Visitors Bureau



Village of Pinehurst
 Courtesy of: Village of Pinehurst (www.vopnc.gov)

the development of new businesses, charming shops, restaurants and hotels.

Pinehurst

In 1895, James Walker Tufts had a dream. As a philanthropist and a shrewd businessman, he felt there was a market for the development of an affordable health resort for the working class. With the help of the esteemed landscape designer, Frederick Law Olmsted, the designer of New York City’s Central Park, it took just seven months to create the Village of Pinehurst. When guests began arriving with golf clubs and invading nearby cow pastures to practice, Tufts made the decision to incorporate golf into the area’s offerings. Shortly afterwards in 1900, Tufts hired Donald Ross to design courses for the new facility. After thoughtful planning and the creation of a Ross design that infused Scottish links golf with the topography of the Sandhills, the legendary Pinehurst No. 2 was born. Since that time, Pinehurst No. 2 has been designated as a National Landmark and hosted numerous golf championships, including two US Open Golf Championships, with two more set for 2014. The resort currently has eight (8) operational golf courses.

Southern Pines

In 1887, the idyllic town of Southern Pines was developed on 675 acres of land purchased by James T. Patrick. Originally designed as a stopover for weary northern travelers heading to and from Florida, Southern Pines was built with the railroad

tracks running right through the center of town. This thoughtful planning, in conjunction with Patrick’s vision of turning the area into a health resort, allowed Southern Pines to become a successful and thriving community.

Through the decades, James Boyd and his family contributed to the growth and prosperity of Southern Pines. In 1903, the Boyd family built Weymouth Heights and developed 500 acres into lots for future homes. But perhaps the Boyd family’s most enduring legacy is their vision of a thriving equestrian community in Southern Pines. With over 4,000 acres of riding trails, Southern Pines now offers the Walthour-Moss Foundation, and hundreds of nearby horse farms.

Cameron

In 1857 the Raleigh & Augusta Railroad came to Cameron and was the end of the line for a while. The town was incorporated in 1876 and named for Paul Cameron, a railroad official. From 1880 to 1890, the Cameron-based, Muse Brothers Store was known as the largest department store between Richmond and Augusta. The introduction of the Lucretia Dewberry (a mild blackberry) in 1892 made Cameron the “Dewberry Capital of the World.” Today, Cameron is well known for its antique shops and on the first Saturday in May and October, an antiques fair is held and attended by thousands of visitors. The quiet residential town offers lots of antiques and treasures for every kind of collector.

Carthage

Carthage is the oldest town in Moore County, NC. It was incorporated in 1796 and serves as the county seat. Activities in Carthage have always revolved around the courthouse and still do today with the fifth and current courthouse still in use since 1922. The town itself was not laid out until 1803. The National Historic District of Carthage is proud of its more than 50 buildings and residences of historical significance dating back to the pre-Civil War period. From 1850's to 1920's, the town's growth was

due to its successful buggy industry. Alexander Kelly and Thomas Tyson founded the Tyson Jones Buggy Factory in 1855. This major industry remained the largest factory in Moore County into the 20th century producing the "Cadillac" of horse drawn carriages. At its peak in 1890, the factory turned out approximately 3000 vehicles per year. The horse drawn buggy brought prosperity to Carthage, but the automobile spelled doom for the buggy industry. However, the annual Buggy Festival of Carthage honors the town's heritage of carriage makers and is a great family-friendly event.

Foxfire

The Village of Foxfire is an area about seven miles southwest of Pinehurst. The early English and Scottish settlers called this area Piney Bottom in the early 18th century. Foxfire was said to have been the site of a small battle during the American Revolution around 1780. Due to the richness of the pine forest, settlers sold the timber for construction and turpentine production. Agriculture came to prominence in the 20th century featuring cotton, tobacco, corn and rye.

Peach orchards and vineyards were also plentiful.

In 1977, Foxfire was incorporated and sits on one of Moore County's highest elevations. Being a relatively newer town in Moore County, Foxfire maintains its tradition of being a pleasant, scenic and resort golf community. The golf course community was developed from an old 2,200 acre farm under the partnership of Roland McKenzie and Dan Tomlinson. It is a growing community with the addition of residential tracts suitable for horse farms.

Pinebluff

The Scottish influence is reflected in the names of the early towns and residents. Members of the Peter Blue family from Aberdeen were the original residents of Pinebluff. The Blues had great success in the agricultural industry with tobacco and raising cattle. John Patrick had the idea to duplicate his Southern Pines and bought 772 acres in 1884. His plan was to turn the area into a second resort. He named streets after fruits and nuts, and the avenues after northern cities. Patrick worked for 20 years at attracting new residents to Pinebluff. Unfortunately disastrous fires stunted the development of Pinebluff.

Dr. John W. Achorn, stepped up to assume the responsibilities of leadership in Pinebluff. Achorn along with his wife and her mother laid the foundation for Pinebluff to become a very pleasant residential area. Pinebluff has become home to many retirees and military families from neighboring Ft. Bragg and Pope Air Force Base. Pinebluff has a strong recreational program that centers around Pinebluff Lake. A "bedroom community," has developed in recent years for working class and young professional people who work in Fayetteville, Pinehurst, Southern Pines and surrounding towns and cities.

Robbins

The town of Robbins has roots that go back to the American Revolution. Alexander Kennedy, a gunsmith from Philadelphia, built a gun factory on the falls of Bear Creek, near present day Robbins. The business was very successful given the demand for rifles during the war. Due to the success of his business, many factories were established and the town became known as Mechanics Hill. There was a small gold strike that kept the town going until the Durham-Charlotte railroad came through in 1904. It was around this time that John Lenning, a wealthy businessman and railroad builder, laid out the streets to a new town nearby. In honor of his contribution the town was named after his daughter, Elise.

The community grew and once again the name was changed to Hemp as more textile manufacturing came to the area in the early 1900's. In 1930, a Russian immigrant, Karl Robbins purchased the Pinehurst Silk Mills in order to improve its operations and make it state-of-the-art. Many of the residents were employed by the mill which was a blessing during the Depression years. The citizens of Hemp honored Robbins in 1943 by renaming the town after him. It was recognition well deserved for a many that had done so much for the town. Today Robbins is a quaint town about halfway between Pinehurst and Seagrove. With the economic shifts in the last decades, the town is beginning to focus on outdoor recreational activities for tourists and promotes hometown businesses and potteries that reflect the small town hospitality that has carried it through many changes and challenges.

Taylorstown

Incorporated in 1987, the Town of Taylorstown has played an important role in the well-being and growth of the Village and resort. The town emerged as the resorts need to find ample housing for its growing workforce. One of Taylorstown's famous residents was Robert "Hard Rock" Robinson, a caddie



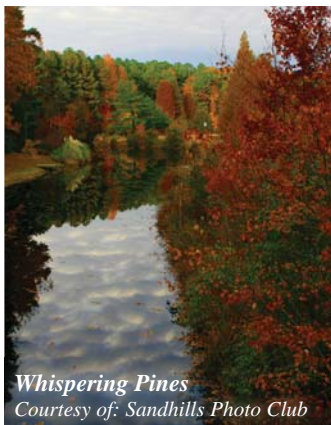
to world famous golf course architect Donald Ross, whose reputation as Pinehurst's most knowledgeable caddie is legendary.

Vass

Vass was settled by Scotsmen and has had many names over the years. Originally known as Bynum, for Joseph Bynum, an early settler, it later became Winder after Major Winder, an officer with the Raleigh & Augusta Railroad. But the name that remains today came from Major William Worrell Vass, another railroad official. Major Vass was a longtime paymaster for the Seaboard Air Line Railroad Company. Vass was a bustling town for commerce and agriculture, a railroad center and even a publishing center. Today it is a town noted for its community involvement and wholesome leadership. As an example, Vass residents Phil and Pasty Keith donated the building that houses the library (a Veterans Memorial). Books and funds were donated from the residents of Vass and the Bill and Belinda Gates Foundation donated state of the art computers.

Whispering Pines

Back in the late 1700s, Charles Hurd and Nicholas Smith received land grants from the king of England, and the area we now call Whispering Pines was born. Many others bought and sold the area's properties and lakes throughout the 18th and 19th centuries, but it was A.B. Hardee who realized the land's ultimate potential when he purchased 400 acres in 1959. Hardee developed his tract into a private golf course and residential community, and in just ten years, Whispering Pines became the first municipality in



Whispering Pines
Courtesy of: Sandhills Photo Club

North Carolina to be designated as a village. Today, Whispering Pines covers over 2,000 acres, features six lakes, sixteen miles of paved roads, two semi-private golf courses and an abundance of pristine stands of pines and hardwoods.

The following are other current and historical communities that have influenced the culture of Moore County:

Eagle Springs

The legend about the naming of Eagle Springs states that the town was named for a pair of eagles that built their nest in a huge pine tree at the mineral springs located west of the Eagle Springs Methodist Church. A baby eagle supposedly fell out of the nest and into the spring. Just south of the Methodist Church was a steam-powered sawmill and a shingle mill. North of the church was the railroad running east and west. Beside these tracks were peach packing sheds from which peaches were shipped to the north. Peach growers were the Page, the Bost and the Harrison families. Sand from the Bost Sand Pit was also shipped on rail cars. The railroad depot was on Academy Avenue (now Eagle Branch Road) and NC HWY 211.

The Warner Hardware Store had rooms to rent upstairs. There was a café and its second story was used for the Masonic Hall. Mrs. Hattie Stutts was the telephone operator and the "Central Office" was in her home. Other early stores were Wilbern Blake's and, possibly the oldest of the stores, N.J. Carter's. The Eagle Springs High School was also on Academy Avenue but it was not an accredited high school. Therefore, students, for at least their senior year, had to go either to Elise Academy in Hemp (now Robbins) or to Jackson Springs High School, both of which were accredited high schools. The Eagle Springs Elementary School was closed about 1944 and students were

bused to West End Elementary. In 1946 Moore County built a new elementary building at West End, at Vineland on NC 211, and a new building on NC 211 East in Eagle Springs. The elementary students again went to school in Eagle Springs until 1969 when they were sent to West End. The Eagle Springs Methodist Church was established in 1874; the Eagle Springs Baptist Church was established in 1901; the Eagle Springs Presbyterian Church was established in 1922 and was closed and joined with Bensalem Presbyterian Church in 1976. The Presbyterian Church Cemetery was placed under the care of the Presbytery of Coastal Carolina (formerly Fayetteville Presbytery). The Methodist and Baptist churches of Eagle Springs are still active churches. When NC HWY 211 was moved away from the old center of town, Eagle Springs, as it used to be, died. (source: Moore County - Small Area 'A' Plan)

Jackson Springs

Jackson Springs is a rural crossroads community that has a very rich history dating back to the mid 1700's. The town came about because of the mineral springs and the clear fresh water which has flowed without stopping for over two hundred years. In the early twentieth century, Jackson Springs flourished as a highly esteemed retreat, noted for its famous mineral water which could "cure any ailment". Legend has it that a man named Jackson was hunting one day and shot a deer. He tracked the deer by the trail of blood in the snow to the spring where he found the deer dead. There he discovered a huge bed of brown rock with a natural bowl or basin in it and clean water flowing from the rock. Mr. Jackson received a grant for the land and the place became known as Jackson's spring. Later the name was changed to Jackson Springs when someone discovered there are actually two different springs running from the huge brown rock, both containing mineral water.

Many years passed before a group of men decided to build a health resort in the late 1800's and early 1900's so more people could benefit from the water. Jackson Springs was a very fast growing and prosperous town for about thirty years. There was a school before the Civil War and for several years after an accredited high school with two dormitories for students, a depot and train which carried passengers and cargo (such as lumber, turpentine, mineral water, and peaches), bank, drugstore, doctor's office, hotel, hardware store, two general stores, two service stations, post office, three churches, grocery store, cotton gin, chicken hatchery, bowling alley, swimming pool, nine-hole golf course and tennis court, barber shop, dance pavilion where an orchestra played nearly every evening during the summer months, and a large lake for swimming, boating and fishing existed. There were large homes where residents lived year round and cottages used for summer retreats.

In 1904, members of the Page family attended the Louisiana Purchase Exposition, sometimes called the St. Louis Exposition or the World Fair at St. Louis. They took samples of the mineral water with them. It was judged the second best medicinal water in America, winning a silver medal. Jackson Springs had a water bottling plant and the water was shipped out by rail to various towns and cities. Many people traveled to Jackson Springs to stay at the hotel and drink the water. With the advent of the automobile, others drove in to fill their jugs and bottles to take home – a practice that continues to this day. In 1921, Jackson Springs became incorporated. The town encompassed the land within a one mile radius of the mineral spring. In 1952, the incorporation of the town was re-activated and a slate of officers was elected. Edgar Graham was elected mayor. The town received money from North Carolina to pave the streets and all the streets within a one mile radius were paved. There has been no active

municipal government in over fifty years. The hotel burned in the spring of 1932 and it was decided that it would not be profitable to rebuild. Gradually the other businesses closed as Pinehurst and surrounding areas began to grow and thrive. Few people are still living who can remember Jackson Springs in its heyday, but many of the people residing within Jackson Springs today have connections to the early settlers of the community and their heritage, which is very important to them. (source: Moore County - Small Area 'A' Plan)

Seven Lakes

Seven Lakes is the largest, unincorporated village in Moore County. Planned thirty years ago as a summer home and retirement community, it is now the fastest growing area in Moore County. Seven Lakes has a well-balanced mix of retirees and young professionals with children. There are three separate gated communities – Seven Lakes West, North, and South, which is named after its seven spring-fed lakes. Fred Lawrence, a Sanford businessman, developed the original project in 1973. Lake Auman, an 820-acre lake is found in the Seven Lakes West community.

Seven Lakes offers a wide range of activities such as boating, fishing, swimming, tennis, picnic shelters, play grounds, water sports and community centers. Seven Lakes also offers its own public stables, providing horseback and equestrian sports for its residents. Both gated communities offer golfing opportunities, including Beacon Ridge Golf Course and a members-owned Seven Lakes Country Club, which are

both rated four-star. While remaining an affordable place to live, Seven Lakes combines all the small town elements of a resort getaway with the comforts of a private gated community.

West End

In 1890, between Aberdeen and Carthage, traveling through the woodlands would bring you to Daniel McDonalds turpentine distillery. To help with the transportation of timber and naval stores from the fields to the commercial areas, McDonald cleared a path for a railway from Southern Pines to his turpentine distillery. Soon a non-traditional railway was constructed. It had wooden rails on huge cross ties and mule drawn cars were pulled along these ways, fetching timber from both sides of the tracts. The Aberdeen and Asheboro Railroad was completed along the McDonald right of way, in 1890. At the most western end, a town sprung up called West End.

Sadly, the Great Fire of 1898 destroyed all thirteen buildings in the downtown area of West End except for the railroad depot and the drugstore. In later years, the Sandhills Furniture Corporation mill was built and enjoyed many years of success. In 1965, Sandhills Furniture Corporation was sold to Stanley Furniture Company. Stanley Furniture Company was the largest employer in Moore County before it closed its doors in early 2000.

Many other communities within the County have played valuable roles in shaping Moore County, including, but not limited to Eastwood, Highfalls, Glendon, Westmoore, Haw Branch, Lakeview, Parkwood, and Woodlake.



Cultural Activities

Golf & Resorts

Moore County has always been known for its popularity in golf, with Pinehurst being considered the Home of American Golf. Currently, Moore County has 40 golf courses with four (4) approved to be developed over the next several years ((2) at Pine Forest Golf Club and (2) at Stonehill Pines). This attraction has been a huge tourism draw to the area, with developing golf course communities, restaurants, and hotels. Out of the 40 golf courses, 38 have a residential component to the golf course, whether single-family residences or condominiums located in and around the golf course. Golf courses have changed the landscape of Moore County over the past 100 years, since the first golf course was constructed at the Pinehurst Resort, completed by Donald Ross. According to Moore County GIS and calculated acreage, all the golf courses combined utilize 6,880 acres of land, equating to 10.75 square miles, which makes up 1.5 percent (1.5%) of the County's land area.

The United States Golf Association (USGA) has selected the ever famous Pinehurst No.2 to host the 2014 Men's and Women's United States Open Championships back-to-back. Pinehurst No.2 has hosted tournaments before, as well as Pine Needles, which hosted the 2007 Women's United States Open Championship. The area has attracted people, not only throughout the United States, but from around the world. These, as well as other golf courses, host many events throughout



Pinehurst No. 2 Golf Course
 Courtesy of: Pinehurst Resort (www.pinehurst.com)

the year, including the North and South Amateur Championships, Intercollegiate Golf Tournament, and the US Kids Golf Teen World Championship, to name a few.

Farming and Agriculture

Moore County's agricultural lands are an essential element of the county's rural landscape, making up more than three-quarters of the land base with croplands, pastures, and forests. The majority of the county's 800 farms are small, family-run operations; similarly, most of the forest tracts are held by families, yet these small entities combine to produce substantial quantities of agricultural and timber products. These 800 farms manage nearly 80,000 acres of farmland to produce an array of crop and livestock products for local, national and export markets. Farming in Moore County is primarily done on a small scale, but over 100 poultry farms combine to make Moore County one of the top ten producers of broiler chickens in North Carolina. Farmers and other families manage an additional 300,000 acres of forestland, much of it for timber and other forest products. Moore County is one of North Carolina's top ten producers of saw logs according to the USDA Forest Service Southern Research Station. Tobacco (both conventional and organic) continues to be a large part of the economy and agricultural economy of

Moore County. Tobacco produced in the Sandhills is in demand in the global market, especially China. Agriculture is important because the pastures, crop fields, and forests that cover 85 percent of the county define the rural landscape, support hard working families, and has continuously provided numerous economic, environmental and social benefits to Moore County, contributing



Courtesy of: Sandhills Photo Club (Gingerich)

greatly to the identity and pride of the area. See Chapter 3 – Our Economy and Infrastructure for more detailed information regarding agriculture in Moore County.

This asset has created an opportunity to have a Moore County Farmers Market, which was started in 1976 in downtown Southern Pines. Due to its growing popularity, since 2007, the Farmers Market has established three locations in Moore County to accommodate the increasing number of customers. This has also led to the creation of the Sandhills Green Farmers Market, Sandhills Winery Farmers Market, and the Sandhills Farm to Table Cooperative.

In August of 2012 the Moore County Board of Commissioners adopted the Moore County Working Lands Protection Plan which is a long-range plan developed to help perpetuate and even stimulate the agricultural economy of the County. (Copies of the plan are available in the Moore County Planning & Community Development Department, as well as the Soil & Water Conservation District office). The Plan covers in detail the state of agriculture in the County, as well as its challenges and opportunities. Included in the Plan are several Goals, Recommendations and Actions intended to help overcome industry challenges and to take advantage of opportunities that are identified. One such action item (Action 1.1.1) states that during the County's update of its Land Use Plan, a matrix should be developed to identify important agricultural areas as issues. (e.g. available water for agriculture).

Forestry

Privately-owned forestland comprises 305,002 acres, or 67 percent of the county’s land area, most of which is owned by individuals, not timber companies. The greatest concentrations of forests are found in the northern half of the county and along the western edge of the southern half. Twenty-five different forest types are found throughout the county; **Figure 2.19** displays the proportions of the most common types. Loblolly and loblolly/hardwood forests account for 59 percent of all forestland in the county. Loblolly is the primary tree grown for timber in the county because it has a relatively short rotation period of 30 to 40 years. However, while longleaf pines may have a slower start in life and require higher stand management costs up front, the high value of the longleaf pine straw and their higher saw timber values can often offset their upfront costs when considering the full life cycle benefits of the longleaf. Longleaf pines account for only five percent of total forestland. Hardwoods grow much slower, taking 60 to 90 years to reach maturity.

It is estimated that 74 percent of the private forests in the county are being managed for commercial production. Moore County can boast being in the top ten counties in North Carolina for the production of saw logs ranking third in 2007. Non-industrial forest owners generally sell their timber to a buyer who works for a wood processing mill, wood suppliers, loggers or timber brokers. In 2008, \$14.9 million was paid to private landowners in the county for timber that had a value of \$22.6 million at wood processing mills. The \$7.7 million difference was received by loggers, haulers and intermediaries.

Timber is a commodity that can be managed, harvested and possibly most important conserved for generations to come if proper reforestation efforts are implemented as part of a land

owner’s timber management plans. Moore County is the leader in the state for reforestation efforts with an average of 1,500 to 2,500 acres of timberland reforested each year. In 2010, a little over 1,000 acres were reforested but this amount is lower than in previous years due to the downturn in the economy. There are numerous cost share programs that can be used by landowners to offset the costs of reforestation. The programs offer assistance for tree planting and other forest management activities such as prescribed burns. Along with reforestation tax credits, there are many incentives for landowners to keep and maintain their woodland properties.

The longleaf pine, North Carolina’s state tree, once covered nearly 90 million acres of coastal plains in the southeastern United States. Today the forests cover only about three million acres. The forests, which burned frequently, were home to a wide variety of plant and animal species such as bobwhite quail, fox, turkey, deer, wildflowers and legumes. The longleaf pine tree is highly resistant to pine beetles, ice, and fire, and historically provided construction lumber, tar, and pitch for

buildings and ships; and a resin used to refine turpentine. The Sandhills region is one of the last remaining strongholds of longleaf pine in the country and several organizations, including Fort Bragg, The Nature Conservancy, U.S. Fish and Wildlife Service, Sandhills Area Land Trust, and Sandhills Ecological Institute, are working to restore and protect this vanishing ecosystem.

An underlying goal of these organizations is to protect the red-cockaded woodpecker, an endangered bird that lives predominantly in longleaf pine forests. These two species are important issues for Fort Bragg. In 1992, a U.S. Fish and Wildlife Service biological opinion resulted in significant training restrictions on the Fort as part of the requirements to recover the red-cockaded woodpecker. In order to meet recovery requirements for the woodpecker, Fort Bragg has been working with stakeholders to preserve and restore longleaf pine forests and manage critical habitat on private lands outside Fort Bragg. More than 12,000 acres of longleaf pine habitat have been preserved in Cumberland, Hoke, and Moore counties through the North Carolina Sandhills Conservation Partnership.

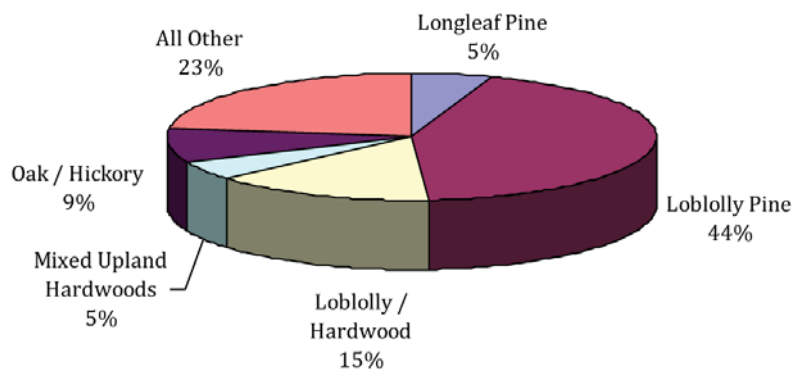


Figure 2.19: Proportion of Moore County Forestland by Forest Type
 Source: U.S. Forest Inventory Analysis

Includes the 35,333 acres of woodland reported by farmers in the 2007 Census of Agriculture.

Jeuck, James and Robert Bardon. Income of North Carolina Timber Harvested and Delivered to Mills. NC Cooperative Extension Service, 2008. Raleigh, NC.

U.S. Department of Agriculture, Forest Service. Forest Inventory Analysis. 2007.

Equestrian

Horses have been a popular pastime for many citizens of Moore County. Each year, several events are focused around the equestrian community, including the “Blessing of the Hounds” and “Stoneybrook Steeplechase”. The southeast portion of Moore County mostly located along or off of Youngs Road is considered ‘Horse Country’ and is currently zoned for rural equestrian. This area includes the Walthour-Moss Foundation, which occupies over 4000 acres dedicated to horse trail riding and other equestrian activities. The foundation is also a wildlife refuge for the endangered red-cockaded woodpecker, deer, raccoons, fox squirrels and red and grey fox. North Carolina State University Equine Research Facility is located in this area, which is a branch of the NC State University’s Veterinary College.

Though Horse Country is commonly used to refer to this area of the county, it also extends to parts of Foxfire, Vass, Cameron, and The Harness Track in Pinehurst. The Pinehurst Harness Track was constructed in 1915, with the Pinehurst Jockey Club being formed in 1916 by Leonard Tufts, son of Pinehurst founder James Walker Tufts. Due to the growing popularity of horse and equestrian activities, many equestrian communities have sprung up across Moore County, especially on the fringes of Horse Country, such as The Meadows, The Fields, Morganwood, McLendon Hills, Grande Pines and Pelham Farms.

Pottery

The northwest area of Moore County is part of “Pottery Country”, a nationally recognized cluster of artisans and handcrafted pottery. The Town of Seagrove, which is located in Randolph County, is the center of “Pottery Country”. This area has been home to potters since the late 1700s. The pottery community is ran by nearly one hundred area pottery shops by potters who grew

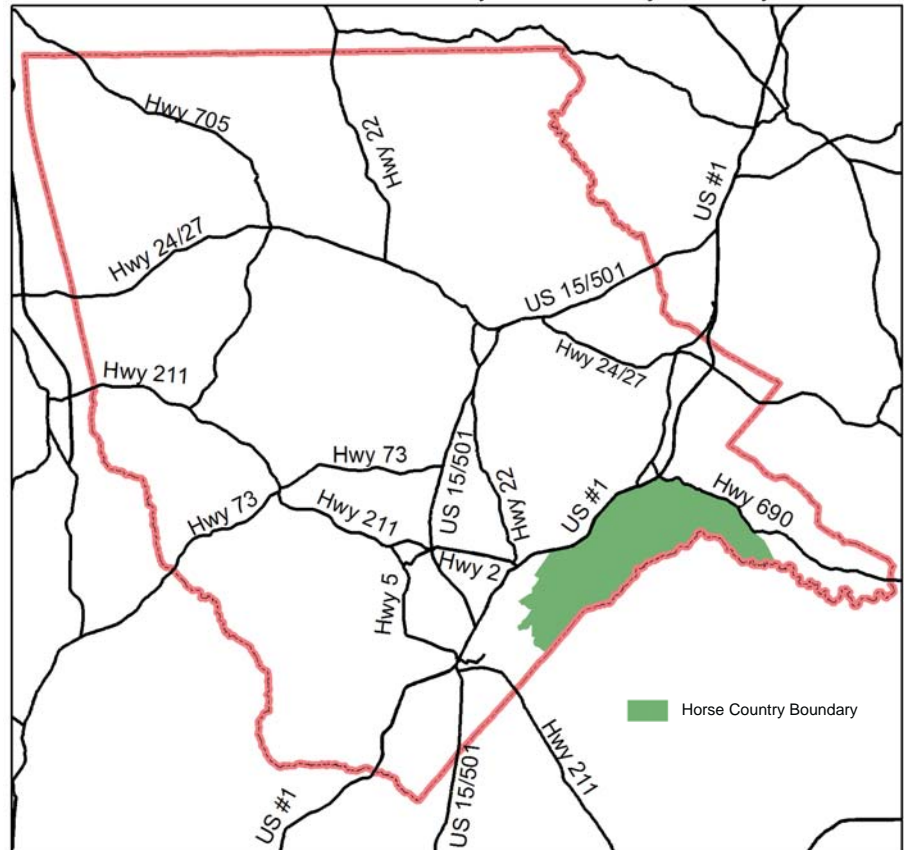


Figure 2.20: Moore County Horse Country Boundary
 Source: Moore County Geographic Information Systems (GIS), 2012

up in pottery families, inspired locals who learned the trade in area community colleges, and potters from other states attracted to the area. Several potteries are located along NC HWY 705 or its side roads, prompting the state to designate NC HWY 705 as the official “NC Pottery Highway”. This area is unique in that the ceramic history of the area began with the abundant and diverse natural clay deposits found in the vicinity. Native Americans were first to discover this resource and used it for both functional and ceremonial objects. These ancient pieces are among the most important remaining artifacts of early civilization. Since that time, immigrant potters, mostly English and Germans, discovered the area in the latter half of the 18th century recognizing the value of the local clay. Over the years, popularity of the area has grown and is currently home to over 100 local potters.



Military Training

Since approximately 1918 the area now known as Fort Bragg has been a training ground for the U.S. military. Since then the base has been a highly recognized military training venue for the U.S. Army, home to the 18 Airborne Corps, 82nd Airborne Division, and U.S. Army Special Operations Command, U.S. Joint Special Operations Command, (and previously the U.S. Air Force – Pope Air Force Base). Camp Mackall partially located in the southern portion of Moore County also serves as a training ground for the U.S. military. Today, Fort Bragg is now known as “the Home of the Airborne and Special Operations,” with approximately 57,000 military personnel, 11,000 civilian employees and 23,000 family members and is one of the largest military complexes in the world.

With the amount of special operations and training conducted at Fort Bragg, noise has become a land use planning issue. This is due to the presence of artillery and small arms fire high-noise areas, aircraft accidental potential zones, and military aircraft low-level training areas. Most of Fort Bragg’s high noise areas are contained within its boundaries. However, relatively small areas, just outside the installation boundaries experience average noise levels, at times in excess of 62 decibels, which is mostly generated by artillery fire. These military live-fire exercises are often conducted late at night and due to the startled effect caused by blast noise and vibrations; this can disrupt citizen’s sleep patterns and in the past have led to the registration of numerous complaints. (source: Fort Bragg / Pope Air Force Base – Joint Land Use Study Update: March 2008)

In addition to artillery fire, military aircraft accident potential zones (APZ’s), which extend from Camp Mackall into Moore, Richmond, and Scotland Counties and from Pope Army

Airfield into Cumberland and Harnett Counties, have a much higher noise level. APZ’s are statistically the location where the highest number and percentage of aircraft accidents occur, which may lead to loss of life and property, thus becomes a concern in land use planning.

In terms of effected area, a significantly larger off-base impact than noise and accident potential is the military aircraft training routes and special use airspace. Moore County, as well as Harnett and Hoke Counties, contain military special use airspace, which regularly experiences low-level flights from military helicopters and C-130 cargo planes, as pilots practice nap-of-the-earth radar evasion tactics.

Joint Land Use Study (JLUS)

In 2008, Fort Bragg / Pope Air Force Base Regional Land Use Advisory Commission developed an update to the 2003 Joint Land Use Study (JLUS). The region defined within the JLUS is those counties having land that directly abuts Fort Bragg, Pope Air Force Base and Camp Mackall. Within those counties, the study was limited to the land contained within five miles of the military boundaries – an area that includes the off-base military impacts (noise and accident potential, and low-level flight patterns), much of the projected BRAC related growth, and the territory affected by the North Carolina’s rezoning notification law. Although the focus of the study is limited to land located within five miles of military property, it is not intended to be viewed as a ‘protective five-mile buffer zone’. The term ‘buffer’ often suggests to property owners, developers and elected officials the creation of an area in which urban development is prohibited. However, there is land within the study area that is ideally suited for residential, commercial, and industrial development. The JLUS can be utilized as a resource for civilian communities abutting the installation to properly balance land uses and the development



demands on the land within five miles of military property so that Fort Bragg’s training mission is protected, the Longleaf Ecosystem is preserved, and the health and safety of the civilian population living near the installation(s) is assured. Impacts to the installation largely stem from the fact that as military families locate to the area, they want to be within a 20-30 minute commute to Fort Bragg, which is located within the five mile area around the installation.

In 2013, Session Law 2013-59 was enacted to modify “An Act to Require Counties and Cities Near Military Bases to Give Notice of the Land Use Planning Changes to the Military Bases”. This requires local governments to submit requests to RLUAC for program review and comment for any changes located within the five-mile buffer, including proposed re-zonings and subdivisions, as well as text amendments to the local zoning ordinances, wireless towers and other land use changes. From this, RLUAC would provide review and comment regarding these land use changes, which are non-binding to local governments, but offer valuable and impartial recommendations in a timely and professional manner.

(source: Fort Bragg / Pope Air Force Base – Joint Land Use Study Update: March 2008)

Historical Structures, Places & Districts

The history of Moore County has shaped the county's communities and culture through historical landmarks, providing insight into what Moore County is today. Below is a summary of historical buildings that can be found throughout the area. This is not an exhaustive list, but depicts some of the locations where Moore County's rich history developed.

Shaw House

The Historic Shaw House is located on its original foundation at the crossing of the famed Revolutionary Pee Dee and Morganton Roads at the southern entrance to Southern Pines, in Moore County, North Carolina. The Pee Dee



Shaw House

Courtesy of: Sandhills Photo Club (Barnard)

Road was an ancient Indian Trail and ran between Cheraw, South Carolina, and its northeastern settlements, while Morganton Road ran from the market town of Fayetteville, North Carolina, on the Cape Fear River.

The Shaw House is typical of the antebellum houses which followed the cabins of the early Sandhills settlers. It is less elaborate than the seacoast plantations and has the charm and sturdy simplicity which was characteristic of the Scottish families who settled in this region. The interior is highlighted by fine detail on two hand-carved fireplace mantels of unusual beauty, and by many outstanding early examples of Moore County pottery and "plain-style" pine

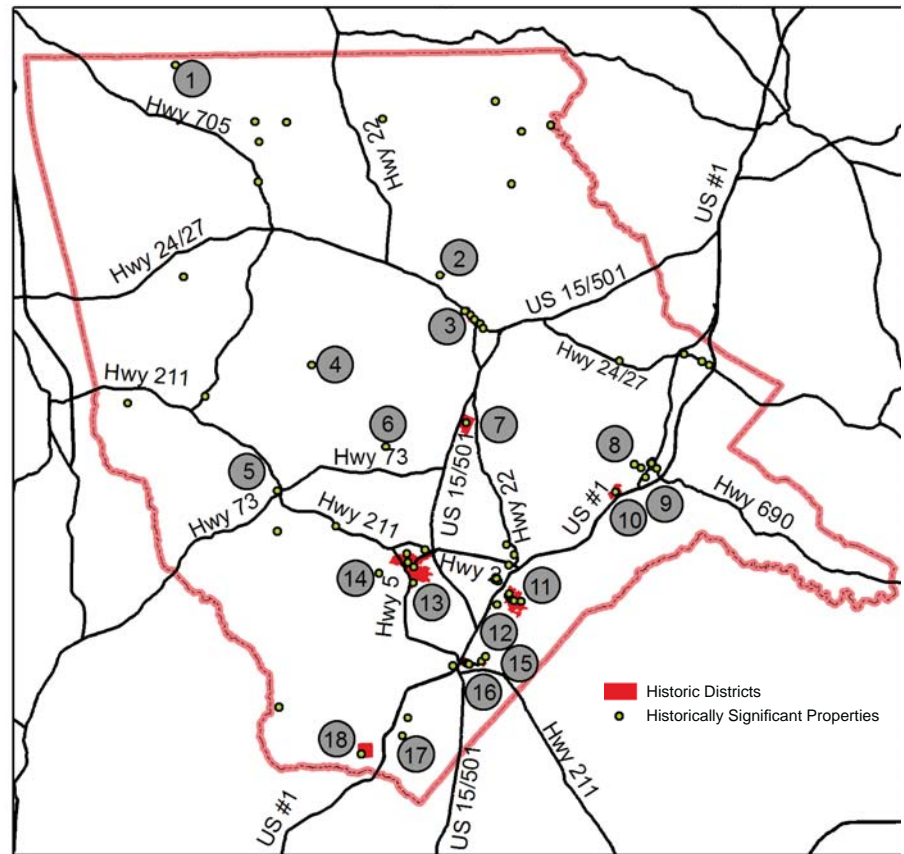


Figure 2.21: Moore County Historic Districts & Properties

Source: Moore County Geographic Information Systems (GIS), 2012

- | | |
|---|--|
| 1. Jugtown Pottery | 11. Southern Pines Historic District |
| 2. Alexander Kelly House | 12. Shaw House |
| 3. Carthage Historic District | 13. Pinehurst Historic District |
| 4. James Bryant House | 14. Lloyd-Howe House |
| 5. Moses McDonald House, Store & Factory | 15. Bethesda Presbyterian Church & Malcolm Blue Farm |
| 6. Black-Cole House | 16. Aberdeen Historic District |
| 7. "River Daniel" Blue House | 17. Lincoln Park School |
| 8. Leslie Taylor House | 18. McLeod Family Rural Complex |
| 9. Vass Cotton Mill & Village Historic District | |
| 10. Lakeview Historic District | |

furniture. A wing was added to the house in the mid-1800s and a kitchen was added sometime in the 1920s.

Charles C. Shaw, a first-generation Scottish settler, acquired 2,500 acres and built the house around 1820. The date of 1842 on the chimney is thought to have been the year that the front porch and the two attached "travelers' rooms" were

added. One of his 12 children, Charles Washington Shaw, inherited the property and lived in the house, becoming the first mayor of Southern Pines in 1887. The house remained in the Shaw family until it was acquired in 1946 by the newly formed Moore County Historical Association in a grassroots effort to ensure its preservation.

Garner House

The Garner House, now on the Shaw House grounds, was originally located on the property of Mrs. Melvin Garner, off State Road 1456 north of Robbins, North Carolina. John Garner bought the land in 1764 and his son Lewis was born on the property. The Garner House was purchased by the Moore County Historical Association in 1986. Family members believe Lewis built the house early in the 19th century, but it is possible that John may have built it in the 1700s.



The house is unaltered and intact and is one of the finest examples of the typical rural homes of early Moore County that remains today. It is distinguished by wide heart-pine paneling with fine quality moldings at the windows and doors. The original hand-forged hinges and posts are intact. The walls of the three rooms on the ground floor are of unpainted, hand-planed pine boards which glow with the original patina. The interior doors have early cast hinges in contrast to the forged hardware on the exterior doors. A corner stairway with winders leads to the second floor, which features exposed log construction and a fireplace with hand-made brick. The large pine logs forming the structure are 13 to 16 inches wide and are hewn 7 to 8 inches thick. The house measures 20 by 24 feet and has an attached 8-by-24-foot porch. The stone and brick chimney opens to a fireplace on each floor.

The first floor features the original pegged mantels with early blue paint. Much of the furniture is original to the house, including the two painted cupboards and the scrub-top table. The painted sash is also original, and some of the original glass remains on the front of the building. The house had a separate kitchen which was too deteriorated to move.

Bryant House

James Bryant acquired the McLendon Place from his father Michael early in the 19th century with the McLendon Cabin already in place. Bryant later built the manor house there about 1820. James Bryant's great-

granddaughter, Flossie Bryant Davis and her children gave the house with 3.4 acres to the Moore County Historical Association in 1969. Restoration of the structure in the early 1970s included straightening of the chimneys and replacement of the shake roof. Special features include two fine mantels, handmade doors and window sash, hand-hewn heart pine girders and sills.

Furnishings for the house were acquired for the Moore County Historical Association by Mrs. Ernest Ives, Mrs. John Labouisse and the Davis family. Both the Bryant House and the McLendon Cabin were opened to the public in May 1976. Mrs. Davis was born and grew up in the house and raised her own family of six boys and seven girls there.

McLendon Cabin

When Joel McLendon came to Moore County, North Carolina, in 1758, to claim his grant of 200 acres, he selected a slope overlooking Buck Creek as the perfect site for his home. Although a simple one-room log structure, it was built with the typical integrity of the early settlers that has preserved it for over 200 years. A little farther downstream he built and operated a grist mill on Buck Creek, which became known as McLendon's Creek, just as the road below his cabin came to be called Joel's Road.

In 1787, McLendon sold his property to

Robert Graham, whose daughter married Michael Bryant, and their son James succeeded to the land. When James Bryant constructed his larger house, he built it adjoining the McLendon Cabin, where the two houses sit to this day. The McLendon Cabin is the oldest house in Moore County on its original location. The circa 1760 structure is typical of the log dwellings built by the early settlers of the region. The house was restored in 1970 by the Moore County Historical Association under the leadership of Mrs. Ernest Ives.

Sanders Cabin

The Britt Sanders Cabin was moved to its present location on the Shaw House grounds in Southern Pines, North Carolina, from rural north western Moore County in 1952. It was in a state of advanced



deterioration with damaged logs, crumbled roof and a fallen chimney. It took love and determination to raise the money to move it and restore it. The cabin sat on Morgan Land and Britt Sanders, born in 1831, married into the Morgan family. It is of typical Scot-German construction with hewn logs and half dove-tailed notches producing a solid and durable dwelling. There were no windows in the original cabin and the floor was of red clay. The sleeping loft upstairs is typical; the main floor provided space for living, sleeping, cooking, washing and weaving. Notable are the sand hearth for cooking, the crusie lamp hanging by the fireplace and the antique candle molds. The old trammel by the fireplace is designed to hang inside the chimney on an iron pole, which was inserted during construction.

The loom was necessary for a family, as everything must be handmade and cloth was a precious commodity. The beautiful

chimney of native river rock is protected from the elements by a wide overhang. Chinking originally was a mixture of mud, clay and hair and had to be replaced yearly. Yards in the early Sandhills were swept clean as a daily chore, both to keep down fires and as a matter of neatness. The entire family worked together and “recreational” activities for the children largely consisted of learning skills. It was a hard existence by our standards, but it was by no means a drab one. The family provided stability and was a cohesive factor in the life of the early settlers.

Moore County Courthouse

In the early days of our history Scottish immigrants trudged their way up the Cape Fear Valley reaching the Moore County area in the mid-1780s. These settlers found the perfect location for a new town on a high hill. They established their community and named it Fagansville after an early pioneer, Richardson Fagin. Moore County’s first courthouse was built on Killeets Creek in 1785.

Moore County was created by dividing Cumberland County on July 4, 1784. Since



there was no incorporated town in the new county to serve as the county seat or locate the official courthouse, in 1796 a committee of the legislature selected a site in the center of the new county. The name given to the new courthouse site was Carthage, which was finally confirmed by the General Assembly in 1818. The remainder of the town was not laid out until 1803.

Ten years later in 1814, the courthouse was moved to the present location of the historic courthouse at the intersection of the main avenue of Carthage. Carthage is on a high commanding ridge, and the

courthouse site marks the highest elevation in that part of the county, an altitude of almost 900 feet. The 1814 courthouse was made of wood and was called The Red House. In 1837 the floor of The Red House collapsed, and a third courthouse had to be built, which was made of brick. In 1889 the third courthouse burned, destroying many valuable papers and documentation of the county’s early history. Within a year the fourth courthouse was constructed. The fourth courthouse was replaced in 1922 with the large building in the center of the town that stands today. Moore County’s sixth county courthouse and government building was erected across the street leaving the historic courthouse standing in the middle of the circle.

Malcolm Blue House & Farm

Malcolm McMillan Blue’s father, John Campbell Blue, emigrated from Scotland with his parents, Duncan and Margaret Campbell Blue about 1768 and settled near present day Lakeview, North Carolina. Their home was located where the Lakeview Cemetery is today. Duncan Blue acquired large tracts of land that were divided among his sons upon his death in 1814. Malcolm Blue’s father, John, owned 838 acres of land and settled on Shaddock’s

Creek about two miles from his father’s home. Malcolm McMillan Blue was born November 27, 1802, one of six sons and five daughters. Malcolm emulated his father and purchased vast tracts of land.

In 1821, at the age of 19, Malcolm bought property belonging to John Blue in Cumberland County and soon after bought land east of the Devil’s Gut and north of Old Bethesda Church. Here, in close proximity to the Pee Dee Road, he built the farmhouse circa 1825. After building a home and establishing a farmstead, Malcolm married Isabella Patterson in October 1833, who died five



months later in March 1834. In 1843, Malcolm married Flora Ray of the Ray’s Mill family and had seven children, four girls and three boys. His son, John Calvin, served in the Confederate army and later became a doctor serving the Carthage and Cameron communities. His son Malcolm James became the first postmaster of Blue’s Crossing and built the first house overlooking what would become downtown Aberdeen. His son Neill A. Blue inherited the farmhouse upon Malcolm’s death in 1875 and raised his seven children on the farm as well.

Malcolm Blue owned large tracts of land, entered the turpentine and lumber industry and became very prosperous. He owned approximately 8000 acres of land including the present day Pinehurst Race Track and the western boundary of Fort Bragg. The 1860 census records his land valued at \$5000 with naval stores (9000 gallons of turpentine and 600 barrels of rosin) valued at \$3000. He also owned seven slaves and livestock including swine, sheep, milk cows and other cattle. Two hundred acres of his farm were cleared for farming wheat, rye, corn, peas, beans and sweet potatoes.

House in the Horseshoe

Philip Alston, the original owner of the House in the Horseshoe, led a life surrounded by controversy and later mystery. Alston’s attempts at political advancement plunged him into a bitter rivalry that marred his reputation.

Although born to wealthy parents, John and Elizabeth Chancy Alston of Halifax County, Philip did not receive a large

inheritance. Alston's wealth increased considerably after he married Temperance Smith, who owned a large tract of land near the Roanoke River. In 1772, Alston and his wife moved to Moore County, after purchasing a large plot of land on either



side of the bend of the Deep River. In 1777, Alston's plantation included 6,936 acres. Alston served as lieutenant colonel to a local Whig militia before the General Assembly promoted him to full colonel during the American Revolution.

On July 29, 1781, Alston's unit was camped at his plantation when Colonel David Fanning and his band of Loyalist attacked the Whigs. Alston finally surrendered to Fanning after both sides suffered multiple casualties and his home almost burned down. Alston was later held captive as a prisoner of war by Loyalist troops during a skirmish in Briar Creek, Georgia but was released before the war's end. Alston pursued politics after the Revolutionary War ended. First serving as a Justice at the Court of Pleas and Quarters Session, Alston later became the Moore County clerk of court. Alston then was elected to the State Senate, where his career troubles began. Accused of murdering Loyalist Thomas Taylor during the Revolutionary War, Alston was eventually pardoned by Governor

Richard Caswell. However, political rivals of Alston refused to ignore the murder allegations.

George Glascock, the newly elected Moore County clerk of court, joined Henry Lightfoot, the county solicitor, and John Cox, member of the House of Commons, in contesting Alston's election. These men opposed Alston for various reasons ranging from his alleged murder of Taylor to his disbelief in God. Additionally, Glascock testified that Alston had claimed that he would instigate a riot if he lost the Senate race to Lightfoot. The political maneuvering worked, and Moore County was required to elect another Senator. Alston then accepted a job as a justice of the peace, but Glascock had him removed from that seat as well. But Glascock would not interfere with Alston's political career much longer.

In August 1787, Alston hosted a party at the House in the Horseshoe and was sure to stay close to his guest throughout the night. The party proved to be an excellent alibi—that night, one of

Alston's slaves named "Dave" murdered George Glascock. Alston bailed Dave out before the trial, and Dave later fled. Alston sold the House in the Horseshoe in 1790. Then in 1791, after fleeing a Wilmington jail, Alston was shot from his bedroom window of his Georgia hideout. Some speculate that Alston's former slave, Dave, murdered him.



Public Outdoor Recreation, Parks, Greenways & Open Space

Moore County has a variety of public lands that are available for rest, recreation and physical fitness. Significant outdoor recreation activities include hiking, biking, horseback riding, boating, bird and other wildlife watching, hunting, fishing, trapping, and nature photography. Popular outdoor sports include golf, soccer, baseball, and softball to name a few. There are very limited public overnight camping opportunities currently available in Moore County.

Inclusive of State owned park land, such as Weymouth Woods, Moore County has approximately 1,690 acres of public land available for parks and recreation space. This figure includes all State as well as municipal parks. The Walthour Moss Foundation, located in the eastern portion of the County between U.S. Highway #1 and the County's eastern boundary adjacent to Fort Bragg includes approximately 4,000 additional acres of private land open to equestrians, and other outdoor enthusiasts for bird watching, and hiking.

Many of the parks in Moore County are considered active parks in that they have a variety of amenities such as walking trails, exercise equipment, sports fields and/or courts, pools, etc. within them. One of the largest active parks in Moore County is Hillcrest Park, which was home to the 2011

Dixie Youth Baseball World Series. In addition to four baseball/softball fields and an accompanying field house, the



Dixie Youth Baseball World Series
 Courtesy of: Sandhills Photo Club (German)

park also has two playgrounds, walking trails, two volleyball courts, an eighteen-hole disc golf course, picnic shelter, and concession stand. The park has additional acreage to expand its offerings in the future; how the park will be developed in the future will be the subject of a Master Parks and Recreation master plan for the County in the 2013-2014 time frame.

The Moore County Parks and Recreation Department has the benefit to utilize the Moore County School system facilities for many of their parks and recreation programs. Many of the County schools have gymnasiums, baseball/softball diamonds, playgrounds and other open areas to augment the County Parks and Recreation department's facilities and programming. This is an important relationship as it allows County citizens to participate in parks and recreation programs that are run closer to their homes.

Many municipalities in the County have been extending and installing new sidewalks and greenway trails. Simultaneously, these municipalities have been looking to have sidewalks and trails inter-connect with existing trails within their respective communities, as well as to neighboring jurisdiction's trails. In the community, a group known as Making Moore Connections, which is made up of public health officials/advocates, planners, parks and recreation directors, etc. are working to, as their name implies, make more connections between employment centers, neighborhoods, and particularly schools. This group meets quarterly throughout the year to coordinate



Bicycling
 Courtesy of: Sandhills Photo Club (Gilchrist)

planning efforts around the topics of active transportation. This collaborative work will be particularly important in the future as grantors (including NCDOT) are looking for communities that are working together to expand active transportation routes efficiently and effectively.

Lastly, the County is home to almost 4,000 acres of land that is managed by the N.C. Wildlife Resources Commission for public hunting, trapping, fishing and wildlife conservation that are designated collectively as Game Lands. These Game Lands are located in the southwestern portion of the County along its shared border with Richmond and Montgomery Counties. Due to the management of the Longleaf Pine forests that primarily make up these Game Lands it's the NCWRC recommendation that smoke-sensitive land uses (e.g. residential areas, schools, high traffic roads, etc.) be minimized within ½ mile of these public lands to minimize conflicts between prescribed fire habitat management practices and the public. The NCWRC further recommends that habitable structures be placed 150 yards from the boundaries of these lands to avoid conflicts between hunters and residents. The Commission further recommends maintaining vegetated buffers between structures and Game Lands boundaries.

Economic Value of Open Space

Throughout the Land Use Plan update process many stakeholders provided evidence to indicate that our community’s natural resources and open spaces have an economic value. Recent studies have shown that open space in particular does indeed have an economic value through:

- Increased values for properties close to protected open space;*
- Avoidance of spending money to artificially replicate the vital environmental functions provided by protected open space;*
- Money saved from free or low-cost recreational activities on protected open space;*
- Jobs created relating to open space.*

The protection of additional open space is important not just for sentimental reasons, but also because it’s a wise public investment that does pay back, both now and in the future. The economic benefits generated by protected open space accrue in different ways – some are direct revenue streams to individuals or government bodies, while some represent asset appreciation value, and some accrue in avoided costs.

Property Values

Homeowners are willing to pay a premium to live in close proximity to protected open space. As a result open space adds to the overall value of a community’s housing stock. In Moore County one only needs to look to communities near Horse Country, Pinehurst Resort, Seven Lakes, Woodlake, and others that have been built around protected open space to identify the higher property values near these natural resources. The increased wealth is then captured by citizens through higher sale values of homes near these protected open

spaces, thus either generating an increase in government revenues via larger property tax collections, or providing an opportunity to decrease the tax rate for the county due to higher valuation, and lastly this increase in value is reflected in increased transfer taxes at time of sale. A recent study found that residential properties within one mile of protected open spaces contributed a significant positive impact to property values both before and during the economic downturn that began in 2008.

Environmental Services

Protected open space also provides value in the form of naturally occurring environmental processes. Whereas, if these lands were to be developed, a community could be forced to replicate vital and costly services, such as flood control and air pollution mitigation through alternative methods. Through the protection of open space, natural filtration of public water supplies (such as through the riparian areas adjacent to Drowning Creek, Nick’s Creek, Bear Creek, and Little River), flood mitigation (such as the floodplains adjacent to Little River for areas downstream of Woodlake), provision of wildlife habitat, air pollution removal, and carbon sequestration and storage (such as through trees and other plants) may occur. These mitigated costs save not only the County’s taxpayers, but also public service recipients who are rate payers for services such as public water. While Moore County does not currently fall into an air quality non-attainment zone, it stands to be in the future if air-quality is not maintained. The Federal and State regulations that are placed on government projects and new businesses to mitigate air-quality non-attainment can act as an unnecessary and avoidable tax on citizens and business owners.

Recreation and Health

Usage of protected public open space generates a value via the consumer benefit that residents enjoy by engaging

in recreation and exercise free or at below-market rates instead of turning to private markets for the same activities. The recreational opportunities available on protected open space contributes to the health of the region’s workforce, translating into avoided medical, workers’ compensation, and lost productivity costs. Here in the community, FirstHealth of the Carolinas has spearheaded several efforts to help fund open spaces, greenways, and other bicycle and pedestrian systems to improve the community’s access to open spaces; and they stand at the ready to continue this commitment to the citizens and their government to help acquire and continue building these assets to improve and promote public health.

Economic Activity

Protected open space generates a variety of economic activities, ranging from agricultural activity on preserved farmland, tourist visitation, military training, to public park maintenance. Economic activity can be measured in the form of the spending, employment, earnings, and tax revenues associated with these activities. Moore County already strongly markets its natural resources and open spaces to people outside as well as within the community. Dating back to the industrial revolution era, people began coming to Moore County to breathe our clean and dry air, listen to the whisper of the wind through the pine trees, hunt, ride and harvest in the fields and woods, play golf and relax in the resort ambiance the community has now become famous for in the world.

Finding ways to build upon our existing protected open spaces has tangible financial, environmental and social benefits to our citizens. The implementation portion of this document suggests several ways these open spaces could be acquired, enhanced and preserved for generations to come.

(source: [Return on Environment: The Economic Value of Protected Open Space in Southeastern Pennsylvania](#), January 2011)

Educational System

Moore County is currently served by (23) public schools, (2) charter schools, (8) private schools, and a community college. The Moore County public school system is made up of fourteen (14) elementary schools, five (5) middle schools, three (3) high schools and one (1) alternative school. Excluding Sandhills Community College, Moore County had over 14,200 students enrolled within one of the (33) schools in 2012-2013, which is roughly 15.5% of the total population (about 1 in every 7 is enrolled in a school).



Public Schools

As of the 2012-2013 school year, the total enrollment for the Moore County school district was 12,707. According to the Moore County Schools website, the schools currently employ over 1,790 employees, of which 46.7% are licensed professionals with a master’s degree or higher. The Moore County school system is predominantly white at 66%. However, at least one-third of the total student population is of a minority race (African-American, Hispanic, or other). Of the total student enrollment, 51% are male and 49% are female, which is similar to the State’s demographic (source: NC Dept. of Education – NC School Report Card: Moore County).

The Moore County School system is divided up into 3 areas, with one high school in each district. Within each area, smaller districts are divided up for each elementary/middle school which is based on certain demographic criteria. Overall, the MCS runs a total of 118 buses, transporting over 6,100 students 10,000 miles daily throughout each of these areas.

Public enrollment over the past five years has increased by 706 students, with a 141.2 five-year average. Based on the First 10-Days of Enrollment, the County school enrollment was up by 230 students from 2011-2012 to 2012-2013, which is a 1.8% increase. The average numbers of students in the County’s elementary and middle schools are less than the state average. However, the District’s high schools exceed the average school size for the state by over 400 students.

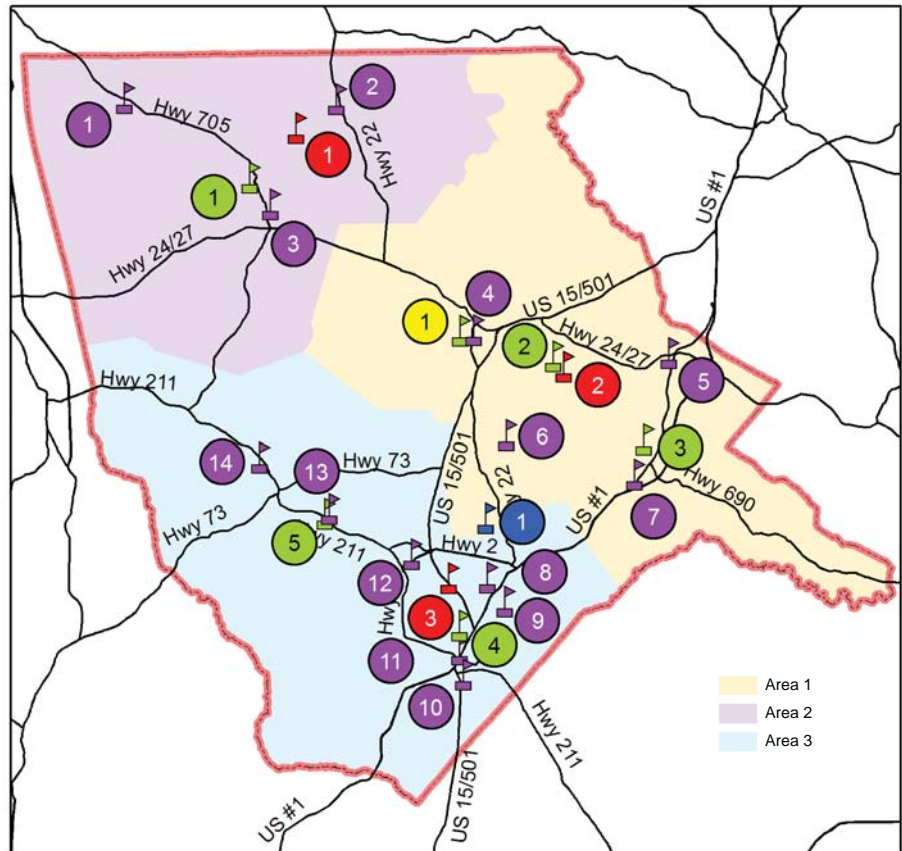


Figure 2.22: Moore County Public Schools
Source: Moore County Geographic Information Systems (GIS), 2012

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> ● <u>Elementary Schools (ES)</u> 1. Westmoore ES 2. Highfalls ES 3. Robbins ES 4. Carthage ES 5. Cameron ES 6. Sandhills Farm Life ES 7. Vass-Lakeview ES 8. Southern Pines Primary 9. Southern Pines ES 10. Aberdeen Primary 11. Aberdeen ES 12. Pinehurst ES 13. West Pine ES 14. West End ES | <ul style="list-style-type: none"> ● <u>Middle Schools (MS)</u> 1. Elise MS 2. New Century MS 3. Crain’s Creek MS 4. Southern MS 5. West Pine MS | <ul style="list-style-type: none"> ● <u>High Schools (HS)</u> 1. North Moore HS 2. Union Pines HS 3. Pinecrest HS |
| <ul style="list-style-type: none"> ● <u>Alternative School</u> 1. Pinckney Academy | | |
| <ul style="list-style-type: none"> ● <u>Community College (CC)</u> 1. Sandhills CC | | |

School Capacities

For the 2010-2011 school year, Moore County constructed a new middle school and a new elementary school to alleviate the over capacities of the schools. Crain’s Creek Middle School, which serves the eastern portion of the county, helped ease the school capacity at New Century Middle School. At the same time, West Pine Elementary School improved capacities at Pinehurst Elementary and West End Elementary. Pinehurst and West End elementary schools had exceeded capacities since 2007-2008.

Most of the current schools that are over capacity are at the elementary and high school levels. As of 2012-2013 school

First 10-Days of Enrollment				
	Elementary School	Middle School	High School	Total
2012-2013	5,991	2,793	3,923	12,707
2011-2012	5,951	2,757	3,769	12,477
% change	+0.6%	+1.3%	+4.1%	+1.8%

Table 2.12 : First 10-Days of Enrollment
Source: Moore County Schools, First 10-Days of Enrollment

year, (4) elementary schools, (1) middle school, and (2) high schools are at or above 100% capacity. School capacity can be difficult to determine due to changing class size requirements, school configurations, and school re-districting. However, with the amount of future growth projected within the county, it will be essential to alleviate the capacities at these locations. The Moore County

Schools Master Facilities Plan includes construction of a new high school by FY 2014-15 at a projected cost of \$40 million as well as two new elementary schools and one new middle school. The school district is currently undertaking a facilities study that should lead to revisions in the Master Facilities Plan. The school district is currently undertaking modernization projects at all of its high schools, including the addition of new gymnasiums at Union Pines and Pinecrest High Schools and a new cafeteria at Pinecrest High School (a new cafeteria was recently completed at Union Pines High School). These projects are being completed as a part of Phase I of the Master Facilities Plan. It is predicted by the OR/Ed laboratory (Institute for Transportation Research and Education) from North Carolina State University that by 2017-2018 eleven of Moore County schools will be at or over capacity, which includes the influx of children from Base Realignment and Closure (BRAC) from Fort Bragg.

School Enrollment Growth (past 5 years)			
Schools	Enrollment (2007-2008)	Enrollment (2012-2013)	± % Change (past 5 years)
Elementary			
Aberdeen Elementary	302	316	+ 4.6%
Aberdeen Primary	330	317	- 3.9%
Cameron Elementary	252	245	- 2.8%
Carthage Elementary	350	384	+ 9.7%
Highfalls Elementary	309	323	+ 4.5%
Pinehurst Elementary**	660	497	- 24.7%
Robbins Elementary	479	453	- 5.4%
Sandhills-Farm Life	537	573	+ 6.7%
Southern Pines Elementary	425	421	- 0.9%
Southern Pines Primary	430	468	+ 8.8%
Vass-Lakeview Elementary	567	619	+ 9.2%
West End Elementary**	583	398	- 31.7%
West Pine Elementary*	-	563	-
Westmoore Elementary	407	391	- 3.9%
Middle			
Crain’s Creek Middle*	-	396	-
Elise Middle	216	226	+ 4.6%
New Century Middle**	909	554	- 39.1%
Southern Middle	660	757	+ 14.7%
West Pine Middle	810	860	+ 6.2%
High			
North Moore High	601	612	+ 1.8%
Pinecrest High	1951	2091	+ 7.2%
Union Pines High	1205	1220	+ 1.2%
Alternative/Special			
Academy Heights Elementary	274	(CLOSED)	-
Pinckney Academy	18	23	+ 27.8%
TOTAL	12,275	12,707	+ 3.5%
Notes:			
* School opened in 2010-2011 school year			
** Alleviated by the construction of a new school (West Pine Elementary or Crain’s Creek Middle)			

Table 2.11: Moore County School Enrollment Growth
Source: NC Department of Public Instruction, School Report Cards (2007 - 2008)
Moore County Schools, First 10-Days of Enrollment (2012 - 2013)

The County must closely collaborate with the Moore County Board of Education to plan for the facility needs of the County schools in the future. The siting of school facilities is important due to its influence on community growth, the costs associated with school construction, maintenance, transportation costs, the quality of development, and safety.

School Capacity Projects

According to Phase I of the Moore County Facilities master plan, project costs of over \$46 million was used for various projects as it related to capacity issues within Moore County Schools. This included a new middle school, new elementary school, added capacity to Highfalls Elementary, Robbins Elementary, Westmoore Elementary, and Sandhills Farm Life, as well as modular units at Union Pines High School and North Moore High Schools, which was completed in 2010. There were also upgrades to water/sewer at various schools and athletic facilities as part of the 2007 bond referendum. Further details of the projects can be found in the capacity summaries for each school.



School Capacity-Related Projects			
Schools	Last Project Date	Project Type	Cost
Elementary			
Aberdeen Elementary	1979	Media Center	-
Aberdeen Primary	1992	Classroom	-
Cameron Elementary	1982	Classroom	-
Carthage Elementary	2000	Classrooms	-
Highfalls Elementary	2010	Classrooms	\$4,261,289
Pinehurst Elementary**	1992	Classrooms	-
Robbins Elementary	2010	Classrooms	\$2,492,942
Sandhills-Farm Life	2010	Classrooms	\$1,421,671
Southern Pines Elementary	1954	Main Building	-
Southern Pines Primary	1990	Kindergarten	-
Vass-Lakeview Elementary	1999	New School	-
West End Elementary**	2011	Classrooms	-
West Pine Elementary*	2010	New School	\$12,660,060
Westmoore Elementary	2011	Classrooms	\$5,015,864
Middle			
Crain's Creek Middle*	2010	New School	\$17,750,045
Elise Middle	1986	Media Center	-
New Century Middle**	1997	New School	-
Southern Middle	1999	New School	-
West Pine Middle	2001	Classrooms	-
High			
North Moore High	2009	(5) Classroom Modular	\$539,400
Pinecrest High	2007	(11) Classroom Modular	-
Union Pines High	2009	(11) Classroom Modular	\$746,800
Alternative/Special			
Academy Heights Elementary	-	-	CLOSED
Pinckney Academy	-	-	
Notes:			
* School opened in 2010-2011 school year			
** Alleviated by the construction of a new school (West Pine Elementary or Crain's Creek Middle)			

Table 2.13: Moore County School Capacity-Related Projects
Source: Moore County Schools

Capacity Summaries

Below are brief summaries of current and future capacities for each elementary, middle and high schools, which were developed, based on input received during the Land Use Plan charrette that was conducted in October of 2012. Graphs were also created which depicted how the results of the charrette could impact school capacities in the future, utilizing a straight line growth curve over the next 18 years.

Elementary Schools

Aberdeen Elementary School is currently below 90% capacity and will exceed 100% capacity until the school year 2022-2023.

Aberdeen Primary School is currently below 90% capacity and is projected to reach 100% capacity by 2016.

Cameron Elementary School is below 90% capacity and is not projected to reach 100% capacity until 2024.

Carthage Elementary School is projected to reach 100% capacity for the school year 2013-2014 and is anticipated to reach 110% and 120% capacity in 2018 and 2023 respectively.

Highfalls Elementary School has a slower projected growth rate than other elementary schools and is projected to stay below 90% capacity over the next 20+ years. Highfalls Elementary saw the construction of approximately 17,500 sq. ft of classroom and student support space due to the student population growth in 2007.

Pinehurst Elementary School is currently over the 100% capacity level and is projected to reach 110% capacity by the 2019-2020 school year. In 2007, Pinehurst Elementary was nearly 33% over capacity. To alleviate this, West Pine Elementary was constructed and opened in 2010, which added a classroom capacity of 500 students.

Robbins Elementary School is below 90% capacity level and no major increase in student population is projected over the next 18 years. Robbins Elementary had a growing student population, but insufficient program capacity. The facilities master plan proposed the construction of 13,860 sq. ft of additional space to accommodate this concern.

Sandhills Farmlife Elementary School is presently at 90% capacity and is projected to reach 100% + capacity levels by 2018. In 2009, construction began on 7,560 sq. ft. of classroom space to accommodate the growing student population at Sandhills Farm Life Elementary.

Southern Pines Elementary School is not projected to reach 100% capacity over the next 18-20 years.

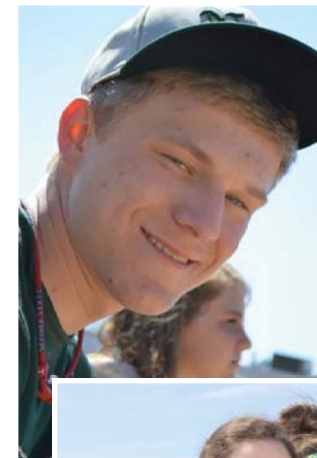
Southern Pines Primary School is projected to reach 100% capacity by the 2013-2014 school year.

Vass-Lakeview Elementary School has exceeded 100% capacity and is projected to exceed 110%, 120%, and 130% capacity levels every four to five years hereafter, indicating a need for additional space or a new school facility in the near future.

West Pine Elementary School opened in 2010, alleviating the capacity at West End Elementary. This school had exceeded capacity in 2007, which had been utilizing mobile classrooms to provide for the growing student population. The elementary school is not anticipated to reach 100% capacity over the next 10 years.

Westmoore Elementary School has a slow, steady growth rate and is not projected to reach 90% capacity over the next 18 years. In 2007, the student population had exceeded capacity, which had 5 mobile classrooms. In 2009, construction began for approximately 13,440 sq. ft of classroom and student support space.

West End Elementary School has already exceeded 110% capacity and is projected to see a large growth increase over the next three to four years, possibly exceeding 130% capacity by school year 2016-2017. West Pine Elementary opened in 2010 to alleviate capacity concerns at both Pinehurst Elementary and West End Elementary.





Middle Schools

Crain's Creek Middle School was constructed to alleviate capacity concerns at New Century Middle School in 2010. Crain's Creek is currently at 90% capacity and is not projected to exceed 100% capacity levels until 2018.

Elise Middle School is presently below 90% capacity and is not anticipated to exceed 100% capacity until at least 2030.

New Century Middle School is projected to see steady growth over the next 18 years and is anticipated to exceed 90% capacity until 2027. New Century Middle School was well over capacity levels prior to the completion of Crain's Creek Elementary. Significant growth was predicted in Area I of the Facilities Master Plan, which proposed the construction of a new middle school.

Southern Middle School is projected to reach 100% capacity by 2015 and a steady increase in student population every six to seven years is projected, meeting 110+% capacity levels by school year 2022-2023.

West Pine Middle School is presently at 110% capacity levels and is projected to reach 120% capacity in 2017 and 130% capacity by 2021.

High Schools

North Moore High School is currently below any major capacity levels and is not projected to exceed 100% capacity until 2028. North Moore has had to construct modular units to provide additional space due to the continued student population growth.

Pinecrest High School is already at 130% capacity and the district is expected to grow steadily in the planning horizon of this study.

Union Pines High School has exceeded 120% capacity and is projected to reach 130% capacity levels within the next couple of years, indicating a need for additional space or a new high school. This coincides with the need of a new facility at Pinecrest High School. Union Pines has had to add modular units to accommodate the growing population.

Charter & Private Schools

Moore County’s two (2) charter schools offer children within Moore County other opportunities. The Sandhills Theatre Renaissance School (STARS) serves grades K-8 with 340 students. The school focuses on an arts-infused integrated instructional approach, and follows the North Carolina Standard Course of Study. The Academy of Moore serves grades K-5 and follows the North Carolina Standard Course of Study for 210 students with a year-round schedule.

There are many private schools located in Moore County. Of the eight (8) private schools, six (6) schools offer religious-based education focused in a Christian environment. The total enrollment for these schools in 2011-2012 was 991 students. Below is a map showing the locations each of the (8) private schools.

Home School Students

Moore County, as of 2011-2012, had 443 home schools registered with the North Carolina Department of Non-Public Education. According to the NC Home School Statistical Summary for 2012, 769 students were enrolled in a home school in Moore County, equating to 1.7 students per home school. There are currently 47,977 home schools located throughout North Carolina, with over 79,500 students enrolled. Students between the ages 7-13 are the major age group that is home schooled in North Carolina. This shows that once students complete grade eight (8), they generally attend a public high school. By age 17, there is on average 4,300 students, as opposed to 7,300 students between the ages 7-13 enrolled within a home school in North Carolina.

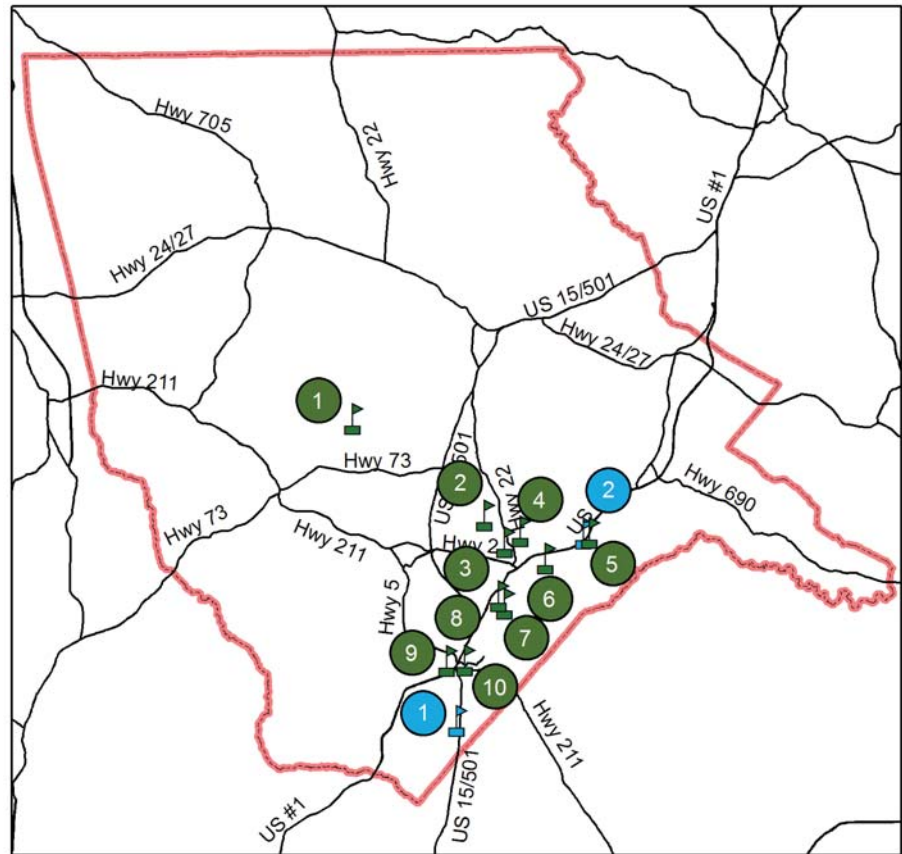


Figure 2.22: Moore County Charter & Private Schools
Source: Moore County Geographic Information Systems (GIS), 2012



Private Schools

1. First Baptist Christian Academy
2. The O’Neal School
3. Sandhills Classical Christian School
4. Pope John Paul II Catholic School
5. Highland Christian Academy
6. Longleaf Academy
7. Episcopal Day School
8. Calvary Christian School
9. Rainbow Baptist Church School
10. Solid Rock Christian School



Charter Schools

1. The Academy of Moore County
2. STARS Charter School
(Sandhills Theatre Arts Renaissance School)



Sandhills Community College

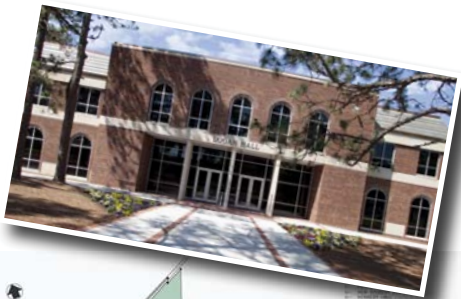
Moore County’s Sandhills Community College (SCC) is one of the top community colleges in North Carolina. SCC is composed of the 150-acre main campus in Pinehurst, and two satellite campuses: Hoke Center in Raeford (Hoke County), and Westmoore Center in Robbins. In addition, St. Andrews University in Laurinburg and the University of North Carolina at Pembroke each has a satellite campus at SCC. Sandhills Community College has an enrollment size of over 4,200 students. This includes both traditional and non-traditional students, ranging from various backgrounds (i.e. graduating high school, technical training, or career advancement or change).

Future Needs

As the county continues to grow, it will be critical to plan, budget and implement new facilities to serve the growing student population. Population growth is the number one factor in developing a new school, however understanding growth patterns in the county is vital. New schools can be considered infrastructure, in that they serve the public based on a certain demand. If the demand cannot be served, then schools become overcrowded and it puts pressure on our roads, water and sewer infrastructure. However, siting school facilities is important due to its influence on community growth, the costs associated with school construction, maintenance, transportation costs, the quality of development, and safety.

To the degree that schools can be planned and constructed near existing infrastructure and centralized in such a way as to draw from demographically dense and socioeconomically diverse areas, this can decrease the amount of infrastructure necessary to serve the school population and strengthen the overall educational program. The degree to which walking and biking are available, while not a primary siting factor in these decisions, might also be considered both to relieve congestion on the road system and to promote wellness (knowing that in Moore County a significant percentage of our student population is obese - around 20% in grades K-9).

....siting school facilities is important due to its influence on community growth, the costs associated with school construction, maintenance, transportation costs, the quality of development, and safety.



Chapter Highlights

- *Tourism and Agriculture each create approximately \$374 million dollars in revenue annually in Moore County.*
- *Collaborative planning for water infrastructure in and of itself can be an economic incentive for new and/or expanding businesses. Having infrastructure, especially water, in place can often direct desired growth to specific locations while also reducing costly line extensions and/or system upgrades.*
- *Encourage development in areas that have existing infrastructure and the ability to support it. Low density development in rural areas of the County often consumes prime agricultural and environmentally sensitive land, while also increasing the need for additional public services.*
- *Farms make up more than three-quarters of the County's land base with croplands, pastures, and forests.*

Moore County is uniquely located within the heart of North Carolina and is easily accessible from all parts of the state. The County is part of the Research Triangle Regional Partnership (RTRP), which is a business-driven, public-private partnership dedicated to keeping the 13-county Research Triangle Region economically competitive through business, government and educational collaboration. With Moore County bordering the Fort Bragg Army Installation, it has become home to several defense industries. According to the RTRP, Moore County has a readily-available, educated labor force that is anticipated to grow to over 50,000 by 2030. Upon recent data from the NC Department of Commerce, Division of Employment Security, and future growth projections, Moore County will need to add an additional 14,000 new jobs by 2030 (86% non-industrial and 14% industrial type jobs) to satisfy the projected workforce. Sandhills Community College offers degrees, technical programs and customized training to insure the employment needs of local companies are met. The College also offers an Entrepreneurship Certificate Program that provides students with real-world skills, experience and networks to become successful entrepreneurial leaders.

There are many business/industrial-type sites within Moore County. Southern Pines currently has a 100-acre Corporate Park, which is a state-designated Urban Progress Zone offering enhanced tax credit incentives and all utilities. Aberdeen presently has a 125-acre Iron Horse Industrial Park, which is a shovel-ready certified site featuring rail access through Aberdeen & Rockfish Railroad. Tourism, agriculture, healthcare, education and government are the largest economic sectors and employers in Moore County. The following pages contain a list of key economic development sectors that are vital to sustaining Moore County's economy and workforce in the future.



Tourism

Tourism is not new to Moore County. For more than 100 years, the county has benefited from the effect of tourism in the Sandhills, which was realized by John T. Patrick and James Walker Tufts back in the 1890's. Today, tourism in North Carolina is the second largest industry, generating \$18.4 billion statewide. In Moore County, tourism employs over 4,880 (direct) people and generates over \$374.2 million annually via tourism revenues. These revenues reduce the household tax burden on each Moore County household by over \$1,065 per year. Tourism, combined with health care and service/retail sector, account for 83% of all jobs in the county. According to the Convention and Visitors Bureau (CVB) 2012-2014 Strategic Plan, visitors spend \$880,080 per day in Moore County. This includes hotels/lodging, food, recreation, retail purchases, transportation, and other miscellaneous expenses.

Though golf is the driving force behind tourism, there are several other attractions that draw people into Moore County. Festivals are held throughout the year that attracts thousands of visitors from outside Moore County and the State. Malcolm Blue Farm Festival, Carthage Buggy Festival, The House in the Horseshoe, Robbins Farmers Day Festival, Cameron Antiques Festival, Palustris Festival, the Tour de Moore, and many other events provide opportunities for visitors that are unique to Moore County. Throughout the year, the county plays host to quality community theater, art exhibits, and lectures, as well as concerts including NC Symphony series, a jazz weekend, and ballet, bluegrass, and choral presentations/productions. All these attractions and recreation opportunities are prominent cultural assets utilized by the tourism industry.

Because of the importance of tourism in this area, planning for its growth is

crucial, focusing development to specific areas to meet the growing demand of visitors. Planning between municipalities and the county can help create sufficient infrastructure and promote growth to Moore County. The demographics of travelers to the county is ever changing due to the steady expansion of hotel and golf course inventory, which includes more suite hotels, condos/villas, rooms-only and budget hotel properties and public golf courses. As Moore County continues to grow, it will also be critical to protect and enhance the quality of life that is found in the area, which is highly recognized in the tourism industry. Moore County should ensure its destination is more appealing so people will stay longer, receive value for the money they spend during each visit, and leave feeling they have experienced a unique area that has preserved its unique character.

Health Care and Community Health

The healthcare industry sector is the number one employer in Moore County. FirstHealth of the Carolinas is the County's largest employer with approximately 2,700 workers. FirstHealth of the Carolinas is a private, non-governmental, not-for-profit health care network serving 15 counties in the mid-Carolinas. Headquartered in Pinehurst, North Carolina, FirstHealth is licensed for three hospitals with a total of 582 beds, a rehabilitation center, three sleep disorders centers, three dental clinics, eight family care centers, six fitness centers, a laundry, four charitable foundations, a Hospice House and hospice services, home health services, critical care transport, Emergency Medical Services, medical transport services, and a convenient care clinic. All hospitals hold all major accreditations.

The flagship, Moore Regional Hospital is a 395-bed, acute care, not-for-profit hospital that serves as the referral center for a 15-county region in the Carolinas. Moore Regional Hospital has an active



medical staff of 249 physicians, a professional staff of more than 2,700 and an average of 750 volunteers and offers a full range of health care services to people within the five-county primary service area and ten-county secondary service area. Moore Regional offers all major medical and surgical specialties and numerous sub-specialties, including open-heart & valve surgery, neurosurgery, neonatology, behavioral health services and bariatric surgery.

The healthcare industry plays a very significant role in the local economy and contributes to the area's popularity as a retirement location. Moore County ranks highest among surrounding counties for the availability of doctors. In 2011 Moore County had 31.4 physicians per 10,000 residents, as opposed to Scotland County, who is the next highest of the surrounding counties, with 18.0 physicians per 10,000 residents.

Pinehurst Surgical, Pinehurst Medical Clinic, and St. Joseph of the Pines are a few of the various healthcare facilities located within Moore County. Several medical facilities have been constructed over the past several years to accommodate the growing county population and the elderly population. With growth projected to exceed 120,000 by 2030, Moore County will continue to see expansions of existing facilities and new medical facilities to accommodate this growing need. It will be necessary to look at where these facilities should be located and the impacts they could have on the existing infrastructure.

Community Health Factors

FirstHealth of the Carolina’s charters a random digit dial phone survey through Professional Research Consultants (PRC). This survey provides statistically significant data pertaining to the health and health behaviors of Moore County residents. This survey was conducted in 1999, 2003, 2007 and 2011. FirstHealth monitors specific health indicators to determine and monitor factors that influence population health. For instance, in 2007, the prevalence of high blood pressure in Moore County was 36 percent, however, in 2011, this measure increased to 38 percent, compared to the state rate of 31.5 percent. In 2007, the diabetes prevalence rate was 14 percent, compared to 17 percent in 2011 and a state average of 9.8 percent. In addition, 86 percent of Moore County residents report having one or more cardiovascular risk factors. These three health indicators are directly related to heart disease and strokes; and the top causes of death in Moore County, which are cancer (with the highest rate contributed to lung cancer), diseases of the heart, Alzheimer’s disease and cerebrovascular disease.

The survey data also provided feedback regarding obesity rates, access to healthy foods, healthy eating behaviors and the level of physical activity. Sixty-five percent of Moore County adults have a body mass index (BMI) over 25, which categorize individuals as overweight or obese. Thirty percent of adults in Moore County have a BMI of 30 or greater, which is categorized as clinically obese. This is compared to the state average of 28 percent. Furthermore, twenty-nine percent of youth ages 5 to 17 years old are overweight or obese. The data specific to healthy eating and physical activity may provide insight as to the levels of chronic disease in the county.

Environmental factors can contribute to social determinants of health. Land use planning, zoning ordinances and

requirements can have a direct impact on the health of a community. For instance, proximity of homes to healthy food sources such as farmers markets and grocery stores can have an impact on the consumption of healthy foods. Additionally, zoning and other ordinance regulations can assist with limiting access to fast foods and corner stores with unhealthy food options.

A Land Use Plan can also have a direct impact on opportunities for physical activity. The consideration of adopting policies such as Complete Streets policies are effective in increasing active transportation in communities, which directly impacts health factors. Furthermore, Land Use Plans can accommodate recommendations for connectivity of neighborhoods to open space and parks. Adopting tobacco-free grounds regulations can impact exposure to second-hand smoke for youth. Sidewalk ordinances can also provide the groundwork to increase physical activity in communities. Connectivity from county to municipal parks and recreation facilities and schools are another way to impact healthy lifestyles and opportunities for community members to engage in physical activity. These factors also have an economic impact; there is a walkability score for every community. New home buyers are seeking communities that promote

healthy lifestyles and include open spaces.

There is a synergy between planning and public health. Research shows if the two entities work closely together, it can create results such as the creation of green space to promote physical activity, improved access to healthy foods, improved social integration and mental health, and prevention of chronic diseases.



Health Indicator	2007	2011
Consume 2+ fresh, frozen, canned fruit daily	52.5%	28.7%
Consume 3+ fresh, frozen, or canned vegetables daily	21.1%	14.5%
Consume 2+ whole grain bread daily	42.9%	23.9%
Consume at least 1 sugar sweet beverage yesterday	N/A	48.1%
Eat meals at home <4 times weekly	N/A	11.2%

Table 3.1: Healthy Eating and Access to Foods
Source: FirstHealth of the Carolinas (Elliott, Roxanne)

Health Indicator	2007	2011
No leisure time physical activity in past month	22.4%	21%
Report sedentary lifestyle	51.3%	55.1%
Workplace is within walking distance of home	N/A	20.4%
Park/playground within walking distance of home	N/A	37.7%
Can purchase healthy foods within walking distance of home	N/A	21.3%

Table 3.2: Active Living
Source: FirstHealth of the Carolinas (Elliott, Roxanne)



Agriculture

Moore County relies heavily on its agricultural farmland. According to the USDA Census of Agriculture (2007) agriculture and agri-businesses generate \$373 million dollars per year in Moore County. Over 800 farms produce an array of crop and livestock products for local, national and export markets. The farms are small, but make up more than three-quarters of the land base with croplands, pastures, and forests. Farming, directly and indirectly, in Moore County creates over 6000 jobs, equating to 13% of the county's job base. The forestry industry has over 300,000 acres of land in the county and has a total income of almost \$49 million. Farm land accounts for over 80,000 acres of land in Moore County, with an average farm size of about 100 acres. According to the NC Department of Agriculture and Consumer Services, Moore County generated over \$142 million in total cash receipts (livestock, dairy, poultry, crops, and government payments) in 2011, ranking 24th out of 100 counties. Livestock, dairy and poultry dominated agricultural products in Moore County, generating over \$123 million in cash receipts in 2011 and ranking 14th in the State. Tobacco (both conventional and organic) continues to be a large part of the economy and agricultural economy of Moore County. Tobacco produced in the Sandhills is in demand in the global market, especially China. Moreover, in 2012 the diversity of Moore County agriculture was reflected in the production of tobacco, wheat, oats, barley, soybeans, corn, cotton, grain sorghum, tree fruits, small fruits, vegetables, and wide array

animal agriculture which includes pigs, chickens, sheep, goats, cattle, bison and at least one award-winning cheese producer. The area is important enough that NC State University established the Sandhills Research Station (SRS), which is on the Moore & Montgomery line to conduct agricultural research of the soils and climate here in the Sandhills. The Research Station is one of eighteen (18) across the state and conducts field research in the production of soybeans, corn, cotton, peaches, small fruits, ornamentals, and turfgrass. Because of the uniformity of the sandy soils, SRS is viewed as one of the premier places in the southeast for drought tolerance research. Basically, there is more that could be said about the vitality and diversity of Moore County agriculture which is taking part in emerging markets and also strong on traditional crops such as tobacco. One challenge that faces farming in Moore County is the average age of its farmers (57 years old). It will be vital to encourage young farmers to get involved with agriculture and promote 4-H and other similar agricultural programs.

Agriculture in Moore County has led to the development of local food programs or projects, which were previously mentioned in the cultural activities section of this document. Many farmers markets have become popular, since 2007, to accommodate the increasing number of customers. This has also led to the creation of the Sandhills Green Farmers Market, Sandhills Winery Farmers Market, and the Sandhills Farm to Table Cooperative. The success of these endeavors have even catalyzed a farm to institution effort to increase the amount of local foods that are purchased by schools, resorts, restaurants and other large food buyers throughout the region.

One aspect of agriculture that is sometimes overlooked is landscaping and the related nurseries, greenhouses, etc. that are associated with this industry. There are over 270 associated landscape

companies located in Moore County. This industry supplies plant material, mulch, pinestraw, and other materials to commercial and residential properties. These companies also utilize pesticides and herbicides as part of their business, many of which are sourced through local agri-businesses in the region. According to NC Department of Agriculture and Consumer Services, nurseries, greenhouses, floriculture, and Christmas trees production was worth \$11.5 million, ranking 17th in North Carolina.

Services

Moore County serves a very large population, in and around the county. Over the last several years, the county has become an urban center within a rural area, attracting visitors from adjacent counties that would rather shop/dine in Moore County than traveling to Sanford, Raleigh, Greensboro, or Fayetteville. Due to that reason, this area has seen a large increase in shopping and dining opportunities over the past five years. Many of the new services, and retail opportunities gives Moore County a cosmopolitan feel with its access to more metro-like services; allowing for an increased pool of potential residents and business owners in which to attract to the area.

Not only do businesses in Moore County serve the local and regional economies, they also serve Fort Bragg. Many U.S. Department of Defense contractors have settled into the Moore County economy and serve Fort Bragg and other military installations within North Carolina, including K2 Solutions, Defense Logistics Solutions, Ballistic Recovery Systems (BRS), etc.

As businesses and services continue to grow and expand, it will be critical to ensure transportation, water/sewer, and broadband technology is easily accessible and available. The Land Use Plan should work to focus new service-

type developments near existing and proposed consumers, yielding more options for people to shop, work, and recreate near where they live.

Retirement

Moore County has relied and will continue to rely heavily on the retirees from across the United States and the world that relocate to the Sandhills. The retiree demographic (55+) has steadily grown over the past 30 years. The core Baby Boomer generation (55-64) age population has more than doubled since 1980. Almost 23% of Moore County's population is over 65 years of age compared to a little more than 13% across North Carolina. Moore County could see a huge influx of the Baby Boomer generation as they sell their homes elsewhere in the United States and relocate to this area over the next 18 years. The quality of life, through golf, horse country, and/or recreation, makes Moore County a very desirable retirement location. The county benefits greatly from having such a high retirement population, with retirees with various backgrounds and education, which contribute to organizations and provide mentorships to the younger generation.

It will be crucial for planners to respond and plan for this ever growing population. As people continue to age, their ability to be mobile often diminishes, making it more difficult for the aged to access goods, services and social opportunities. See the demographics section regarding population for the baby boomers age demographic.

Innovation

The County's retirement community and population have continued to grow over the past 20+ years. However, the younger demographic has not kept pace with this retiree population. In the past year, the younger entrepreneurs have been the focus of future economic

development within Moore County. Moore Forward, which was developed in 2012, is a planning effort created by a diverse group of stakeholders aimed at assessing the opportunity and outlining the details of a multi-faceted social entrepreneurship initiative within Moore County, focusing on young entrepreneurs. This demographic is vital in developing innovative ideas, which could have a significant impact on economic development. Education also plays an important role in providing that foundation and support for this generation to contribute to the future of Moore County. Providing these kinds of opportunities and maintaining the quality of life that Moore County has come to know, will encourage this generation to live and work here in the Sandhills area, as opposed to leaving Moore County and moving to an area, such as Raleigh, Charlotte, Winston-Salem or Greensboro.

Military

North Carolina has the third largest military presence in the world. For Moore County, this fact has even more significance because two (2) of the state's military installations are right next door. Fort Bragg and Pope Field, plus Camp Mackall, are within and adjacent to our county borders. The Fort Bragg / Pope Field Reservation adjoins the southeastern border of Moore County, while Camp Mackall is adjacent to our southern tip.

Since 2005, the Base Realignment and Closure Commission (BRAC) conducted a study to dispose of unnecessary United States Department of Defense (DoD) real estate. The plan included the closing of various military installations and re-alignment of soldiers/units from around the country to other bases. Fort Bragg was chosen as one of the bases to remain open and provide for several units from around the country. Since 2006, the Fort Bragg region has seen an increase of approximately 40,000

military and civilian personnel and their families. These actions have required local planning and preparation to mitigate the impacts of this growth to the community.

Moore County is able to benefit from the economic impact of these installations. A large number of servicemen and women live in Moore County with their families and commute to the installations on a daily basis. The County also has many retired military personnel who have settled in the area. New housing developments have been spurred by Fort Bragg's growth from the Base Realignment and Closure. With the influx of newcomers from around the country, schools, transportation networks, infrastructure and workforce needs will grow.

One main benefit to Moore County's close proximity to these installations is that it has become an ideal location for defense-related companies and has created numerous opportunities for almost any type of business locating or starting up in the area. Many local companies have already been successful at winning lucrative military contracts. In 2011, 53 U.S. defense contracts totaling \$82,350,628 (up from approximately \$25,848,359 in 2010) were awarded to companies in Moore County. Between 2000 and 2011, over 670 US Defense Contracts were awarded to 77 defense contractors in Moore County, totaling \$306,030,466. Another aspect of living so close to the installation is that as new military personnel enter the area, there are also military personnel that are retiring. These retiring military members have a unique skill set and background that cannot be taught at a university or college. Having been leaders within the military, they have the ability to become leaders in the business community, while creating and mentoring other future leaders in the area.

Infrastructure

Providing public facilities and services for the safety, health, and welfare of its citizens is a primary function of local government. Public roads, water and sewer systems, schools, community colleges, libraries, parks and recreational sites, and public buildings are all facilities that may be provided by government. The closer property exists to a public road, public water and public sewer the more chance the land can be optimized as a resource.

Roads

North Carolina has long been known as the “Good Roads State”. The State has the largest state-maintained highway system and the second largest ferry system in the nation. As of 2009, the North Carolina Department of Transportation maintains 79,185 miles of roadway. Moore County is uniquely located at the geographic center of the State, thus well positioned to utilize the State’s extensive public highway system.

Road infrastructure is critical to the County’s economy as roads connect the area to employment centers, hospitals, universities, tourist destinations, as well as distribution points such as deep water ports, and airports that move both goods and people. Roads also provide key evacuation routes for people seeking shelter from natural and man-made disasters. There are several major north/south and east/west highways that exist in or around Moore County that help connect the County to the above mentioned areas in the rest of the State and region.

In 2010, the North Carolina Department of Transportation’s Transportation Planning Branch (TPB) in coordination with the Triangle Area Rural Planning Organization (TARPO) began working with the Moore County Transportation Committee to kick off a Moore County Comprehensive Transportation Plan

project. The project will analyze the transportation needs of the entire County through approximately 2040. Early in the project five key areas (U.S. Highway #1 between Vass and Pinebluff, N.C. Highway 24/27 around the historic districts of Carthage and Cameron, a Western Connector or N.C. Highway 211 bypass around Pinehurst and its traffic circle, and a re-alignment of N.C. Highway 73 in West End) in the County were identified by NCDOT as its proposed priorities.

As of 2012, Moore County has seen the road infrastructure expand within the county related to road widening and new bridge projects. NC Highway 211 is currently being widened from two-lanes to four-lanes to accommodate the increasing traffic from Pinehurst/Aberdeen area, through West End/Seven Lakes to NC Highway 220 (I-73/74). This highway serves the Seven Lakes community and the Village of Pinehurst, as well as the major trucking commerce that enters the county. Several other projects are underway, but the focus will be on the future of US Highway 1, NC Highway 15-501, NC Highway 211 western connector, and the Carthage bypass.

These types of transportation projects will be a driving factor in future development. The coordination of land use and transportation planning should focus on the well-being of a community, assessing and evaluating how land use decisions effect the transportation system and can increase feasible options for people to access opportunities, goods, services, and other resources that improve the quality of their lives. In turn, transportation planning should take into consideration what the existing and future transportation systems may have on land use development demand, choices, and patterns and vice versa, as well as their effects upon the quality of life and the character of Moore County,

including its natural and cultural resources.

Highways

Moore County is located between two major north/south interstate systems, I-73/74 just to the west as well as I-95 to the east, however, neither run through the County itself. Moore County lays approximately equal distance from New York City, New York and Miami, Florida along U.S. Highway #1 which runs from the County line just north of Town of Cameron, to the county line just south of the Town of Pinebluff. U.S. Highway #1 is a multi-lane, limited access highway in Moore County from just south of Vass, to the Lee County line. This highway is Moore County’s main connection to the City of Raleigh, the State Capitol and the Raleigh-Durham International Airport (RDU) located between the cities of Raleigh and Durham along I-40. Travel times to and from Moore County to RDU improved with the opening (in December 2012) of the I-540 extension that connects U.S. Highway #1 directly to the airport via a limited access interstate highway loop.

Another north/south highway in Moore County is U.S. 15-501 that primarily connects Carthage to Aberdeen via the Pinehurst traffic circle where N.C. Highways 2 (Midland Road), Highway 211, and Highway 2; linking the Pinehurst Village business and historic district with the traffic circle.

North Carolina Highway 211 traverses the County east to west along the ridge that divides the Cape Fear and Lumber River Basins. In 2012 the NCDOT initiated a road widening project to widen the two-lane highway from West End to the Pinehurst traffic circle. Large portions of the highway corridor that were widened in 2012-2014 exist in a vacant or undeveloped state. Currently limited water availability and a lack of public sewer are the minimum

limiting factors for future development. Along the corridor on the east side of the county plans are being considered to widen a portion of the highway from Aberdeen to the Hoke County line in the future. This particular need stems from the increased traffic going to and from Fort Bragg and the cities of Raeford and Fayetteville as well as other points east of Moore County.

North Carolina Highway 24/27 runs east/west through the County and throughout the State connecting Charlotte in the Piedmont to Jacksonville on the Atlantic Coast via Fayetteville. In areas outside of Moore County, this highway has experienced much spending by the NCDOT to widen the road to a multi-lane expressway-type facility in the past 10-15 years. This road provides a significant east/west connection for the State between U.S. Highway #64 to the north and U.S. Highway #74 to the south.

North Carolina Highway 705, better

known as Pottery Highway/Road, connects the unincorporated area of Eagle Springs to Seagrove via the Town of Robbins. Just north of Robbins the highway helps to connect other unincorporated areas in northwestern Moore County, such as Westmoore, Whynot, and Jugtown which were home to some of the first potters in Moore County.

According to NCDOT Scenic Byway routes are “carefully selected to embody the diverse beauty and culture of the Tar Heel State and provide travelers with a safe and interesting alternate route”. North Carolina Highway 24/27, west of Carthage (Sandhills Scenic Drive) and North Carolina Highway 705 (Pottery Road) were recently named Scenic Byways by the NCDOT. Highway 73 is currently under study for potential Scenic Byway designation.

Most all of the County’s highways are maintained solely by the North Carolina Department of Transportation.

However, many streets within the County’s municipal limits are maintained by a municipal public works department. Coordination is key when more than one entity has the responsibility for roadway maintenance.

Private Roads

Moore County has several miles of private roads, primarily in the County’s unincorporated areas. Some private roads serve one or just a few homes or businesses while some serve several homes, such as in the case of medium to large sized subdivisions and even very large gated communities. In the past, private roads were created with little policy or regulations including width, construction standards, or maintenance. Private roads must be maintained by an individual property owner, a homeowner’s association, or through some other similar mechanism. When private roads are established and maintained properly they can exude a rural ambiance that is indicative of Moore County’s past. However, when these types of roads fall into a state of deferred maintenance they can make accessing the property difficult not only for the property owner, but also for visitors, delivery companies, and fire and rescue workers which can delay their response times.

Railways

Railroads have played a key part of Moore County’s long history including its economic development. In the 1870’s the first rail corridors were created through the Sandhills, providing a means to ship the products of the pine forests such as timber, and turpentine. Towns such as Aberdeen, Pinehurst and Southern Pines, as well as many other small ones developed along the line as shipping points. By the 1880’s another industry developed in the Sandhills that bolstered the importance of the railroad, healthcare. Many found refuge in Moore County due to its clean air, mineral springs while in route to Miami, Florida on their way south from New York City,

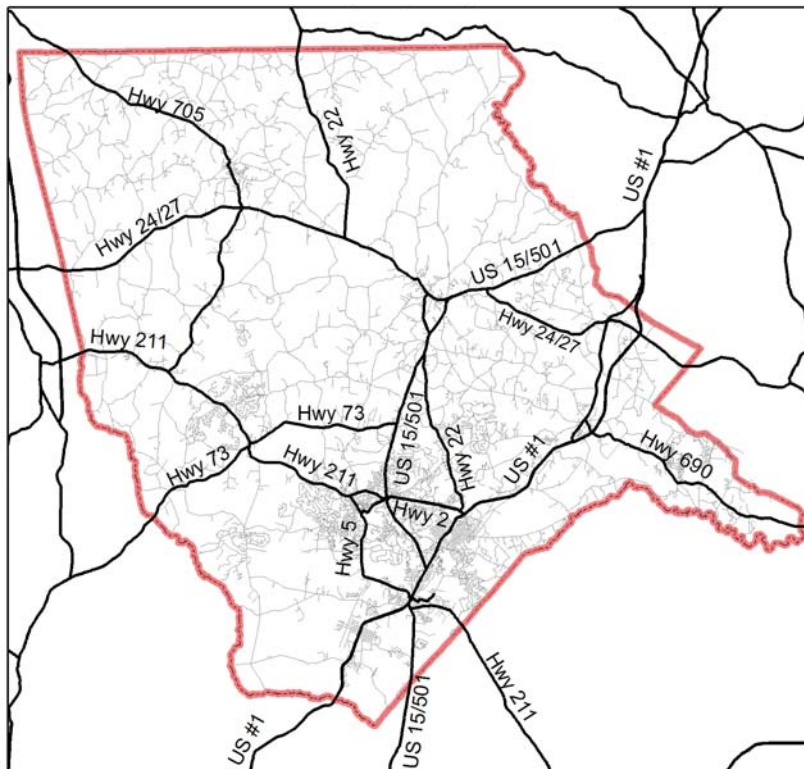


Figure 3.1: Moore County Highways and Streets
 Source: Moore County Geographic Information Systems (GIS), 2012

as Moore County was an approximate half way point along their journey.

Today Moore County has one Class 1 freight railroad running north and south through the County, CSX. Amtrak operates its passenger rail train along this same line as well with a stop in downtown Southern Pines. Two shortline railroads also operate in the County primarily supporting local industries by transporting raw materials and finished products to Class 1 rail lines. One, Aberdeen Carolina & Western Railway, a regional shortline freight railroad, is unique in the shortline rail business as it connects with both the CSX and Norfolk Southern Class 1 networks. A second regional shortline is the Aberdeen Rockfish Railroad which interconnects with the Class 1 CSX lines in Moore and Cumberland Counties as well as the Aberdeen Carolina & Western line that terminates in Aberdeen.

The rail lines that traverse Moore County, running through both incorporated and unincorporated area, occasionally transport large amounts of hazardous waste/chemicals. When sensitive land uses (such as residential development or non-rail reliant uses) are located close to railways, there can be land use conflicts like noise, vibration, and safety/hazardous (chemical spills, explosions, or derailment) concerns. Understanding the use of the existing rail lines allows for thoughtful planning for development near these areas in the future. There are currently no development standards in place to specifically address these land use conflicts associated with these rail corridors. However, in the [Moore County Multi-Jurisdictional Hazard Mitigation Plan \(pg. 6-8\)](#) it discusses the amount of existing and potentially vulnerable property within one hundred feet of an existing rail line, which is addressed by Goals #1, #2 and #6 of the hazard mitigation plan.

Airport

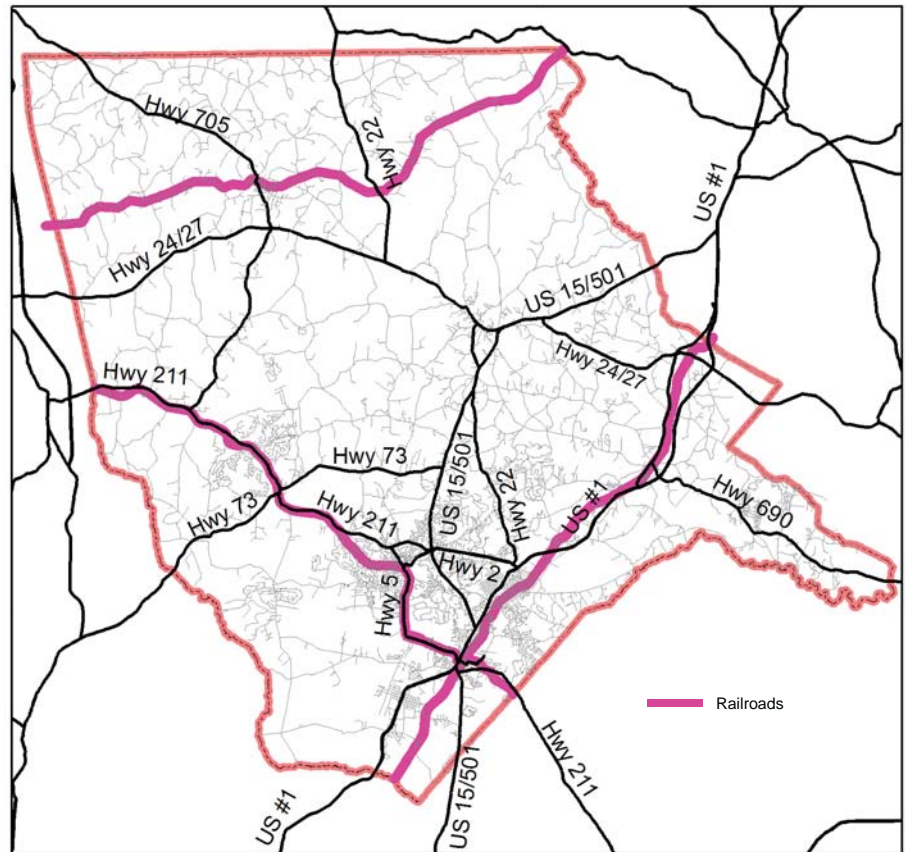


Figure 3.2: Moore County Railroads
Source: Moore County Geographic Information Systems (GIS), 2012

Airports throughout North Carolina are an integral part of providing a connection to the global markets, linking businesses and people together. This relationship generates economic activity, commerce, and tourism. There are over 108,000 jobs (directly and indirectly) that are supported by 72 publicly owned airports within North Carolina and contributes \$26 billion annually to the economy. A study conducted by the Institute for Transportation Research and Education at North Carolina State University found that the Moore County Airport had an economic impact of \$35.24 million in 2010 and accounted for 260 jobs in the region.

The Moore County Airport (KSOP) serves as a vital transportation hub for not only local businesses and the tourism industry, but for government contractors

and the military. The airport is currently used for general aviation, but has served commercial air service in the past for US Airways and Delta Airlines. The airport has one asphalt runway, measuring 5,903 feet in total length. As of June 2012, the airport saw operations at an average of 25 aircrafts per day. This includes 62% transient general aviation, 27% local general aviation, 10% air taxi, and 1% military. The Moore County Airport recently completed lengthening the runway and modifying the existing facilities to accommodate commercial air service in the future, especially for the hosting of the USGA 2014 United States Men's and Women's Open Championships.

Water Systems

A safe and reliable drinking water supply is critical to the viability and vibrancy of existing communities and to the potential of future planned growth. Increasing demand for approximately 28,000 new residents by 2030, along with an additional 12,000 new non-industrial and 2,000 new industrial jobs will require the collaboration of water purveyors in the County to plan for growth where it can be best served. Certain existing water systems can absorb much of this growth in the County if development is planned with water infrastructure in mind. Collaborative planning for water infrastructure in and of itself can be an economic incentive for new and/or expanding businesses. Having infrastructure, especially water, in place can often direct desired growth to specific locations while also reducing costly line extensions and/or system upgrades.

Moore County commissioned a study, commonly referred to as the “McGill Study” that was conducted in 2007 by McGill and Associates in order to

study the existing water systems in the County as well as to identify and analyze future potential water sources. The study was subsequently updated by McGill and Associates under the title: “Cape Fear River Basin Sub-Regional Water Supply Plan, Moore County, North Carolina” completed in June 2011, while under contract to perform the study for the Fort Bragg Regional Alliance.

The study found that as of 2011, public water service is available to approximately 57,605 of the County’s 88,247 residents by the Moore County Public Utilities Department, East Moore Water District, and nine (9) additional municipalities that operate water distribution systems, most of which are in the southern portion of the County, and the Town of Robbins. (McGill, 2011, page 53) The remaining population of the County, approximately 30,642, is not served by a public water supply system, rather they are supplied by a private water system, such as Woodlake, or a private well(s). Table 3.3 below is a summary

of values presented in the Water Source Evaluation and Plan: County of Moore, North Carolina conducted by McGill and Associates dated July 2008.

Based on the updated McGill Study, as of 2011 all the public water supply systems in Moore County produced a total average daily demand of approximately 7.12 million gallons per (MGD). The 2011 McGill Study did not list the maximum monthly average demand as did the 2008 study. However, in 2007 all the public water supply systems in the County produced a total maximum monthly average demand of approximately 9.10 MGD. This increased demand is typical of usage rates during the summer months of June, July, August, and September. Figure 3.3 on the following page depicts the current public water systems in Moore County.



System Name	# of Water Connections	Est. Service Pop.	2010 Avg. Daily Demand (MGD)	2010 Max. Daily Demand (MGD)	Total Capacity	Water Purveyor/ Source
MCPU-Pinehurst	7,669	12,450	1.800	3.954	3.950	Wells/Harnett Co.
MCPU-Seven Lakes	2,540	6,365	0.430	0.881	0.990	Wells/Harnett Co.
MCPU-Vass	421	834	0.088	N/A	0.200	Harnett Co.
MCPU-Hyland Hills	129	335	0.027	N/A	0.050	Harnett Co.
MCPU-Addor	47	116	0.025	N/A	1.000	Southern Pines
MCPU-Robbins	20	56	0.009	N/A	0.100	Montgomery Co.
MCPU-Carolina	9	25	0.008	N/A	1.000	Southern Pines
MCPU-High Falls	4	11	0.003	N/A	0.025	Chatham Co.
East Moore Water District	1,366	3,248	0.237	N/A	2.000	Harnett Co.
Town of Southern Pines	7,883	15,000	2.680	6.110	8.000	Drowning Creek
Town of Aberdeen	3,506	6,500	0.980	2.391	1.890	Wells
Village of Whispering Pines	1,503	3,577	0.258	0.414	0.591	Southern Pines
Town of Carthage	1,289	2,414	0.241	N/A	1.000	Nick’s Creek
Town of Pinebluff	850	1,500	0.190	0.320	0.590	Southern Pines
Town of Robbins	650	1,332	0.154	0.384	0.195	Montgomery Co.
Town of Taylortown	366	900	0.066	0.117	0.189	Wells
Foxfire Village	524	902	0.069	N/A	0.141	Wells
Town of Cameron	204	490	0.031	0.056	0.083	Wells

Table 3.3: Summary of Water Systems, Usage and Capacities in Moore County (McGill 2008)

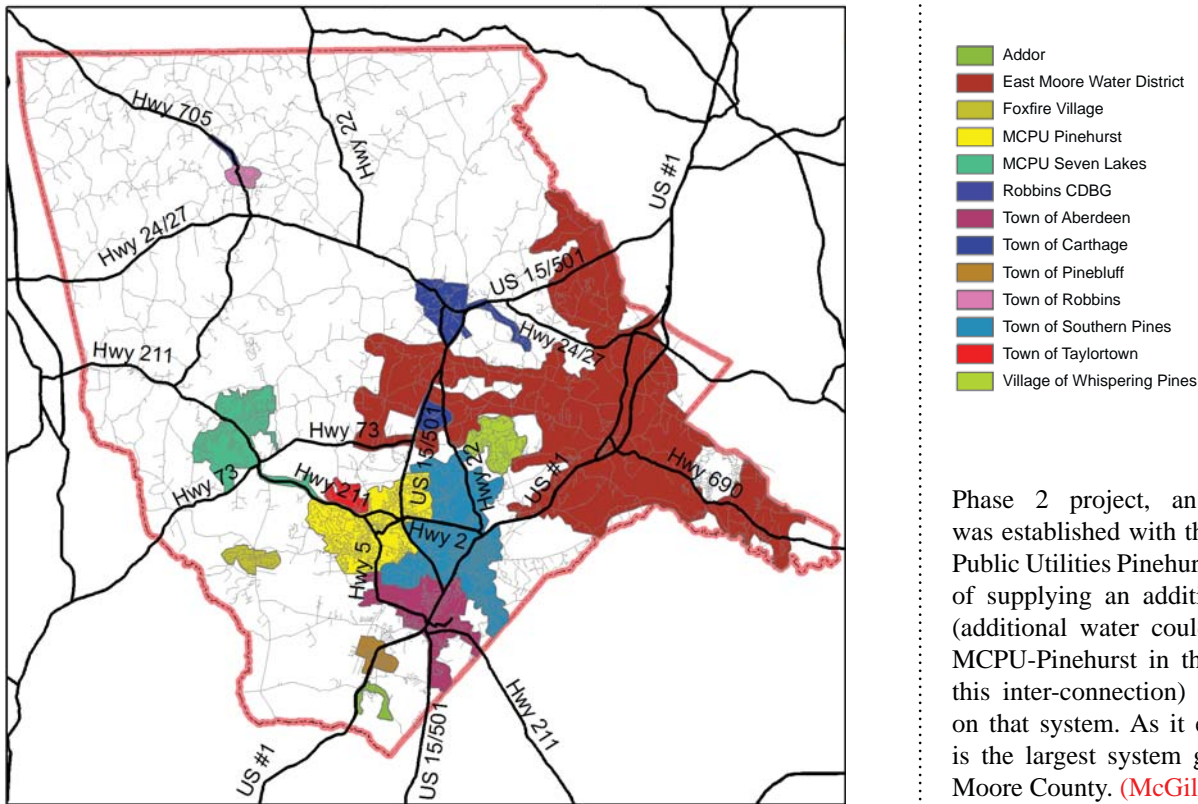


Figure 3.3: Moore County Public Water Systems
 Source: Moore County Geographic Information Systems (GIS), 2012

Three of the largest water systems of the Moore County Public Utilities (MCPU) systems are the MCPU-Pinehurst, MCPU-Seven Lakes, and the East Moore Water District. MCPU-Pinehurst serves the second highest population in the County behind only the Town of Southern Pines. However, the MCPU-Seven Lakes system has the 3rd highest number of users of all systems in the County, including the East Moore Water District. Below are two brief descriptions of the significant upgrades made in the past few years by two different water systems in the County.

East Moore Water District (EMWD)

Since 2000 the County has experienced two major droughts, one in 2000 and another in 2007. According to the North Carolina Drought Management Advisory Council, as of December 11, 2012, the region was still in a state of moderate drought. To overcome some

of the challenges of persistent drought the water systems in the County have added additional capacity as well as additional public water lines to their systems. Specifically, Moore County Public Utilities received funding from USDA-Rural Development to establish the East Moore Water District. This system, as its name implies, serves the eastern portion of the County primarily east of U.S. Highway 15-501, south of N.C. Highway 24/27 and north of the Little River. The water source was established by connecting to the Harnett County water system that uses water from the Cape Fear River. The intent of the system is to supply water to rural residents to improve their quality of life; the system was not necessarily designed to promote growth or support large subdivisions in the District. The system currently supplies water to approximately 3,248 people as of 2010. (McGill, 2011, pg. 43) As part of the EMWD

Phase 2 project, an interconnection was established with the Moore County Public Utilities Pinehurst system capable of supplying an additional 1.15 MGD (additional water could be supplied to MCPU-Pinehurst in the future through this inter-connection) to the customers on that system. As it exists the system is the largest system geographically in Moore County. (McGill, 2008, pg. 44)

Town of Southern Pines Water System

The Town of Southern Pines is currently the largest municipal water system in the County with an average daily demand of approximately 3.39 MGD in 2010. (McGill, 2011, pg. 17) However, the total capacity of the Town’s water supply is 8.0 MGD. Furthermore, its North Carolina Department of Environment and Natural Resources permit allows the Town to treat as much as 14 MGD from the Drowning Creek as long as 56 cubic feet per second of stream flow is maintained at the United States Geological Survey monitoring gauge located downstream of the intake. (McGill, 2008, pg. 20) In the summer of 2012, the Town of Southern Pines completed filling its new 36 acre, 140 million gallon water reservoir. The reservoir was constructed next to the Town’s water treatment plant on Drowning Creek southwest of Pinebluff. The reservoir is engineered to provide the Town and its water customers with a 30 to 90-day supply of water, even if Drowning Creek runs dry.

The McGill Study (2008) went on to state that population and water demand projections for a fifty (50) year planning period exceed 17.44 MGD for total average daily demand and maximum monthly average demands totaled approximately 22.84 MGD. (McGill, 2008, vii) Currently, the county's systems could supply approximately 15.92 MGD, so additional water resources are projected to be necessary in the future to supply the County's increased demands.

The study identified several viable short and long-term options that included both surface and ground water resources that could increase the water availability to the citizens of Moore County. However, each of these resources will need to be analyzed. In the State of North Carolina, water system owners cannot construct raw water intakes, water treatment facilities, raw water reservoirs, and distribution system improvements without first obtaining permits from all applicable regulatory agencies. Projects

that impact waterways, wetlands, and other sensitive areas are also typically required to undergo an extensive environmental review to determine that no significant impacts are created by the project. (McGill, 2008, p.128) This is important because one of the most potentially productive surface water resources the County has is the Deep River. However, the Deep River is home to the Cape Fear Shiner, an endangered species of minnow. Other species in the tributaries of the Deep River, such as the Yellow Lampmussel, Brook Floater, and Carolina Darter, are species of concern meaning they too, if not protected, could become listed as endangered species. By these other species being added to the endangered species list, it could further complicate the opportunity to withdraw water from the Deep River to meet the County's future needs. Actions by Moore County that help recover the Cape Fear Shiner and reduce the threats to the other at-risk species will help alleviate these concerns and proactively meet

regulatory requirements.

The protection of these potential future water supply sources is a critical component of the land use plan. Local land use and zoning decisions can have a profound impact on the risk of contamination to valuable drinking water supplies. Water supplies have varying degrees of vulnerability to contamination due to the nature of the aquifer being used, the size of the watershed, existing land uses and the potential sources of contamination within a recharge or watershed area. Existing regional and county water resource studies should be used to inform local planning efforts.

Another challenge facing water purveyors in Moore County is the limitations the State of North Carolina has placed on the transfer of water between river basins and river sub-basins. These transfers are referred to as inter-basin transfers, or IBTs, and pose a significant challenge as only a limited amount of water may be transferred between the sub-basins. This means that water sources, consumption and wastewater disposal is best if it occurs in the same sub-basin. Moore County, however, has pockets of dense population within the various sub-basins. Going forward satisfying the State's regulations on IBTs will prove a true land use planning and engineering challenge.

Lastly, other than road access to a property, virtually no other piece of public infrastructure increases the development potential and value of land than access to public water. Decisions regarding growth and proposed land uses should consider planning-level assessments of the adequacy of drinking water resources for the planning time period under consideration. For the proposed number and location of homes, businesses and industrial facilities to be viable, the availability, costs and timeframes to provide an adequate water supply must be achievable.

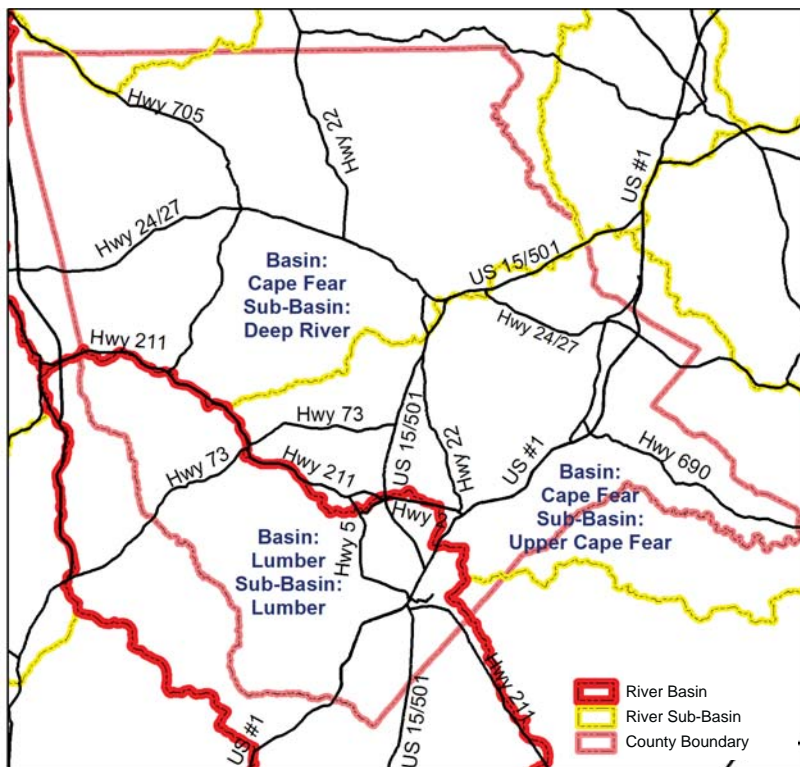


Figure 3.4: Moore County River Basins & Sub-Basins

Source: Moore County Geographic Information Systems (GIS), 2012

Water Model

Moore County staff has developed a computer model to simulate the hydraulics of the existing water distribution system. In the model, a water demand is assigned to each user on the water system and the current sources are utilized to satisfy that demand. The model incorporates pipes, pumps and tanks representing the existing system. Controls are established to activate the pumps, similar to the real system. The model is most useful in determining system deficiencies, running maximum day and fire flow scenarios, and comparing water supply alternatives. Any scenario involving the transmission of water can be simulated by the model, as well.

Private Wells

Private wells are heavily utilized within Moore County due to the limited public water available to residents outside of the municipalities. Over the past several years, the East Moore Water District has provided opportunities for residents to tap into the public water system and abandon their wells. There are two different types of wells that are constructed in Moore County; bored wells and drilled wells (rock and sand). Bored wells are shallow wells excavated with earth augers. The larger bored wells are usually cased with concrete pipe and are the modern equivalent of the older dug wells.

Drilled wells use two methods, rotary or percussion drilling. Rotary drilling uses drag or roller bits attached to the end of a rotating drill stem. In the hydraulic-rotary method, driller's mud, a slurry of water and clay, is circulated in the hole to cool the bits and remove cuttings. The air-rotary method uses compressed air instead of driller's mud. A number of other additives may be used by the driller, depending on the type of conditions encountered during well construction. The more common of the two drilled wells are sand wells.

Bored wells are not as widespread now, but sand and rock wells vary throughout the county. However, the percussion method repeatedly drops a heavy weighted chisel bit to break up the formation of the borehole. (source: NC Cooperative Extension Service: Water Quality & Waste Management – Your Water Supply)

There are many issues that may arise with private wells, including the well drying up and contamination. Many wells, especially in rural communities,

have run dry and now residents are in need of a water source. Many times, other wells are drilled or, depending on the location, a public water supply can be provided. Contamination is another common issue with private wells. Wells must be constructed a minimum distance from either a septic tank and/or sewer lines that may be located in the area to avoid potential contamination of the well.

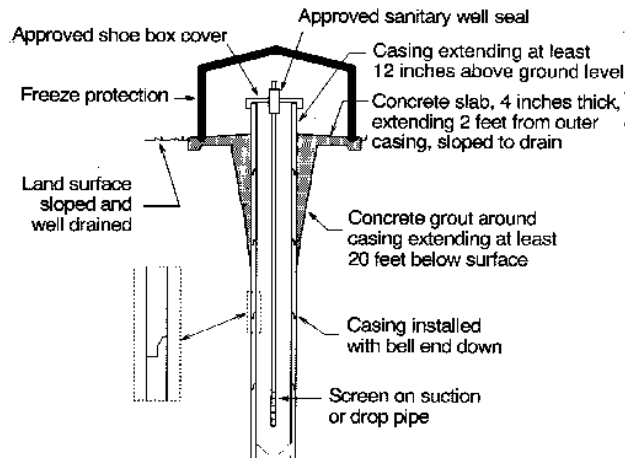


Figure 3.5: Typical Bored Well (sand well)

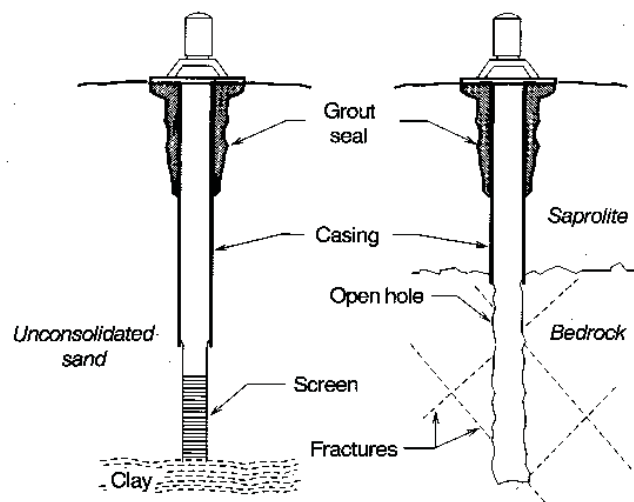


Figure 3.6: Typical Drilled Well (rock well)

Sanitary Sewerage

In 2010, approximately 36,831 (or 42%) of the County’s 88,247 citizens were served by a publicly-owned wastewater collection system. (McGill, 2011, pg. 71) Wastewater generated by these customers is currently treated at one (1) of three (3) public treatment plants, including:

- 10.0 MGD (permitted capacity) and 6.7 MGD (current hydraulic capacity) Moore County Water Pollution Control Facility (WPCF) in the Adдор Community
- 1.3 MGD Robbins WWTP currently serving the Town of Robbins
- 60,000 GPD Moore County-Vass WWTP serving the Town of Vass that was removed from service in January 2013. Customers previously served by this system are now served by a lift station and force main running from near the existing Vass plant south along U.S. Highway #1 to the County’s pump station and sewer interceptor system and ultimately to the Adдор plant.

According to NC Department of Water Quality, Moore County has two (2) permitted and privately-owned wastewater treatment facilities that provide service to approximately 1,900 additional residents, including (McGill, 2011, pg. 71):

- 1.0 MGD Woodlake County Club WWTP that is owned and operated by Aqua North Carolina.
- 12,000 GPD Crystal Lake WWTP that serves approximately 16 apartments near Vass.

The Moore County Water Pollution Control Facility is the primary wastewater treatment facility in Moore County, serving Pinehurst, Southern Pines, Carthage, Aberdeen, and Vass.

County leaders have committed to a significant investment that will utilize the plant as the primary treatment facility for the foreseeable future. Since the plant discharges wastewater into the Lumber River sub-basin, surface water that is withdrawn from other basins (such as the Cape Fear River in Harnett County, the Deep River in northern Moore County, and Lake Tillery in Montgomery County) is subject to current IBT regulations. (McGill, 2011, pg. 72) During the land use plan update process the option of establishing a new water pollution control facility that would discharge into the Cape Fear River basin (Upper Cape Fear River sub-basin) was discussed and recommended for further study. A plant in this sub-basin would not require an IBT for new development that would be supplied water from the Upper Cape Fear River sub-basin.

The Town of Robbins wastewater plant has substantial excess capacity and currently discharges just 12% of the 1.3 MGD permitted capacity of the plant. The plant previously provided wastewater service to several industrial facilities, including the Perdue Chicken Plant, which closed in 2003. Due to the significant reduction in flows, plant operators only treat flows with one (1) of the two (2) “trains” that exist at the plant. The excess capacity in the plant may allow the Town to provide future sewer service to the northwestern portion of the County, including the Northwest Moore Water District area and the proposed mega-industrial site near the Moore/Montgomery County border. The plant may also be utilized to treat wastewater that was originally

withdrawn as surface water in Harnett County due to the discharge to the Deep River and the NCDWR “cork rule”. (McGill, 2011, pg. 73)

Another wastewater treatment method that may be viable in the future in Moore County is small decentralized community collection and treatment facilities, similar to “package plants”, to treat wastewater. These types of systems generally serve smaller, more rural areas that don’t have access to a larger public system, where costs may be prohibitive to connect to a public facility. These systems generally serve residential communities or clusters of homes and dispose of wastewater through a subsurface system rather than a surface water discharge. (McGill, 2011, pg. 75)

Small decentralized community collection and treatment systems may prove to be beneficial in Moore County in areas where it is cost prohibitive to connect to a public system. Such systems also may help Moore County comply with IBT regulations if the system discharges the wastewater via subsurface system into the same sub-basin as the water source sub-basin. Decentralized systems should be evaluated on a case-by-case basis to determine if they are a feasible and appropriate method of wastewater disposal for a particular area. (McGill, 2011, pg. 75)

The remaining citizens of Moore County not served by a publicly owned wastewater collection system, approximately 51,416 (~56%), are assumed to be served by a private septic system or similar situation. According to the American Communities Survey

Owner	2010 Avg. Daily Flows	Permitted Capacity	Discharging Basin	Type
Moore County	4.5 MGD	10.0 MGD	Lumber	Public
Town of Robbins	0.155 MGD	1.3 MGD	Deep River	Public
Woodlake Country Club WWTP	Unknown	1.0 MGD	Cape Fear	Private
Crystal Lake WWTP	Unknown	.0012 MGD	Cape Fear	Private

Table 3.4: Existing Wastewater Treatment Facilities & Respective Capacities

99.5% of occupied housing units have complete plumbing facilities meaning that only about 169 occupied housing units do not have complete plumbing facilities. (ACS, Tenure By Plumbing Facilities, B25049)

According to the NRCS Soil Survey for Moore County, the Candor (sandy) soils in the southern portion of the County accommodate the private septic systems for sewerage disposal. The soils in the remainder of the County are not as accommodating due to their slope, depth to bedrock, and wetness. However, the sandy soils in the southern portion of the County around streams, floodplains, wetlands, ponds and other water bodies tend to have a higher rate of system failure as is the case around the water bodies in Seven Lakes, Woodlake and Whispering Pines.

The map below (Figure 3.8) depicts the parcels of land in Moore County that are within 300' of a public water line (light blue), parcels within 300' of a public sewer line (green), and those parcels that are within 300' of both a public water AND sewer line (orange). The parcels that are shown in orange on the map below are also some of the highest value parcels per acre in the County. During the Land Use Plan Steering Committee's meetings several discussions focused around encouraging development in areas that had existing infrastructure and the ability to support it. Making future investments in areas served by existing infrastructure will go a long way toward providing that "encouragement". Those future investments could come in the form of increased capacities, maintenance, or additional service mains and laterals in and close to the existing infrastructure. Additionally, during the Steering Committee's many meetings, it was discussed that extending public water and sewer services, especially to areas not currently served in the rural parts of the County, would significantly increase

the chances for low-density development. Low density development in rural areas of the County could consume prime agricultural and environmentally

sensitive land, while also increasing the need for additional public services such as: traffic/transportation, schools, and public safety.

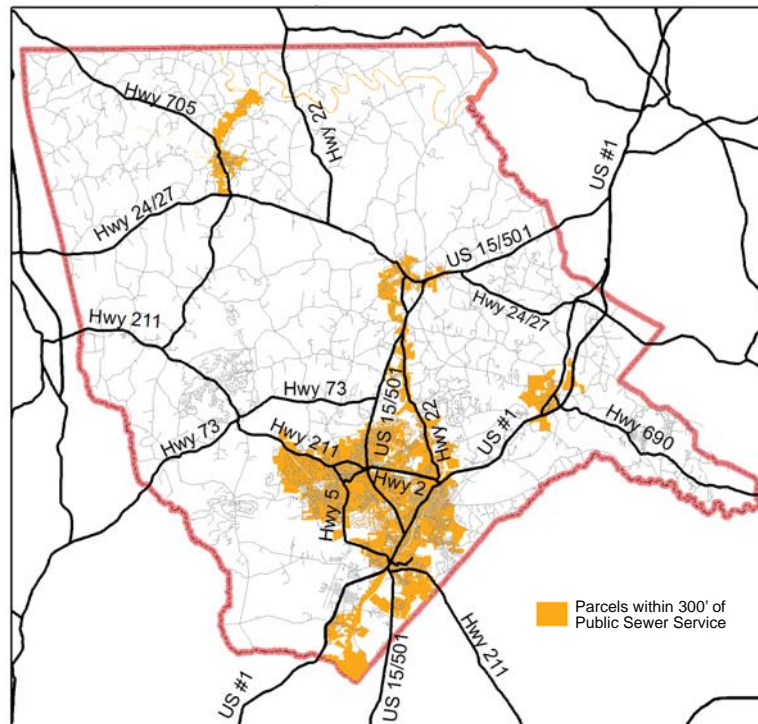


Figure 3.7: Existing Public Sewer Infrastructure (approximate and for planning purposes only)

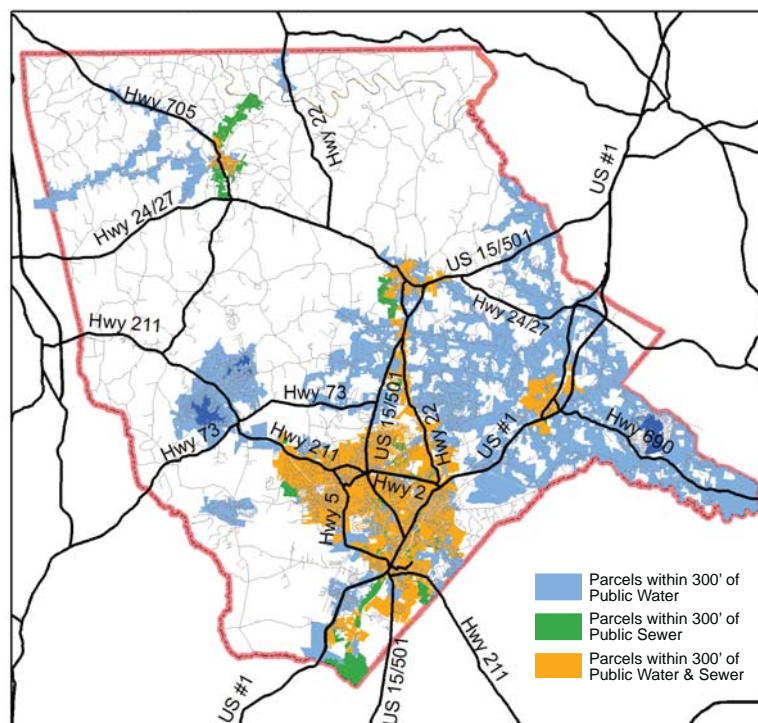


Figure 3.8: Existing Public Water & Sewer Infrastructure (approximate and for planning purposes only)

Energy

In addition to water and sewer infrastructure, the ability to create and distribute energy/power to homes and businesses is a critical piece of a community's infrastructure. Site and facility planning consultants often rank energy availability as one of the top site-selection factors for any project. Moore County has extensive and typically adequate service coverage for electric energy; however, natural gas is not as widely available. Additionally, in the field of energy and energy production the concept of domestically and/or locally producing and consuming energy has come to be a new movement. Moore County, being a rural community with a rather dense urbanized core of energy consumers, stands to benefit from the local energy movement. Various forms of local energy production from shale gas and/or renewable energy from solar as well as biomass are all opportunities for the community.

Electric

Moore County is now served by only one investor-owned utility company for electric power since Duke Energy merger with Progress Energy Carolinas. Duke Energy primarily supplies power to the southern portion of the County, as well as an area around the Town of Robbins. There are also three electric membership corporations (EMC) delivering energy to Moore County electric users, Randolph Electric Membership Corporation, Central Electric, and Pee Dee Electric. Randolph Electric Membership Corporation primarily serves customers in the northwestern portion of the County, while Pee Dee Electric primarily serves customers in the southwestern portion of the County. The Central EMC serves primarily the northeastern section of the County east of Carthage.

Natural Gas/Propane

Many of Moore County citizens and businesses purchase natural gas from

Piedmont Natural Gas delivered from underground pipes through a metered service. As of 2012, this resource is primarily only available in the southern portion of the County. However, according to the company's service area map website, a customer initiated line extension may be available. Much of the County that utilizes "gas" as a fuel/heat source is actually using propane which is delivered via a truck delivery based group of businesses that fills individual fuel tanks at a residence or place of business.

Hydraulic Fracturing

A report on this topic was performed by the North Carolina Department of Environment and Natural Resources (NCDENR) in response to Session Law 2011-276 to study the issue of oil and gas exploration in the state and specifically the use of directional and horizontal drilling and hydraulic fracturing for natural gas production. **(The full report is available on the NCDENR website)** A subsequent action by the North Carolina Legislature was the enactment of Session Law 2012-143, entitled the Clean Energy & Economic Security Act which became law, effective August 1, 2012. This new law requires... "the newly reformed Mining and Energy Commission and other regulatory agencies to develop a modern regulatory program for the management of oil and gas exploration and development activities in the State, including the use of horizontal drilling and hydraulic fracturing...".

This is a key issue for Moore County as some of the suspected productive shale gas areas of the State exist in Moore County, primarily in the Triassic Basin geology which is located mostly in the northeastern part of the County. Some of the challenges facing the Mining and Energy Commission include how to regulate the hydraulic fracturing process (including the chemicals utilized to make the shale gas flow), and how to protect the State's water resources. Today's

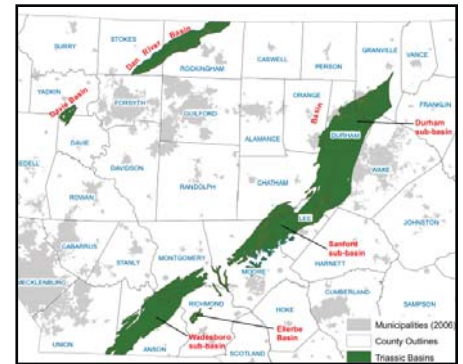


Figure 3.9: Generalized Locations of Triassic Basins in North Carolina

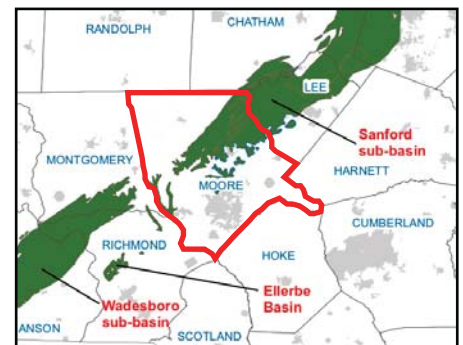


Figure 3.10: Generalized Locations of Triassic Basins in Moore County

Source: Section 1 - Potential Oil & Gas Resources
www.raleighpublicrecord.org

current hydraulic fracturing technology often requires large amounts of water to "frack" or hydraulically fracture the rock layers that hold the shale gas. An additional challenge being considered is how to safely dispose of the water that was utilized to perform the hydraulic fracturing process. Other impacts stemming from the hydraulic fracturing industry that relate to planning, and specifically land use, are related to transportation, population growth booms, and the related impacts to community services such as public education.

Solar

Solar energy is derived from facilities that are constructed to collect the sun's rays and convert them into electrical power that can be either used on site or interconnected with the power grid for off-site energy consumption. According to the National Renewable Energy Laboratory for the U.S. Department of Energy, Moore County has 'good' potential for solar power production. Industrial sized, multiple megawatt producing facilities can often occupy several acres of land, sometimes as much as eight (8) acres per MW produced. Typically these facilities are sited along existing major power transmission lines so the energy created can be easily transferred to the lines for distribution to customers throughout the power provider's service area. From a land use perspective, these facilities can be accommodated adjacent to residential properties as they emit little noise and/or glare. Furthermore, some solar collection facilities have even been integrated into livestock pastures to augment the farmer's income from their land, as well as act as a way to preserve the land in an "open" non-forested state.



Bio-fuels

Bio-fuels are liquid fuels that include bio-ethanol and biodiesel, which are derived from other materials such as waste plant and animal matter. These fuels are often used as a replacement for gasoline and diesel fuels. These fuel types are considered a renewable fuel, unlike fossil fuel based fuels, such as crude oils, coal, and natural gas and can be produced locally. Furthermore, when consumed they emit considerably less greenhouse gases than non-renewable fuels.

North Carolina is home to the Bio-fuels Center of NC, tasked with developing a large-scale bio-fuels industry sector to reduce, not only the nations, but also the State's dependency on imported

petroleum. According to their website, the Bio-fuels Center was created in 2007 and is permanently funded by the North Carolina General Assembly to implement a strategic plan so the State's farmers, bio-fuels manufacturers, bio-fuels workers, and consumers benefit from this emerging multimillion-dollar, locally grown industry. The Bio-fuels Center has a goal to help develop an industry that can produce approximately ten percent (10%), or 500-600 million gallons, of the State's annually consumed liquid fuels. If realized, this goal could provide new opportunities and income to farmers and landowners, especially in the rural areas of the state.

Wireless Communication Facilities

The major wireless communication service providers have an established coverage network throughout the County. As for wireless data coverage the southern, more urbanized area of the County is beginning to see the availability of 4G (fourth generation) service, while much of the County has some variation of at least 3G (third generation) coverage.

Fire & Rescue Departments & Emergency Services

Moore County residents are served by twenty-two (22) Fire/Rescue Departments located throughout the County. The County also hosts a North Carolina Division of Forest Resources Station on N.C. Highway 73 that, amongst other services, assists with responses involving forest fires.

Moore County Emergency Medical Services (MCEMS) provides seven Paramedic level ambulances, two Paramedic level Quick Response Vehicles (QRVs) and one EMS Shift Commander vehicle responding from nine strategically located bases throughout the County. Moore County EMS operates on two different shift schedules of 24/48 hours as well as 12 hours. MCEMS provides advanced life support and pre-hospital emergency care for the entire County.

As development occurs it is important to consider how new homes and businesses will be served with fire and rescue, and emergency medical services. Placing development closer to existing stations can reduce response times, and typically decrease fire insurance rates for citizens who reside in developments closer to fire and rescue service stations. As new development occurs the County must continue to assess how the development will be served by these critical services and where the services will be based geographically throughout the County.

Chapter Highlights

- *Water is the most precious natural resource in Moore County, including numerous streams, rivers, lakes, floodplains, wetlands, and watersheds, which must be protected and managed while considering development.*
- *Protection of the working farms, water supplies, endangered ecosystems, and open space can be accomplished through various programs, working with landowners, including Sandhills Area Land Trust.*
- *Moore County is located at the upper elevations of two major river basins limiting the amount of surface water that is available. When planning future land uses, the County must work together with its municipalities, water providers, and state agencies to make sure future populations can be served while meeting the regulations associated with inter-basin transfers.*

Moore County's natural resources stem from two distinctly different ecosystems. The northern portion of the County falls into an area known for its hilly terrain, clay soils, and mixed hardwood and pine forests, a typical North Carolina piedmont-like condition. While on the southern end of the county, the landscape is made up of rolling Sandhills that once was coastal sand deposits along the Atlantic Ocean. The North Carolina Sandhills, and specifically Moore County, boasts an impressive diversity of plants and animals, supporting up to 40% of the state's biodiversity. It is home to five federally endangered species and forty-one species of federal concern. Some species such as the Sandhills Chub, a fish, and the St. Francis Satyr, a butterfly, occur nowhere else in the world. Many of these animals live in habitats that occur within the longleaf pine ecosystem, a nationally and internationally recognized rare and valuable natural system. Outside of the Sandhills region but within the county borders, there are an additional 5 federally endangered species. For example, the endangered Cape Fear Shiner, which only occurs in the upper Cape Fear River Basin, resides in some of the brown-water stream systems in northern Moore, Lee, and Harnett counties. (source: NCWRC GGT - Sandhills Regional Appendix)

Regional Geology, Soils & Topographical Relief

A region's landforms, drainage patterns and soils are the result of an interaction between the underlying geology and climate. The County of Moore is located along the boundary between three distinct geologic basins. This condition is unique in that few other North Carolina counties fall within three distinctly different geologic regions.

The Carolina Slate Belt in the northwest portion of the County consists mostly

of rocks originally deposited on or near the earth's surface by volcanic eruption and sedimentation (NC Geological Survey 1985). The Triassic Basin in the northeast is believed to have formed during the rifting accompanying the breakup of Pangea and the opening of the Atlantic Ocean approximately 200-190 million years ago and contains mostly sedimentary rocks. (Olsen et al. 1991; Rogers 2006) This area of the County has recently been the focus of a study on shale gas production through the method known as hydraulic fracturing.

The Coastal Plain in the southern portion of the County is a region of broad, relatively flat terraces of primarily unconsolidated sediments and carbonate rocks. These materials, ranges in age from Cretaceous to Quaternary, were deposited in shallow seas by rivers draining the Blue Ridge and Piedmont provinces (Rogers 1999).

The County has distinctly different soil types in the north when compared to those soils in the south. In the northern portion of the County the Carolina Slate Belt and the Triassic Basin underlay the soils of the Southern Piedmont which are mainly bedrock consisting of slate and sedimentary rock. The topography of this area is characterized by flat land to gently rolling hills and valleys with elevations ranging from 158 feet to 600 feet above sea level. Much of the land uses in this area of the County relate to agriculture, primarily forestry, poultry and livestock. The United States Department of Agriculture's Natural Resource Conservation Service (USDA NRCS) identified much of the soils in the northern portion of Moore County as Prime Farmland Soils based on their crop capability, and the low limitations for non-irrigated soils.

Soils

The soils in the southern portion of the County associated with the Coastal Plain geology are known as the Carolina and Georgia Sandhills underlain by unconsolidated sandy and clayey sediments. The topography of this area is characterized by gently rolling, well rounded hills and long low ridges with a few hundred feet of elevation difference between hills and valleys with elevations ranging from 300 to 720 feet above sea level. The current land uses in the southern portion of the County include small urbanized municipalities centered around golfing resorts, as well as commercial and industrial centers.

Generally, soils in the southern portion of the County function well as absorption fields for septic systems and present few problems for construction. However, soils in the north, particularly in the northeast portion of the County tend to function poorly as absorption fields and have a high shrink-swell potential. Very large lot sizes for residential and other types of development are therefore necessary in these areas since there are not served by municipal sewer.

Moore County has three (3) distinctly different soil types located within the County and is in the very upper reaches of three (3) different river sub-basins.

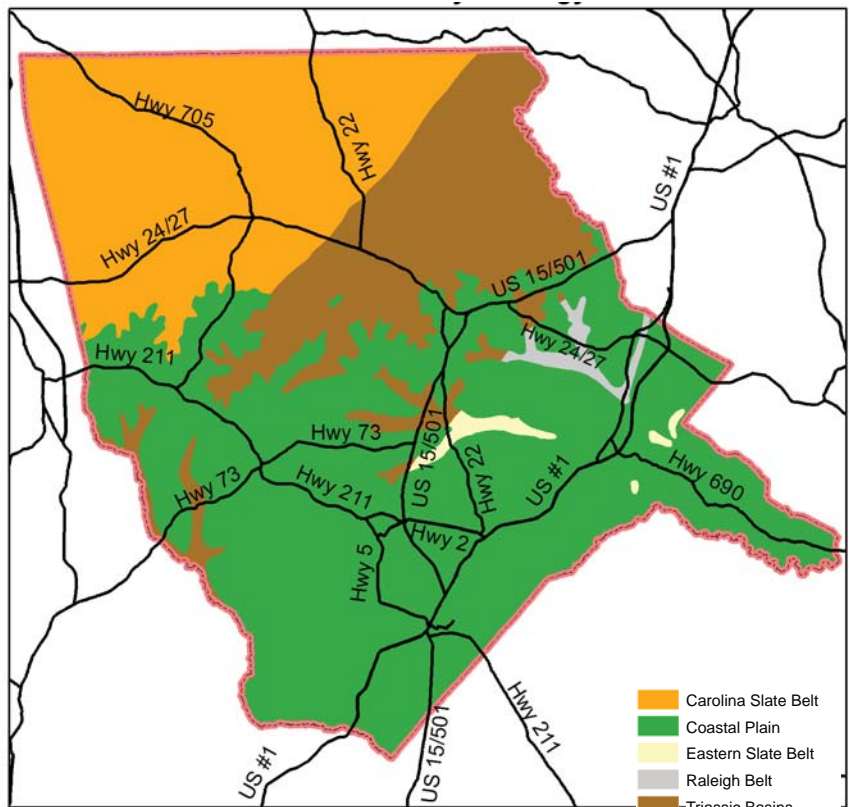


Figure 4.1: Geology of Moore County
Source: Moore County Geographic Information Systems (GIS), 2012

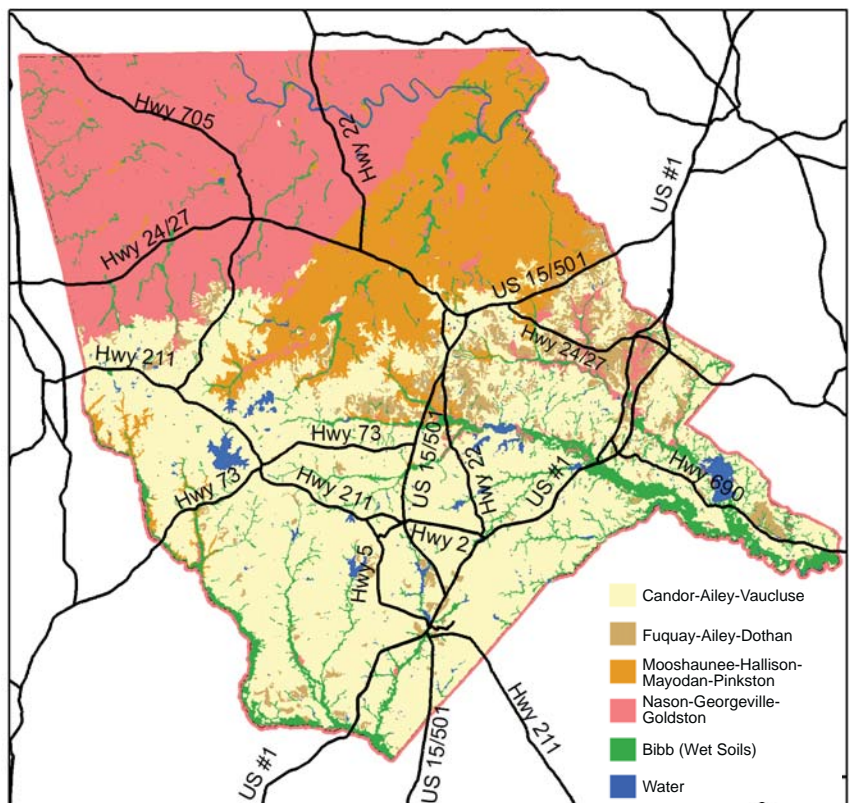


Figure 4.2: Moore County Soil Types
Source: Moore County Geographic Information Systems (GIS), 2012

Soil Types

Five soil associations occur within Moore County and its surrounding area. These, and their associated uses and limitations, are discussed below. (For a more detailed description of soils within the region, the reader is referred to the Soil Survey for Moore County, published by the U.S. Department of Agriculture.)

Candor-Ailey-Vaucluse Soils

Occurring mostly in the southern areas of the County, these nearly level to moderately steep, deep, somewhat excessively drained and well drained soils that are sandy throughout or having loamy subsoil is brittle; on uplands. The major limitations in the Candor and Ailey soils are droughtiness, the leaching of plant nutrients, and wind and water erosion. The major hazard of Vaucluse soils is erosion. Most of the major soils in this soil association are used for woodland as well as urban development.

Fuquay-Ailey-Dothan Soils

Occurring in the eastern part of the County along the Lee County boundary these soils are nearly level to strongly sloping, deep, well drained soils having loamy subsoil that is brittle in the lower part; on uplands. The major limitations in all these soils types include droughtiness and the leaching of plant nutrients. Most of the major soils in this soil association are used for tobacco and some timber production while other small areas have been developed for urban uses.

Mooshaunee-Hallison-Mayodan-Pinkston Soils

Occurring in the central part of the County these soils have a relief that ranges from gently rolling to steep, are moderately deep and deep, are moderately well drained to excessively drained soils that have loamy or clayey subsoil; on uplands. The wetness and the depth to soft bedrock are the major

limitations in areas of the Mooshaunee and Hallison soils. The slope and the depth to hard bedrock are the major limitations in the areas of Pinkston soils. Most of the major soils in this soil association are used for agriculture and timber production. There is little significant urban development, except for scattered single family dwellings.

Nason-Georgeville-Goldston Soils

Occurring in the northwestern part of the county these soils and are characterized by their gently sloping to steep relief, range from deep to shallow, well drained to excessively drained soils that have a clayey or loamy subsoil; on uplands. Surface runoff and the hazard of erosion are the major management concerns, while overgrazing is a major concern in managing pasture. The clayey subsoil is the major limitation affecting urban uses on the Nason and Georgeville soils while the slope and depth to bedrock are the major limitations for Goldston soils.

Bibb Soils

Occurring in the broad floodplains along Drowning Creek in the southern portion of the County these soils are characterized nearly level, deep, poorly drained soils that are loamy throughout; on floodplains. The wetness and frequent flooding of these soils are the major limitations. Very little agricultural production, urban development or recreational uses are present in these areas; rather much of this land is used for woodland. However, it is not extensively timbered because of the wetness and flooding which can adversely affect logging roads and skid trails.

River Basins and Sub-Basins

A river basin is the land area drained by a river and its tributaries. There are seventeen river basins in the State of North Carolina; Moore County lies within two different river basins, the Cape Fear and the Lumber River. The divide occurs very closely to the long ridge where North Carolina Highway 211 is located. Furthermore the river basins dividing lines tend to divide the County's area of densest population in half as it runs from northwestern Pinehurst to southeastern Aberdeen.

The Cape Fear River basin is one of the fastest developing basins in the state; the effects of development are impacting water quality. This growth is expected to continue especially around existing urban areas. Associated with this growth will be increasing strain on water resources for drinking water, wastewater assimilation and runoff impacts. There will also be loss of natural areas and increases in impervious surfaces associated with construction of new homes and businesses. ([Cape Fear River Basinwide Water Quality Plan, 2005](#)) The Lumber River Basin has a much lower population density than that of the Cape Fear basin; however, some of the fastest growing areas within the basin include Moore, Hoke, and Brunswick Counties. ([Lumber River Basinwide Water Quality Plan, 2010](#))

As population increases, so does the amount of land covered by impervious surfaces such as parking lots, roads, and roof tops. As impervious surface increases, the amount of precipitation that enters surface waters as runoff increases and the amount of precipitation infiltrating into the ground decreases. Increased stormwater runoff contributes also to flooding during rainfall events and decreases the amount of groundwater available during droughts, the State's number one occurring natural hazard. Stable groundwater tables, stream volumes, and flow rates benefit aquatic

life by minimizing the physical and chemical properties of their required habitats. Minimizing flows that create erosion of stream channels and banks, also decreases the amount of pollution load to water and decreases the chances for flooding. In order to allow growth to occur, but to maintain water quality, a comprehensive stormwater program to clean and slow runoff in the future may be necessary.

In 1993, the North Carolina Legislature enacted General Statute G.S. §143-215.22I as part of An Act to Regulate Inter-basin Transfers (Session Law 1993-348). This law regulated large surface water transfers between river basins (as well as sub-basins) by requiring a certificate from the Environmental Management Commission (EMC). In general, a transfer certificate is required for a new transfer of 2 million gallons per day (MGD) or more. Certificates are not required for facilities that existed or were under construction prior to July 1, 1993, up to the full capacity of that facility to transfer water, regardless of the transfer amount.

Moore County is located at the upper elevations of both the Cape Fear and Lumber River basins limiting the amount of surface water that is available for potable water needs. When planning future land uses the County must work together with its municipalities, water providers and state agencies to make sure future populations can be served while meeting the regulations associated with inter-basin transfers.

Public Water Supply Watersheds

A watershed is a topographic drainage basin, where [rain] water drains to a common destination. A public water supply watershed is any watershed that serves as a source for a municipally owned surface water supply intake.

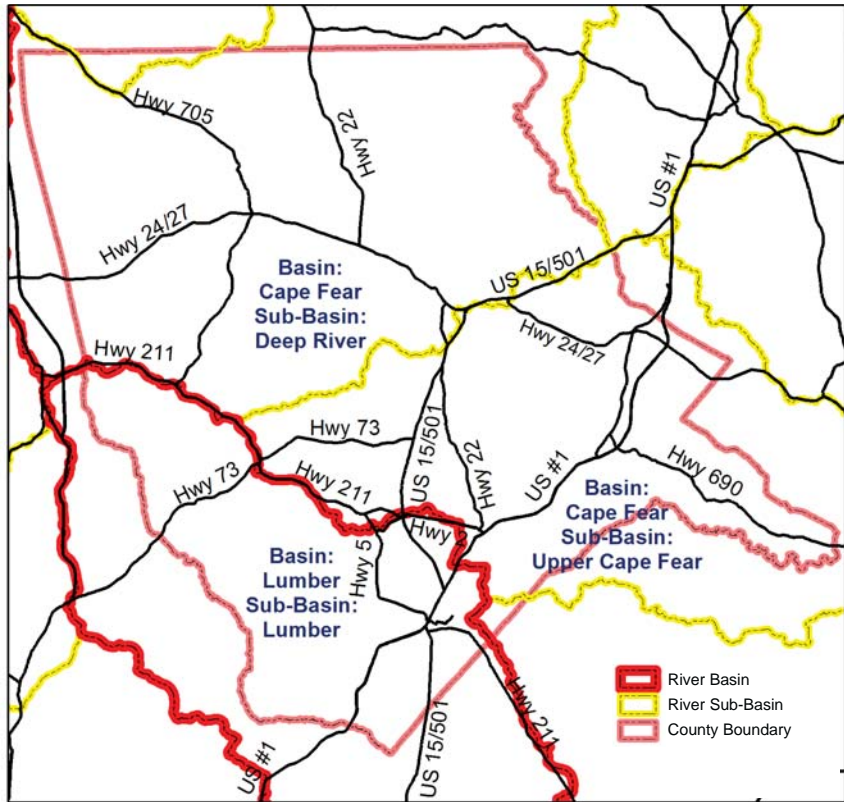


Figure 4.3: Moore County River Basins & Sub-Basins
 Source: Moore County Geographic Information Systems (GIS), 2012

The purpose of these watersheds is to regulate the development that does not utilize stormwater management to treat the stormwater runoff from the site. By limiting the amount of untreated stormwater from a development that enters the watershed's streams the cleaner the water will be. The thought behind this regulation is that cleaner water when it is withdrawn from the stream or river is easier and cheaper to process into potable water.

Streams, rivers, and lakes in North Carolina are assigned one or more surface water classifications by the state and federal governments, with each classification assigned a particular set of protection standards. Under the N.C. Department of Environmental Management (DEM) classification system, Deep River, Bear Creek, Little River Intake #2, Little River/Vass, and Nick's Creek are all classified as WS-

III waters, a classification assigned to low to moderately developed watersheds. The Drowning Creek watershed is classified as a WS-II due to the predominantly undeveloped nature of the watershed. Local programs to control nonpoint source pollution and stormwater discharge of pollution are required within a critical area (typically ½ mile upstream of the intake within the watershed) determined by the N.C. Environmental Management Commission shown in red on the map in Figure 4.4.

The County has seven different watersheds that protect these intakes. Five of the seven public water supply watersheds protect intakes that are located, and serve, municipalities within the County's boundary. The Drowning Creek watershed serves to protect the drinking water for much of the southern portion of the County, specifically the

Town of Southern Pines who withdrew approximately 3.33 million gallons per day in 2007 (McGill, 2008). Other municipalities that rely on water from intakes are the Towns of Carthage, and Robbins. The Town of Vass used to rely on the Little River/Vass intake, but in 2003 with the construction of the East Moore Water District's first phase the Town of Vass chose to abandon the intake, which used to produce approximately 288,000 gallons per day. (McGill, 2008)

As of 2007, the County uses both surface water and groundwater to meet its potable water needs of approximately 13 MGD for municipal/county water buyers. Approximately 6 MGD of the 13 MGD is being produced from surface water sources, while the remainder of the water buyer's needs are met through ground water resources (wells). However, the Town of Southern Pines could currently produce an additional

4-10 MGD from its Drowning Creek water intake. Additionally, the Town of Southern Pines just completed a 140 million gallon raw water reservoir adjacent to Drowning Creek to provide an additional back-up water supply to the Creek when it is running too low to meet the Town's (and its other customer's) needs.

A future promising and viable surface water option would be to establish a water intake in the Deep River. According to the water study conducted by McGill and Associates in 2007 the Deep River could produce as much as 6.5 MGD for the County, however, the County would have to seek an Inter-Basin Transfer certificate from the State's Environmental Management Commission if more than 2.0 MGD of water were to be transferred out of the Deep River sub-basin. Should this intake be installed a corresponding public water supply watershed would be applied to this area to protect the

watershed from development that could impact the quality of the water in the watershed. For more information on the water systems that serve the County refer to the Water Infrastructure section of the Land Use Plan.

Lakes, Rivers, Streams & Dams

In the Sandhills region, access to a water source is often a prized possession for a farmer, or even a golf course owner. A water source on agricultural property often expands crop yield, or the capacity per acre of grazing livestock. To that end agricultural property that is cleared, relatively flat and close to a water source such as a lake, pond, river or stream that can be used for irrigation is often some of the most valuable. Additionally, the natural environment areas along the waterbodies is often some of the most diverse and provide habitat corridors for many of the species that have been identified in the State's Wildlife Action Plan. Thus, the conservation and wise use of Moore County's waterways and associated riparian areas will yield multiple important benefits to the County and should be a high priority in land use policies and decisions.

However, the development industry also finds these water bodies appealing due their focal point and marketability for residences and amenity areas. Moore County is home to several resort-style communities whose homes and amenities are built around either one rather large, or several smaller man-made lakes. All these lakes were manmade by damming up a stream(s) with an earthen dam. For instance, the Lake Auman dam in Seven Lakes is one of the largest earthen dams on the east coast. Development of homes adjacent to many Moore County water bodies that utilize a private septic sewerage disposal system, however, experience a much higher rate of failure, and/or shorter lifespan than lots that have a septic system on higher and dryer ground. In the future it may be necessary

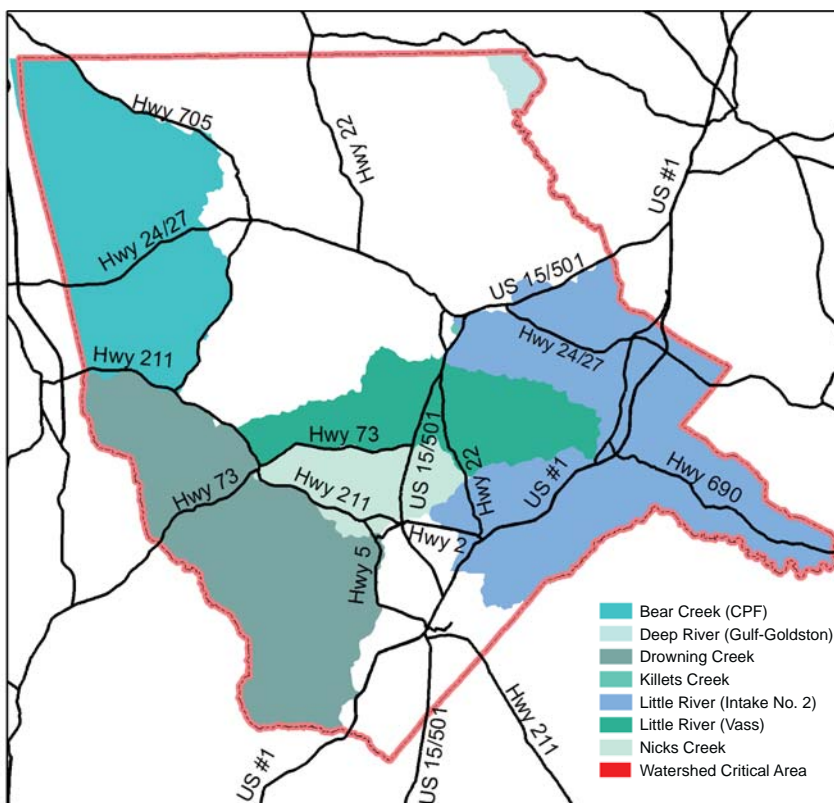


Figure 4.4: Moore County Public Water Supply Watersheds
Source: Moore County Geographic Information Systems (GIS), 2012

for the County to study the feasibility and cost to serve areas with a high rate of septic system failure with a public sewer system. This may be necessary to keep these areas of the county and their associated tax base viable.

Floodplains & Wetlands

Floodplains are the low, relatively flat-lying areas adjacent to streams that are subject to flooding during periods of intense rainfall. Associated with floodplains are often riverine wetlands, which function as storage areas for flood waters, slowing runoff and thereby lessening flood levels downstream. These wetlands also serve as areas of deposition for sediment and other material carried by flood waters and serve as valuable wildlife habitats for a variety of high priority species.

Land development within the 100-year floodplains is common, but requires necessary documentation. Moore County currently has a Flood Damage Prevention Ordinance that regulates development within the floodplains and floodways. These flood prone areas are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. The Flood Damage Prevention Ordinance requires homes or other elements to be constructed at or above the base flood elevation of the existing floodplain. However, no development is allowed within the regulatory floodway, unless through hydraulic analysis the floodwaters would not rise one foot. These protective measures decrease the number of structures or other elements that may cause damage downstream. The Moore County Multi-Jurisdictional Hazard Mitigation Plan (pgs. 6 - 7) analyzes property that is vulnerable to riverine flooding.

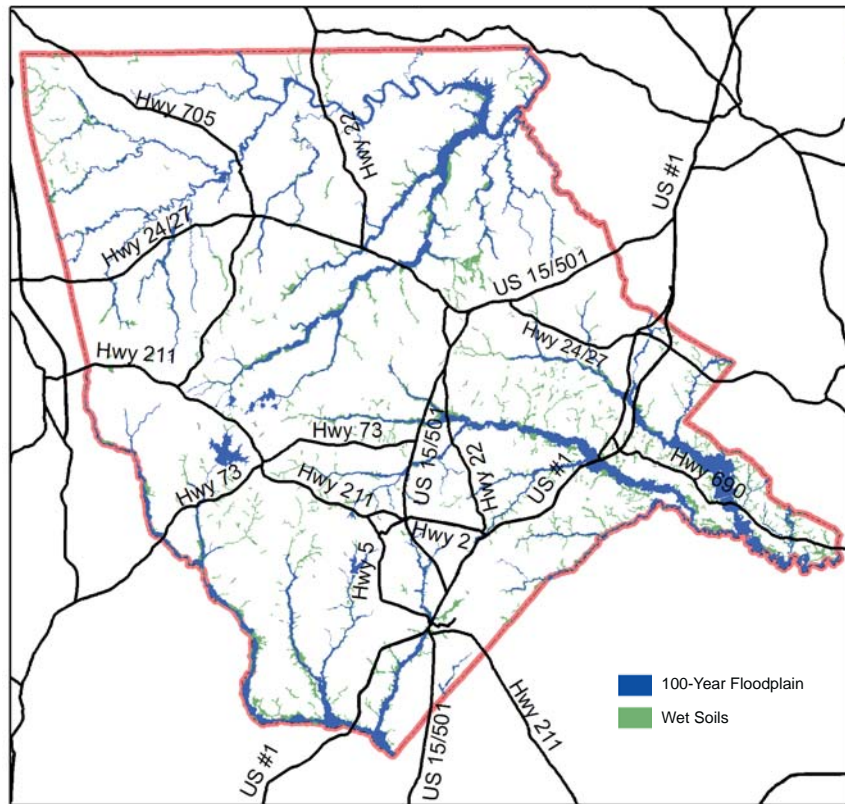


Figure 4.5: Moore County 100-Year Floodplain & Wet Soils
 Source: Moore County Geographic Information Systems (GIS), 2012

Flooding problems resulting from runoff of surface water generally increase as areas become more urbanized. Greater population density generally increases the amount of impervious area, e.g., pavement and buildings. This reduction in the amount of natural ground that can absorb rainfall results in an increase in the amount of surface runoff generated. Uncontrolled, this runoff may be channeled to areas that cause flooding of structures and roadways. (FEMA) The floodplains along Drowning Creek, Little River, and Deep River exhibit the most frequency of flooding in Moore County, however, flood gates along these drainage courses when adjusted in a timely manner allow the flood waters to be managed in these flood prone areas. (FEMA, Types of Floods and Floodplains, Chapter 2)

In recent years, North Carolina has experienced several strong storms that have caused flooding, and scientists

predict that the frequency and intensity of storm events will increase in the future. Moore County should take measures to minimize threats to property and life from flooding, including limiting development in floodplains and extend hazard avoidance considerations to the 500-year floodplain.

However, utilizing floodplain data to plan future land uses can not only reduce and/or mitigate flood hazards, but also help to conserve valuable wildlife habitat. Floodplain pools provide habitat for breeding salamanders and frogs and, when floodplain corridors remain intact, they can provide migration corridors for mammals, reptiles and birds. (NCWRC GGT)

Rare, Threatened & Endangered Species

In the United States, wildlife is a 'public trust' resource, meaning it is not owned by individuals. Wildlife belongs to everyone and there is a collective responsibility for the wise stewardship and utilization of wildlife resources. Plants and animals threatened with extinction are protected under federal and state endangered species legislation. This guardianship is not limited to protection of the species against direct physical harm but also includes protection of habitat critical to the species' survival. Penalties for knowingly violating these regulations can be severe, including fines up to \$12,000 per violation in cases involving federal endangered species.

The state of North Carolina maintains countywide inventories of rare, threatened, and endangered species. It should be noted that species included on the state list may be rare or threatened with extinction within the state but may not be threatened in other parts of its range. The following list, provided by the US Fish and Wildlife Service in September of 2010, identifies federal threatened and endangered species that occur in Moore County.

The USFWS has established critical habitat designations for the Cape Fear shiner in Moore County within the Deep River from the Randolph County line to a point two and one-half miles below the bridge over the river at Howard Mill Road. The Red Cockaded Woodpecker is found throughout the southern portion of Moore County primarily in mature Longleaf Pine forests that have a clear forest mid-story that suits their breeding, nesting and foraging habitat preferences. The American chaffseed requires open pine flatwoods, savannas, and other open areas, in moist to dry acidic sandy loams or sandy peat loams. The Michaux's Sumac is endemic to the coastal plain and piedmont of Virginia,

Common Name	Scientific Name	Federal Status	Record Status
Vertebrate:			
American eel	<i>Anguilla rostrata</i>	FSC	Current
Bachman's sparrow	<i>Aimophila aestivalis</i>	FSC	Current
Cape Fear shiner	<i>Notropis mekistocholas</i>	E	Current
Carolina darter	<i>Etheostoma collis collis</i>	FSC	Current
Carolina darter	<i>Etheostoma collis lepidinion</i>	FSC	Current
Carolina redhorse	<i>Moxostoma sp. 2</i>	FSC	Current
Northern pine snake	<i>Pituophis melanoleucus melanoleucus</i>	FSC	Current
Pinewoods darter	<i>Etheostoma mariae</i>	FSC	Current
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Current
Roanoke bass	<i>Ambloplites cavifrons</i>	FSC	Current
Sandhills chub	<i>Semotilus lumbee</i>	FSC	Current
Southeastern myotis	<i>Myotis austroriparius</i>	FSC	Current
Southern hognose snake	<i>Heterodon simus</i>	FSC	Current
Invertebrate:			
Atlantic pigtoe	<i>Fusconaia masoni</i>	FSC	Current
Brook floater	<i>Alasmidonta varicosa</i>	FSC	Current
Carolina creekshell	<i>Villosa vaughaniana</i>	FSC	Current
Eastern beard grass skipper	<i>Atrytone arogos arogos</i>	FSC	Historic
Septima's clubtail	<i>Gomphus septima</i>	FSC	Obscure
Yellow lampmussel	<i>Lampsilis cariosa</i>	FSC	Current
Vascular Plant:			
American chaffseed	<i>Schwalbea americana</i>	E	Current
Bog oatgrass	<i>Danthonia epilis</i>	FSC	Current
Bog spicebush	<i>Lindera subcoriacea</i>	FSC	Current
Buttercup phacelia	<i>Phacelia covillei</i>	FSC	Current
Georgia lead-plant	<i>Amorpha georgiana var. georgiana</i>	FSC	Current
Hairy-peduncled beakrush	<i>Rhynchospora crinipes</i>	FSC	Current
Michaux's sumac	<i>Rhus michauxii</i>	E	Current
Pickering's dawnflower	<i>Stylisma pickeringii var. pickeringii</i>	FSC	Current
Prairie birdsfoot-trefoil	<i>Lotus unifoliolatus var. helleri</i>	FSC	Current
Roughleaf yellow-eyed grass	<i>Xyris scabrifolia</i>	FSC	Current
Sandhills bog lily	<i>Lilium pyrophilum</i>	FSC	Current
Sandhills milk-vetch	<i>Astragalus michauxii</i>	FSC	Current
Small-leaved meadow-rue	<i>Thalictrum macrostylum</i>	FSC	Current
Spring-flowering goldenrod	<i>Solidago verna</i>	FSC	Current
Sun-facing coneflower	<i>Rudbeckia heliopsidis</i>	FSC	Historic
Venus' fly-trap	<i>Dionaea muscipula</i>	FSC	Historic
Well's sandhill pixie-moss	<i>Pyxidantha barbulate var. brevifolia</i>	FSC	Current

Table 4.1: Moore County Rare, Threatened, and Endangered Species
Source: U.S. Fish & Wildlife Service, September 2010

North Carolina, South Carolina, Georgia, and Florida where sandy or rocky open woods in association with basic soils are found. The largest population known is located at Fort Pickett in Virginia, but the most populations are located in the North Carolina piedmont and Sandhills, specifically Moore County.



Many species are listed above as federal species of concern (FSC). These are species which are at risk of becoming threatened or endangered, but do not have the same legal protections as threatened or endangered species. They are placed on the list due to shrinking population trends, threats to their habitats, restricted distribution, and/or other factors. The FSC designation allows resource managers to make proactive decisions associated with species conservation and research priorities. Identifying and conserving these species and their habitats through sound land use planning, will reduce the need for them to become listed and will help to avoid future regulatory burdens.

Identifying and conserving Threatened and Endangered species, and their habitats, through sound land use planning, will reduce the need for them to become federally listed and will help to avoid future regulatory burdens.

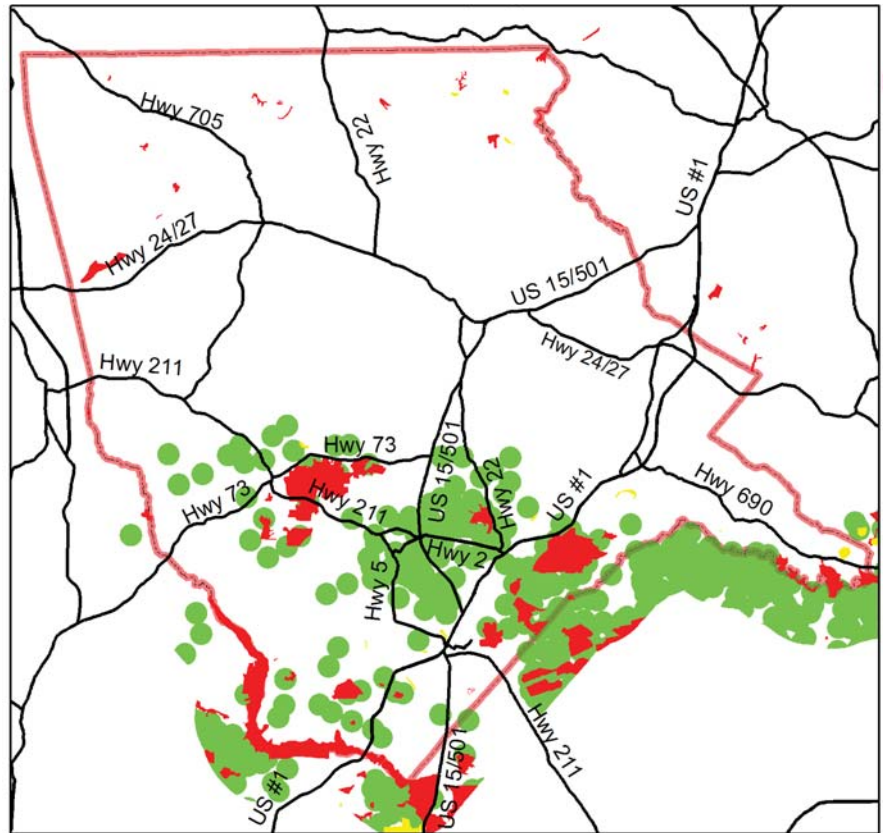


Figure 4.6: Significant Natural Heritage Areas
Source: NC Natural Heritage Program (NCDENR)

Significant Natural Heritage Areas

Significant Natural Heritage Areas are sites that support rare and high-quality native plants, animals, and natural communities. A site's significance may be due to the presence of rare species, rare or high quality natural communities, or other important ecological features. These sites are identified by the North Carolina Natural Heritage Program, a program within

the North Carolina Department of Environment and Natural Resources. The Natural Heritage Program updates their data approximately four times each year. These areas are essential to conserve because they represent the best remaining examples of habitats and natural communities, and are important for the conservation of rare species.

Sandhills Area Land Trust

The Sandhills Area Land Trust is a community-based, 501(c)(3) non-profit organization that serves Moore, Richmond, Scotland, Hoke, Cumberland, and Harnett counties in southeastern North Carolina. SALT works with private landowners to negotiate voluntary conservation agreements (Conservation Easements) on private property. Since its founding in 1991, SALT has permanently protected more than 11,000 acres of working farms, water supplies, endangered ecosystems, and urban open-space in the six-county service region.

SALT’s service area incorporates much of the North Carolina Sandhills, a region of rolling sandy soils perched between the Piedmont and the Coastal Plain. The landscape has been radically altered since the days of William Bartram, but the region is still home to the largest contiguous stands of longleaf pine forest in North Carolina, numerous wetlands, and dozens of rare plants and animals. Below is a map that depicts properties in Moore County in which SALT either owns or has established a conservation easement.

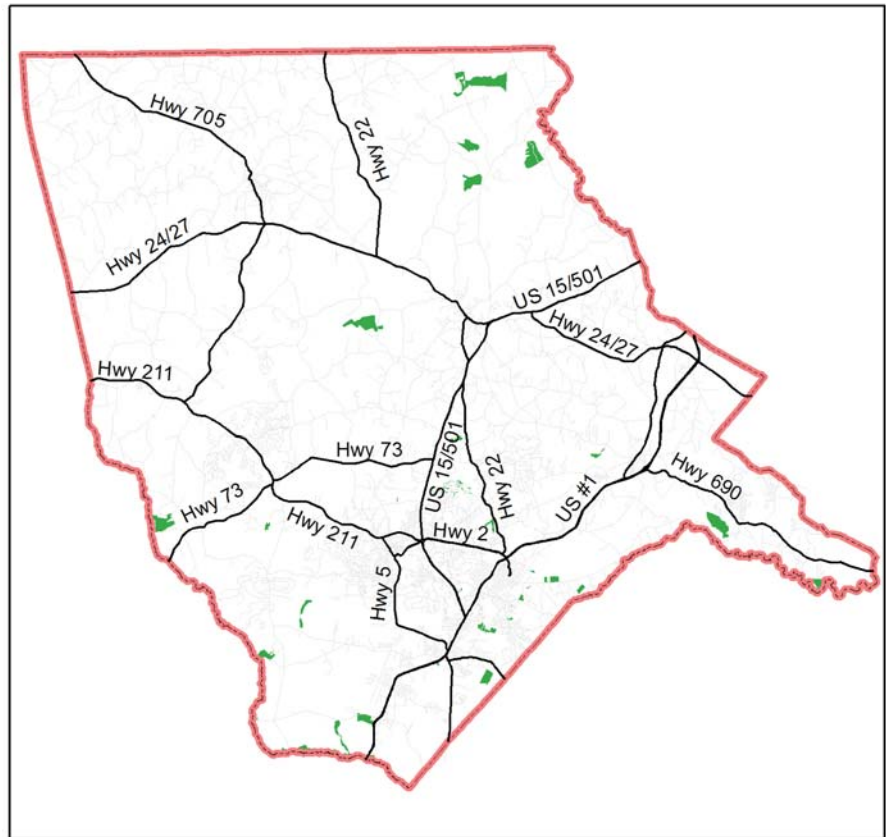


Figure 4.7: Sandhills Area Land Trust (SALT) Tracts
Source: Sandhills Area Land Trust (SALT)

Walthour-Moss Foundation

The Walthour-Moss Foundation (“WMF”) is a 501(c)(3) land trust that owns over four thousand acres of Longleaf Pine forest and savanna that lies between Southern Pines and Fort Bragg and is held for permanent conservation. The WMF was established in 1974 with an initial gift of 1,739 acres of land and has grown through donations of financial support and land. The WMF lands are home to numerous endangered and threatened species and are open to the public daily from sunrise to sunset for equestrian and naturalist purposes. As one of the few areas dedicated to equestrian use in the United States, the WMF attracts riders from across the state and country, and it is the heart of Moore County’s Horse Country. The

equestrian community is a significant contributor to the economic vigor of Moore County. A recent independent assessment concluded that the local horse industry generates \$165.7 million in annual direct and indirect income in Moore County.



Over the past several years, Moore County has been guided by the 1999 Land Use Plan and other related planning documents through the Moore County Planning Board and the Board of Commissioners. As growth and redevelopment continues, new and revised goals and recommendations need to be established to continue to achieve a vision that protects the existing land use pattern, maintains the quality of life and preserves the County's historical, natural and cultural character.

To achieve this vision, goals, recommendations and action steps have been created. These together provide guidance for local decision-making by the Subdivision Review Board, the Planning Board, and the Board of Commissioners. Some of the following goals and/or recommendations will be new, while other goals that were established in the previous land use plan have been revised to continue the vision of Moore County. This plan should be utilized as a guide in planning for the extension of new public facilities and when approving proposed private developments throughout the county.

The following goals, recommendations, and action steps were developed by the Land Use Plan Steering Committee based on the 1999 Land Use Plan and other available data made available to them during the land use planning process.

GOAL 1: Preserve and Protect the Ambiance and Heritage of the County of Moore (inclusive of areas around municipalities)

Recommendation 1.1:

Encourage the conservation of farmland for farming and forestland for forestry.

Action 1.1.1: Utilize existing policies, such as the Working Lands Protection Plan and the Green Growth Toolbox to guide conservation of rural lands.

Action 1.1.2: Continue to utilize the voluntary agricultural district (VAD) program.

Action 1.1.3: Notify property owners of the Voluntary Agricultural District and its implications upon purchasing and selling of property.

Action 1.1.4: Promote agri-tourism and cottage industries (such as small family farms and potteries) to enhance the County's heritage.

Action 1.1.5: Continue the present use value program (farm deferred) for agriculture, forestry, and horticulture

Action 1.1.6: Develop an Open Space Conservation Plan and Policy that should be approved by the appropriate boards.

Recommendation 1.2:

Continue to encourage agriculture and agri-businesses throughout Moore County.

Action 1.2.1: Continue current support of operating environments for agriculture.

Action 1.2.2: Continue to support the development and accessibility to local and adjacent markets for agricultural products.

Action 1.2.3: Continue to offer opportunities for future generations of farmers through the support of educational programs.

Action 1.2.4: Continue to promote select cut forest management and the utilization of forest management Best Management Practices (BMPs) for the harvesting of timber products on all forest lands in Moore County.

Recommendation 1.3:

Preserve large tracts of prime agricultural land to ensure that farming remains a viable part of the local economy.

Action 1.3.1: Map and compare the locations of prime farmland, forest land and high value natural resource areas to coordinate with future development and infrastructure areas.

Recommendation 1.4:

Preserve regional agriculture and farmland as a source of healthy, local fruits and vegetables, and other food crops.

Action 1.4.1: Continue the development of local food processing, wholesale, and distribution facilities to connect local agriculture to markets such as retailers, restaurants, schools, hospitals, and other institutions.

Action 1.4.2: Utilize economic development to attract and retain local food processing, wholesale, and distribution firms.

Recommendation 1.5:

Encourage and support development and land use principles by ensuring Moore County's cultural, economical, and natural resources are considered appropriately.

Action 1.5.1: Identify, map and preserve the County's historical, natural, and cultural assets utilizing all available conservation data.

Action 1.5.2: Support new developments that utilize existing or implement planned infrastructure that most economically preserves open space and important historical, natural and cultural features.

Recommendation 1.6:

Preserve and maintain the rural character of Moore County, including historic sites and structures, crossroad communities, and other physical features that reflect the County's heritage.

Action 1.6.1: Maintain an inventory of significant crossroad communities, historic sites and structures, and other physical landmarks that defines or conveys Moore County's heritage.

Action 1.6.2: Develop land use policies that encourage the conservation and maintenance of significant crossroad communities, historic sites and structures, and other physical landmarks.

Action 1.6.3: Coordinate with existing historic preservation organizations and land trusts to promote the conservation of the County's rural culture and features.

Action 1.6.4: Continue to support regulations for industrial swine operations through zoning as authorized by the State Legislature.

Recommendation 1.7:

Support and promote local businesses.

Action 1.7.1: Encourage programs such as Moore Forward that helps young business professionals and entrepreneurs.

Action 1.7.2: Encourage emerging markets that utilize local agricultural and manufactured products, and enhance tourism and the service sectors.

Action 1.7.3: Ensure land use policies allow a wide variety of home occupations.

Action 1.7.4: Implement land use policies that allow for “commercial and light industrial home occupations” with some reasonable conditions endorsed by the community.

Recommendation 1.8:

Discourage undesirable or unattractive land uses, especially within high visibility areas.

Action 1.8.1: Identify commercial nodes for development at major crossroads.

Action 1.8.2: Encourage major developments to locate in existing municipalities wishing to host it.

Action 1.8.3: Control signage along major highway corridors.

Action 1.8.4: Select appropriate locations for industrial development and zone them as such (using factors such as soil suitability, proximity to water and sewer, rail and highways).

Action 1.8.5: Support and promote infill development that will optimize the use of existing infrastructure.

GOAL 2: Enhance the Union of the Built and Natural Environments to Improve Citizen Health through the Use of Open Space and Recreational Opportunities

Recommendation 2.1:

Support and participate in conservation easement programs that protect public water supply watersheds and important open space areas.

Action 2.1.1: Encourage the use of programs, such as Sandhills Area Land Trust (SALT) to provide conservation tools to property owners.

Action 2.1.2: Promote the use of existing and proposed utility rights-of-way for public open space and greenway access.

Action 2.1.3: Utilize policies that encourages the conservation of high value natural resources within new developments.

Recommendation 2.2:

Promote the health and welfare of the County through collaborative planning efforts between the County and municipalities.

Action 2.2.1: Develop a Parks, Recreation and Open Space Master Plan that emphasizes interconnectivity of county and municipal resources and provides uniformity.

Action 2.2.2: Utilize available natural resources conservation data in making planning decisions.

Action 2.2.3: Encourage new developments to provide open space and neighborhood parks that are interconnected via an off-road pedestrian and bicycle network, where possible.

Action 2.2.4: Coordinate and promote recreational/health related planning efforts through programs, such as Making Moore Connections and Complete Streets.

Action 2.2.5: Explore and preserve ways to expand healthcare facilities that serve Moore County and the Sandhills region.

Recommendation 2.3:

Provide both passive and active recreational opportunities for County residents by protecting natural resources that have recreational, environmental, or aesthetic value.

Action 2.3.1: Preserve natural resources, sensitive environmental areas, and scenic features of the landscape that have recreational, environmental, or aesthetic value.

Action 2.3.2: Encourage the location of recreational facilities close to residential areas and transportation nodes to increase public awareness and accessibility to these facilities.

GOAL 3: Optimize the Uses of Land Within the County of Moore

Recommendation 3.1:

Maximize accessibility among living, working, and shopping areas.

Action 3.1.1: Adopt policies that encourage development of mixed land uses, as appropriate, to provide easy access, reduce travel time, and improve convenience among uses surrounding the County's established towns and villages.

Action 3.1.2: Encourage non-residential development to locate near major transportation routes and areas served by adequate water, sewer, natural gas, broadband, and electric power.

Recommendation 3.2:

Assure an adequate quality & quantity of water is available to support the desired growth of the County.

Action 3.2.1: Prioritize infrastructure where possible that increase the utilization of existing systems and connections which result in more uniform distribution.

Action 3.2.2: Explore both ground water and surface water sources for future water needs.

Action 3.2.3: Support the development of water and centralized sewer infrastructure within municipal areas and rural commercial areas.

Action 3.2.4: Support and facilitate cooperative ventures between water providers both within and outside of Moore County to create redundancy of water supply and access in order to prevent loss of water quality and quantity to its citizens, businesses and industry.

Action 3.2.5: Ensure Best Management Practices (BMPs) are followed to reduce runoff.

Action 3.2.6: Continue to monitor development densities and encourage the limitation of impervious surfaces in Public Water Supply Watershed areas through the Watershed Protection Ordinance.

Action 3.2.7: Explore opportunities for a new wastewater treatment plant in the Cape Fear River Basin to serve Northern Moore County.

Action 3.2.8: Promote and educate the public on the benefits of water conservation.

Action 3.2.9: Buffer riparian areas, floodplains and wetlands from development and promote the use of stormwater best management practices (BMPs) for development near these natural features.

Recommendation 3.3:

Encourage a functional railway system.

Action 3.3.1: Encourage new commercial and industrial uses to locate along existing railway systems and focus non-rail dependent land uses away from existing railway systems.

Action 3.3.2: Support safe railway/roadway intersections throughout the county.

Recommendation 3.4:

Encourage development in areas where the necessary infrastructure (roads, water, sewer, and schools) are available, planned or most cost-efficiently be provided and extended to serve development.

Action 3.4.1: Direct intensive land uses to areas that have existing or planned infrastructure.

Action 3.4.2: Encourage mixed-use developments along existing and planned infrastructure to reduce transportation needs.

Action 3.4.3: Utilize existing public rights-of-way for utility purposes in an effort to reduce the need for new rights-of-way and easements in the future.

Action 3.4.4: Plan for the development of alternative energy systems that minimize the adverse impacts to prime agricultural lands and public water supply watersheds.

Recommendation 3.5:

Coordinate transportation planning to ensure that adequate transportation options are provided to serve existing, developing, and proposed activity centers and densely populated areas

Action 3.5.1: Continue to coordinate and monitor driveway issues, especially along strategic highway corridors.

Action 3.5.2: Utilize existing highway corridors to solve transportation needs in the future, where applicable.

Action 3.5.3: Maintain a high level of involvement in the bi-annual preparation of the NCDOT Transportation Improvement Program (TIP).

Action 3.5.4: Continue involvement with the Regional Planning Organization (RPO) to ensure transportation coordination efforts continue throughout the County and region.

Recommendation 3.6:

Provide for the orderly development of major transportation routes such that disruption of free flow of traffic on major arteries is minimized.

Action 3.6.1: Minimize commercial strip development characterized by numerous driveway access points and disconnected uses.

Action 3.6.2: Protect traffic carrying capacities and promote public safety, by adopting an access management plan to limit access along major and minor thoroughfares.

Action 3.6.3: For non-residential development, require use of frontage roads for access along major thoroughfares to minimize numerous driveway access points and disconnected uses.

Recommendation 3.7:

Promote the implementation of transportation methods to provide for alternate methods of transportation where appropriate and feasible.

Action 3.7.1: Work with NCDOT to implement a “complete streets” policy to allow construction of biking and pedestrian paths as part of any new improvement along State maintained roadways.

Action 3.7.2: Require sidewalks or pedestrian paths where residential development is within walking distance (up to 1/2 mile) of schools, parks, and other public facilities.

Recommendation 3.8:

Encourage and support collaborative future planning efforts between the County, municipalities, and Board of Education.

Action 3.8.1: Develop a committee made up of representatives from county agencies and various entities to create a school sites guideline manual for future school facility needs based upon growth and existing and planned infrastructure.

Recommendation 3.9:

Establish a procedure for managing land use information to ensure coordinated planning and growth.

Action 3.9.1: Monitor planning activities of local municipalities and adjacent counties to ensure that planning and growth is coordinated between jurisdictions.

Action 3.9.2: Establish a countywide commission to study the impact of growth and to develop a mutually agreeable growth scenario for the County that ensures that all local governments are working toward a coordinated growth pattern that enhances the living environment for all County citizens.

Action 3.9.3: Developing growth scenarios for specific areas of the County (including small municipalities) that have been lagging in economic development.

Action 3.9.4: Implement collaboration and inter-governmental agreements of water and sewer providers to develop policies for extending new public facilities in a cost efficient manner to serve areas identified on the future land use map.

GOAL 4: Provide Information and Seek Citizen Participation

Recommendation 4.1:

Promote efforts to involve and inform citizens of throughout various planning and permitting processes

Action 4.1.1: Continue to support and implement easy to understand guidelines to incorporate throughout governmental departments.

Action 4.1.2: Utilize various forms of media to help communicate and encourage participation in planning efforts.

Action 4.1.3: Continue the Land Use Steering Committee’s involvement in providing information to citizens and receiving input from citizens as the Land Use Plan is implemented.

GOAL 5: Accommodate for a Variety of Housing Types

Recommendation 5.1:

Properly plan for and accommodate a variety of affordable housing types.

Action 5.1.1: Develop a Countywide Comprehensive Affordable Housing Plan that addresses existing and future options, needs and opportunities.

Future Land Use Map

Throughout the land use planning process the Steering Committee consistently emphasized that the plan should encourage developers to consider strongly the community's historical and natural assets and utilize these features to create a form for their proposed development that optimizes the land value, quality of life and other intrinsic aspects of the property for the community. Additionally, new developments should seek to grow existing developed areas of the community utilizing development forms that complement and enhance the existing architecture, development pattern, and cultural and natural landscapes. When developments are proposed away from existing municipalities they should seek a form that yields a "sense of place" and reinforces a character indicative of Moore County's uniqueness while avoiding a generic style subdivision.

Furthermore, the Steering Committee stated throughout the process their desire to encourage development where adequate infrastructure and services were available to accommodate. Much of the County's planning jurisdiction lacks many of the urban services such as public water and sewer, as well as other public services; nor a mix of land uses to support large scale residential development. In that regard, the plan seeks to encourage developers to locate developments primarily within the municipal planning jurisdictions of the community, and/or to propose viable and appropriate mixed-use developments within the County's planning jurisdiction. However, when development is proposed in the County's planning jurisdiction, efficient use of existing and proposed infrastructure, and the preservation of large agricultural areas and/or natural spaces are of paramount importance.

Therefore, proposed developments and zoning revisions will be analyzed utilizing the following questions to assure consistency with the plan:

- a. Is the proposal consistent with the vision, themes, and policies contained in the plan?*
- b. Is the use being considered specifically designated in the plan in the area where its location is proposed?*
- c. If the use is not specifically designated in the plan in the area where its location is proposed, is it needed to service such a planned use, or could it be established without adversely altering the recommended land use and character of the area?*
- d. Will community facilities and streets be available at applicable standards to serve the use proposed for the property?*

The purpose of Our Future Land Use Map is to graphically depict to the reader a general land development pattern that seeks to accomplish the goals, objectives and actions listed above. The map, like the plan document, has been developed with a planning horizon of the year 2030. To effectively reach the community's vision the plan document, as well as the Future Land Use Map, must be consistently consulted when reviewing and evaluating proposed rezoning requests, land development plans and ordinances. The Future Land Use Map is to be interpreted in conjunction with the written goals, objectives and actions. The following future land use map categories have been developed to provide a narrative explanation to the map document herein.

Future Land Use Categories

High Density Residential With Mixed Use

Density four (4) to eight (8) dwellings per acre, single family detached or attached. Housing may include a mixture of dwelling types, including single-family detached, duplex, patio home, semi-detached/attached dwelling, multi-family, or townhouse. This category shall also include certain non-residential neighborhood supportive uses such as retail, commercial, office, schools, day-cares, churches and others similar uses compatible with residential. Public infrastructure and facilities such as roads, water, sewer, schools, fire/rescue, open space; and must be adequate to accommodate the development. The public service providers in the proximity of these areas shown on the Future Land Use Map shall consider extending, upgrading and/or preserving infrastructure in these locations.

Medium Density Residential

Density 2 (two) to 4 (four) dwellings per acre, single family detached or attached. Housing may include a mixture of dwelling types, including single-family detached, duplex, patio home, semi-detached/attached dwelling, multi-family, or townhouse. This may also include certain non-residential neighborhood supportive uses such as schools, daycares, churches and others. Density would require engineered sewerage disposal systems. Public infrastructure and facilities such as roads, water, sewer, schools, fire/rescue, open space, and must be adequate to accommodate the development. The public service providers in the proximity of these areas shown on the Future Land Use Map shall consider extending, upgrading and/or preserving infrastructure in these locations.

Low Density Residential

Density 1 (one) residential lot for every five acres of land, single family detached. This may also include certain agricultural uses consistent with the existing RA (rural agricultural) zoning district, as well as certain non-residential neighborhood supportive uses, such as schools, daycares, churches and others. Where these areas on the Future Land Use Map intersect, or contain, significant cultural and natural features these aspects of the landscape should be considered as primary open space and conserved. These primary open spaces should be designed into the development plan to enhance the value and quality of life for the community.

Rural Agricultural

Primary use of the land is to support rural residential life associated with agricultural uses (e.g. row crops, forestry, horticulture, grazing, poultry, dairy, swine operations, and intensive agricultural uses in certain areas) and other rural activities. Major subdivisions of land are strongly discouraged; however, family subdivisions and subdivisions of four or less lots would be considered.

Industrial

This includes light/heavy industrial uses, manufacturing, warehousing and distribution, and transportation-related uses. Industrial areas should be developed in a manner compatible with nearby properties to minimize potential nuisances or damage to the environment. Sites should be served with adequate utility infrastructure as well as provide a buffer and visual screening as appropriate from residential property.

Commercial/Office/Retail/Institutional

This includes shopping/retail uses, dining, entertainment, services, general office space, medical offices, banks, schools, daycares, places of worship, libraries, etc.

Open Space (Golf Courses, Camps, Walthour Moss Foundation, Preserved/Conserved Lands)

These areas were planned to create a natural interconnectivity to not only other open spaces, but other compatible residential and non-residential land uses. The preservation of open space within a development adds significant value to area residents, the natural environment (including wildlife), and can be used to mitigate certain negative impacts of development. Areas are to be set aside first when considering development and should be planned to connect areas within the development as well as outside the development for immediate and future connectivity to occur. This category includes both public and private parks and golf courses, and public permanent open space. These areas may include the ancillary buildings and structures required for operating and maintaining the park, golf course, or open space.

North Carolina Wildlife Resources Game Lands

Public and private lands in the State and County managed by the State's Wildlife Resources Commission for public hunting, trapping, and inland fishing.

Future Open Space to Be Preserved

Areas identified as potential lands to be preserved as public open spaces due to their proximity to existing historic and/or cultural resources, and other open space areas.

Potential Future Greenway Trail Connections

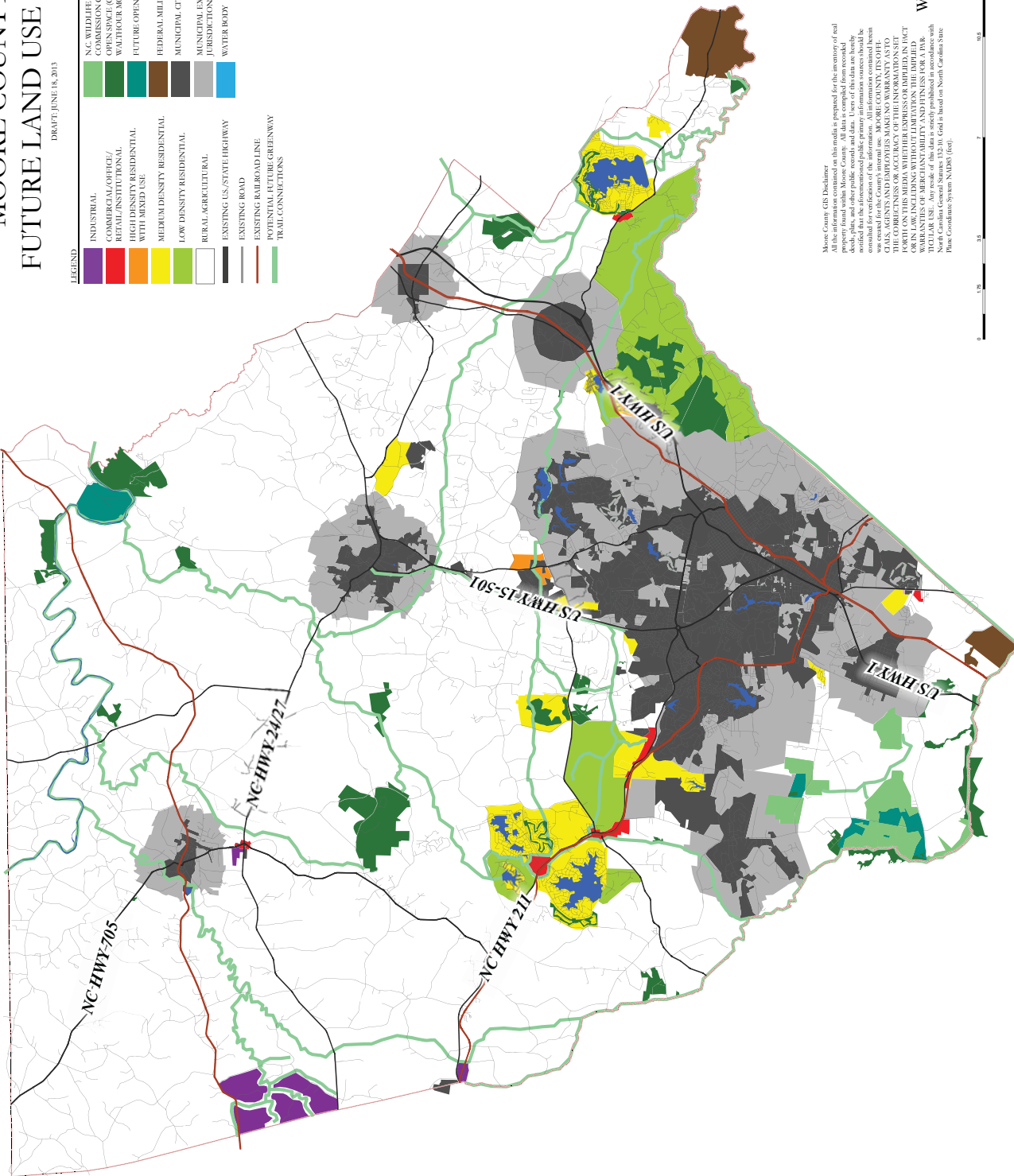
Areas identified as possible future greenway trails and preserve areas primarily along existing streams in the County. The intent of these areas is to connect existing trail networks to other existing as well as proposed (future) developments throughout the County.

MOORE COUNTY FUTURE LAND USE MAP

DRAFT, JUNE 18, 2013

LEGEND

	INDUSTRIAL		N.C. WILDLIFE RESOURCES
	COMMERCIAL/OFFICE/ GENERAL PERSONAL WITH MIXED USE		COMMISSION GAME LANDS
	HIGH DENSITY RESIDENTIAL WITH MIXED USE		OPEN SPACE (GOLF COURSES, CAMPS, WILDLIFE, BIODIVERSITY FOUNDATION, ETC.)
	MEDIUM DENSITY RESIDENTIAL		FUTURE OPEN SPACE TO BE PRESERVED
	LOW DENSITY RESIDENTIAL		FEDERAL MILITARY LANDS
	RURAL/AGRICULTURAL		MUNICIPAL CITY LIMITS
	EXISTING US/STATE HIGHWAY		MUNICIPAL EXTRA-TERRITORIAL JURISDICTIONS
	EXISTING ROAD		WATER BODY
	EXISTING RAILROAD LINE		
	POTENTIAL FUTURE GREENWAY		
	TRAIL CONNECTIONS		








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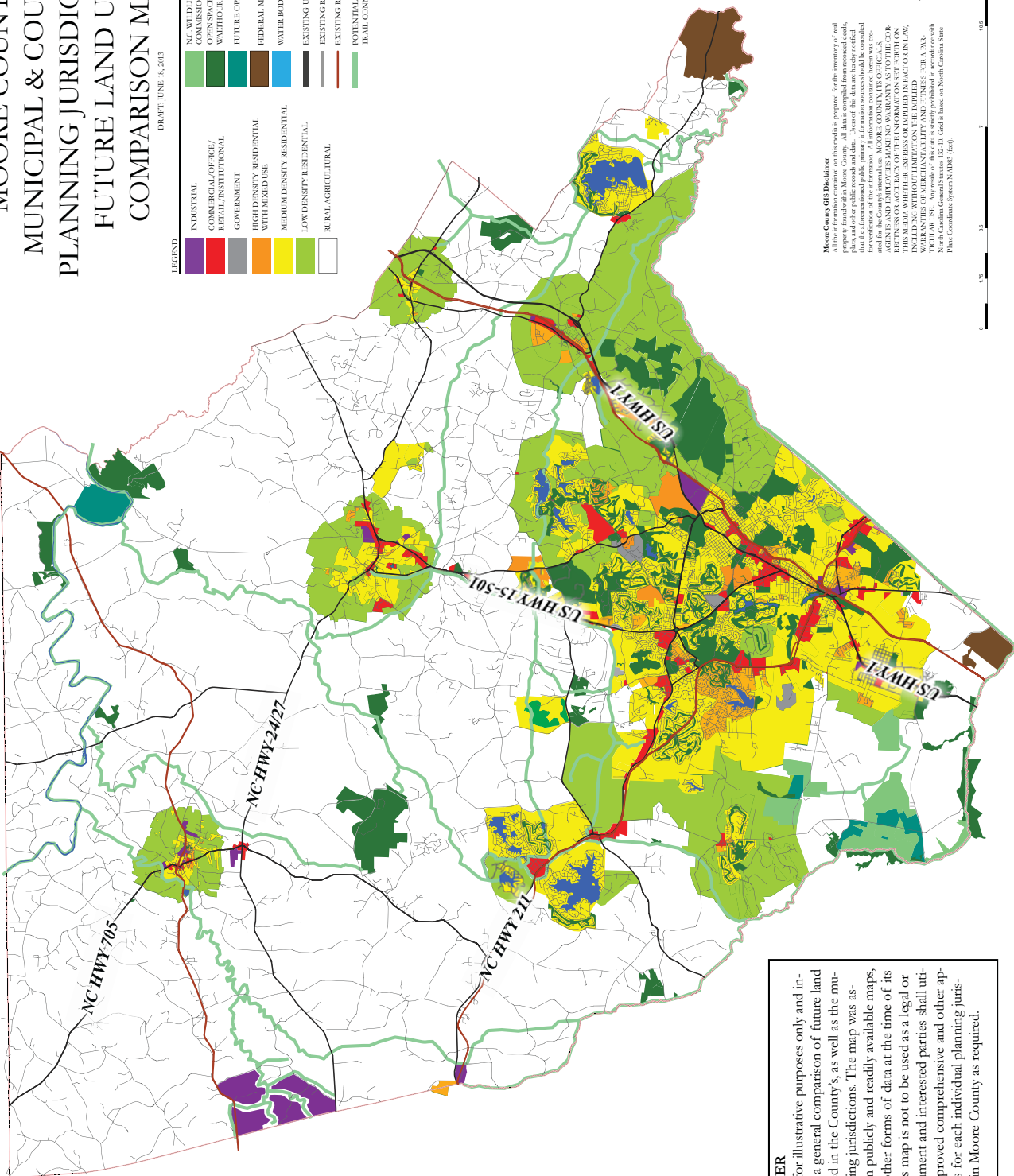


MOORE COUNTY MUNICIPAL & COUNTY PLANNING JURISDICTION FUTURE LAND USE COMPARISON MAP

DRAFT, JUNE 18, 2013

LEGEND

	INDUSTRIAL		NC WILDLIFE RESOURCES
	COMMERCIAL/OFFICE/ RETAIL/INSTITUTIONAL		COMMISSION GAMELANDS
	GOVERNMENT		WATERBODIES (LAKES, CREEKS, RIVERS, CANALS, WHARVES, POND, FOUNDATION, ETC)
	HIGH DENSITY RESIDENTIAL WITH MIXED USE		FUTURE OPEN SPACE TO BE PRESERVED
	MEDIUM DENSITY RESIDENTIAL		FEDERAL MILITARY LANDS
	LOW DENSITY RESIDENTIAL		WATER BODY
	RURAL-AGRICULTURAL		EXISTING US/STATE HIGHWAY
			EXISTING ROAD
			EXISTING RAILROAD LINE
			POTENTIAL FUTURE GREENWAY
			TRAIL CONNECTIONS



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DISCLAIMER
This map is for illustrative purposes only and intended to be a general comparison of future land uses proposed in the County's, as well as the municipal planning jurisdictions. The map was assembled from publicly and readily available maps, images and other forms of data at the time of its creation. This map is not to be used as a legal or binding document and interested parties shall utilize actual approved comprehensive and other applicable plans for each individual planning jurisdiction within Moore County as required.

Planning Region

The purpose of regional planning is to address issues that impact the region, and to then develop solutions that are relevant to both the region and North Carolina. Regional issues often include infrastructure for water and sewer, economic assessments, agriculture, population growth, education, conservation, energy, air quality, transportation, and human services. Through a regional planning entity these issues are often discussed and planned for through community and economic development, workforce development, state and federal program management, planning and Geographic Information System (GIS) mapping, grant assistance, regional collaboration and partnership building efforts. Moore County has been, and continues to be, part of two different regional planning areas of focus, the Triangle J Council of Governments and the Fort Bragg Regional Alliance (formerly Base Realignment and Closure - Regional Task Force or BRAC-RTF).

Triangle J Council of Governments (TJCOG)

The Triangle J Council of Governments (TJCOG) was first established in 1959 as the Research Triangle Planning Commission to address long-range planning for land use and infrastructure for the region. Currently the TJCOG serves seven counties: Moore, Lee, Chatham, Orange, Durham, Wake, and Johnston which have communities that span the rural, suburban and even urban planning continuum. The focus of TJCOG's Regional Planning spans specifically development and infrastructure, water resources, sustainable energy & environment, and economic development. The TJCOG staff works to convene stakeholders throughout its region to share information, coordinate efficient regional services, manage regional planning projects, administer regional planning activities mentioned above, and to provide technical assistance and data to members throughout the region.



Fort Bragg Regional Alliance

The Fort Bragg Regional Alliance represents eleven counties and 73 municipalities that are planning and preparing for the significant impact on these communities due to the growth and other changes originating from Base Realignment and Closure (BRAC) 2005 actions in and around Fort Bragg and Pope Air Force Base. This round of BRAC will cause the area to grow significantly as 40,000 military and civilian personnel and their families follow the relocation of the U.S. Army Reserve Command and U.S. Army Forces Command from Fort McPherson, GA to Fort Bragg, NC. The Regional Alliance works to unify and coordinate these efforts and to provide a regional approach to the planning and implementation effort. The organization works with federal and state agencies, military departments and the installation to support transition actions, minimize the negative impact on the community, and maximize the economic growth potential. To the extent possible, the Regional Alliance works with existing organizations and agencies to utilize current capabilities and relationships.



Communities in the Fort Bragg Regional Alliance's planning area are now planning for the projected growth stemming from the 2005 BRAC by supporting new installation requirements and trying to determine how the changes and growth will affect our local communities and region. The influx of newcomers, area schools, transportation networks and the region's workforce needs will grow as will infrastructure, medical and others.

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