



COUNTY OF

**Pender County
Comprehensive Land Use Plan**

June 21, 2010

PENDER



Pender County Comprehensive Land Use Plan

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Pender County Comprehensive Land Use Plan

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Acronyms and Abbreviations

Acronyms and abbreviations used in the Comprehensive Land Use Plan.

AEC	Area of Environmental Concern
BASE	Business Alliance for a Sound Economy
BFE	Base Flood Elevation
CAFO	Concentrated Animal Feeding Operation
CAMA	Coastal Area Management Act
CDBG	Community Development Block Grant
CFCC	Cape Fear Community College
CLUP	Comprehensive Land Use Plan
CPPC	Comprehensive Plans and Policies Committee
CRS	Community Rating System
CTP	Comprehensive Transportation Plan
CWMTF	Clean Water Management Trust Fund
DCM	NC Division of Coastal Management
DWQ	NC Division of Water Quality
EDC	Economic Development Commission
ETJ	Extraterritorial Jurisdiction
FDPO	Flood Damage Prevention Ordinance
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographic Information System
GMP	Growth Management Plan
HMP	Hazard Mitigation Plan
HUD	United States Department of Housing and Urban Development
LID	Low Impact Development
LOS	Level of Service (transportation)
LUC	Land Use Classification
LUP	Land Use Plan
MGTF	Military Growth Task Force
MPO	Metropolitan Planning Organization
NCAC	North Carolina Administrative Code
NCCF	North Carolina Coastal Federation
NCDOT	North Carolina Department of Transportation
NCGS	North Carolina General Statutes
NHC	New Hanover County
ONWASA	Onslow Water and Sewer Authority
ORW	Outstanding Resource Waters
PARTF	North Carolina Parks and Recreation Trust Fund
RPO	Rural Planning Organization
SAP	Small Area Plan
SR	North Carolina Secondary Road
SWOT	Strengths, Weaknesses, Opportunities and Threats
TIP	North Carolina Transportation Improvement Plan
TND	Traditional Neighborhood Development
UDO	Unified Development Ordinance
USACE	United States Army Corps of Engineers
VAD	Voluntary Agricultural District
WID	Wilmington Industrial Development
WRC	Wildlife Resources Commission
WSD	Water and Sewer District
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

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CAMA Location Matrix

	Page (s)
Organization of the Plan. If document does not follow the outline of Rules, a matrix shall be included showing the exact location of required elements.	Matrix: 1
Community Concerns and Aspirations: Key issues & Vision statement:	Sec.1:1-4
Analysis of Existing and Emerging Conditions within the planning jurisdiction.	Appendix B
<u>Population, Housing, and Economy.</u> Including 5 - 10 – 20 year) projections.	B 13-39
<u>Natural systems analysis.</u>	
o Mapping and analysis of natural features.	B 48-54
o Composite map of environmental conditions: Breaks community into 3 classes of developability based on environmental conditions.	Appendix D
o Description of Environmental conditions:	B 48-54
<u>Analysis of Land Use and Development: Existing Land Use Map</u>	Appendix D
o Analysis of conflicts, trends, and areas expected to grow within next 5 years and areas of any potential conflicts w/composite map.	D 1-2
o <u>Projections of future land needs.</u> Short term (5-10-20 year) projections population & land needs. May be increased up to 50%. Low or no growth projections of land needs may consider economic strategies.	Figure D.1
<u>Analysis of Community Facilities.</u> Existing/planned capacity, location, & adequacy of key facilities that serve community's existing/planned population and economic base including:	Appendix B
o Public and private water supply and wastewater systems.	B 75-86
o Transportation systems.	B 87-93
o Stormwater systems & other systems & services	Appendix B
<u>Land Suitability Analysis & Map</u>	Appendix D
<u>Review of Current CAMA Land Use Plan.</u>	A 32-33
Plan for the Future: Land use and development goals & Policies	Section II
Land Use Plan Management Topics	Section II:1
Public Access: <u>Goal:</u> Maximize public access/ <u>Objective:</u> Access opportunities for the public	II.7.C.1
o <u>Requirements:</u> Establish local criteria for frequency and type of access facilities & criteria for areas targeted for beach nourishment.	N/A
Land Use Compatibility: <u>Goal:</u> Ensure development/use of resources or preservation minimizes direct & secondary environmental impacts, avoids risks to public health, safety & welfare & is consistent w/capability of the land based on considerations of interactions of natural & manmade features.	
o <u>Objective:</u> Policies balancing protection of natural resources/fragile areas w/economic development; provides clear direction for local decision-making, consistency findings for zoning, divisions of land, & projects.	II.9A.1
o <u>Requirements:</u> Establish building intensity & density criteria for each land use designation on the FLUP Map; Establish local mitigation criteria and concepts.	
	Section III
Infrastructure Carrying Capacity: <u>Goal:</u> Ensure public infrastructure systems are appropriately sized; located & managed so quality & productivity of AECs/fragile areas are protected or restored.	
o <u>Objective:</u> Establish level of service policies/criteria for infrastructure consistent w/Projections of Future Land Needs.	II.1A.1.1-6
o <u>Requirements:</u> Identify/establish service area boundaries; Correlate FLUPM categories w/existing and planned infrastructure.	

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CAMA Location Matrix

<p>Natural Hazard Areas: <u>Goal:</u> Conserve/maintain barrier dunes, beaches, flood plains, & other coastal features for natural storm functions & their natural resources w/recognition to public health, safety, and welfare issues.</p> <ul style="list-style-type: none"> ○ <u>Objective:</u> minimize threats to life, property, & natural resources from development located in/adjacent to hazard areas. ○ <u>Requirements:</u> density/intensity criteria for new/existing development & redevelopment including public facilities and infrastructure to better avoid or w/stand natural hazards; Correlate existing and planned development with existing and planned evacuation infrastructure. 	II.6A, 9A 6A.1.2, 9A.1-13
<p>Water Quality: <u>Goal:</u> Maintain/protect where possible enhance WQ in all coastal wetlands, rivers, streams & estuaries.</p> <ul style="list-style-type: none"> ○ <u>Objective:</u> help ensure that WQ is maintained if not impaired & improved if impaired. ○ <u>Requirements:</u> Policies that help prevent or control nonpoint source discharges; policies & land use categories aimed at protecting open shellfishing waters/restoring closed or conditionally closed. 	II.6A.1 II.6A.1 II.6A.1
<p>Local Areas of Concern: <u>Goal:</u> Integrate local concerns with the overall goals of CAMA.</p> <ul style="list-style-type: none"> ○ <u>Requirements:</u> Evaluate local concerns and issues for the development of goals, policies and implementation strategies. 	Section II Section II:1-11
<p>Future land use map. Depicts policies application for growth and development, desired future patterns of land use/development with consideration given to natural system constraints & infrastructure policies. Shall include at a minimum:</p> <ul style="list-style-type: none"> ○ 14-digit hydrological units encompassed by the planning area; ○ areas/locations planned for conservation/open space w/description of compatible uses ○ areas/locations planned for future growth/development w/descriptions of: <ul style="list-style-type: none"> ○ predominant & supporting land uses that are encouraged in each area; ○ overall density/development intensity planned for each area; ○ areas for infill, preservation, and redevelopment; ○ existing/planned infrastructure, including major roads, water, and sewer. 	Section III Section III Section III Section III Section III B 77-78
<p>Tools for Managing Development. (initial five-year action plan for implementation)</p> <ul style="list-style-type: none"> ○ <u>Guide for land use decision-making</u> ○ <u>Existing development program.</u> This description of community's approach to coordinating these codes and rules to implement the LUP. 	Section I:3 Section I:3-4
<p>Policy Impact Analysis</p> <ul style="list-style-type: none"> ○ Contain description of type/extent of analysis to determine the impact of Plan policies on management topics; both positive & negative; description of policies/methods/programs & processes to mitigate negative impacts on applicable management topics. ○ If local policies exceed the State and Federal requirements, such policies must be identified & to what extent. If the local body intends to rely on Federal/State laws & regulations it shall reference in the plan. ❖ If development patterns/uses are not consistent w/natural systems analysis, or the LSA, then includes description of steps local government will take to mitigate the impacts. ❖ Include estimate/cost of any facilities or services that shall be extended or developed. ❖ Amount of land allocated to various uses shall be calculated and compared to the projection of land needs. The amount of land area thus allocated to various uses may not exceed projected needs; except for slow growth communities. 	Appendix D N/A N/A N/A D:2

Pender County Comprehensive Land Use Plan

Section I: Executive Summary

Introduction

Situated in southeastern North Carolina, Pender County is a large and diverse community covering 870 square miles – the 10th largest county in NC. Pender County hosts six small municipalities but the great majority of the County remains rural and unincorporated.

Northern and western portions of the County consist primarily of farm and forest land with small, scattered, but tight knit rural communities. By contrast, southern and eastern portions of Pender County are experiencing substantial suburban growth that is attracted to the coast and to the growing metropolitan area around the City of Wilmington and New Hanover County. To a lesser degree this area of the County is also influenced by the City of Jacksonville and the expanding Camp Lejeune Marine Corps Base just to the north in Onslow County.

Growth in Pender County is representative of what is happening all along coastal North Carolina – traditionally rural, agrarian counties are being challenged and transformed by unprecedented growth. Areas close to the Atlantic Ocean and to the scenic rivers of eastern North Carolina are experiencing enormous development interest and pressure. In the past twenty or so years, growth has been so relentless that the County has not been able to meet all the challenges that growth has wrought. Pressure on the transportation system, demands on the school system, and the need for more public infrastructure and for more recreational opportunities have all made handling growth a significant procedural and budgetary challenge.

Pender County faces a challenging future, but one full of promise for a better community, a higher quality of life and sustainable development within the context of preservation of cultural and natural resources that constitute the basis of the County's unique living environment. The leaders and citizens of Pender County want to grow while preserving the best elements of the County's rich heritage for the benefit of current and future citizens.

The Costs and Benefits of Growth

Growth brings both costs and benefits. The typical growth pattern starts with an initial spurt in residential growth followed by commercial activities that are attracted by new household spending power. The difficulty is that residential growth does not generate enough revenue to pay for services demanded. New residents need new and improved school facilities; expanded public water/sewer capacity and distribution/collection systems, and expanded parks and recreation facilities and programs. Population growth also increases demand on other public services typically provided by counties – health, social services, and public safety. And increasing traffic volumes can overwhelm the State road system if new development does not contribute to and adhere to a well-planned street system hierarchy.

Pender County is intentional about attracting new industrial and business growth that will bring new and expanded job opportunities. Locally-based industries not only provide better employment opportunities and contribute to reducing vehicle miles traveled to work, but also contribute significantly to the local tax base while demanding little in high cost services. Bringing in new industrial investment is essential to the continuing economic viability of the County.

Pender County Comprehensive Land Use Plan

While attracting industrial investment is important, agricultural activities in Pender County remain a viable use of the land. Agriculture contributes to the local economy while the traditional agricultural lifestyle and beauty of the rural areas of the County remain a strong part of the County's identity. Valuable agricultural and forestry lands need to be maintained and protected by focusing development into areas of the County where providing public services will be more cost effective.

The Planning Process

The comprehensive land use planning process, begun in fall 2008, was in some regards blessed by the national and global economic downturn which considerably slowed growth pressures. The slowdown in demand allowed citizens, leaders and staff more time to devote to the development of the plan. The planning process provided the County with the opportunity to assess where it is today, to identify growth challenges and opportunities, and to develop the tools to help manage growth to achieve a more promising future.

The planning process consisted of two inter-related components. The first step was to prepare the comprehensive land use plan that sets goals and policies for the future. The second step, still underway, involves updating regulatory standards and procedures and combining freestanding ordinances into a unified development ordinance. Successful completion of both components is essential to ensuring that Pender County is ready for the next wave of growth.

The land use planning process was intended to:

- promote consensus and build broad support for established goals
- provide the basis for development of design standards and regulations
- establish the need for coordination among County departments and with other local units of government on land use issues and capital improvement projects

What is a Comprehensive Land Use Plan?

A comprehensive plan is the official land use policy statement for the County and should be used faithfully and consistently to facilitate orderly growth and development. As a roadmap for growth, the plan should be used by County leaders, staff, citizens and private land owners and developers as the basis for evaluating short-term actions against long-term goals. The plan should be used as a guide in developing and approving land development proposals and for setting capital improvement plans and priorities. Overall, the plan is the major statement of community values that set the framework for achieving a more sustainable future.

The adoption of a comprehensive plan demonstrates that Pender County has a vision for the future and plans to manage growth to achieve that vision. Having a comprehensive plan and supporting land use standards and regulations will encourage future investment and win support for private and public development projects. Assuming responsibility for the future is the first step in encouraging the kind of quality development that will help ensure Pender County's long term value as a place to live, work, and play.

Pender County Comprehensive Land Use Plan

Having a plan improves the County's ability to create more livable communities with significant environmental, ecological, social, recreational, and economic benefits. To that end, plan goals and policies seek to provide for a balance of private and public interests in a coordinated, cooperative and fair manner. Used consistently as a guide for decisions, the County will be better able to preserve the opportunity for future generations for sustained quality of life.

The plan sets the course for future development based on smart growth principles that seek to conserve resources and create more integrated, people-friendly living environments. Smart growth planning seeks to provide more predictability in the development process while reducing costs to build, operate and maintain public infrastructure and services. Using smart growth principles as the basis for growth helps ensure that growth happens within the context of the long-term health of the environment. The goal is growth that brings lasting value for current and future residents by minimizing environmental impacts.

Private and public projects should incorporate and demonstrate adherence to smart growth principles. The following ten principles (www.smartgrowth.org) represent the essence of smart growth:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable communities
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions fair, predictable, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

Comprehensive Plan and Zoning Significance of the Plan on Decision Making

The comprehensive plan is not a zoning document – it is a policy document. Effective January 1, 2006, the State of North Carolina amended planning statutes to strengthen the role of adopted plans in the consideration of zoning amendments. NC requires county planning boards to include written comments on the consistency of any proposed zoning amendment with the comprehensive plan and any other relevant plans (such as a small area plan, a corridor plan, or a transportation plan) adopted by the governing board. A statement from the planning board that the proposed amendment is inconsistent with a plan; however, does not preclude the governing board from adopting the amendment.

In accordance with G.S. 160A-382, G.S. 160A-383, G.S. 160A-341 and G.S. 160A-342, the county governing board / board of commissioners must approve a statement on consistency with the comprehensive plan before adopting or rejecting any proposed zoning amendment. The board decision does not have to be consistent with the comprehensive plan, but any inconsistency must be identified and explained. The board statement must also explain why the board believes that the action taken is reasonable and in the public interest. The comprehensive plan recommends that if a proposed zoning amendment is not in compliance with the plan, that a plan amendment be submitted and considered prior to or concurrent with consideration of the rezoning request.

Pender County Comprehensive Land Use Plan

The major implementation strategy outlined in the Plan is the creation of a unified development ordinance which was adopted on June 21, 2010 and became effective on July 1, 2010. Other actions have included amending this plan so it may also serve as the certified CAMA Land Use Plan, adopting the Parks and Recreation Master Plan, developing a comprehensive transportation plan, establishing voluntary agricultural districts, among others. The challenges for the County are to provide for expanded public services in as efficient manner as possible, to preserve and protect natural and cultural resources that give Pender County the character and charm that make the community attractive for living and working, and to preserve to the greatest extent possible the rural and agricultural heritage that defines the history of the County.

Procedures for amending this plan are detailed in Section II:11. As this plan also serves as the Certified CAMA Land Use Plan, all further amendments will require certification by the Coastal Resources Commission.

Guide to the Plan

In addition to Section I, the plan consists of two other sections and three appendices.

Section II Issues, Goals and Policies

Section II represents the culmination of the planning effort. Section II starts with a discussion of growth issues and presents a list of goals and policies for implementation. Each goal statement is followed by a list of policies that offer guidance on specific actions that should be undertaken.

The eleven goal areas are:

1. Growth Management
2. Infrastructure and Community Services
3. Preferred Development Pattern / Community Appearance
4. Housing and Community Development
5. Natural Resource, Historic and Cultural Preservation
6. Parks, Recreation, Open Space, and Waterway Access
7. Agricultural Conservation
8. Hazard Mitigation
9. Economic Development
10. Small Area Plans
11. Procedure for Amendments to the Comprehensive Plan

Section III Land Use Classifications and Future Land Use Maps

Section III describes the six land use classifications that are used to graphically depict the desired future land use pattern on the future land use maps. The six land use classifications are:

1. Conservation
2. Rural Growth
3. Suburban Growth
4. Mixed Use

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5. Office/Institutional/Commercial
6. Industrial

This section also includes four future land use maps:

1. Countywide Future Land Use
2. Coastal Pender Future Land Use
3. Rocky Point Future Land Use
4. US 421 South Corridor Future Land Use

Appendix A – Current Plans and Policies

Appendix A describes the results of a review and analysis of current land use policies and regulations. The review establishes baseline information about the state of planning in Pender County in 2008-09. The in Appendix A assessment served as the basis for discussion with the Committee about specific issues and concerns that needed to be addressed in the development of the Comprehensive Land Use Plan. In particular, this assessment identifies conflicting policies, standards, requirements, and practices in current policies and ordinances.

Appendix B – Existing Conditions

Appendix B summarizes background information, demographics, and key facts that have impacted or that demonstrate past growth and development in Pender County. This appendix includes an inventory and analysis of historic and projected demographic and economic data along with an inventory of existing natural and manmade physical conditions that influence growth and development in Pender County.

Appendix C – The Planning Process

Appendix C describes the steps involved in the public planning process. This appendix includes a description of all methods and avenues that were employed to ensure wide public involvement and consensus building during the planning process.

Appendix D – CAMA Planning Requirements

Appendix D includes items to satisfy requirements of the Coastal Area Management Act's Land Use Planning guidelines. With the inclusion of items in this appendix and elsewhere as described in the CAMA Requirement Matrix, this plan will also serve as the required CAMA Land Use Plan for Pender County.

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Section II: Issues, Goals, and Policies

Introduction

Plan goals and policies are intended to influence the timing, type, location and quality of future development within Pender County. By establishing and adhering to goals and policies, County leaders and staff working in concert with citizens, property owners and developers can ensure quality growth that meets the needs of current and future residents. Plan goals and policies presented in this section are based on planning principles in use by local governments in North Carolina and throughout the United States but are fashioned to specifically address the unique land use planning issues and concerns of Pender County.

Goals and Policies

Goals and policies are organized into eleven (11) categories:

1. Growth Management
2. Infrastructure and Community Services
3. Preferred Development Pattern / Community Appearance
4. Small Area Plans
5. Housing and Community Development
6. Natural Resource, Historic and Cultural Preservation
7. Parks, Recreation, Open Space, and Waterway Access
8. Agricultural Conservation
9. Hazard Mitigation
10. Economic Development
11. Procedure for Amendments to the Comprehensive Plan

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Issue 1: Growth Management

Topic A: Growth Management - Timing, Location and Intensity

The private market is the primary driver of growth; however, local governments can affect the market through the adoption and enforcement of land use regulations and through the provision of services. Local governments are charged with protecting the health, safety, and public welfare (G.S. 153A 342-349.11) and for providing for the public good. As such, local governments have an interest in ensuring that the timing, location and intensity of growth are sustainable.

Local governments can affect growth by the private market by zoning adequate, properly located land that is served by water and sewer services, schools, police and fire protection, and a transportation network. Local governments, as providers of these services, have an interest in ensuring that their public investments in water and sewer service, schools, police and fire protection and transportation are used to support growth in an efficient and sustainable manner. For instance, growth that is located adjacent to or near existing water and sewer service lines does not require the same cost to extend those lines as would be true of development located farther away.

Extending service lines into undeveloped areas often encourages development which will reduce the longer term supply of developable land and affect the community's ability to provide services in a sustainable manner. For instance, development of suburban or urban densities within a primarily agricultural community can create problems for those who depend on working lands for their living.

Pender County can enhance its ability to direct growth through coordinated planning and extension of infrastructure, primarily water and sewer services.

Pender County has several areas with distinctly different characteristics. The western portion of the County – west of the I-40 /US 117 corridor – is largely rural and undeveloped with a strong agricultural tax base. The towns of Burgaw, Watha and Saint Helena are located along the I-40/US 117 corridors which run essentially north-south through the middle of the County.

East of the I-40 corridor, much of Pender County's land area is contained in two protected areas – Holly Shelter and Angola Bay. These two gamelands which are owned by the Wildlife Resources Commission comprise over 77,000 acres and represent about 14% of the total land area within the County.

The most intensely residential-commercial developed areas of the County are located in the southeast along and near the Intracoastal Waterway. The towns of Surf City and Topsail Beach along with the unincorporated Hampstead and Scotts Hill communities comprise a large portion of the County property tax base. Another unincorporated area of the County that is experiencing economic development is the Rocky Point area just

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west of the interchange of NC 210 with I-40 at Exit 408 just north of the Pender County/New Hanover County line.

Some of the issues discussed by the CPPC included:

- ▶ possibility of incorporation of urbanizing communities
- ▶ concerns about the cost to property owners in potentially annexed areas
- ▶ sprawl and strip development patterns
- ▶ future of US 17 - planned bypass and current alignment
- ▶ proximity to Wilmington/New Hanover County which provide most employment opportunities
- ▶ encouraging more employment opportunities versus remaining primarily a bedroom community to New Hanover and Onslow Counties
- ▶ impact of build out in New Hanover County on Pender County
- ▶ impact of growth at Camp Lejeune in Onslow County
- ▶ balancing density - single family, multi-family and mixed use
- ▶ meeting rental housing demand
- ▶ perception quality of schools varies within the County
- ▶ appropriate types of growth for rural areas
- ▶ lack of services in rural areas

Growth Management Goal 1A.1

Manage the physical growth and development of Pender County by promoting more intensive land uses in key locations identified for such growth while preserving and protecting the unique physical character and social assets of the predominant rural lifestyle and coastal environment that makes the County a unique place to live.

Policy 1A.1.1 Encourage development in and around municipal corporate limits and other developed areas within the County to yield a more compact pattern of development that will reduce suburban/rural sprawl.

Policy 1A.1.2 Encourage development in areas where the necessary infrastructure – roads, water, sewer, and schools - are available, planned or can be most cost effectively provided and extended to serve existing and future development.

Policy 1A.1.3 The County shall actively direct growth towards suitable land areas and away from fragile natural resources areas, conservation areas, and hazardous areas.

Policy 1A.1.4 The County should develop and utilize innovative and flexible land planning techniques that encourage developments to efficiently use land resources that result in more compact urban areas, infill development, redevelopment, and the adaptive re-use of existing buildings.

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Policy 1A.1.5 The County supports a pro-business/pro-growth attitude, balanced by a concern for preserving the natural assets and quality of life factors that make the area attractive to visitors and permanent residents alike.

Policy 1A.1.6 Use conditional zoning process to enable developers to contribute to addressing the impact of developments on capital facilities and other resources; incorporate regulations into new Unified Development Ordinance to enable a small project to address specific impacts to an existing adjacent community.

Topic B: Growth Management - Intergovernmental Coordination

The actions of one local government affect others, and local governments can enhance their ability to manage growth by working together in a coordinated manner. Even if a local government is planning and managing its own growth well, some issues can be effectively addressed only through strong coordination and cooperation among neighboring units of government. Transportation, water quality, water supply, air quality, and habitat protection usually must be addressed regionally as well as locally. Common goals such as infrastructure improvements, business recruitment strategies, and identifying industrial sites will also require combined efforts.

NC local governments have extensive authority to plan together and coordinate with one another. There is authority for voluntary interlocal coordination on planning and management issues. Even with intergovernmental cooperation, it is imperative that each local government remain autonomous and strengthen positions within the local planning jurisdiction

Growth Management Goal 1B.1

Continue existing and develop new partnerships among Pender County local governments and with surrounding communities to better address growth management in a coordinated manner.

Policy 1B.1.1 Continue participation in the Wilmington MPO and Cape Fear RPO.

Policy 1B.1.2 Create regular forums for local government officials to promote intergovernmental cooperation within Pender County and with surrounding counties on topics of mutual interest.

Policy 1B.1.3 Coordinate and plan public investment decisions and extraterritorial jurisdictions to prevent duplication of efforts among local government

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Issue 2: Infrastructure and Community Services

Investments in infrastructure, including water and sewer, transportation, schools, parks, solid waste management, stormwater management and emergency and public safety services can encourage development and guide the timing and location of development. It is a proper function of governments to provide public services and infrastructure and it is a responsibility of government to ensure that it is able to continue to provide services and infrastructure in a sustainable manner as growth continues to occur.

Topic A: Infrastructure and Community Services - Water and Sewer

Water and sewer improvements are necessary for property to be developed to urban densities. Extensions of water and sewer lines significantly affect the timing and density of development and it is imperative that land use and utility extensions be coordinated in order to achieve the desired land use patterns identified in the Comprehensive Land Use Plan. Through utility planning, development required to use public water and sewer will occur in a more orderly pattern adjacent to existing developed areas.

Utility extension policies directly impact the cost, timing and spatial distribution of development. Utility extension policies should address:

- ▶ Contribution a developer must make for the extension;
- ▶ Location, alignment and capacity of facilities to be extended;
- ▶ Potential and process for recouping costs for providing excess capacity;
- ▶ Areas where facilities may or may not be extended; and
- ▶ Timing of facility extensions.

The conditions under which utilities may or must be extended to a project should be consistent with comprehensive plan policies discouraging sprawl, premature subdivision, conversion of agriculturally viable land and inefficient infrastructure investments. The coordination of utility extension and land use policies is critical to avoid creating incentives for growth that are inconsistent with the land use plan or creating disincentives for desired growth.

Water Services in Pender County

At present, unincorporated areas of Pender County do not have a centralized water supply and distribution system; however, in 2006 the County established six (6) Water & Sewer Districts to serve various population areas in the County. To date, two (2) Districts (Rocky Point/Topsail WSD and Maple Hill WSD) provide water service to over 4,600 residential and commercial customers. Each of the County's municipalities, with the exception of Watha, has its own water system.

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In 1999 Pender County started a program to extend water service to existing residential and commercial areas with sufficient densities to support voluntary connection to the system. After completing five (5) phases of construction, Pender County Utilities currently serves over 4,600 residential and commercial customers. In 2009, the County began design of a new 4 million gallon per day water treatment plant at the new county commerce park on US 421 to serve water and sewer districts in the County.

The County is also exploring regional cooperation with Cape Fear Public Utility Authority, Lower Cape Fear Water and Sewer Authority, Onslow Water and Sewer Authority (ONWASA), and the Town of Surf City to more effectively, timely and cost-efficiently expand water and sewer services.

Sewer Services in Pender County: The unincorporated area of Pender County lacks centralized sewage treatment services and there are increasing pressures for development of centralized sewage. The County received a \$757,000 State grant in 1999 for developing a sewer system to serve industrial/business development in the Rocky Point area. A “regional” pump station was constructed near the intersection of Highway 117 S and Highway 133 and currently serves 15 industrial and commercial customers. The pump station sends wastewater via a 6” force main across the Pender County line into New Hanover County, eventually discharging into the Cape Fear Public Utility Authority’s Northside Wastewater Treatment Plant (WWTP). Other sewer service areas are being explored. (See Water and Wastewater Master Plans.)

Package Sewage Treatment Plants in Pender County: Package plants have been discouraged for many years by the State largely due to challenges involved in proper operation and maintenance. New package plant treatment technologies and recommended operational organizations are being developed that offer hope in use of package sewage treatment plants. Package treatment plants have the potential to fill a technological void. For instance, in sensitive environmental areas, package sewage treatment plants may offer the best hope of allowing for greenspace residential development. Pender County has elected to allow package treatment plants, but only where centralized public sewer is not feasible.

Water and Sewer Goal 2A.1

Manage the timing, location and intensity of growth by locating water and sewer improvements in accordance with the Comprehensive Land Use Plan and Water and Wastewater Master Plans.

Policy 2A.1.1 Develop a countywide plan for the expansion and extension of water and sewer improvements and develop a capital improvements program, using revenue from water and sewer utilities, to finance those improvements.

Policy 2A.1.2 Allow the use of package treatment plants only in areas where development is desirable but public sewer service is not feasible. If package treatment plants are use they should be designed to enable, at minimum public

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cost, the conversion of the system to public ownership, operation and maintenance in the future when public sewer service is viable, and cost effective.

Policy 2A.1.3 Encourage systems to be designed and located such that expansion to serve future development is feasible.

Policy 2A.1.4 Seek regional cooperation and coordination to maximize service delivery while minimizing duplication of infrastructure and services.

Policy 2A.1.5 The County shall vigorously pursue grants to expand the sewer and water system to serve 1) priority economic development areas and 2) areas that have inadequate or degraded service levels or environmental concerns with onsite systems.

Topic B: Infrastructure and Community Services - Transportation Improvements

In North Carolina, the State has the primary responsibility for improvements to major and minor thoroughfares that comprise the backbone of the transportation system. Counties within North Carolina generally do not spend local tax funds on transportation system improvements or maintenance.

Pender County participates in two regional transportation planning organizations. The southern and eastern portions of the County are included within the urban transportation planning area for the Wilmington Urban Area Metropolitan Planning Organization (Wilmington MPO). The County also participates in the Cape Fear Rural Planning Organization (Cape Fear RPO) which covers Pender, Brunswick and Columbus counties.

Private Streets

Private streets have a role to play in urbanizing areas of the County. However, the resistance of developers and property owners to extending or connecting private streets to other private streets or to public streets decreases public access and alternative vehicular routes. Lack of interconnectivity forces vehicular traffic back to public collector streets and major thoroughfares which increases traffic volumes and decreases traffic carrying capacities of public streets.

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Transportation Goal 2B.1

Manage the timing, location and intensity of growth by coordinating transportation improvements in accordance with the Comprehensive Land Use Plan and the Coastal Pender Collector Street Plan.

Policy 2B.1.1 Ensure that the Pender County Comprehensive Transportation Plan is updated and that it is coordinated with the Comprehensive Land Use Plan.

Policy 2B.1.2 Ensure that Pender County's transportation needs are adequately addressed through the Wilmington MPO and Cape Fear RPO Transportation Improvement Program requests.

Policy 2B.1.3 The County should utilize and promote a hierarchical, functional transportation system, that prioritizes needed improvements, and promotes the proper arrangement of land use patterns to ensure and determine the proper levels of service (LOS) to reduce any associated negative impacts to the overall transportation network.

Policy 2B.1.4 Adopt regulations that require new developments and individual sites throughout the County to provide vehicular and pedestrian interconnectivity to existing or planned adjacent sites and adjoining developments.

Policy 2B.1.5 The County should utilize the legislatively enabled authority vested them to work with public and private partners to explore and implement an array or innovative techniques for financing new surface transportation projects as well as providing improvements to current facilities.

Policy 2B.1.6 The County shall work with the NCDOT, MPO, and the RPO to encourage alternative forms of transportation including regional rail, local transit, Transportation Demand Measures such as van-pooling and ride sharing, and an inter-modal transportation system.

Policy 2B.1.7 Ensure that the Coastal Pender Collector Street Plan, adopted on May 21, 2007, is used consistently when reviewing and approving new development proposals within the Hampstead and Scotts Hill areas of the County. Consider applying Plan recommendations for roadway connectivity to all new developments countywide.

Policy 2B.1.8 As recommended in the Coastal Pender Collector Street Plan, develop a system to track and monitor all future right-of-way dedications, "paper streets", and stub-outs. Research recorded documents to expand the database

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to include existing / paper streets to ensure maximum coordination and connectivity.

Policy 2B.1.9 As recommended in the Coastal Pender Collector Street Plan, all new streets that have the potential to connect to adjacent developments should be constructed to NCDOT secondary road standards and accepted for public maintenance to ensure future connectivity.

Policy 2B.1.10 Allow and encourage flexible road design standards, incorporating low impact development and smart growth principles.

Policy 2B.1.11 Within the UDO, incorporate recommended “Regulatory and Policy Tools” set out in the Coastal Pender Collector Street Plan.

Policy 2B.1.12 The County should consider conducting studies and engaging in special planning initiatives for major transportation corridors within its jurisdiction to implement supportive plans and ordinances to assist in accomplishing the following objectives:

- preserving and maintaining existing and future transportation facilities and corridors;
- improving safety, site access and design standards;
- enabling continuity and community identity;
- enhancing aesthetic appearances of non-residential developments using reasonable architectural standards;
- enhancing landscaping regulations, and flexible yard, bulk, and area requirements.

Topic C: Infrastructure and Community Services - Schools



South Topsail Elementary School

Parents will usually consider the quality of schools in deciding where to buy a home. School systems can better plan for the need and location of new schools if they are kept up to date on population growth, especially with regards to proposed residential developments. School systems may be able to identify needed sites for new schools within new developments if they are involved in the development review process. Sometimes school systems negotiate with property owners to purchase land which exceeds their needs. If other local governments are advised of the potential availability of land on or

near a school site, they may be able to satisfy some of their need for community facilities, such as parks and libraries.

Rapid growth in Pender County, particularly in the 1990s, has placed a severe strain on capacity of the County’s public school system, especially as the composition of new

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residents has changed from a significant number of retirees toward more families with school-age children. Paying for school facilities and traffic circulation and safety near schools are important issues.

The Pender County School system actually lost enrollment during early 1980s, during the latter part of the “baby bust” period in America. However, just 5 years later, rapid growth and an increasing birth rate pushed student enrollment up by over 700 to nearly 5,000 students.

In 1996, voters approved a \$25 million school bond and in 2005 approved a \$52 million bond to address crowded conditions. Capital budgets were set to build new schools and complete much needed renovations to others:

- ▶ Two new elementary schools, North Topsail and South Topsail, were built in the Hampstead community as the first two projects under the bond referendum and a state grant.
- ▶ Two new elementary schools were built in Rocky Point. They were intended to alleviate crowded conditions at Malpass Corner Elementary and Rocky Point Elementary.
- ▶ A new middle school will house students for West Pender Middle and Burgaw Middle Schools.
- ▶ A new Topsail high school and Trask high school were built to relieve crowding of the existing high schools in the county.

School Traffic - Access, Management, and Circulation

Concerns have been expressed regarding adequacy of traffic management and site planning at County schools. There are a greater number of high school students driving, and a greater number of elementary students are being chauffeured to school by parents. Most campuses were not designed to address the vehicular traffic volumes and turning movements found at these schools today. Traffic tie-ups can be routinely lengthy and motor vehicle accidents are a constant concern.

Schools Goal 2C.1

Ensure adequate enrollment capacity in Pender County Public Schools and encourage co-location of community facilities.

Policy 2C.1.1 Create a process for all local governments, including the Technical Review Committee, to advise public school officials of pending large developments and population growth in general so that they may adequately plan to increase capacity.

Policy 2C.1.2 As Pender County Public Schools purchase properties for new schools, consider having other local governments participate in the land

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purchase in order to co-locate other public facilities, such as parks and libraries, on or near school sites.

Policy 2C.1.3 In approving new development, particularly large residential developments, work with the developer and the public school system to identify sites to be reserved for future schools pursuant to the requirements in NC General Statutes §153A-331.

Policy 2C.1.4 Ensure that capital improvements to schools adequately address the needs of different areas of the County, including improvements to existing schools update the facilities to modern standards of newer schools.

Policy 2C.1.5 Address traffic access and circulation issues through physical improvements and operating procedures.

Topic D: Infrastructure and Community Services - Libraries

The Pender County Public Library system is presently developing a building program to address existing and future library facility needs and to seek funding necessary to implement a countywide building program. The plan includes a three phase expansion plan over a 20-year period. The public library system has identified three 7-mile boundary search areas for potential future library branches as shown on the Future Public Facilities Map.

The Plan recognizes that the best opportunity for a partnership with a developer for land donation for a regional library facility will probably be in the southwestern portion of the County. The Plan recommends that the County consider offering a density credit or bonus to encourage developers to support the library capital building program through a site donation or reservation.

Public Libraries Goal 2D.1

Support Pender County Public Library building funding and program.

Policy 2D.1.1 In approving new development, particularly large residential developments, work with the developer and the public library system to identify sites to be reserved for future libraries.

Policy 2D.1.2 Ensure that capital improvements for libraries adequately address the needs of different areas of the County, including improvements to existing libraries.

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Insert Future Public Facilities Map

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Topic E: Infrastructure and Community Services - Emergency Services

The ability of law enforcement, fire and emergency medical services to respond in a timely manner to an emergency can be affected by the transportation system, the patterns of land development, the availability of fire hydrants in the case of a fire, and the specific design of a development.

For instance, a development located in a rural or suburban area will take longer to access, which is compounded if a private road system is not adequate and the design of a development does not accommodate emergency vehicles. In the case of a fire, the lack of fire hydrants with sufficient residual pressure can impede fire suppression.



To reduce the amount of property in Pender County that is greater than six miles from a fire station, the following seven future station locations (as shown on the Future Public Facilities Map) are proposed:

1. Rocky Point substation in the Carver Drive area;
2. Rocky Point substation on Shaw Highway near NC 210;
3. Long Creek substation within new development on Blueberry Road;
4. Atkinson substation in the area of NC 210 and Point Caswell Road;
5. Hampstead substation in Scotts Hill;
6. Hampstead substation on Island Creek Road near Cross Creek; and
7. Maple Hill substation near NC 53 and Shaw Highway.

To meet minimum state specifications, each substation would have to have two apparatuses: 1) a rated pumper with a minimum 750 GPM pump; and 2) a rated tanker with a total water capacity between the two trucks of 1500 gallons. The buildings are required to be heated, but living quarters are not required. The roster of each department would have to increase by eight (8) people (above a minimum of 20 for the primary station) for each substation added.

Emergency Services Goal 2E.1

Ensure adequate response times and capabilities of Sheriff, Police, Fire and Emergency Medical Services.

Policy 2E.1.1 Coordinate plans for Emergency Services, Fire and Emergency Medical Service facilities with the Comprehensive Land Use Plan, Transportation

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Plan and Metropolitan Planning Organization requests for Transportation Improvement Program funding.

Policy 2E.1.2 Ensure that streets and parking lots within new developments are designed and constructed to accommodate the turning radius and load bearing requirements for emergency services vehicles and equipment.

Topic F: Infrastructure and Community Services - Solid Waste Management

Solid waste management includes not only providing facilities or arrangements for disposal of solid waste, but also minimizing the amount of solid waste that must be disposed of in a landfill. The movement to recycling, reducing and reusing solid waste can provide economic opportunities for entrepreneurs who develop markets for solid waste.

Approximately 75% of Pender County's waste is residential, 19% non-residential and 4% from construction and demolition. Solid waste is collected and hauled by private enterprises. It is a concern that some County collection centers have unpaved surfaces and are prone to unpleasant, messy, and muddy conditions following rain events.

Pender County does not own or operate a sanitary landfill. Solid waste materials are collected at a transfer station in Hampstead then transported to a landfill in Sampson County.



Hampstead Trash Service, a private company in Pender County that provides recycling pick-up.

Currently, the County recycling program accepts ten recyclable materials but due to the current slow economy, there is less demand for recycled materials. The County does not have a litter or illegal household dumping prevention program, but the County code makes it illegal to do so, and establishes fines and provides for enforcement.

Solid Waste Management Goal 2F.1

Ensure adequate capacity and proper management of solid waste, including reducing, reusing and recycling materials

Policy 2F.1.1 Continue to enhance the County's recycling program by partnering with public schools to create a student-run recycling program.

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Policy 2F.1.2 Provide public education, focusing on school children, to encourage the public to reduce, reuse and recycle solid waste.

Policy 2F.1.3 Encourage entrepreneurs to recycle and reuse solid waste through economic incentives, such as a grant program to provide gap financing, needed by an entrepreneur to start a recycling program.

Policy 2F.1.4 When siting collection centers, consider surrounding land uses, traffic and aesthetics.

Topic G: Infrastructure and Community Services - Stormwater Management

Stormwater runoff is the water that runs off streets, rooftops, parking lots and other impervious and partially impervious surfaces during and after a rain or snow event. As communities develop, more impervious surfaces are created which means more stormwater runoff and less rainfall can soak into the ground to recharge water tables. Nationally, non-point sources of pollution, such as stormwater runoff from roads and parking lots and from chemicals applied to lawns, golf courses, and crops are recognized as the principal cause of water quality degradation.

Stormwater management is of particular concern in Pender County due to the County's location in the NC Coastal Plain and the proximity of development to sensitive streams, lakes and rivers and to the Atlantic Ocean/Intracoastal Waterway. For instance, a rapid influx of freshwater can change the temperature and natural salinity of sound water and disrupt the biological balance of natural systems.

The lack of natural sloping ground elevations and poorly drained soils can also contribute to stormwater problems. Large ponds of stormwater that do not adequately drain can create hazardous driving conditions on roadways and can serve as breeding grounds for disease-carrying mosquitoes. Often drainage ditches that were installed in the past have not been maintained and have in some cases been filled in by property owners. Pender County has just recently appointed a drainage task force to study stormwater drainage issues.

In developing stormwater management goals and policies, the Business Alliance for a Sound Economy (BASE) and the North Carolina Coastal Federation jointly recommended that the County consider:

1. Developing policies and techniques that encourage the use of voluntary low impact development standards that can be applied to projects at the individual lot level or to major residential or commercial developments to mimic natural features and pre-development hydrology.
2. Developing policies and techniques that incorporate voluntary low impact development practices. The County should adhere to the guidance set forth from the Division of Water Quality for details on how to design, construct and maintain LID practices.

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3. Implementing fee-based as well as land-based incentive packages for developers that utilize low-impact development (LID) techniques to manage the

Stormwater Management Goal 2G.1

Protect the water quality of public trust waters in and around Pender County, particularly Class SA waters. (Class SA waters, as designated by the NC Division of Water Quality, are High Quality Waters (HQW) that are rated excellent based on biological and physical/chemical characteristics; SA waters are typically used for commercial shell fishing.)

HQW is a classification intended to protect waters that are 1) Water Supply I or II waters; 2) Shellfishing waters; 3) Outstanding Resource Waters; 4) Waters designated as Primary Nursery Areas or other functional nursery areas by the Marine Fisheries Commission; or 5) Native and Special Native (wild) Trout Waters as designated by the Wildlife Resources Commission.

The Outstanding Resource Waters (ORW) classification is intended to protect unique and special waters having excellent water quality and of exceptional state or national ecological or recreational significance. ORW classified waters are threatened by sediment and stormwater runoff from development.

To qualify for ORW designation, waters must be rated as having an “outstanding resource value.” This resource value must be one of the following: 1) Outstanding fish habitat or fisheries; 2) Unusually high level of water-based recreation; 3) Special designation, such as North Carolina or National Wild/Scenic/Natural/Recreational River, National Wildlife Refuge, etc.; 4) Be an important component of a state or national park or forest; or 5) Be of special ecological significance.

potential impacts of stormwater runoff within the county.

Policy 2G.1.1 Consider establishing a stormwater/ditch maintenance program coordinated through the County Public Works Department and with the NC Department of Transportation.

Policy 2G.1.2 The UDO shall address the use of fill material to create building sites/lots by altering natural drainage patterns.

Policy 2G.1.3 Pender County will consider developing policies and techniques that encourage the use of voluntary low impact development standards that can be applied to projects at the individual lot level or to major residential or commercial developments to mimic natural features and predevelopment hydrology.

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Policy 2G.1.4 When considering developing policies and techniques that incorporate low impact development practices Pender County should adhere to the guidance set forth from the Division of Water Quality for details on how to design, construct and maintain LID practices.

Policy 2G.1.5 Consider implementing fee-based as well as land-based incentive packages for developers that utilize low-impact development (LID) techniques to manage the potential impacts of stormwater runoff.

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Issue 3: Preferred Development Pattern / Community Appearance

Topic A: Preferred Development Patterns

An essential part of any land use planning process is for the public to determine what type of community they want in the future. The predominant development pattern in much of Pender County is suburban. Most people living in Pender County work elsewhere. There also appears to be a preference for traditional single-family communities and for clean, modern industries that do not have negative environmental impacts.

Preferred Development Patterns Goal 3A.1

Develop a preferred growth pattern that includes traditional suburban communities but also allows for higher density residential development and for innovative mixed-use developments to encourage more compact, sustainable growth patterns.

Policy 3A.1.1 Use the creation of the Unified Development Ordinance (UDO) as an opportunity to allow more development flexibility while setting higher standards for sustainable development.

Policy 3A.1.2 To the extent possible, incorporate more flexible zoning categories that establish performance standards and do not exclude uses as much as encourage compatible co-location of uses to encourage sustainable land use patterns. Neo-traditional or traditional neighborhood planning standards should provide for a compatible mix of uses to encourage more livable communities.

Policy 3A.1.3 Support the inclusion in the UDO of conditional zoning which provides more flexibility for the land owner/developer and the County to mutually agree upon specific development conditions and requirements. (Conditional zoning is a method that incorporates all the site-specific standards directly into the zoning district regulations and then applies that zoning district only to the property that is the subject of the rezoning petition.)

Policy 3A.1.4 Consistently use the Comprehensive Land Use Plan, as well as other plans and studies, to determine if a rezoning request is appropriate and consistent with local policies.

Topic B: Community Design and Appearance

Community established design standards can be used to ensure that new development is compatible with existing and planned development. Design standards shape the

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location, scale and appearance of development – regulating height, bulk, setbacks, landscaping, buffering, building materials and/or architectural features. Design standards may be used to maintain the rural, historic, or other established character of an area. Performance-based design standards may be used to allow greater intensity of development in exchange for increased design amenities. Standards can be either mandatory standards or recommended guidelines.

Community design standards should address all types of land uses allowed within the County – residential, office, commercial and industrial uses. Specific standards for each zoning district should be included in the UDO.

Benefits include:

- ▶ Design standards can help soften the visual impacts of new development.
- ▶ Regulations can be tailored to the individual characteristics of the community.

Limitations include:

- ▶ Heightened regulations add a layer of complexity and cost to the development review process.
- ▶ Additional requirements can increase the cost of development.

Another key component in protecting community character and aesthetics is to provide for cluster development options. Cluster development standards allow for adjustments in the location and/or type of dwelling units and/or non-residential lots/units on a site. The technique is used to preserve environmentally sensitive areas, agricultural lands and upland sites for recreation / open space or to eliminate the need to develop portions of sites that, owing to wetlands, tree cover, or other factors, would more appropriately remain undeveloped. When applying cluster development standards:

- ▶ Reserve a combination of environmentally sensitive areas and upland sites to provide usable, consolidated open space;
- ▶ Density/intensity bonuses may be provided to encourage clustering;
- ▶ Clustering may be mandatory or voluntary; and
- ▶ Balance of property must be reserved for specified uses, as approved by County.

Benefits include:

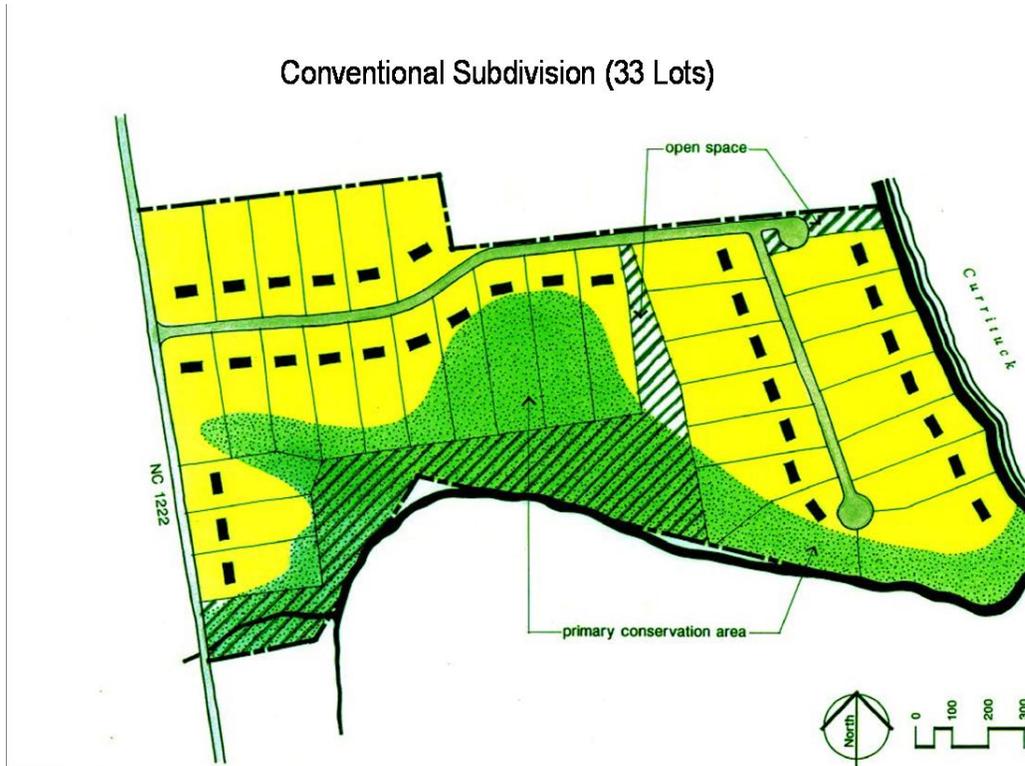
- ▶ Allows for flexibility in design to protect natural resource areas.
- ▶ Can result in preservation of substantial amounts of open space while not reducing densities.
- ▶ Construction and infrastructure costs are reduced.

Limitations include:

- ▶ If not well-designed and developed, cluster development can result in fragmented open space that makes agricultural uses difficult.
- ▶ Requires higher level of review to determine appropriate and feasible development layouts.
- ▶ Clustering is not often a popular option with developers.
- ▶ Long-term management of common open space may become problematic for homeowners.

Pender County Comprehensive Land Use Plan

Figure II-1 Conventional vs. Conservation Subdivision
from "Conservation Design for Subdivisions" by Randall G. Arendt



Pender County Comprehensive Land Use Plan

Community Design and Appearance Goal 3B.1

Provide for thoroughfare buffer overlay districts as a means to provide for undisturbed vegetated and/or natural buffers along both sides of existing and planned controlled access or limited access highways.

Policy 3B.1.1 Revise area and bulk regulations enabling flexible design standards and improved streetscape appearances.

Policy 3B.1.2 Require existing significant vegetation (mature hardwood tree species) to remain undisturbed, where possible and encourage development to incorporate significant tree preservation.

Community Design and Appearance Goal 3B.2

Improve community appearance by using cluster development options to preserve roadside views and open space.

Policy 3B.2.1 Incorporate cluster development standards in the Unified Development Ordinance.

Policy 3B.2.2 Consider providing incentives to encourage use of the cluster development option to preserve environmentally sensitive areas and upland sites as open space to protect community character.

Community Design and Appearance Goal 3B.3

Increased code enforcement staff.

Policy 3B.3.1 Increasing code enforcement staff and legal staff to support increased enforcement efforts and follow-up action.

Pender County Comprehensive Land Use Plan

Issue 4: Small Area Plans

Pender County has experienced significant population growth over the past 30 years. Census data indicate that the County's population grew 85% between 1980 and 2000. Projections are that the County will grow another 33% by the year 2010 bringing the population of the County from 28,855 persons in 1990 to an estimated 54,764 by 2010 – a 90% growth rate. The NC State Data Center projects population growth for Pender County at 96.1% from 2000 to 2030 (see Appendix B Graph B-1)

Population growth has not been evenly spread across the county. Although the majority of the County's population in 2000 Census still lived in rural areas, the percent of the population living in urban areas grew from 8% to 18% between 1990 and 2000.

Coastal Pender

Coastal Pender including the towns of Topsail Beach and Surf City and the unincorporated areas of Hampstead and Scotts Hill has experienced the highest population growth rates.

Rocky Point

Another area experiencing rapid development is the Rocky Point area located near the intersections of I-40, US 117 and NC 210. Rocky Point has not experienced as much population growth but is experiencing significant non-residential growth serving the immediate area and the traveling public along the major highways.

US 421 South

The US 421 corridor is a primary arterial running north-south in the western portion of the County. US 421 South leads into a developed industrial corridor in New Hanover County just over the county line to the south. In an effort to capture economic development in this expanding industrial area, Pender County has made plans to expand water and sewer services to serve industrial growth.

Why Small Area Plans?

Small Area Plans are meant to supplement the larger context of the Comprehensive Land Use Plan. A Small Area Plan is appropriate for a specific area of the community that has special attributes to be protected, e.g., rural character, historic significance, downtown business district, or an area that is experiencing more significant growth pressures than the community at large. The edges or boundaries of Small Area Plans are not "hard" in that future land uses recommended at area boundary may also be appropriate for areas immediately adjacent to or just outside the Small Area Plan boundary.

Benefits of Small Area Plans:

- Infill development can strengthen traditional neighborhoods and already developed areas that are experiencing more rapid growth.

Pender County Comprehensive Land Use Plan

- Infill development is less expensive to service than development in fringe areas because of established infrastructure (roads, water, sewer, etc.) and more compact development patterns.
- Infill helps create diversity of housing types and mixed-use activity centers.
- Infill helps reduce urban sprawl.

Limitations of Small Area Plans:

- Current market forces and financing systems favor development on vacant land over infill development.
- Infill can require significant public funding if infrastructure upgrades are needed.
- Affected neighbors can be vocal opponents of infill development.

In particular, the three Small Area Plans are intended to:

- address the unique character and issues and rapidly changing conditions within each area
- provide a more focused opportunity for residents to get involved in planning for their community
- address more specific issues relevant to each area in terms of growth and land use goals
- encourage and enable appropriate future growth within the boundaries of each area
- provide focus on the need for capital facilities investments that support land use policies for these areas

Pender County Comprehensive Land Use Plan

4A. Coastal Pender Small Area Plan

Coastal Pender Goal 4A.1

The primary goal of the Coastal Pender Small Area Plan is to direct higher density residential and mixed use growth toward the Scotts Hill area, closer to the New Hanover/ Wilmington metro area. Development can be expected to continue in the Hampstead community but growth is to be focused more towards the southeastern edge of the Coastal Pender area. Coordinating future growth with the adjacent local governments of Surf City to the north and New Hanover County to the south and east are of prime importance.

Large scale developments should expect to be supported by public utilities and closely evaluated through coordinated development plan review. Commercial, office and mixed used infill, re-development of existing sites and development of new sites are expected to continue as market forces permit along the US Highway 17 corridor in Hampstead.

New land use proposals and approvals should closely consider the status of future transportation projects such as the US Highway 17 / Hampstead Bypass. Development should be encouraged and/or required to protect and support the integrity of historical and cultural sites within the area.

Policy 4A.1.1 Direct and encourage future high density residential and mixed use planned development toward the Scotts Hill area. Growth in this area should be supported by public utilities in order to achieve higher densities and more compact development. Larger tracts of land should be required to submit master plans that indicate how development will be coordinated both on site and with existing or future development on adjacent properties.

Policy 4A.1.2 The preference is for larger-scale developments that plan for and provide public utilities that serve on a regional basis or that can be expanded to serve a regional purpose. Individual on-site well and septic systems and small package plants that provide water or sewer service on a small scale should not be permitted.

Policy 4A.1.3 Establish flexible development regulations which encourage a variety of mixed use infill and re-development along the US Highway 17 corridor.

Policy 4A.1.4 Incorporate transportation recommendations from the Coastal Pender Collector Street Plan into the UDO including recommendations for improved roadway interconnectivity and shared driveways.

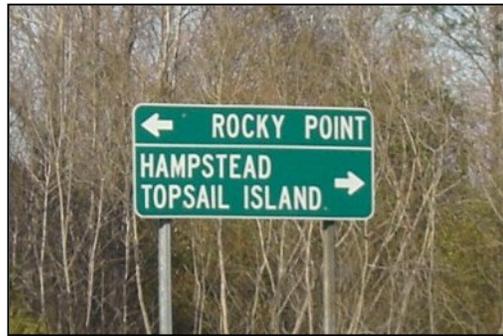
Pender County Comprehensive Land Use Plan

Policy 4A.1.5 The US 17 / Hampstead Bypass project has not yet designated a “corridor” in which a specific alignment will be designed and built. The process to designate a corridor should encourage maximum participation in gathering public input on selecting the final corridor and public support to fully fund the project. When the corridor is selected, revise the Coastal Pender Small Area Plan to reflect the proposed corridor and if necessary revise future land uses to the most appropriate category, depending on the final location of the corridor. Regulations should also be revised reflecting all legislative authority to protect the corridor from future development plans and to encourage approval of development proposals which are in harmony with the bypass project. Furthermore, adopt regulations that offer development incentives to projects that assist with right of way dedications or construction of portions of the bypass, as appropriate.

Policy 4A.1.6 Special historical/cultural features present in the Coastal Pender Small Area Plan include Poplar Grove Plantation, Browntown School, Topsail Battery Earthworks, and Sloop Point post office, among others. Incorporate UDO regulations that enable future development projects that are adjacent to or near these sites to assist in their preservation and/or restoration. Encourage original “industries” such as seafood markets within the Hampstead area to continue as viable business and community icons.

4B. Rocky Point Small Area Plan

The focus of the Rocky Point Small Area Plan is the anticipated commercial development near the intersections of Interstate 40 / NC 117 and NC 210, the additional sewer capacity becoming available from the Cape Fear Public Utility Authority, and the future of the NCDOT ‘rail banked’ corridor from Wallace to Castle Hayne.



Other important issues within this small area include new and infill development along the US 117 Highway corridor. New large scale developments need to be compatible with existing development. A future regional park is being planned for the area behind Heidi Trask High School and other recently approved projects are planned within the area.

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Rocky Point Goal 4B.1

The primary goal of the Rocky Point Small Area Plan is to accommodate higher density mixed use growth in and around the I-40 / US 117 and NC 210 intersections. Coordinating future growth with already planned projects within the area will be of prime importance. Large scale developments should expect to be supported by public utilities and closely evaluated through coordinated development plan review. Commercial, office and mixed used infill is expected to occur along the major highway corridors, particularly close to major intersections.

Policy 4B.1.1 Encourage and enable commercial and employment-related development to occur near the intersection of Interstate 40/US 117/NC 210 and along the US 117 corridor toward New Hanover County when additional sewer and water capacity is available.

Policy 4B.1.2 Focus higher density residential and other mixed use development toward existing County facilities such as Heidi Trask High School and other developing areas being served by public water and sewer.

Policy 4B.1.3 Encourage and support the re-establishment of rail-based freight and new passenger rail service along the 'rail-banked' Wallace to Castle Hayne railroad corridor. New development proposals should be carefully planned to either support this future service or not hinder future development of the railroad corridor.

Policy 4B.1.4 New development within the small area should be compatible with existing residential uses.

Policy 4B.1.5 Adopt new regulations which enable large scale residential developments to offset impacts to the County's capital facilities and to participate in future capital facilities construction.

Pender County Comprehensive Land Use Plan

4C. US 421 South Corridor Small Area Plan

The focus of the US 421 South Corridor Small Area Plan is the development of the Pender County Commerce Park and adjacent properties for major economic development projects that support the creation of new jobs and enable significant non-residential tax base growth. Once County utilities are available to this area, it is anticipated that the US 421 South corridor will receive significant interest in development of all types including market driven high intensity development which should be encouraged. Large scale developments should expect to be supported by public utilities and closely evaluated through appropriately coordinated plans.



The northern portion of the US 421 South corridor should be developed in a manner closely compatible with existing development where public utilities are not available. Major intersections within the area are expected to develop appropriately scaled commercial/office/institutional uses that support the local economy and the traveling public and transportation-related market demands.

US 421 South Corridor Goal 4C.1

The primary goal of the US 421 South Corridor Small Area Plan is the development of the Pender County Commerce Park and adjacent properties for major economic development projects that support the creation of new jobs and enable significant non-residential tax base growth.

Policy 4C.1.1 Encourage and support economic development projects of industrial, commercial and other employment-related construction in Pender Commerce Park and other properties in the vicinity.

Policy 4C.1.2 Focus other large scale residential and mixed use development closer to the New Hanover County line and smaller residential and other site development toward the northern end of the Corridor.

Policy 4C.1.3 Support the development of commercial/office/institutional land uses at major intersections along the US 421 South to serve the local economy and the traveling public and transportation-related market demands

Policy 4C.1.4 New residential development within the area should be compatible with existing residential uses.

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Policy 4C.1.5 Adopt new regulations which enable large scale residential developments to offset impacts to the County's capital facilities and to participate in future capital facilities construction.

Pender County Comprehensive Land Use Plan

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Issue 5: Housing and Community Development

Topic A: Low and Moderate Income Families and Neighborhoods



** Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

The housing and community development markets do not always address the needs of all residents, especially the needs of low and moderate income residents. In Pender County, there is a lack of workforce housing. Workforce housing is housing that is both affordable and available to essential workers such as teachers, nurses, firefighters, police officers, and retail clerks. In addition, the variety of housing options was identified as an issue that needs to be addressed.

Lack of sewer and lack of maintenance of on-site wastewater treatment facilities are a special concern in lower income portions of a community. Another concern is the age and appearance of manufactured housing (mobile homes) that are often the only cost appropriate choice for lower income households.

Low and moderate income residents and neighborhoods can be assisted by upgrading roads, water and sewer services and other community services and facilities as well as assisting in financing improvements to individual homes. The Federal Government provides funding through the Department of Housing and Urban Development (HUD) to assist local governments in funding improvements to low and moderate income communities and families. Pender County lacks staff to apply for and administer these grants but these services can be procured using specialized consulting services to oversee the programs.

Pender County Comprehensive Land Use Plan

Housing and Community Development Goal 5A.1

Ensure that low and moderate income families and communities are adequately served by public facilities and that dwelling units in these communities meet acceptable housing standards.

Policy 5A.1.1 Pender County shall seek to accommodate the development and appropriate placement of a variety of housing types, including site built homes, apartments, townhouses, garage apartments, accessory living units, and manufactured homes.

Policy 5A.1.2 Provide resources to seek funding through the HUD Small Cities grant program to upgrade community services in low and moderate income communities.

Policy 5A.1.3 Ensure that opportunities to improve substandard housing are available to low and moderate income homeowners and owners of rental housing serving low and moderate income families.

Policy 5A.1.4 Apply for all appropriate Community Development Block Grant opportunities for housing and infrastructure project.

Policy 5A.1.5 Provide incentives such as density bonuses to developers that offer established affordable/workforce housing programs through community land trusts such as the Cape Fear Housing Community Land Trust.

Pender County Comprehensive Land Use Plan

Issue 6: Natural Resource, Historic, and Cultural Preservation

As communities develop, natural, historic and cultural resources can be damaged or eliminated through the development of private property. These resources often are quality of life resources which add to the community's character. Protection, maintenance and enhancement of these scarce resources are a legitimate function of local government as part of the government's role in protecting the public welfare and providing for the common good. The first step is to identify these resources and then to take steps to ensure that they are maintained or enhanced through acquisition, investment or regulation.

Topic A: Natural Resources

Water quality, natural vegetation and areas of environmental importance can be adversely impacted by development patterns and practices. For instance, water quality can be affected by stormwater runoff from new developments and the canopy of natural vegetation can be affected by clearing needed to install septic tank drainage fields.

Natural Resources Protection Goal 6A.1

Ensure that natural resources are maintained or enhanced as development occurs.

Policy 6A.1.1 Identify and maintain a database of significant natural resources such as floodplains, wetlands, areas of environmental concerns (AECs) and significant tree canopies.

Policy 6A.1.2 Consider regulations that restrict or limit development in flood hazard areas, wetlands, and other identified hazardous or natural resource areas.

Policy 6A.1.3 Require use of conservation subdivision and low impact development techniques to preserve natural resources on new development sites.

Policy 6A.1.4 Consider establishing staff resources to manage and strengthen stormwater quality standards in addition to state minimum standards.

Policy 6A.1.5 Adopt regulations that provide enhanced protection of groundwater resources where needed as appropriate.

Pender County Comprehensive Land Use Plan

Topic B: Historic and Cultural Resources

Historic, cultural, or architecturally significant properties are often in private ownership and are subject to being eliminated as development occurs. It is necessary first to

Historic and Cultural Resources Protection Goal 6B.1

Ensure that historic and cultural resources are maintained or enhanced as development occurs.

identify these properties and then apply appropriate designation for protection. Local designation as a historic landmark provides the property owner with tax benefits, but also allows a local historic landmarks commission to delay demolition of the landmark. Designation as a National Register Historic Landmark does not provide tax benefits or local control but does bring attention to valuable resources that need to be protected.

Policy 6B.1.1 Coordinate with other county departments and historic preservation organizations to identify and map historic, cultural or architecturally significant properties in Pender County.

Policy 6B.1.2 Designate historic, cultural or architecturally significant properties through National Register or local historic programs.

Policy 6B.1.3 Consider prioritizing historic, cultural or architecturally significant properties for public acquisition / protection.



Poplar Grove Plantation

Pender County Comprehensive Land Use Plan

Issue 7: Parks, Recreation, Open Space and Waterway Access

Topic A: Parks and Recreation Facilities and Services

As a community grows, informal open spaces, recreation areas and waterway access areas may be developed and then no longer be available for public use. In addition, the community will often demand passive as well as active recreation and open space areas.

Recognizing the need for parks and open spaces, the Board of Commissioners adopted the Pender County Recreation and Open Space Plan in 1998. The Plan identified 11 public school sites and 17 park locations available for recreation activities. The Plan identified on-going citizen involvement, formation of public-private partnerships, and the need to balance park improvements within the County as key to the Plan's successful implementation. Despite limited funding and staff resources to implement the 1998 Plan, the County has been able to provide considerable recreation activities through the Parks and Recreation Community Partnership Program.

The County plans to develop a new long range parks and recreation plan that will go further towards ensuring adequate recreation, open space and waterway access for County residents and visitors. Eleven potential new park and boat access locations have been identified as shown on the Future Public Facilities Map.

Parks, Recreation, Open Space and Waterway Access Goal 7A.1

Ensure adequate, appropriately located parks, recreation and open spaces to serve the needs of Pender County residents and visitors.

Policy 7A.1.1 Prepare a new, updated Comprehensive Parks and Recreation Master Plan.

Policy 7A.1.2 Ensure that the updated plan adequately reflects current and future recreation needs. Adopt implementation measures to acquire and develop parks, recreation areas and open spaces.

Policy 7A.1.3 Coordinate with Pender County Board of Education and partner with civic groups to co-locate parks and recreation sites on or adjacent to school property as appropriate.

Pender County Comprehensive Land Use Plan

Topic B: Dedication of land or payments in lieu of dedication for parks and open space.

The State allows counties to require new subdivisions to set aside or “dedicate” a certain proportion of a subdivision development for open space and recreation. Many local governments require a “*fee in lieu of land dedication*”. In this process, fees paid by a developer are deposited into a special fund set up by County specifically for the provision of parks, open space, and recreation. Monies available for park development are commensurate with the level of demand created by new development. This process is particularly good for a small subdivision which would not yield sufficient open space for public use. This process ensures that small subdivisions, not just larger ones, provide for their fair share of open space needs of area residents.

Parks, Recreation, Open Space and Waterway Access Goal 7B.1

Increase the amount of land available and the funding for parks, recreation and open spaces to serve Pender County residents and visitors.

Policy 7B.1.1 Adopt regulations requiring construction of appropriate recreational amenities for large residential developments and provide a “fee in lieu of” option to enable the enhancement of amenities of nearby park facilities.

Policy 7B.1.2 Encourage the use of conservation subdivision development to preserve open amenities within new development.

Policy 7B.1.3 If practical, require development plans to arrange open space/amenities adjacent to other open space areas, county parks and recreation facilities, or state, federal, or other protected lands.

Policy 7B.1.4 If adjacency is not possible, require development plans to enable pedestrian and wildlife corridor connections to nearby open spaces.

Policy 7B.1.5 Ensure that park and recreation set asides include usable upland open space.

Policy 7B.1.6 Ensure UDO regulations include clearly defined open space standards, which include reasonable and quantifiable areas of open space to be provided outside of wetlands, stormwater ponds, and clustered or community sewage disposal areas.

Topic C: Water Access Facilities.

Currently, no public boat ramps are available in unincorporated Pender County to access the sound and the Intracoastal Waterway.

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Parks, Recreation, Open Space and Waterway Access Goal 7C.1

Increase the number of public boat ramps available within unincorporated Pender County.

Policy 7.C.1.1 Pender County will encourage not only the State of North Carolina, but also area local governments to diligently pursue the acquisition and development of waterfront properties for public use, particularly regarding boating access.

Policy 7C.1.2 Work with the NC Wildlife Resources Commission (WRC) Boating Infrastructure Program to identify and acquire land for public boat ramps and ancillary parking facilities to public trust waters.

Policy 7C.1.3 Consider co-location of other appropriate recreational amenities at future boat ramps.

Topic D: Public Access Management.

The County recognizes the need to ensure access points to valuable natural resource and areas for all citizens and visitors. These areas can be utilized and preserved for recreational, educational, economic, and social factors to improve the overall quality of life in the County.

Public Access Management Goal 7D.1

Pender County will support expansion of public access locations based on CAMA Site Classification Standards, through public and private actions as a high priority.

Policy 7.D.1.1 – Investigate use of property currently owned by public agencies for access sites

Policy 7.D.1.2 - When publicly owned property is suitable for development of an access site, the county will seek financial assistance for making required improvements, using the value of the property to satisfy local match requirements.

Policy 7.D.1.3 - Encourage property owners to dedicate sites for public access.

Pender County Comprehensive Land Use Plan

Policy 7.D.1.4 - Work cooperatively with Pender County's barrier island communities and the state to locate and develop access sites.

Policy 7.D.1.5 - Encourage municipalities within the County to develop community access sites where appropriate.

Policy 7.D.1.6 – Design and operate all facilities in a manner that minimizes any negative impacts on water quality and that minimizes any conflicts with other natural resources and surrounding land uses and where feasible, providing for universal accessibility.

Policy 7.D.1.7 - Encourage developers of residential projects to provide neighborhood public access sites for the residents of the area where opportunities are present.

Pender County Comprehensive Land Use Plan

Issue 8: Agricultural Preservation

As communities develop, prime agricultural land is often the most sought-after land for development. Loss of this land to development could affect the community's character, make agricultural products less accessible, and where land is developed in an agricultural area, could result in land use disputes between those who depend on working lands for their living and those who move into new developments.

Agricultural Preservation Goal 8A.1

Ensure that those who depend upon working lands for their living are able to continue working the land.

Policy 8A.1.1 Develop an agricultural preservation program to help farmers preserve large tracts of prime agricultural land from premature development and to ensure that farming remains a viable part of the local economy. This could range from a Voluntary Agriculture District program to more restrictive zoning regulations.

Policy 8A.1.2 Consider consequences of traditional development practices which are not compatible with agricultural operations and the extension of utility infrastructure into identified prime agricultural areas.

Policy 8A.1.3 Establish and/or expand local farmers' markets that support local farmers by marketing products to local consumers.

Policy 8A.1.4 Encourage agri-tourism business and on-site sale of agricultural products and related services.

Policy 8A.1.5 Encourage alternative energy development as a viable land use and standards, as necessary, to ensure minimal impact on surrounding land uses.

Policy 8A.1.6 Identify and preserve agricultural and open space areas that provide an appropriate buffer between non-compatible uses.

Policy 8A.1.7 Provide resources to help develop, promote, and support alternative farming methods in identified prime agricultural areas.

Policy 8A.1.8 Support NC Cooperative Extension efforts in development of alternative crops including promoting new farm crops, developing alternate farming methods, making effective use of farmlands; encouraging local restaurants to utilize local crops, and supporting farmers' markets and heritage tourism.

Pender County Comprehensive Land Use Plan

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Issue 9: Hazard Mitigation

Natural Hazards, such as flooding, can pose a significant risk to life and property. The potential impact of these hazards can be mitigated by identifying areas subject to hazards and ensuring that people do not build in harm's way. Several areas of Pender County have high risk threats from flood, wind, and wildfire. The county has recently experienced damage from these hazards.

Pender County operates four primary emergency shelters. These are located at Malpass Corner Elementary School, Burgaw Middle School, Cape Fear Middle School, and Topsail Middle School (this facility became Topsail Elementary School in August 2009).

Hazard Mitigation Goal 9A.1

Ensure that the effects of natural hazards on people and property are mitigated by coordinating hazard mitigation planning with other elements of the Comprehensive Land Use Plan.

Policy 9A.1.1 Incorporate implementation measures from the Pender County Hazard Mitigation Plan into relevant Pender County plans, programs and regulations.

Policy 9A.1.2 Discourage the extension of public water and sewer that would significantly increase new development in flood hazard areas.

Policy 9A.1.3 Within the UDO, revise standards to encourage arrangement of lots to avoid flood prone areas.

Policy 9A.1.4 Consistently use updated FEMA Flood Insurance Rate Maps (FIRMs) when reviewing proposed new development to discourage development within or near flood prone areas.

Policy 9A.1.5 Ensure that the County's Disaster Damage Assessment Teams are properly trained to inspect and collect data on flood and wind damaged structures and that data inventories are readily available.

Policy 9A.1.6 Continue to participate in the Community Rating System (CRS) program to reduce flood insurance premiums for property owners.

Pender County Comprehensive Land Use Plan

Policy 9A.1.7 Use GIS and building permit records to inventory structures located within 100-year floodplain and to identify repetitive flood loss properties. Pursue grant funding to assist in elevation or acquisition of repetitive loss properties.

Policy 9A.1.8 Provide alternative power and heat sources for secondary as well as primary emergency shelter locations.

Policy 9A.1.9 Establish a program to maintain continuity of government operations during emergencies by setting up alternative office locations.

Policy 9A.1.10 Using GIS, identify series of interconnecting secondary roads that could be used as alternate evacuation routes.

Policy 9A.1.11 Place flood protection and other hazard education materials in all branches of the public library system.

Policy 9A.1.12 Continue program of visiting sites to advise property owners about problems associated with drainage, erosion and flooding.

Policy 9A.1.13 Coordinate with NC Forestry officials to identify wildfire hazard areas and adopt "Firewise" development and building standards in wildfire prone areas.

Pender County Comprehensive Land Use Plan

Issue 10: Economic Development

Communities depend on a mix of residential and non-residential development in order to keep residential tax rates affordable. In addition, economic development can provide nearby jobs for community residents, and provided the jobs pay well, economic development can provide good wages for residents.

Economic Development Goal 10A.1

Promote economic development which meets the needs of the County for expanding the non-residential tax base and providing well-paying jobs

Policy 10A.1.1 Continue participation in regional economic development organizations, such as Wilmington Industrial Development (WID), Committee of 100, Southeast Regional EDC, etc.

Policy 10A.1.2 Commit County resources to improve and expand efforts to retain and recruit industries. Place emphasis on re-use of vacant buildings, recruitment of clean industries, and creation of jobs. (Clean industries are generally defined as sustainable businesses that participate in environmentally-friendly activities to ensure that all processes, products, and manufacturing activities adequately address environmental concerns.)

Policy 10A.1.3 Provide water and sewer infrastructure on a priority basis to locations suitable for industrial and business development.

Policy 10A.1.4 Support agricultural extension efforts to support existing farming operations and to expand agri-business opportunities.

Policy 10A.1.5 Encourage and support legislative efforts to address adverse effects of large-scale livestock farms, such as odor and potential groundwater pollution from waste lagoons.

Policy 10A.1.6 New and expanding industries and businesses shall be encouraged to 1) diversify the local economy, 2) train and utilize a more highly skilled labor force and 3) increase per capita income.

Policy 10A.1.7 Protect, enhance and encourage a high quality of life, including the conservation and management of natural and man-made resources, as an effective component of an economic development and diversification strategy.

Pender County Comprehensive Land Use Plan

Policy 10A.1.8 The County shall seek to foster a travel and tourism (including ecotourism) industry that is compatible with a high quality of life—as a means to facilitate diversification in the local economy.

Policy 10A.1.9 Promote coordination of economic development resources among various local institutional agencies and seek regional cooperation and interaction among areas with shared economic interests.

Policy 10A.1.10 Support on-going efforts to retain and enhance private as well as commercial passenger air service at Wallace Airport / Henderson Field.

Policy 10A.1.11 Support maritime-related industries by exploring opportunities to make commercial fishing more profitable and viable.

Policy 10A.1.12 Cultivate relationships with universities, community colleges, local schools, non-profits, and the NC Employment Security Commission to underwrite job training programs.\

Policy 10A.1.13 Support apprenticeship programs to improve the link between educational and vocational opportunities. Seek industry / business support for apprenticeship programs.

Pender County Comprehensive Land Use Plan

Issue 11: Procedure for Amendments to the Comprehensive Plan

The Comprehensive Land Use Plan serves as the adopted guide for public policy makers concerning the use of land. The Plan considers not only appropriate land use classifications and locations but also the provision of public services to support the preferred land use pattern.

The Plan will also be used by the public as a guide in making the largest investment decision they will ever make, their home. Therefore, any changes to the Plan should be subjected to the same public scrutiny that was used to develop the adopted Plan. In addition, no decisions affecting land use, such as a rezoning, should be made if those decisions would be against or in violation of Plan principles. If circumstances arise that would justify a change to the Plan, the proposed revision should be evaluated carefully before making the decision to amend the Plan.

The County can use the Comprehensive Plan most effectively if:

- ▶ The plan is reviewed and updated on a regular basis;
- ▶ The plan and implementing ordinances (unified development ordinance, capital improvements program) are consistent with each other; and
- ▶ The plan is used consistently as a guide in making land use decisions such that the community as a whole has more confidence in the plan.

The Plan should be used by the Planning Board and the Board of Commissioners on a regular basis as a guide when rendering decisions on land use issues. Local officials, public agencies, land owners, developers, and citizens should consult the plan and be able to rely on decision-making to consistently follow the plan.

The Comprehensive Plan is not meant to be static. The planning process must recognize that situations change, that growth demands may not follow the anticipated pattern, and that one or more approved zoning changes may negate or impact implementation of parts of the Plan.

Plan Amendments Goal 11A.1

Ensure that the process for plan amendments allows for public participation.

Policy 11A.1.1 Maintain the Comprehensive Plan and Policies Committee as an advisory group on proposed amendments to the Comprehensive Plan including amendments to small area plan components. The Committee should consider all proposed amendments and provide a recommendation to the Planning Board regarding the approval or denial of each proposed amendment.

Pender County Comprehensive Land Use Plan

Policy 11A.1.2 Ensure that the public has the opportunity to be informed of and participate in the process to amend the Comprehensive Plan. Provide adequate public notice and information for the public to understand the proposed changes and adequate opportunity for the public to express opinions about the proposed revision.

Policy 11A.1.3 Ensure that land use decisions are made in accordance with the Comprehensive Land Use Plan by denying proposals which would violate the plan. If such a proposal merits consideration because of changed conditions, an amendment to the Plan should be considered prior to considering the proposal.

Policy 11A.1.4 A request to amend either the written text and/or the maps within the Plan shall follow the same process as a text or map amendment as described in the Unified Development Ordinance.

Policy 11A.1.5 Maintain a database of all proposed plan amendments tracking information on applicant, description of amendment, and action taken.

Pender County Comprehensive Land Use Plan

Section III: Future Land Use Classifications

Future Land Use Classifications (LUCs) are general land use category descriptions for future land development. LUCs are also used to graphically depict preferred general land development patterns on future land use maps. LUCs are intended to reflect the goals and policy recommendations of the Comprehensive Land Use Plan.

The LUCs of the Comprehensive Plan are intended to reflect and expand on the land classifications used in the CAMA Land Use Plan. Comprehensive Plan classifications are more detailed especially in regards to non-residential land uses.

To be effective, the Comprehensive Land Use Plan and the Future Land Use Maps (Section IV) must be used together when reviewing and evaluating land development plans. The Future Land Use Maps cannot be interpreted independently from the written plan.

As outlined in Section II Issues, Goals and Policies, certain policy recommendations must be enacted in order for the Plan and the Maps to be effective planning tools.

Six land use classifications are recommended:

1. Conservation
2. Rural Growth
3. Suburban Growth
4. Mixed Use
5. Office/Institutional/Commercial
6. Industrial

Conservation

Conservation areas are areas that are owned in fee simple or have protective easements. These areas represent areas of special significance and unique characteristics that make them worthy of preservation. Current conservation areas are typically owned by Federal or State agencies or private conservation groups and are often designated as Areas of Environmental Concern (AECs). Currently, conservation areas comprise approximately 131,393 acres (24.7%) of the land area within the Pender County zoning jurisdiction.

Conservation areas are comprised primarily of Holly Shelter Game Land (48,000 acres) and Angola Bay Game Land (35,783 acres). Other major conservation areas are located in Coastal Pender along the Intracoastal Waterway and major streams leading to the waterway; along the Black and Cape Fear Rivers in western Pender County; and along the Northeast Cape Fear River.

Pender County Comprehensive Land Use Plan

In the future, the Conservation land use classification may be applied to areas along major streams and rivers and immediately adjacent to existing conservation areas. Future conservation areas will most likely include land and water features where there are serious hazards to personal safety or property, where new development would cause serious damage to the values of natural systems, or where new development is not permitted by local, State or Federal policy. Only public or private open space or uses that require water access and cannot function elsewhere are appropriate in conservation areas.

Rural Growth

The Rural Growth land use classification defines those areas of Pender County where urban services, i.e., public water and sewer services, are not expected to be extended within the planning horizon. Rural Growth areas are where preservation of agricultural operations is a primary concern and where conflicts between agricultural and non-agricultural uses are to be discouraged.

Rural Growth areas are intended to protect agricultural and forestry operations that are a major part of the County's economic base and that are key to preservation of the County's rural landscape. Major job-creating activities that are compatible with farms, forestry and very low-density development are appropriate.

Development within Rural Growth areas should be limited to only those types of land uses and development intensities that can be accommodated by services typical in non-urban areas, e.g., private on-site water supply (or public water, as available) and on-site septic systems. Development with private package sewage treatment plants or premature extension of public sewer systems into these areas is discouraged. Public sewer should not be extended except to the extent necessary to protect public health when existing community wastewater systems fail or a pattern of failure of on-site systems occurs in a specific area.

Uses that would typically be allowed in Rural Growth areas include very low-density residential development (single-family site-built, modular, and manufactured homes) on one acre or greater size lots; agriculture, forestry, churches; very limited non-residential uses - commercial, office, or public/institutional - meeting locational criteria. Locational criteria for non-residential uses in Rural Growth areas include frontage and access to a major State highway or secondary road, location at a major rural intersection, proximity to similar existing non-residential uses, and spatial separation from non-compatible uses such as existing residential development.

Areas designated as Rural Growth are located primarily in the western portion of the County with other Rural Growth areas designated surrounding the Holly Shelter Game Land and Angola Bay Game Land in eastern Pender County. Agricultural/farming operations and very low residential development intensities

Pender County Comprehensive Land Use Plan

characterize these areas. Some of these areas, particularly in western Pender County, also have prime farmland soils that are essential to the continued prosperity of farming and forestry operations within Pender County.

Suburban Growth

The Suburban Growth land use classification identifies those areas of Pender County where significant residential growth is expected to occur within the planning horizon. Areas designated as Suburban Growth are located primarily adjacent to municipal planning jurisdictions and within or near high growth, unincorporated areas of the County, i.e., Hampstead/Scotts Hill, Rocky Point, and portions of US 421 South. Suburban Growth designates areas where public water and public sewer are available or are planned in the near future.

Achievable residential densities would be dependent on the type and level of public services that are available. Higher density residential development would be supported where both public water and sewer are available, provided adequate buffers and design features can minimize impacts on neighboring lower density residential properties.

Uses that would typically be allowed in Suburban Growth areas include medium-high density residential (single-family site-built and modular homes); limited non-residential uses - commercial, office, or public/institutional - meeting locational criteria. Locational criteria for non-residential uses include frontage and access to a major State highway or secondary road, location at a major intersection, proximity to similar uses, and spatial separation from non-compatible uses such as existing residential development.



As residential development increases in suburban areas, designation of large tracts for significant economic development projects will become more difficult because fewer locations will exist that have the characteristics of an attractive economic development site, particularly in terms of proximity to existing residential areas. It is noted that designation as a Suburban Growth area does not preclude the development of economic development sites considered important to the economic sustainability of Pender County.

Pender County Comprehensive Land Use Plan

Mixed Use

The Mixed Use land use classification designates locations where a mixture of higher density/intensity uses is to be encouraged. Mixed Use areas should be characterized by physically and aesthetically unified developments containing a mixture of commercial, office, institutional, and high- and medium-density residential uses, arranged in a walkable, compact, pedestrian and transit friendly manner

Mixed Use areas are intended to help reduce sprawl by concentrating a mix of uses in convenient locations; by promoting an efficient sustainable pattern of land uses, and by providing most of the goods and services needed by residents in a coordinated, concentrated manner. Mixed Use areas are intended to reduce the number and length of auto trips by placing higher-density housing close to shopping and employment center. They also should function to improve the quality of life for residents living in higher density housing by placing daily conveniences, shops, and employment within walking distance;



The road network within Mixed Use areas should be designed to ensure that adjacent residential areas will have direct access to the non-residential portions of the mixed use center in lieu of entering and exiting through thoroughfares and/or collector streets. Developments should provide or contribute to a pedestrian and road network that connects non-residential and existing residential uses (multi-family and single-family) developments.

Mixed Use areas are designated within the Coastal Pender and Rocky Point Small Area Plans.

Pender County Comprehensive Land Use Plan

Office/Institutional/Commercial

Office/Institutional/Commercial (OIC) areas are designated at key locations, typically along major highways and at major intersections, within the County. The purpose of the OIC land use classification is to encourage more efficient and attractive development, integration of commercial uses with other land uses, and to discourage unsightly and inefficient strip commercial development. Strip commercial development (characterized by non-related business development with numerous road-cuts and no interconnectivity) detracts from community appearance and has significant negative impacts on both road capacity and traffic safety.

OIC areas should be planned to accommodate a range of land uses including small and large scale commercial uses possibly transitioning to office/institutional uses or higher density residential uses that would buffer and transition to surrounding lower density residential areas. These areas should be served by both public water and sewer.

OIC areas oriented to highway interchanges should be characterized by compactness and business orientation to highway travelers or a regional customer base. Transition to surrounding residential areas is likely to be more sharply defined than the more gradual transition from a community-based commercial area.

OIC areas are designated within the Rocky Point Small Area Plan, primarily along US 117 near the intersection of US 117, NC 210 and I-40 and at the intersection of US 117 and NC 133.

Industrial

Economic development is essential to the sustainability of the future economy of Pender County. It is important to designate and encourage business and industrial development within the County to create and maintain jobs for the future.

Most development within Industrial areas will be served by public water and sewer, although development with on-site wells and septic tank systems is possible. Allowed uses would include major industrial uses, wholesale, office and public/institutional uses, and limited commercial uses.

Assembling significant tracts of land for large economic development projects can be difficult, especially where desirable development locations also host residential uses. Industrial development should be physically separated and buffered from existing

Pender County Comprehensive Land Use Plan

residential uses where noise, odors, or other negative effects could be expected. This can be accomplished through site design techniques or by physical distance from the property lines to existing residential development.



Industrial areas are designated where industrial uses are either already present or desired. Industrial areas are designated along US 421 South including the Pender County Commerce Park and adjoining parcels, and where two quarries operate – one just east of I-40 and another south of NC 133 in the Rocky Point area.

PENDER COUNTY

Future Land Use



11-10-09

Pender County, North Carolina

**PRELIMINARY
FOR PLANNING
PURPOSES ONLY**



Legend

Future Land Use Classification

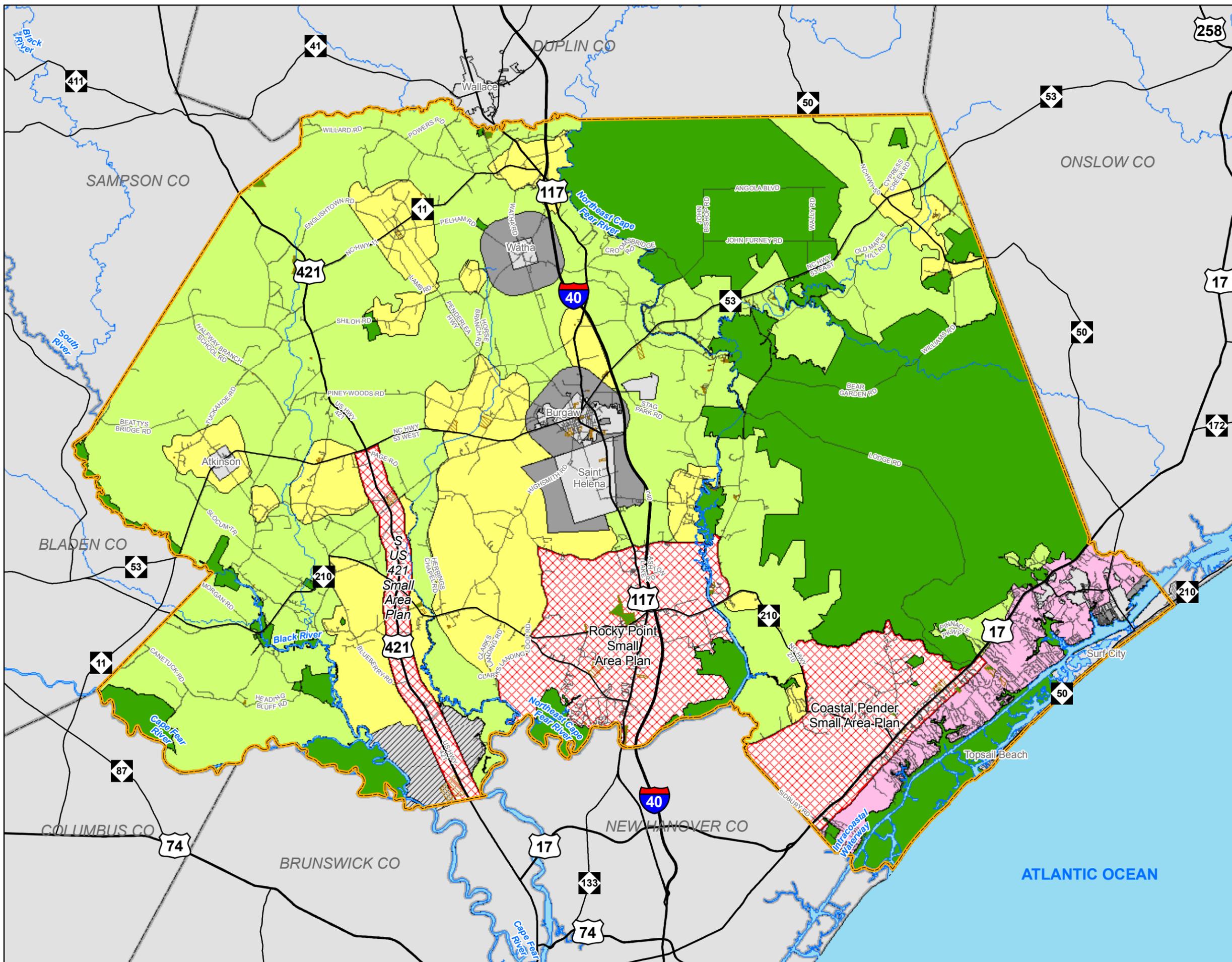
- Conservation
- Industrial
- Mixed Use
- Rural Growth
- Suburban Growth

Other Features

- Small Area Plan
- County Owned Property
- Water Body
- Major Stream
- Interstate
- US Route
- NC Route
- Road Centerline
- County Boundary



1 inch = 4 miles



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Pender County Comprehensive Land Use Plan

COASTAL PENDER SMALL AREA PLAN

Future Land Use



11-10-09

Pender County, North Carolina

PRELIMINARY
FOR PLANNING
PURPOSES ONLY



Legend

Future Land Use Classification

- Conservation
- Mixed Use
- Rural Growth
- Suburban Growth

Flood Zone

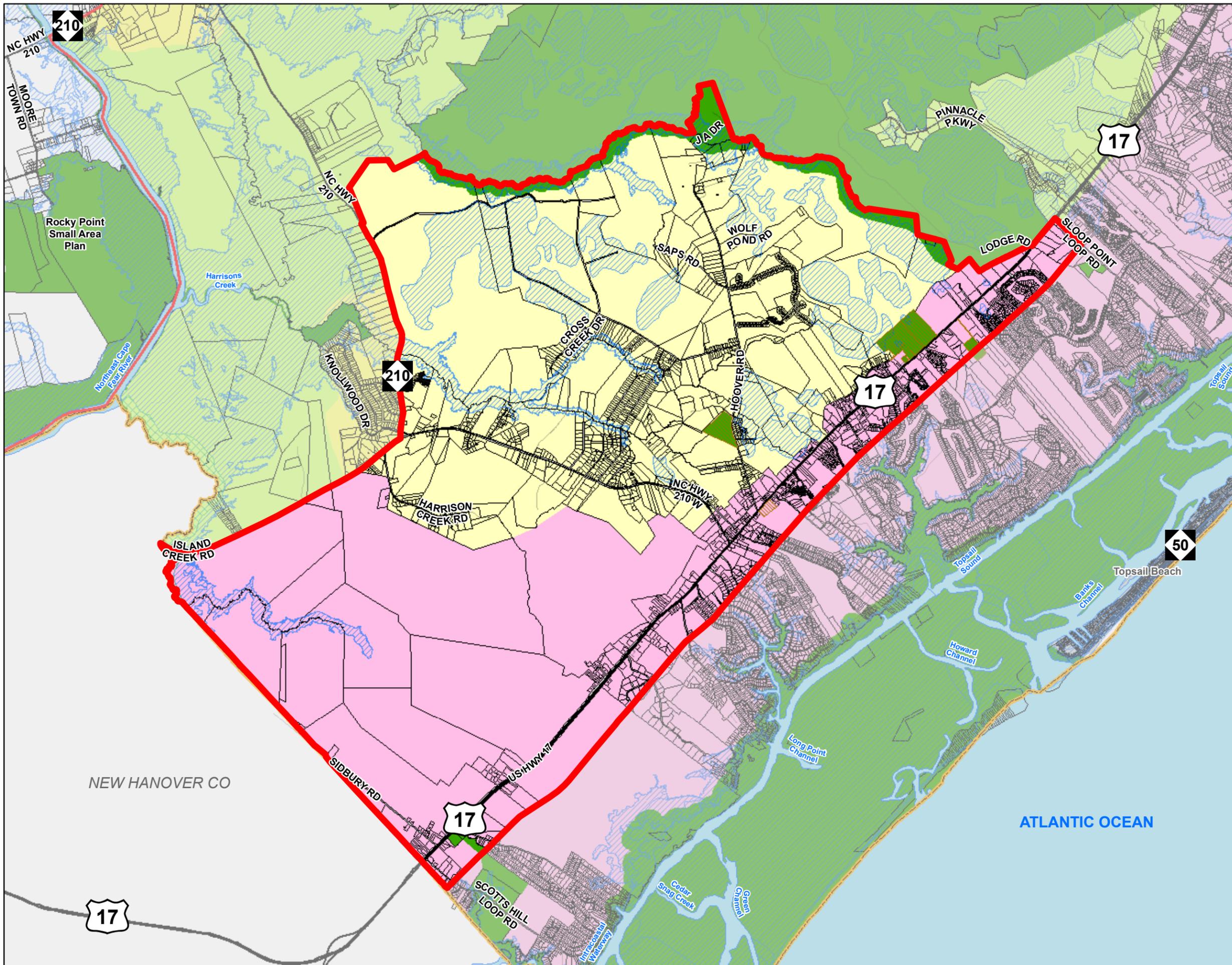
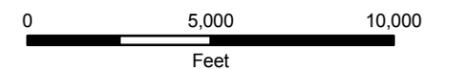
- 100 Year Floodplain
- Floodway

Other Features

- Planning Boundary
- County Owned Property
- Water Body
- US Route
- NC Route
- Road Centerline
- River Stream
- Parcel
- Municipality
- County Boundary



1 inch = 5,000 feet



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Pender County Comprehensive Land Use Plan

ROCKY POINT SMALL AREA PLAN

Future Land Use



11-10-09

Pender County, North Carolina

PRELIMINARY
FOR PLANNING
PURPOSES ONLY

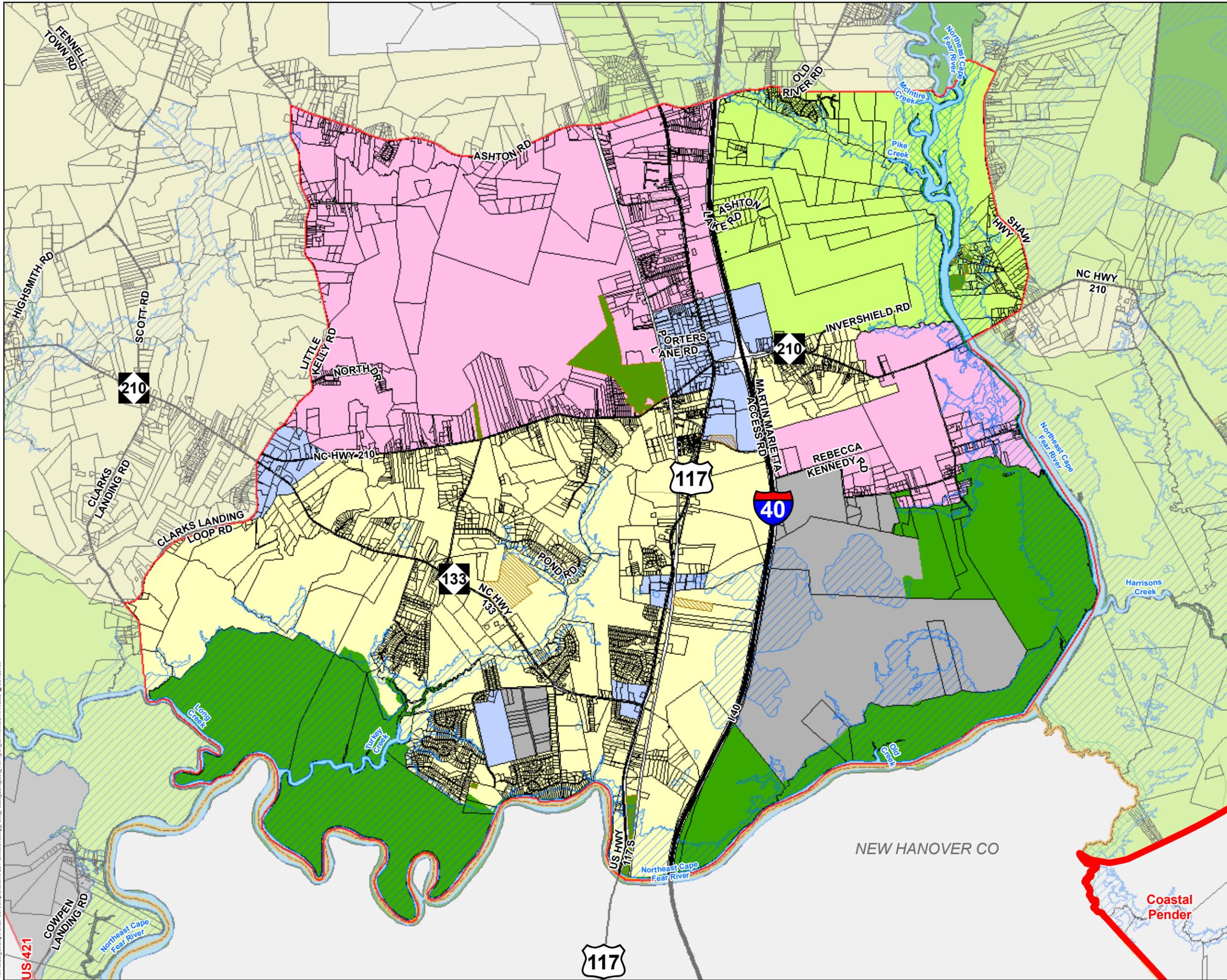
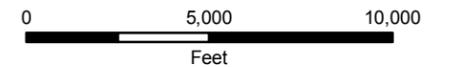


Legend

- Planning Boundary
- Future Land Use Classification**
- Conservation
- Industrial
- Mixed Use
- Office, Institutional, Commercial
- Rural Growth
- Suburban Growth
- Other Features**
- County Owned Property
- Water Body
- Interstate
- US Route
- NC Route
- Road Centerline
- hydromaj_arc
- Parcel
- County Boundary
- Flood Zone**
- 100 Year Floodplain
- Floodway



1 inch = 5,000 feet



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Pender County Comprehensive Land Use Plan

US HWY 421 SOUTH CORRIDOR SMALL AREA PLAN MAP B

Future Land Use



11-10-09

Pender County, North Carolina

PRELIMINARY
FOR PLANNING
PURPOSES ONLY



Legend

Future Land Use Classification

- Conservation
- Industrial
- Mixed Use
- Office, Institutional, Commercial
- Rural Growth
- Suburban Growth

Flood Zone

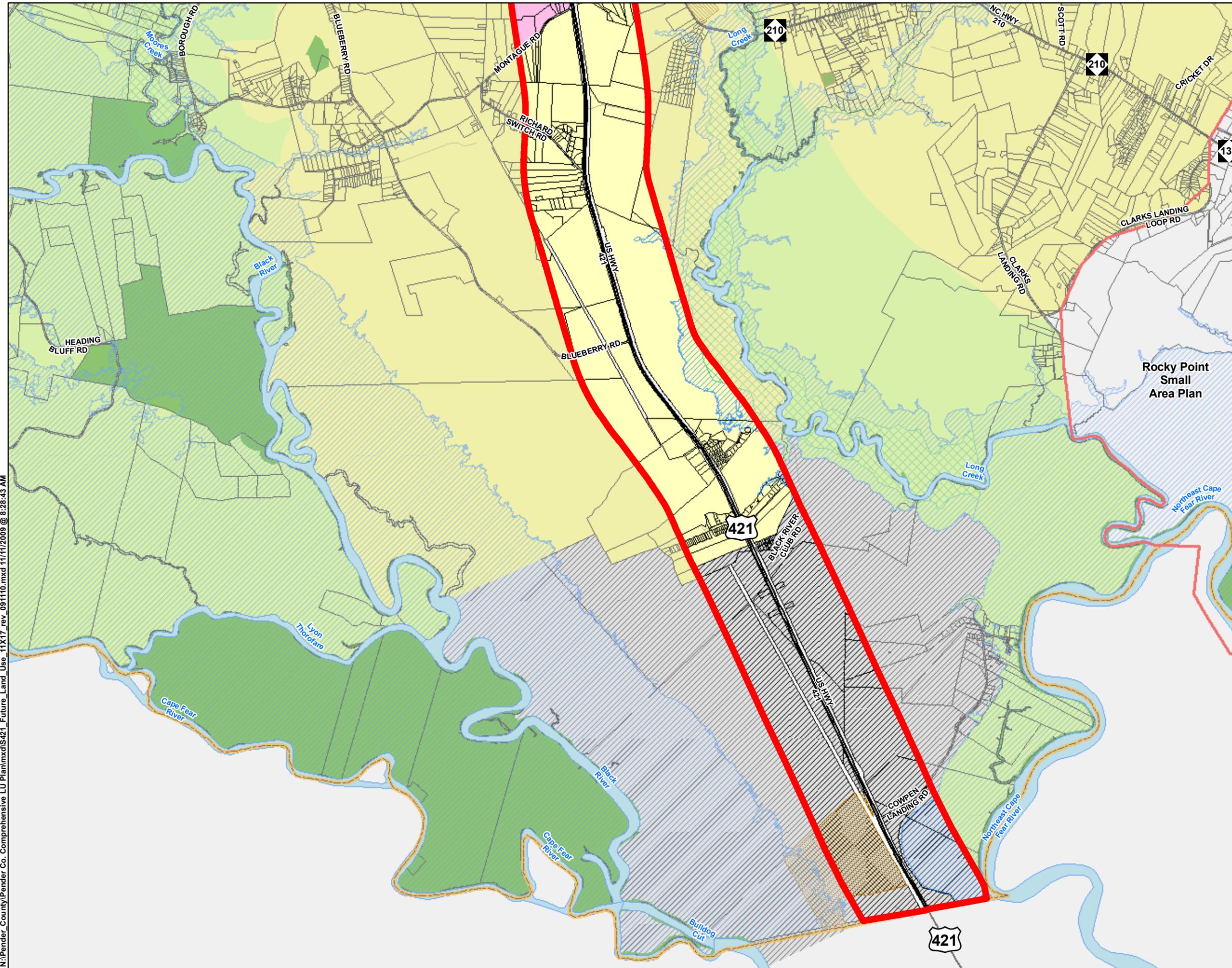
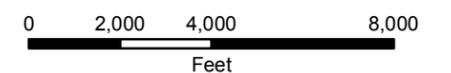
- 100 Year Floodplain
- Floodway

Other Features

- Planning Boundary
- County Owned Property
- Water Body
- Interstate
- US Route
- NC Route
- Road Centerline
- River/Stream
- Parcel
- County Boundary



1 inch = 4,000 feet



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Pender County Comprehensive Land Use Plan

US HWY 421 SOUTH CORRIDOR SMALL AREA PLAN MAP A

Future Land Use



11-10-09

Pender County, North Carolina

PRELIMINARY
FOR PLANNING
PURPOSES ONLY



Legend

Future Land Use Classification

- Conservation
- Mixed Use
- Office, Institutional, Commercial
- Rural Growth
- Suburban Growth

Flood Zone

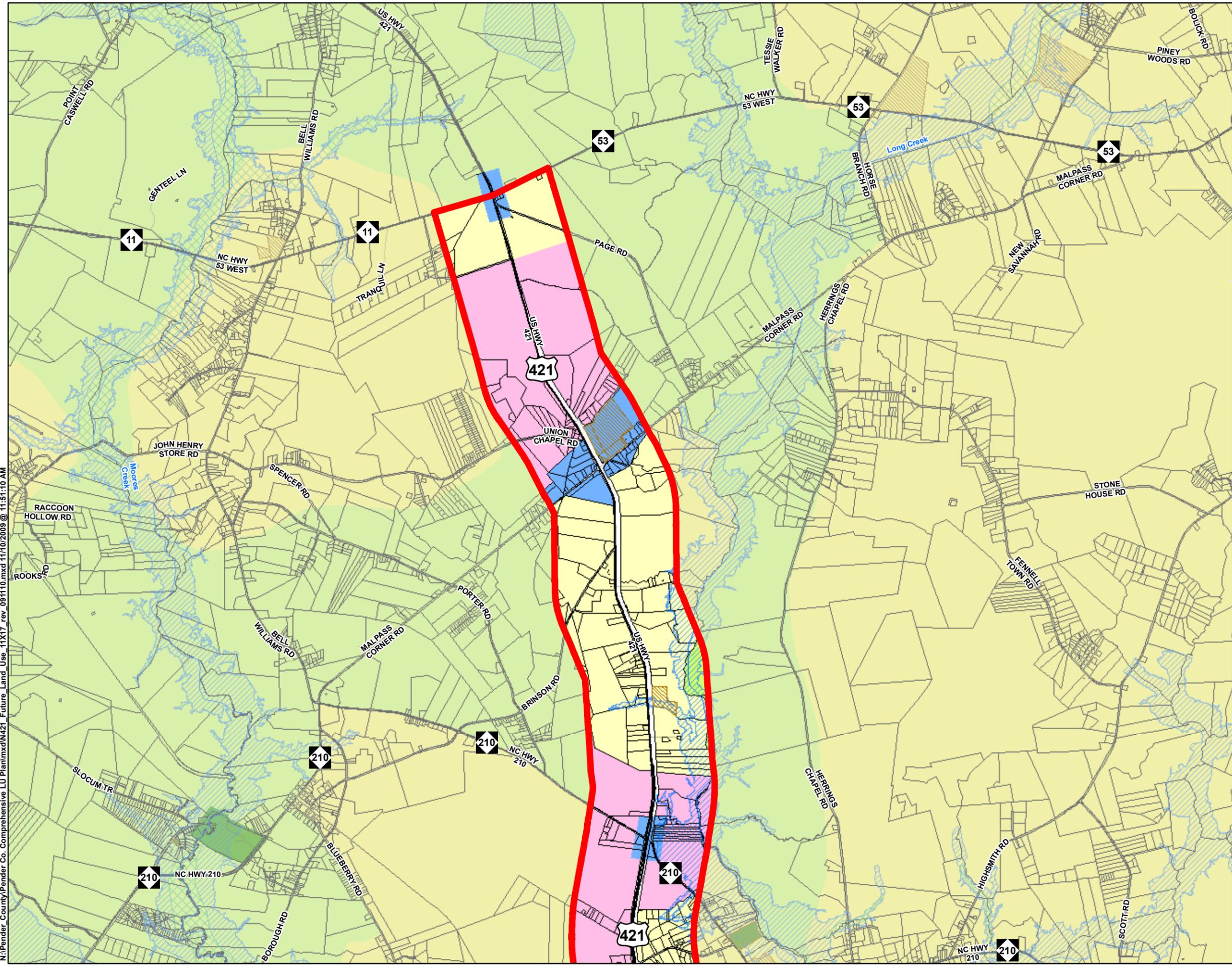
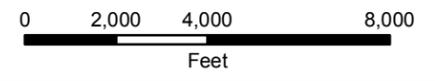
- 100 Year Floodplain
- Floodway

Other Features

- Planning Boundary
- County Owned Property
- Water Body
- Interstate
- US Route
- NC Route
- Road Centerline
- River/Stream
- Parcel
- County Boundary



1 inch = 4,000 feet



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Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

Appendix A: Review of Current Plans and Ordinances

Introduction

The first phase of the comprehensive land use planning process involved two steps – 1) the review and analysis of Pender County current land use policies and regulations (Appendix A) and 2) an inventory and analysis of historic and projected demographic and economic data along with an inventory of existing natural and manmade physical conditions that influence growth and development in Pender County (Appendix B).

The review and analysis of current land use policies and regulations was completed to establish baseline information about the state of planning in Pender County in 2008-09. The assessment served as a basis for discussion with the two steering committees about specific issues and concerns that needed to be addressed in the development of the Comprehensive Land Use Plan and the Unified Development Ordinance. In particular the assessment identified conflicting policies, standards, requirements, and practices in current policies and ordinances.

The following Pender County planning documents were reviewed for Appendix A:

Existing Plans

- 2020 Growth Management Plan
- 2005 CAMA Land Use Plan Update
- Thoroughfare Plan (1998)
- Coastal Pender Collector Street Plan (2007)
- Recreation Plan and Open Space Plan (1998)
- Waterfront Access Plan (1993)
- NC Waterfront Access Study (2007)
- Public Library Long Range Plan (2007-2012)
- Hazard Mitigation Plan (2004)

Existing Ordinances

- Zoning Ordinance
- Subdivision Ordinance
- Flood Damage Prevention Ordinance
- Manufactured Home/Travel Trailer Ordinance (1984)
- Cell Tower Ordinance (1998)

Pender County Comprehensive Land Use Plan

I. EXISTING PLANS

Pender County 2020 Growth Management Plan

In April 2001, the Pender County Board of Commissioners approved a list of policies for the 2020 Growth Management Plan (GMP). Although the GMP in its entirety was not adopted by the Board, the policies have been in place to guide land use planning and decision making since 2001.

As a part of the current comprehensive land use planning (CLUP) process, the 2001 policies were reviewed and implementation progress was noted as shown in Table A-1. This analysis was used by the land use committee to evaluate progress and make adjustments and recommendations for updated future goals, objectives and implementation strategies for the Comprehensive Land Use Plan.

Pender County Comprehensive Land Use Plan

Table A-1: Pender County 2020 Growth Management Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 1 Growth Management Generally - Preferred Growth Pattern Policy 1.1	Pender County shall encourage developments which contribute to a distinct “town and country” or “village and country” growth pattern. The intent of this policy is to allow for the preservation of true open space and productive farm and timberland, to coordinate and minimize costs of extending infrastructure and services, to avoid higher taxes, and to minimize traffic congestion associated with suburban sprawl.	<i>No revisions.</i>	<i>However, Lane’s Ferry, East Haven, St. George’s Reach are large planned developments that reflect this type of development.</i>
Section 2 Regional Planning Coordination Policy 2.1	Coordinated inter-governmental planning for land use and development, transportation, and centralized water and sewer services shall be among Pender County’s highest priority concerns.	<i>County coordinates with Wilmington Urban Area MPO and Cape Fear RPO on transportation needs. In 2006, County completed Water and Wastewater Master Plan.</i>	<i>Finding funding sources to complete transportation and water / wastewater system improvements and expansion will be the major challenge. Potential access to federal infrastructure (stimulus) funds</i>
Section 2 Regional Planning Coordination Policy 2.2	Public involvement shall be encouraged in decisions on land use and development by making the public aware of proposed developments at the earliest opportunity. The County shall encourage communication between developers and the general public to resolve	<i>Conditional zoning process (adopted 2008) requires community meeting prior to public hearing.</i>	<i>As required by law, public hearings with opportunity for public comments are held for major land use decisions, e.g.,</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
	disputes.		rezonings.
Section 2 Regional Planning Coordination Policy 2.3	Special planning for smaller areas of the county shall be employed, as appropriate; to foster public involvement in the production of closely tailored, action oriented plans and programs.	<i>US 17 Bypass Study Committee; Small Areas Plans for Coastal Pender, Rocky Point and US 421 South part of current CLUP process.</i>	<i>Citizen planning committees and general public information meetings are fostering public involvement in these planning efforts.</i>
Section 2 Regional Planning Coordination Policy 2.4	Pans for specific functions, such as transportation, parks and recreation, school facilities, water and sewer services, and the like shall be implemented as part of a comprehensive planning program and economic development strategy for the county.	<i>Comprehensive Transportation Plan (CTP) for Pender County was prioritized as #1 need by Cape Fear RPO. NCDOT to produce updated CTP, timetable unknown at this time. Coastal Pender Collector Street Plan completed May 2007. Public school system study completed May 2008. Master Water and Wastewater Plan completed July 2006.</i>	<i>There is a priority need to update the 1998 Parks and Recreation Plan with a comprehensive system wide parks and recreation plan which evaluates current facilities and projects recreational needs for a growing population.</i>
Section 2 Regional Planning Coordination Policy 2.5	The County shall actively pursue negotiated urban services agreements with area municipalities.	<i>The County has committed to \$990,000 funding per year (beginning FY 06-0)7 to</i>	<i>Urgent need to pursue regional/coordinated approach to provision of wastewater services, in</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
		<i>the construction of Burgaw/Wallace sewer deal.</i>	<i>particular.</i>
Section 3 Transportation Policy 3.1	Transportation planning shall be employed to promote a hierarchical, functional transportation system and to promote the proper arrangement of land patterns by controlling the location of streets, roads, rails, and other modes of transportation.	<i>Coastal Pender Collector Street Plan, adopted May 21, 2007 for fast growing Hampstead/Scotts Hill area.</i>	<i>Planning Board using Street Plan to make recommendations when plans reviewed; no requirements for implementation.</i>
Section 3 Transportation Policy 3.2	A program of improvements and maintenance to maximize the use of existing roadways shall be employed as a cost effective and environmentally sound means of meeting area transportation needs.	<i>Transportation improvements and maintenance are exclusively a NCDOT or private road maintenance issue.</i>	<i>Counties in NC have traditionally not been involved or obligated to build or maintain roads.</i>
Section 3 Transportation Policy 3.3	Pender County supports and shall fully participate in regional transportation and lobbying efforts.	<i>As a member of the Wilmington Urban Area MPO and the Cape Fear RPO (Brunswick, Columbus, and Pender), Pender County actively supports and participates in transportation planning and lobbying for the region.</i>	<i>Active involvement in regional transportation planning is dictated by the State in order to qualify for state and federal funding.</i>
Section 3 Transportation Policy 3.4	Sidewalks, trails, bikeways, public transit and other means of transportation shall be encouraged.	<i>The Coastal Pender Street Collector Plan considers other modes</i>	<i>County does not require the new development consider other modes of</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
		<i>of transportation.</i>	<i>transportation.</i>
Section 3 Transportation Policy 3.5	The County shall support public transportation services as an alternative to the individual automobile. The special transportation needs of the elderly and disabled shall be recognized. To make such services economical, the County shall encourage compact land development patterns and housing forms that make public transit more cost effective.	<i>Any revisions to zoning or subdivision ordinances to support this policy?</i>	<i>Requirement for public transportation and alternative modes of transportation is being considered in the development of the UDO currently underway.</i>
Section 3 Transportation Policy 3.6	Pender County supports the development of the U.S. 17 Bypass around Hampstead as the best, long-term solution to the area's north-south travel demand. The County shall continue to work cooperatively with NC DOT, area property owners and area citizens to select the best travel corridor for the Bypass and to protect it from encroaching development.	<i>NCDOT still considering several corridor alignments. Wilmington MPO has authority to reserve corridor for 3 years from date of map recording.</i>	<i>County has worked in advance with proposed developments to encourage early coordination with NCDOT on bypass.</i>
Section 3 Transportation Policy 3.7	The County shall encourage street connections between adjoining residential neighborhoods, as well as connections between parking lots of adjoining commercial developments.	<i>In most cases, Planning Board requires stub streets to adjacent properties as part of approval process.</i>	<i>However, as an example, the Planning Board did not require that the master plan for St. George's Reach include any connecting streets or stubs to surrounding properties.</i>
Section 3 Transportation Policy 3.8	Access to higher intensity development shall generally not be permitted through an area of lower intensity development. For example, access to a multi-family development, major	<i>This has not been incorporated as an ordinance requirement.</i>	<i>Access goal was upheld through approval of St. George's Reach.</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
	park facility or other large traffic generator shall not be permitted through a single-family residential neighborhood.		
Section 4 Water and Sewer Services Policy 4.1	Pender County shall continue to work with neighboring counties and municipalities on regional solutions to water and sewer services.	<i>Burgaw/Wallace sewer agreement.</i>	<i>Continuing need to develop regional solutions to meet public water/sewer needs.</i>
Section 4 Water and Sewer Services Policy 4.2	Centralized water and sewer services should be concentrated within targeted service areas, where development densities would make the provision of services economically efficient, or where industrial development is to be encouraged.	<i>Need for more coordination between land use and water/wastewater planning.</i>	<i>Areas appropriate for higher density development to be identified during CLUP process; must be supported through plan approval process in order to achieve vision for future.</i>
Section 4 Water and Sewer Services Policy 4.3	Centralized sewer services shall generally avoid parts of the county intended primarily for agriculture and to protect farmland from development pressures brought about by such sewers. Exceptions to this policy may include extensions for major economic development initiatives, and extensions to address imminent public health problems or related environmental hazards.	<i>Planning involvement in development of Master Plan not clear as staff has changed.</i>	<i>Just as important as designating higher density areas, it is essential that areas to be protected from development pressures be identified and protected.</i>
Section 4 Water and Sewer Services Policy 4.4	Major extensions of water and sewer services that could result in scattered, non-directed development and costly provision of other urban services shall be discouraged.	<i>Public water and sewer services attract development – infrastructure</i>	<i>Suburban sprawl served by public water and sewer results in non-sustainable development</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
		<i>extensions should be carefully planned in coordination with land use planning goals.</i>	<i>patterns.</i>
Section 4 Water and Sewer Services Policy 4.5	<p>The County shall support the provision and/or expansion of centralized sewer services when such services:</p> <ul style="list-style-type: none"> (1) Will result in the development of new or expanded industry and the creation of permanent jobs in numbers commensurate with the expenditure required. (2) Will result in a positive payback to the county's taxpayers, in terms of the taxes generated by the new development versus the costs incurred. (3) Will encourage a more compact development pattern in areas adjoining existing urban areas, thereby conserving farmland and other open spaces. (4) Will serve to steer dense development away from environmentally sensitive areas, such as floodplains, water supply watersheds and fragile coastal ecosystems. 	<i>County plans to upgrade US 421 water treatment plant from 2 mgd to 6 mgd to support economic development.</i>	<i>Are these policies still appropriate? Should they be modified?</i>
Section 4 Water and Sewer Services Policy 4.6	Greenspace development away from centralized sewage treatment facilities may employ package sewage treatment plants or other alternative sewage treatment systems as a means of achieving more efficient land use.	<i>Package sewage treatment systems are permitted and heavily relied upon by the development community.</i>	<i>Should these continue to be allowed? What are the positive and negative consequences?</i>
Section 4 Water and	The County shall encourage the development of	<i>No examples.</i>	<i>Water reuse is an</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
Sewer Services Policy 4.7	sewer services that employ water reuse technologies for agriculture and other uses.		<i>essential component of sustainable growth.</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.1	Primary nursery areas shall be protected from undue encroachment, damage, or pollution from direct water runoff or other causes. In areas adjacent to primary nursery areas, allowable development densities and lot coverage should be kept low. Non-water dependent uses, such as commercial development, should also be directed away from these areas, as appropriate (see Policy 12.2 Greenspace Development).	<i>Nursery areas are subject to Division of Water Quality and Division of Coastal Management requirements. Land use is addressed in CAMA LUP.</i>	<i>Any role for the County to play?</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.2	Pender County will make a concerted effort to see that development is sensitive to the problem of stormwater run-off. In this regard, the County may employ locally adopted rules more stringent than the state sedimentation and erosion control regulations.	<i>County has not adopted local stormwater rules; State sedimentation and erosion control regulations apply.</i>	<i>Should the County adopt more stringent rules?</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.3	The costs of stormwater management, which are associated with an area's rapid growth, will be equitably distributed.	<i>County has recently formed Drainage Task Force to address drainage issues.</i>	
Section 5 Stormwater Management, Drainage and Flooding Policy 5.4	The proponents (and beneficiaries) of development activity will be responsible for the costs of stormwater management associated with their development projects.	<i>New development subject to DWQ water quality standards.</i>	<i>What role, if any, should the County play?</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.5	Pender County will work, whenever possible, to require the retention and management of natural vegetation in buffer areas along its creeks and rivers.	<i>CAMA Areas of Environmental Concern (AECs) are regulated by DCM permitting</i>	<i>What role, if any, should the County play?</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
		<i>process.</i>	
Section 5 Stormwater Management, Drainage and Flooding Policy 5.6	Pender County shall support a vegetated buffer program along area streams and other water bodies to preserve, maintain, and protect the quality of area waters.	<i>Mandated in CAMA AECs.</i>	<i>What role, if any, should the County play?</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.7	Pender County supports NC Division of Water Quality regulations regarding stormwater runoff resulting from development activity. Intensive growth and development will not be allowed where poor drainage exists unless appropriate corrective improvements are to be completed as part of the project.	<i>New development subject to DWQ permitting requirements.</i>	<i>Is there a need for county level regulations / enforcement?</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.8	Pender County shall give priority consideration to corrective measures to prevent the flooding of roads, houses, and businesses following an intense rain event.	<i>DWQ / FEMA requirements must be met.</i>	<i>As the hazard mitigation plan is updated, are there measures that should be included for implementation?</i>
Section 5 Stormwater Management, Drainage and Flooding Policy 5.9	The County shall consult with the NC Department of Transportation and the NC Division of Water Quality on all future public road projects so that successful solutions may be shared.	<i>Roads are built by NCDOT; private roads are built to County standards but are not maintained by the County.</i>	
Section 5 Stormwater, Drainage and Flooding Policy 5.10	Environmentally sound engineering solutions shall be employed to prevent unacceptable stormwater ponding on area roadways.	<i>No engineered stormwater best management practices (BMPs) are required by the County.</i>	
Section 5 Stormwater,	A master drainage plan shall be employed to	<i>Drainage Task Force to</i>	

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
Drainage and Flooding Policy 5.11	identify and implement detailed solutions for specific problem areas threatened by flooding and to improve area water quality.	<i>consider drainage issues / plan.</i>	
Section 5 Stormwater, Drainage and Flooding Policy 5.12	In the review and approval of new development projects, post development runoff shall be reduced to the extent feasible as determined by experts in the field.	<i>No County standards / regulations; all subject to DWQ requirements.</i>	
Section 5 Stormwater, Drainage and Flooding Policy 5.13	Development activities in the 100-year floodplain or near water bodies shall be carefully controlled using FEMA guidelines and current technology, such as pervious material. If development must occur, low intensity uses such as recreation and agriculturally related activities (adequately buffered) shall be preferred.	<i>FEMA regulations enforced by County when development proposed; land use was previously regulated when FA district existed (recently deleted).</i>	
Section 5 Stormwater, Drainage and Flooding Policy 5.14	Pender County shall discourage the placement of septic tanks systems within the 100-year floodplain.	<i>County Environmental Health Department regulates septic tanks.</i>	
Section 6 School Facilities Policy 6.1	The County supports advanced planning for the location of new public schools. Such advanced planning shall incorporate age-specific population projections, and projected residential growth patterns.	<i>County Public Schools completed 10-year master plan in June 2008.</i>	<i>Challenge will be funding needed school expansions / improvements.</i>
Section 6 School Facilities Policy 6.2	Pender County encourages offers of land for the sitting of new schools, particularly in conjunction with new development. Acceptance of such properties shall be based on approved criteria and cooperative planning with the County school administration.	<i>School site offers have been widely discussed, but no official action. County does not have an adequate public facilities ordinance.</i>	<i>Development agreement was attempted with approval of St. George's Reach.</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 6 School Facilities Policy 6.3	Site planning for traffic management and safety in the vicinity of public schools shall be a priority.	<i>Coordinate with NCDOT and MPO and RPO on traffic issues.</i>	
Section 7 Parks, Recreation and Water Access Policy 7.1	Future park development and open space preservation shall be planned to provide for the proper distribution of recreation and open space opportunities within the planning area.	<i>1998 Parks and Recreation Plan in place.</i>	<i>Plan needs to be updated.</i>
Section 7 Parks, Recreation and Water Access Policy 7.2	In determining future sites for park, recreation and water access facilities, multiple objectives for natural area conservation, visual enhancement, promotion of cultural and historic preservation, watershed and flood prone area protection shall be considered.	<i>Parks and Recreation has opportunity for plan approval input during Technical Review Committee process.</i>	
Section 7 Parks, Recreation and Water Access Policy 7.3	Pender County supports short and long-term efforts to protect important natural wildlife and recreation areas, including particularly the Holly Shelter Game Lands and the Angola Bay Game Land, by directing growth to locations in or near existing urban areas.	<i>County coordinates with NC Forestry Service and Wildlife Resources Commission; no County regulations in place.</i>	<i>How can County support this policy through development regulations?</i>
Section 7 Parks, Recreation and Water Access Policy 7.4	The identification and appropriate recreational development of a system of open space greenways and hiking trails within the county shall be encouraged. The use of (1) natural corridors such as streams and floodplains, and (2) man-made corridors such as utility and transportation rights-of-way and easements, shall be emphasized.	<i>New development is not required to set aside land or build trails, but is encouraged to do so.</i>	<i>Should the County identify greenway corridors and require they be protected?</i>
Section 7 Parks, Recreation and Water	Land acquisition for new park, recreation, and shoreline access sites in advance of need shall	<i>Western Pender Rail-Trail has been identified</i>	<i>Should the County be more aggressive in</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Access Policy 7.5	be encouraged to achieve desirable locations at cost effective levels.	<i>as a desirable location.</i>	<i>identifying / protecting areas?</i>
Section 7 Parks, Recreation and Water Access Policy 7.6	All new residential development should provide for adequate open space and recreation area in proportion to the demand created by the development. This may be determined according to the number of dwelling units in the development and/or by a percentage of the total acreage in the development.	<i>County regulations require 15% of total tract area be reserved for open space with approval of new development.</i>	
Section 7 Parks, Recreation and Water Access Policy 7.7	Pender County supports the co-location and joint development of public park facilities in cooperation with public schools.	<i>No examples with public schools.</i>	<i>Hampstead Kiwanis Park is a result of public / private cooperation.</i>
Section 7 Parks, Recreation and Water Access Policy 7.8	Given the limited number of water access sites in Pender County, a rapidly growing population, extensive water resource areas, and a diminishing number of properties suitable for water access, the County shall make the provision of additional water access areas a high priority for property acquisition, particularly to the Intra-coastal Waterway.	<i>No property acquisition to date, but 2008 Waterfront Access and Marine Industry (WAMI) grant being used to construct boat ramp</i>	
Section 8 Solid Waste Management Policy 8.1	Local area requirements for solid waste collection and disposal shall continue to be anticipated through advanced, cooperative planning between the County, its municipalities, and nearby local government jurisdictions.	<i>Solid Waste Management Plan adopted June 2000. Public Utilities or Environmental Health area of regulation.</i>	
Section 8 Solid Waste Management Policy 8.2	The County shall continue to pursue a variety of waste reduction strategies, including waste prevention, recycling and reuse.	<i>Same as above</i>	

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 8 Solid Waste Management Policy 8.3	Pender County encourages residential composting and mulching.	<i>Same as above</i>	
Section 8 Solid Waste Management Policy 8.4	Pender County supports educational programs that reduce litter and illegal dumping, encourage recycling and reuse, and encourage participation in programs such as Adopt-A-Highway and the Governors Litter Sweep.	<i>Same as above</i>	
Section 8 Solid Waste Management Policy 8.5	Pender County supports solid waste program financing strategies that equitably assess the costs of waste collection and disposal in accordance with the amount of waste each generator produces.	<i>Same as above</i>	
Section 8 Solid Waste Management Policy 8.6	County waste collection sites shall be located, graded, screened, improved and properly maintained to facilitate their use and improved appearance. When such facilities are located along major thoroughfares, traffic management and safety shall be a consideration, including possible acceleration and deceleration lanes.	<i>Highway 17 Convenience Center.</i>	
Section 9 Paying for Infrastructure and Services Policy 9.1	The County shall support planning and budgeting for capital facilities, with particular emphasis on park land, storm water management facilities, schools, sewage treatment systems, and airport development.	<i>County annually updates and adopts Capital Improvement Project budget for major capital expenditures.</i>	<i>Ability to fund major projects limited by funds available / projected.</i>
Section 9 Paying for Infrastructure and Services Policy 9.2	The costs of infrastructure, facilities and services related to new growth and development shall be borne by those responsible for the new growth. This approach shall include impact fees on new development and user fees for new facilities.	<i>County does not have impact fees. Development concessions are typically very limited.</i>	

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 10 Industrial Development Policy 10.1	The County shall encourage a public service and regulatory environment conducive to industrial development, compatible with environmental quality considerations and the availability of public financial resources.	<i>County regulates uses through zoning. County coordinates with Wilmington Industrial Development on industrial recruitment.</i>	<i>County also a member of North Carolina's Southeast, a regional industrial / business recruitment initiative.</i>
Section 10 Industrial Development Policy 10.2	Industrial development should not be located in areas that would diminish the desirability of existing and planned non-industrial uses, nor shall incompatible non-industrial uses be allowed to encroach upon existing or planned industrial sites.	<i>County has supports industrial development along the southern portion of the US 421 corridor.</i>	
Section 10 Industrial Development Policy 10.3	Industrial development shall be located on land that is physically suitable and has unique location advantages for industry. Advanced planning for the identification of such land shall be encouraged.	<i>Southern portion of US 421 corridor has been identified for a county industrial park.</i>	
Section 10 Industrial Development Policy 10.4	Heavy industrial uses shall be separated from incompatible, non-industrial areas by natural and man-made features such as green belts, major transportation facilities, transitional land uses, and/or other suitable means.	<i>Southern US 421 and Martin Marietta quarry in Rocky Point are major industrial use locations.</i>	
Section 10 Industrial Development Policy 10.5	Light industrial uses may be located in or near existing built up areas to take advantage of available services and to minimize home to work distances. Careful design and/or buffering shall be required to ensure compatibility and connectivity with surrounding areas.	<i>Two industrial park – Pender County Industrial Park on US 421; Rocky Point Industrial Park (Complex Road).</i>	
Section 10 Industrial	Pender County welcomes industries that are	<i>Del Lab an example of</i>	

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Development Policy 10.6	compatible with the area's land, water and air quality resources, and that provide higher paying jobs to the existing labor force.	<i>compatible industrial uses.</i>	
Section 10 Industrial Development Policy 10.7	Warehousing, storage and distribution facilities shall have access to appropriate thoroughfares, and shall be visually buffered according to their location.	<i>County regulations require buffers between uses.</i>	
Section 10 Industrial Development Policy 10.8	New industrial development shall be encouraged to locate in existing and/or planned mixed-use industrial parks.	<i>Largely accomplished through previously zoned industrial areas.</i>	
Section 10 Industrial Development Policy 10.9	Industrial development policies shall apply equally to industrial style operations such as mineral extraction, large-scale hog and poultry production, and other forms of production that fit the characteristics, if not the traditional definition of an "industry".	<i>CAMA LUP includes policies on locating industrial development.</i>	
Section 11 Commercial and Office Development Policy 11.1	Commercial and office development shall be encouraged to locate in planned commercial centers and mixed use office parks to minimize the proliferation of strip development.	<i>County has two industrial parks as cited above.</i>	
Section 11 Commercial and Office Development Policy 11.2	Large commercial centers should be located adjacent to the intersections of major roadways and convenient to mass transit routes; planned concentrations of employment and housing should be encouraged to locate convenient to these centers.	<i>Nodal centers located at three intersections: 1) US 117 / NC 210; 2) US 17 / NC210; and 3) US 421 / NC 53.</i>	
Section 11 Commercial and Office Development Policy 11.3	Incompatible commercial encroachment within or immediately adjoining existing residential areas shall be prohibited. Such incompatible	<i>Many in Hampstead community feel some commercial uses are</i>	<i>Most commercial uses; however, are permitted by existing zoning; so</i>

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	encroachments often include, but are not limited to, automobile oriented uses such as service stations, car lots, car washes, drive through restaurants, and the like. However, mixed use developments, planned from the outset, which allow for a compatible mixture of uses with a pedestrian scale and design, are encouraged. Further, businesses may be located adjoining (and therefore convenient to) an existing residential area, when such businesses can be shown to satisfy design considerations similar to a newly planned, pedestrian-scaled, mixed use development.	<i>not compatible with surrounding residential uses.; however if they are all permitted uses in that zone how can we say that a use is incompatible?</i>	<i>how should conflicts be addressed?</i>
Section 11 Commercial and Office Development Policy 11.4	Neighborhood and convenience commercial centers should be encouraged to locate at locations with good vehicular and pedestrian access with preference on a collector street. They may also be near other neighborhood facilities such as schools and parks.	<i>Commercial nodes last created in 2003 with countywide rezoning at intersections of collector streets.</i>	<i>What issues / revisions need to be addressed in UDO?</i>
Section 11 Commercial and Office Development Policy 11.5	Highway oriented commercial uses should be clustered along segments of highways and contain land uses which are mutually compatible and reinforcing in use and design; they should be designed in such a way as to minimize signage, access points, and uncontrolled strip development. (See esp., Policy 11.11 below concerning connected parking areas.)	<i>Highway and scenic gateway zones created in 2003 rezoning.</i> <i>Access management needs to be addressed in new regulations, particularly along major corridors.</i>	<i>These issues need to be addressed in UDO.</i>
Section 11 Commercial and Office Development	Rural area commercial development should be limited to local convenience stores, farm supply	<i>Commercial opportunities in RA</i>	<i>Do these standards need to be addressed in</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Policy 11.6	stores, and generally accepted rural business establishments.	<i>district governed by use table.</i>	<i>UDO?</i>
Section 11 Commercial and Office Development Policy 11.7	Commercial uses shall be encouraged to develop by consolidation and expansion of existing commercially zoned property, when such consolidation and expansion does not encroach upon a viable residential area. (Note: The 1991 Land Use Plan also encourages new commercial development in areas where there is already commercial development. This must not be construed to encourage new commercial development without careful site plan review, design, landscaping, buffering and other policies noted herein. Strip commercial development or stand alone highway oriented commercial development is to be discouraged.)	<i>Commercial development has not necessarily followed this policy. It is governed by the use table and in some instances amended via rezoning or text amendment for a specific purpose.</i>	<i>Do these uses need to be re-addressed in UDO?</i>
Section 11 Commercial and Office Development Policy 11.8	Strip development along the area's major streets and highways shall be discouraged. Existing strip development shall be reduced and/or zoning should be made more restrictive when redevelopment opportunities permit. New strip development on isolated single lots along major streets and highways shall be discouraged.	<i>New regulations are needed to address strip development along major thoroughfares.</i>	<i>What issues/revisions need to be addressed in UDO?</i>
Section 11 Commercial and Office Development Policy 11.9	Attractive, environmentally beneficial landscaping shall be provided by new commercial or office developments, and in the rehabilitation and upgrading of existing developments. Effective buffering shall be provided when commercial or office development adjoins existing or planned	<i>Landscaping and buffer requirements are included in Section 14 of the zoning ordinance.</i>	<i>Is there a need to update landscaping and buffering requirements in the UDO?</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
	residential uses.		
Section 11 Commercial and Office Development Policy 11.10	Office and institutional development shall be encouraged to locate as a transitional land use between residential areas and commercial and industrial activities of higher intensity, where appropriate. “Activities of higher intensity” are typically automobile oriented commercial development but may also include heavily traveled thoroughfares.	<i>O & I uses are governed by table of permitted uses in various districts and approval processes (i.e. by-right or SUP).</i>	<i>Should existing regulations be updated with the UDO?</i>
Section 11 Commercial and Office Development Policy 11.11	Businesses shall be encouraged to coordinate their site designs with other nearby businesses. Design factors should include, at a minimum, (innovative design and location of parking areas {CHG}) shared or connected parking and access, convenient pedestrian and vehicular movement, and consistent sign standards, and joint storm water management facilities.	<i>Encouraged, yes, but if not mandated by regulations it is not possible for staff to enforce.</i>	<i>Need to update regulations in UDO?</i>
Section 12 Housing and Neighborhood Development Policy 12.1	The County shall encourage development to occur at densities appropriate for their location. Location factors shall include whether the development is within an environmentally sensitive area, the type of sewage treatment available to the site, and the proximity of the site to existing urban services.	<i>Densities and land use factors governed by permitted use table, CAMA LUP classifications, subdivision ordinance provisions.</i>	<i>Partially addressed through determination of appropriate growth locations.</i>
Section 12 Housing and Neighborhood Development Policy 12.2	All developments in the unincorporated county shall be encouraged to employ greenspace development as an environmentally sound, economically cost effective, and visually attractive alternative to large lot sprawl.	<i>Subdivision ordinance requires minimum 15% open space dedication requirement for new developments</i>	<i>Need to address in UDO?</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 12 Housing and Neighborhood Development Policy 12.3	The protection and rehabilitation of viable neighborhoods shall be encouraged to ensure their continued existence as a major housing source. Housing shall be encouraged to meet or exceed minimum standards for health, safety and welfare.	<i>County does not have minimum housing code.</i>	<i>Adopting and enforcing minimum housing code would require additional staff.</i>
Section 12 Housing and Neighborhood Development Policy 12.4	Proposed residential development that would expose residents to the harmful effects of incompatible development or to environmental hazards shall be prohibited.	<i>General statement – how quantified?</i>	
Section 12 Housing and Neighborhood Development Policy 12.5	Site development and appearance standards for manufactured housing shall be largely equivalent to those of site built housing, when located in or near existing site built housing of moderate or higher density. Such standards shall include requirements for doublewide size, a permanent masonry foundation, and a pitched roof and overhang.	<i>County has no aesthetic regulations in either manufactured or site-built housing.</i>	<i>New standards would be included in UDO.</i>
Section 12 Housing and Neighborhood Development Policy 12.6	Innovative and flexible land planning and development practices shall be encouraged to create neighborhoods which better safeguard land, water, energy and historic resources.	<i>Encouraged yes, but not mandated through current regulations.</i>	<i>Address with new regulations in UDO.</i>
Section 12 Housing and Neighborhood Development Policy 12.7	Factors in determining preferred locations for higher density residential development shall include: close proximity to employment and shopping centers, access to major thoroughfares and transit systems, the availability of public services and facilities, and compatibility with adjacent areas and land uses.	<i>Urban Growth Areas with high density are delineated in CAMA LUP.</i>	<i>Consider locational factors in developing preferred growth pattern.</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 12 Housing and Neighborhood Development Policy 12.8	The County shall not allow significant (i.e. greater than 3 lots total, not incremental) new or expanded development to locate on new or existing unimproved, private roads. Improvement of such roads to state standards, with provisions for long-term maintenance, shall be required.	<i>Policy addressed through subdivision ordinance.</i>	<i>Needs to be addressed in UDO.</i>
Section 12 Housing and Neighborhood Development Policy 12.9	New developments shall provide for the installation of infrastructure (e.g. paved roads, stormwater facilities, park and open space areas, etc.) at the time of development. This policy is intended to prevent the creation of substandard developments which must later pay for infrastructure that should have been installed from the beginning.	<i>Policy addressed through subdivision ordinance.</i>	<i>Any revisions would be addressed in UDO.</i>
Section 12 Housing and Neighborhood Development Policy 12.10	While not precluding senior housing elsewhere, the County shall encourage housing for retirees to be placed in locations (1) that are convenient to urban services, including medical care, and (2) that allow for transportation alternatives to the automobile.	<i>Age-restricted housing not addressed in current regulations.</i>	
Section 12 Housing and Neighborhood Development Policy 12.11	All forms of housing development should be discouraged from “leapfrogging” into the countryside, thereby destroying the rural character of Pender County, breaking up farmland, and making the provision of urban services more costly to homebuyers and taxpayers.	<i>Leapfrogging is usually the result of extending public infrastructure – water, sewer, roads – thereby making former rural areas more attractive for development.</i>	<i>Coordinating land use goals and public infrastructure is the key to achieving a more compact development pattern.</i>

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Section 12 Housing and Neighborhood Development Policy 12.12	Pender County shall seek to accommodate the development and appropriate placement of a variety of housing types, including site built homes, apartments, townhouses, granny flats, garage apartments, accessory living units, and manufactured homes.	<i>Land use regulations and zoning patterns contribute to obstacles in multi-family development.</i>	<i>Preferred development pattern should designate appropriate locations for different types of development. Needed regulation revisions addressed in UDO.</i>
Section 13 Waterfront and Waterborne Development - Marinas and Upland Excavations for Marina Basins Policy 13.1	There shall be no new marinas allowed in or adjacent to water designated Outstanding Resource Waters, including adjacent to Futch Creek, Mill Creek and Old Topsail creek or in the 1,000 foot ORW area, which includes water bodies within 1,000 feet of designated Outstanding Resource Waters. All development proposals must be consistent with NC General Statutes.	<i>Not addressed in any regulations.</i> <i>Any such development must meet state and federal permitting requirements.</i>	<i>State and federal regulation issue.</i>
Section 13 Waterfront and Waterborne Development - Marinas and Upland Excavations for Marina Basins Policy 13.2	Because of the potential negative impacts marinas can have on environmentally sensitive areas such as designated Outstanding Resource Waters (currently designated as being between Rich's Inlet and New Topsail Inlet); the County will not permit new marina facilities in this area. Such facilities must also be consistent with NC General Statutes.	<i>Not addressed in any regulations.</i> <i>Any such development must meet state and federal permitting requirements.</i>	<i>State and federal regulation issue.</i>
Section 13 Waterfront and Waterborne Development - Marinas and Upland Excavations for Marina Basins Policy 13.3	Upland excavation for marina basins adjacent to water bodies may be permitted from the opening to Old Topsail Creek northwest to the Onslow County line. Upland excavation for new marinas shall not be permitted along Futch Creek, Mill Creek, or Old Topsail Creek or along any upland	<i>Any such development must meet state and federal permitting requirements.</i> <i>Locations dependent</i>	<i>State and federal regulation issue.</i>

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	areas adjacent to Outstanding Resource Waters.	<i>upon zoning district and table of permitted uses.</i>	
Section 13 Waterfront and Waterborne Development – Dry Stack Facilities Policy 13.4	To minimize “consumption” of valuable public trust surface waters, dry stack storage marinas generally shall be preferred over wet-slip marinas. Dry stack storage facilities shall be evaluated for site-specific compatibility with surrounding land uses, as well as for aesthetic concerns, parking, access, and available services.	<i>Locations dependent upon zoning district and table of permitted uses.</i>	<i>Review existing regulations to determine if revisions are needed in UDO.</i>
Section 13 Waterfront and Waterborne Development – Floating Homes Policy 13.5	Floating home development shall not be permitted within the County’s planning jurisdiction, including waterways, public trust waters, and along the shorelines of the county, so as to prevent the unwanted “consumption” of limited surface waters.	<i>Floating home development not addressed in current regulations.</i>	<i>Need to address in UDO?</i>
Section 13 Waterfront and Waterborne Development – Moorings and Mooring Fields Policy 13.6	The installation of freestanding moorings and mooring fields may be permitted only in accordance with CAMA development standards, including consistency with the policy recommendations of a water use plan. The unimpeded use of and navigation within public trust surface waters by the boating public shall be of primary concern.	<i>Policy addressed via DCM standards.</i>	<i>State and federal regulation issue.</i>
Section 13 Waterfront and Waterborne Development – Bulkheads in Marsh Areas Policy 13.7	Pender County shall allow the installation of bulkheads in freshwater swamps if all necessary local, state and federal permits can be obtained and all applicable regulations to protect freshwater swamps are followed.	<i>Policy addressed via DCM standards.</i>	<i>State and federal regulation issue.</i>

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Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 14 Agricultural and Rural Area Preservation Policy 14.1	Agriculture and very low-density residential activities shall be the preferred land uses in rural and active agricultural areas.	<i>Policy addressed via table of permitted uses.</i>	<i>Need to address in UDO?</i>
Section 14 Agricultural and Rural Area Preservation Policy 14.2	Rural and active agricultural area lands having a high productive potential shall be conserved, to the extent possible, for appropriate agricultural use.	<i>No other agricultural zones other than current RA zone.</i>	<i>Preferred growth pattern to address.</i>
Section 14 Agricultural and Rural Area Preservation Policy 14.3	Farms and woodlands shall be recognized as an integral part of the planning area's open space system.	<i>Opportunities through voluntary agricultural district legislation; game lands, other preservation areas.</i>	<i>Preferred growth pattern to address.</i>
Section 14 Agricultural and Rural Area Preservation Policy 14.4	County actions concerning infrastructure and regulations shall serve to direct new development first to compact, targeted growth areas near existing towns. New development shall be discouraged from "leapfrogging" to locations in the midst of family farmland, woodland or other valuable open spaces.	<i>With no central sewer system growth occurs randomly and relies on on-site package WWTPs.</i>	<i>Need to solicit input / coordination with public utilities department.</i>
Section 14 Agricultural and Rural Area Preservation Policy 14.5	County actions should provide protection to existing agricultural and silvi-cultural activities from incompatible land uses.	<i>Policy addressed via table of permitted uses.</i>	<i>Any need for revisions to UDO?</i>
Section 15 Estuarine Areas Resources Policy 15.1	Pender County will support and enforce, through its CAMA Minor Permitting capacity, the State policies and permitted uses in the Areas of Environmental Concern (AEC's). Acceptable uses within the individual AEC's of the estuarine system shall be those that require water access and or cannot function elsewhere. Such uses	<i>Policy continually carried out through minor permitting program</i>	<i>State and federal regulation issue.</i>

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	shall be in accord with the general use standards for coastal wetlands, estuarine waters, and public trust areas as stated in 15A NCAC Subchapter 7H.		
Section 15 Estuarine Areas Resources – Coastal Wetland AECs Policy 15.2	Due to the critical role that wetlands play in protecting the quality of estuarine waters and in providing habitat for fish and wildlife, the County strongly supports the designation and preservation of all remaining coastal wetlands. Acceptable land uses may include utility easements, fishing piers, and docks. Examples of uses <u>NOT</u> permitted include restaurants, businesses, residences, apartments, motels, hotels, parking lots, private roads, and highways.	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine Areas Resources – Estuarine Water AECs Policy 15.3 (1)	Appropriate uses within estuarine waters may include simple access channels, structures which prevent erosion, navigational channels, and private boat docks, piers, and mooring pilings. Construction of new marinas is not permitted in or near Outstanding Resource Waters. Piers and docks for non-water dependent commercial uses are also prohibited.	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine Areas Resources – Estuarine Water AECs Policy 153 (2)	Any development or activity that will profoundly and adversely affect coastal and estuarine waters will not be allowed. In the design, construction and operation of water dependent structures, efforts must be made to mitigate negative effects on water quality and fish habitat, as determined by NCAC 15A	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>

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	Subchapter 7H and the Coastal Resources Commission.		
Section 15 Estuarine Areas Resources – Public Trust Waters AECs Policy 15.4 (1)	Any use that significantly interferes with the public right of navigation or other public trust rights shall be prohibited. Projects which would directly or indirectly block or impair existing navigational channels, increase shoreline erosion, deposit spoils below mean high water, cause adverse water circulation patterns, violate water quality standards, or cause degradation of shellfish waters also shall be prohibited.	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine Areas Resources – Public Trust Waters AECs Policy 15.4 (2)	The County shall seek to ensure the responsible use of jet skis and other similar "personal" watercraft within the public trust waters of Pender County. Responsible use shall mean controlled, predictable movements similar to other powered watercraft while in navigation channels, marinas, and other regularly trafficked areas, and their prohibition in marshes and other shallow water estuaries, where damage to the resource is likely.	<i>Policy addressed through boating regulations enforced by Division of Marine Fisheries.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine Areas Resources – Public Trust Waters AECs Policy 15.4 (3)	CAMA standards designed to limit the length of docks and piers as they project into public trust waters shall be considered the minimum standards, with the County reserving the right to be more restrictive where the use of public trust waters and environmental protection issues warrant.	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine	Marina development shall be prohibited along	<i>Policy addressed</i>	<i>State and federal</i>

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Areas Resources – Estuarine Shoreline AECs Policy 15.5	estuarine shorelines bordering Outstanding Resource Waters. Generally, only low density residential and water dependent land uses may be permitted along the estuarine shoreline, provided that all standards of NCAC 15 Subchapter 7H relevant to estuarine shoreline AEC's are met, and that the proposed use is consistent with other policies set forth in this Plan.	<i>through CAMA regulations and coordination with DCM. Residential density governed by zoning ordinance.</i>	<i>regulation issue.</i>
Section 15 Estuarine Areas Resources – Ocean Hazard Area AECs Policy 15.6 (1)	The County supports State policies for ocean hazard areas as set forth in Chapter 15A, Subchapter 7H of the State CAMA regulations. Suitable land uses in ocean hazard areas include ocean shoreline erosion control activities and dune establishment and stabilization.	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine Areas Resources – Ocean Hazard Area AECs Policy 15.6 (2)	The County supports the policies and regulations of State and Federal permitting agencies concerning the development of ocean piers, and shall encourage the proper maintenance and safety of such piers.	<i>Policy addressed through CAMA regulations and coordination with DCM.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine Areas Resources – Outstanding Resource Waters Policy 15.7	There shall be no new marinas allowed in or adjacent to waters designated ORW, including adjacent to Futch Creek, Mill Creek and Old Topsail Creek or within the 1000 foot ORW buffer area, which includes water bodies within 1000 feet of designated ORW waters.	<i>Marina permitting as it relates to Outstanding Resource Waters addressed in CAMA major permitting; marina locations determined via table of permitted uses and county zoning.</i>	<i>State and federal regulation issue.</i>
Section 15 Estuarine	The County shall avoid undertaking any activity	<i>Likely addressed in</i>	<i>State and federal</i>

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Areas Resources – Turtle Nesting Areas Policy 15.8	or approving of any activity that would destroy remaining habitat for loggerhead turtle nesting.	<i>WRC regulations.</i>	<i>regulation issue.</i>
Section 15 Estuarine Areas Resources – Sound and Estuarine System Islands Policy 15.9	Pender County shall discourage the development of barrier islands within the planning jurisdiction of the County including, particularly, Hutaff and Lea Islands. The County encourages initiatives at the local, state or federal government level to purchase these environmentally sensitive areas for the benefit of all residents of the county, state and nation.	<i>Addressed in CAMA LUP. Coordination with agencies ongoing.</i> <i>Efforts by Audubon Society to allocate property on Lea/Hutaff Island ongoing.</i>	<i>State and federal regulation issue.</i>
Section 16 Significant Natural Areas Policy 16.1	Pender County supports the preservation, in perpetuity, of the Angola Bay Gamelands and the Holly Shelter Game Preserve for the rare and valuable plants and animals they contain, and for the vital role they play in recharging regional groundwater supplies.	<i>Addressed in CAMA LUP; regulations enforced by NC Forestry Service.</i>	<i>State and federal regulation issue.</i>
Section 16 Significant Natural Areas Policy 16.2	The abundance and diversity of wildlife in Pender County shall be preserved and enhanced through protection of the unique coastal ecosystems, including marshes, pocosins, woodlands, open fields and other areas upon which they depend.	<i>Addressed in CAMA LUP; regulations enforced by various agencies.</i>	<i>State and federal regulation issue.</i>
Section 17 Freshwater Resources, Surface and Ground Policy 17.1	Pender County supports federal, state and local efforts to protect the quantity and quality of water in the Cape Fear River, whether such protection involves controls over point source discharges, surface runoff, inter basin water transfers, or other appropriate means, including	<i>Addressed in CAMA LUP; regulations enforced by DWQ.</i>	<i>State and federal regulation issue.</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
	upstream activities.		
Section 17 Freshwater Resources, Surface and Ground Policy 17.2	Pender County supports federal, state and local efforts to protect the quantity and quality of water in the region's groundwater system, whether such protection involves controls over the location and management of activities involving hazardous substances, restrictions on groundwater drawdowns, or any other activity which would jeopardize the short and long term viability of groundwater resources.	<i>Addressed in CAMA LUP; regulations enforced by DWQ.</i>	<i>State and federal regulation issue.</i>
Section 17 Freshwater Resources, Surface and Ground Policy 17.3	Pender County will continue with improvements to and expansion of the County's potable, piped water supply system, with emphasis on the development of a self-supporting operation, where costs are assigned in relative proportion to the benefits conveyed.	<i>Policy addressed by utilities department.</i>	<i>Need to solicit input / coordinate with public utilities department.</i>
Section 17 Freshwater Resources, Surface and Ground Policy 17.4	So as to facilitate the orderly development of the County and its water system, Pender County shall establish and maintain utility extension and tap-on policies designed to address the timing, location, priorities and sequence, etc. of system expansion in coordination with specific growth management objectives. ★	<i>Policy addressed by utilities department.</i>	<i>Need to solicit input / coordinate with public utilities department.</i>
Section 18 Wetlands and Hydric Soils Policy 18.1	Pender County policy will be to permit development which is proposed to be located outside hydric soil areas as defined by Pender County and meets all zoning, health department and flooding regulations as well as other state or federal regulations.	<i>Policy addressed in zoning ordinance in coordination with USACE and environmental health department.</i>	<i>Coordinate with state and federal regulations.</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 19 Historic Preservation and Revitalization Policy 19.1	Local efforts to identify designate and preserve sites, buildings and districts of particular historic significance shall be supported as a means of enhancing their economic, cultural and tourism value to the area.	<i>Note sure of any historic preservation committee etc. that addresses this policy.</i>	<i>Need to identify agency / department that address this policy.</i>
Section 19 Historic Preservation and Revitalization Policy 19.2	Multiple and appropriate adaptive reuse of historic resources shall be encouraged.	<i>Note sure of any historic preservation committee etc. that addresses this policy.</i>	.
Section 19 Historic Preservation and Revitalization Policy 19.3	Development of the tourism potential of the area's architectural and historic resources shall be encouraged.	<i>Policy addressed by tourism department.</i>	<i>Need to solicit input from tourism department.</i>
Section 19 Historic Preservation and Revitalization Policy 19.4	The destruction of significant architectural, historic and archaeological resources in the planning area shall be discouraged.	<i>Note sure of any historic preservation committee etc. that addresses this policy.</i>	<i>Need to identify agency / department that address policy.</i>
Section 20 Community Appearance Policy 20.1	The important economic, tourism, and community image benefits of attractive major travel corridors through Pender County shall be recognized. Such entryway corridors shall receive priority attention for improved appearance and development standards, including landscaping, signage and tree preservation.	<i>Recommendations from US Highway 17 Overlay Committee to be incorporated into UDO for Highway 17 and all major corridors.</i>	<i>To be implemented in UDO.</i>
Section 20 Community Appearance Policy 20.2	Landscape improvements at existing and new commercial developments, particularly as related to breaking up and softening the appearance of expansive parking areas, shall be encouraged.	<i>Landscaping, buffer and parking requirements in zoning ordinance.</i>	<i>Review existing regulations to determine if revisions are needed in UDO.</i>

Pender County Comprehensive Land Use Plan

Category Policy #	Policy Statement	Implementation Progress	Commentary
Section 20 Community Appearance Policy 20.3	The County shall discourage the inappropriate use of manufactured or site built homes for storage or their abandonment without proper disposal.	<i>Policy addressed through Code Enforcement Program.</i>	<i>Ongoing; additional staff needed for adequate code enforcement.</i>
Section 20 Community Appearance Policy 20.4	New development, redevelopment, rehabilitation and maintenance of structures and sites should be consistent and supportive of the neighborhood and architectural context of the surrounding area.	<i>No architectural standards in current land use regulations.</i>	<i>Address with new regulations in UDO.</i>
Section 20 Community Appearance Policy 20.5	The significance of street trees in providing visual relief, summer cooling, improved air quality and livability shall be recognized through public policies to encourage their planting and maintenance.	<i>No direct regulations other than landscaping and buffer requirements; grant opportunities or revised regulations possible.</i>	<i>Review existing regulations to determine if revisions needed in UDO.</i>
Section 20 Community Appearance Policy 20.6	Sign policies and standards shall be periodically updated to enhance community identity and create a high quality business image.	<i>Policy addressed with existing sign regulations and periodic revisions.</i>	<i>Review existing regulations to determine if revisions needed in UDO.</i>

Pender County Comprehensive Land Use Plan

Pender County 2005 CAMA Land Use Plan

North Carolina has designated twenty coastal counties as protected under the Coastal Area Management Act (CAMA). As one of those twenty coastal counties, Pender County adopted an update to the CAMA Land Use Plan on May 16, 2005. The Plan was certified by the State in June 2006 and by the Federal government in May 2009.

CAMA plans typically do not encompass all the components of a comprehensive land use plans but instead focus primarily on policies designed to protect significant and irreplaceable natural systems. CAMA plans normally include land use policies and a land use classification system as tools for protecting natural systems, however, the plans are not designed to, nor do they provide, detailed guidance for land use decisions. Pender County has gone beyond the State requirements for coastal planning by preparing a Comprehensive Land Use Plan.

The Pender County 2005 CAMA Land Use Plan includes the following policies:

II. CAMA Required Topics

- A. Public Access Policies
- B. Land Use Compatibility Policies
- C. Infrastructure Carrying Capacity
 - Transportation
 - Water and sewer service
 - Stormwater Management
 - Other facilities
- D. Natural Hazard Areas
- E. Water Quality Policies

III. Local Concerns

- A. Maintaining Pender County's Rural Lifestyle
- B. General Development Patterns
- C. Residential Development Patterns
- D. Commercial Development
- E. Industrial and Business Development
- F. Agriculture, Forestry and Open Space
- G. Hazards
- H. Drainage
- I. Access
- J. Site Development

Pender County Comprehensive Land Use Plan

The 2005 CAMA Plan includes five major Land Classifications:

A. Conservation Classification

The Conservation Classification is intended to protect natural systems from inappropriate development. This land use classification:

- Provides for protection and long-term management of significant and irreplaceable natural systems.
- Helps mitigate risks to life and property associated with wind, water, and other natural hazards that would result from development in these areas.

Within the Conservation Classification, there are two Subclasses:

- **Conservation 1** includes land and water features where there are serious hazards to personal safety or property, where new development would cause serious damage to the values of natural systems, or where new development is not permitted by local, state, or federal policy. Only public or private open space or uses that require water access and cannot function elsewhere are appropriate.
- **Conservation 2** includes areas where new development may impact public health or areas where there are significant development limitations, such as non-coastal wetlands and water-supply watersheds. Pender County allows limited net density in Conservation 2 areas.

B. Urban Growth Area Classification

The UGA Classification provides for the continued development of areas provided with water and/or sewer services or where the County is actively engaged in planning these community services. This area classification provides for higher net densities. Achievable densities are dependent upon the types and levels of services that are available.

C. Transition Area Classification

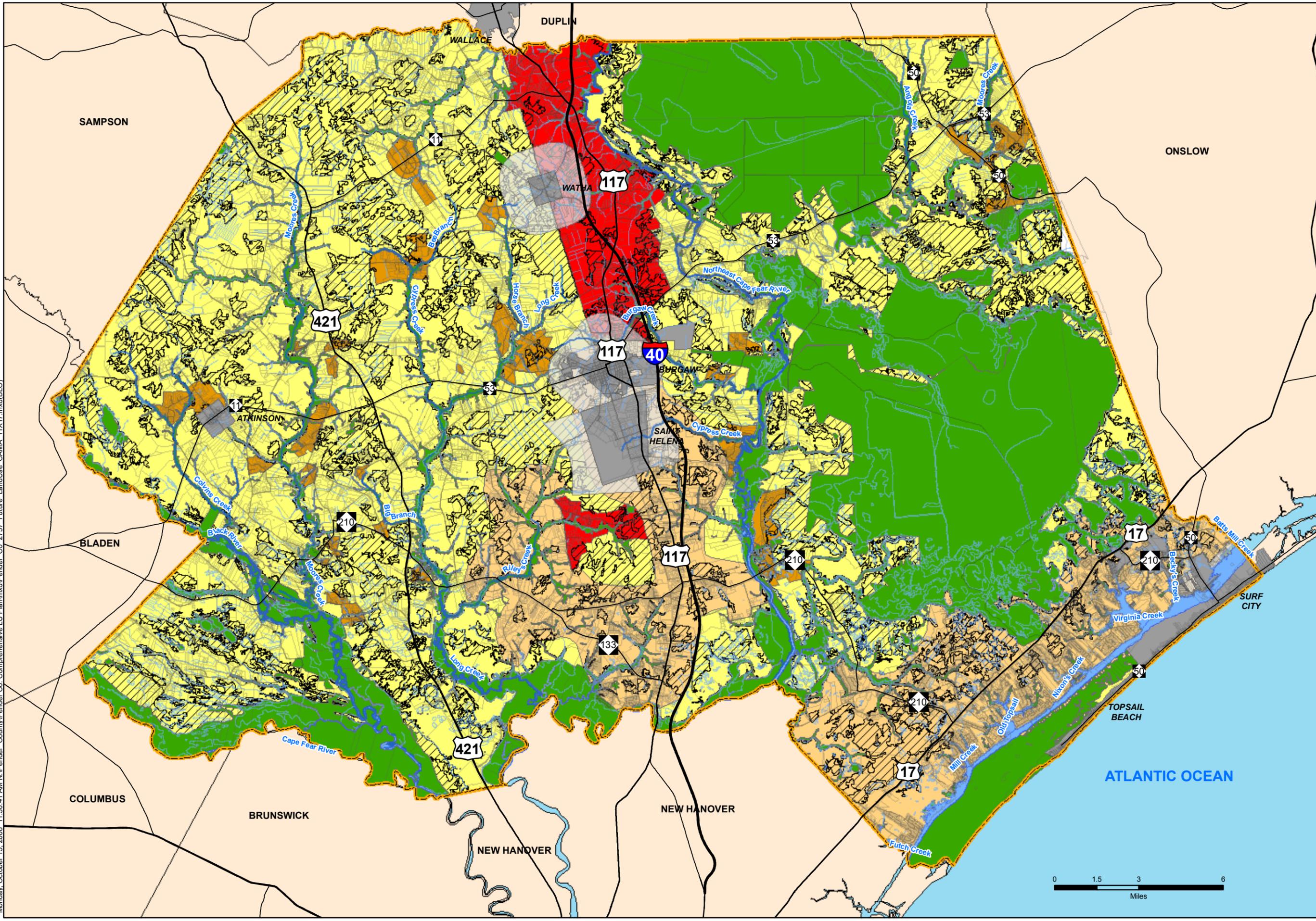
The TA Classification applies to areas where more intensive community development is appropriate and where the County is making plans to develop public services, particularly water and sewer, and where access to transportation is excellent.

D. Rural Clusters Classification

The RC Classification recognizes small concentrations of distinct residential communities that may be associated with a church or other institutional or non-residential use in Rural Areas. The primary purpose of this classification is to implement the County's policy of preserving existing viable residential neighborhoods.

Pender County Comprehensive Land Use Plan

Monday, October 13, 2008 11:30:41 AM N:\Pender County\Plan\mxd\Pender Co. Comprehensive LU Plan\mxd\Pender Co. 2757 Future LandUse CAMA 11X17.mxd(BLO)



PENDER COUNTY

Future Land Use (CAMA)

Pender County, North Carolina

11-10-09



Legend

- Interstate *
- US Hwy *
- State Hwy *
- Road Centerline
- County Boundary
- Parcel
- Major Stream
- Minor Stream
- Municipality
- ETJ
- Conservation Area I
- Conservation Area II
- Urban Growth Areas
- Transition Areas
- Rural Clusters
- Rural Areas

All source data except national preserves, flood hazards, sub basins, and highways were received from Pender County.

* Source: NCDOT

PRELIMINARY FOR PLANNING PURPOSES ONLY



1 inch = 3 miles



Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

E. Rural Areas Classification

The RA Classification provides for agricultural and forestry operations that are key to preservation of the County's rural landscape and that remain a major part of the local economic tax base. Rural Areas provides protection for activities that may be incompatible with intensive farm activities. Major job-creating activities that are compatible with farms, forestry and very low-density development are appropriate. Rural Areas are planned for very low net density.

Commentary

The Pender County CAMA Plan does an excellent job of addressing required CAMA land use plan topics. The Plan also addresses local concerns related to general land development and protection of natural systems. The CAMA Plan includes general policies which support the more detailed policies contained within the Comprehensive Land Use Plan. CAMA Plan goals are also being used to guide development of the Unified Development Ordinance (UDO).

Thoroughfare Plan (1998)

The Pender County Thoroughfare Plan, adopted in February 1998, is in need of updating. The NC Department of Transportation is in the process of updating countywide thoroughfare plans under a new comprehensive transportation planning model. On August 21, 2006, the Pender County Board of Commissioners authorized NCDOT to update the County's thoroughfare plan but as of 2009, that update process has not begun.

Pender County participates in two regional transportation planning organizations. As a member of the Wilmington Urban Area Metropolitan Planning Organization (MPO), thoroughfare planning for southern and eastern Pender County is accomplished in the context of the greater metropolitan area. The County is also a member of the Cape Fear Rural Planning Organization (RPO) which is responsible for countywide transportation planning for Pender, Brunswick, and Columbus counties.

Pender County Comprehensive Land Use Plan

Coastal Pender Collector Street Plan (2007)

The Coastal Pender Street Collector Plan was adopted by Pender County on May 21, 2007. The Plan was prepared by the Wilmington Urban Area Metropolitan Planning Organization (MPO) which, along with the NC Department of Transportation and all participating local governments (three counties and ten municipalities), coordinates transportation planning in the greater Wilmington region.

Proximity to the City of Wilmington and to Interstate 40 and the recently opened Interstate 140 provides Coastal Pender County with an excellent transportation system which in turn supports regional growth. In fact, the fastest growing areas of Pender County are clustered along Interstate 40 and along the southeast side of US Highway 17 near the Intracoastal Waterway. The planned US 17 / Hampstead Bypass will impact the location and the rate of land development within Coastal Pender. At this time NCDOT is still assessing the environmental impacts of several potential corridor locations (see US 17 Preliminary Corridor Build Alternates Map).

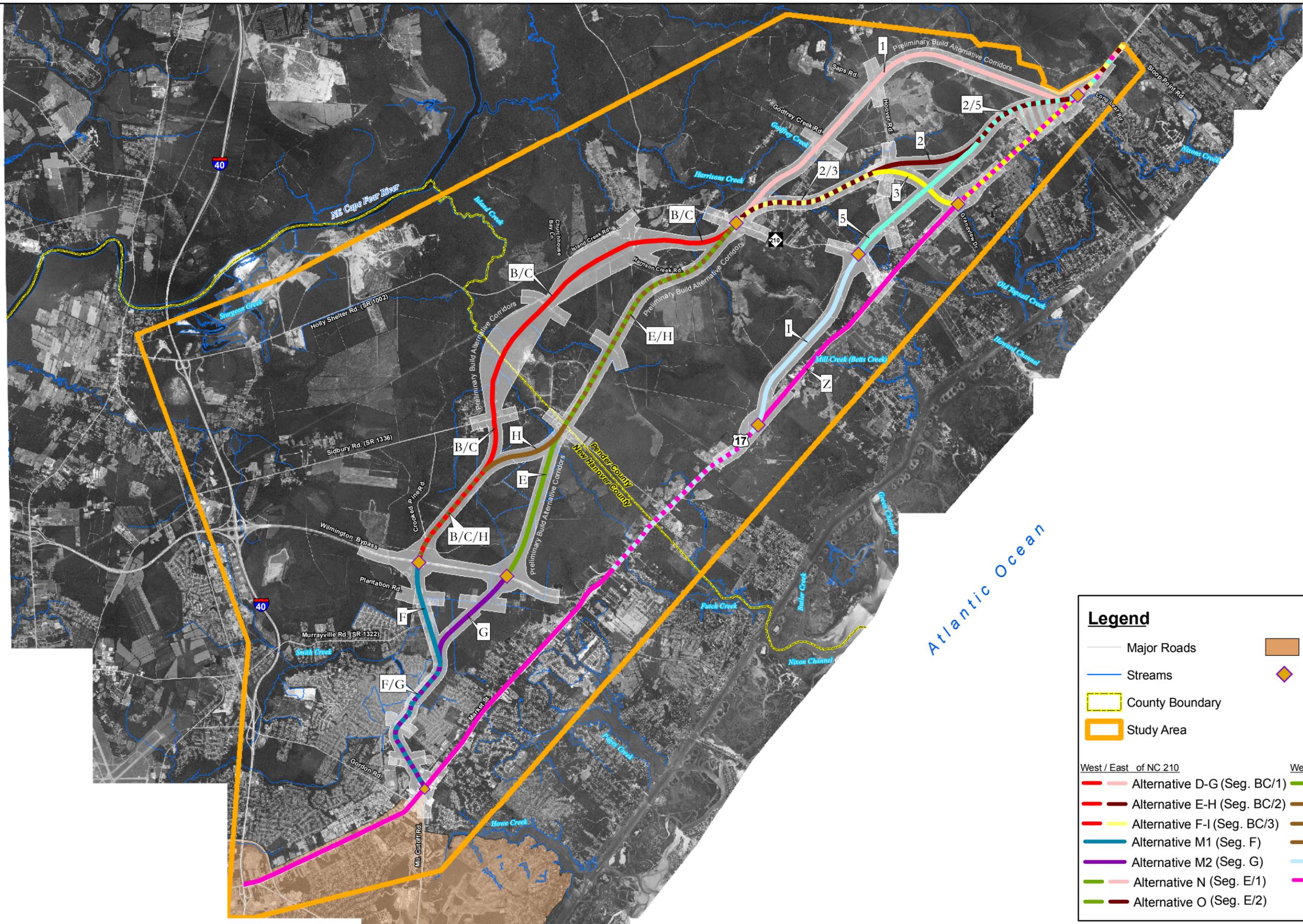


* Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)

The Intracoastal Waterway acts as a natural growth barrier on the southeast side of the Coastal Pender area, so most future growth will be pushed to open land on the northwest side of US Highway 17. The proposed US 17 / Hampstead Bypass with potential interchanges at NC 210 and Sidbury Road would greatly improve access to and from the western portion of the Coastal Pender study area and is expected to further stimulate growth in and around the Hampstead and Scotts Hill areas.

Currently, the Hampstead and Scotts Hill areas are primarily rural with significant existing or planned suburban residential development in the region closest to the Intracoastal Waterway. US Highway 17 acts as the primary commercial arterial, connecting most local and collector streets. Many of the existing side streets into residential subdivisions are not interconnected making US 17 a congested corridor trying to accommodate major traffic movement both within and through the area.

The potential for growth in Coastal Pender is likely to dramatically impact the rural character of the area and put significant stress on the current transportation system. The Coastal Pender Collector Street Plan reviewed and analyzed the need to accommodate current and future growth in an efficient manner, to move goods and people within and through the area, and to connect the area with the arterial street system.



Legend

- Major Roads
- Streams
- County Boundary
- Study Area
- City of Wilmington
- Interchange

West / East of NC 210		West / East of NC 210	
Alternative D-G (Seg. BC/1)	Alternative P (Seg. E/3)	Alternative Q (Seg. H/1)	Alternative R (Seg. H/2)
Alternative E-H (Seg. BC/2)	Alternative S (Seg. H/3)	Alternative U (Seg. I/5)	Alternative Z (Seg. Z)
Alternative F-I (Seg. BC/3)	Alternative M1 (Seg. F)	Alternative N (Seg. E/1)	Alternative O (Seg. E/2)
Alternative M2 (Seg. G)			



Prepared For:

US 17 CORRIDOR STUDY
Corridor Alternatives
NCDOT TIP Project Numbers U-4751 & R-3300
New Hanover & Pender Counties, NC

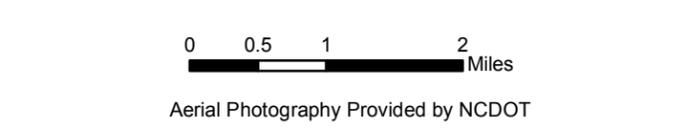


Figure No.
1

Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

US Highway 17 runs for about 9.4 miles within Coastal Pender from the southwest to the northeast, parallel to the Intracoastal Waterway. From the intersection with Interstate 140 / Wilmington Bypass in New Hanover County to just north of the northern intersection with Scotts Hill Loop Road (SR 1571), US Highway 17 has been converted from a four-lane divided full-access facility to a four-lane divided “superstreet” facility.

The Hampstead Bypass, which is currently moving through the environmental process, will transform the existing US Highway 17 from a major intrastate and interstate facility to a less important regional arterial and community main street. Depending on where the bypass begins and ends, there will be a great opportunity to re- envision both the function and appearance of US Highway 17.



** Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

While the “superstreet” cross-section has improved safety and function of the southern end of US Highway 17, community residents and business owners stated a preference for a “village boulevard” concept for US 17 as it passes through the heart of the commercial area from Washington Acres Road to Country Club Drive. The “village boulevard” cross-section consists of a landscaped median, landscaped buffers, pedestrian and bicycle facilities and improved access management, which could include “superstreet” intersections, frontage roads, backage roads, shared driveways, and deceleration lanes.

Figure 4.9 Village Boulevard Concept



** Graphic courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

Pender County Comprehensive Land Use Plan

Figure 4.10 Village Boulevard Concept with Bicycle and Pedestrian Facilities and Landscaping

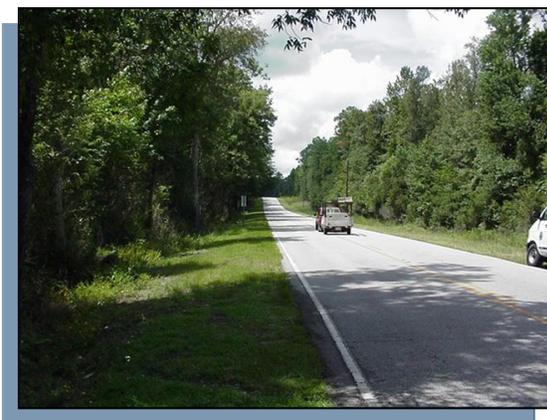


** Graphic courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

The “village boulevard” concept must be supported by planning policies and regulations that maintain the non-commercial buffer between Scotts Hill and Hampstead. The County should also consider the development of an overlay zoning district for the Hampstead commercial area. An overlay zoning district would mandate certain design, landscaping and access management requirements beyond those required under existing zoning.

Collector Street System Recommendations

In a functional street network, a collector street acts as a branch of a tree that connects the trunk, twigs and the leaves. The local streets connect to the collector streets, and the collector streets connect to the arterials or other collector streets. A collector street system can help resolve the conflict between the need to move traffic and the impact that high traffic volumes can have on residential neighborhoods.



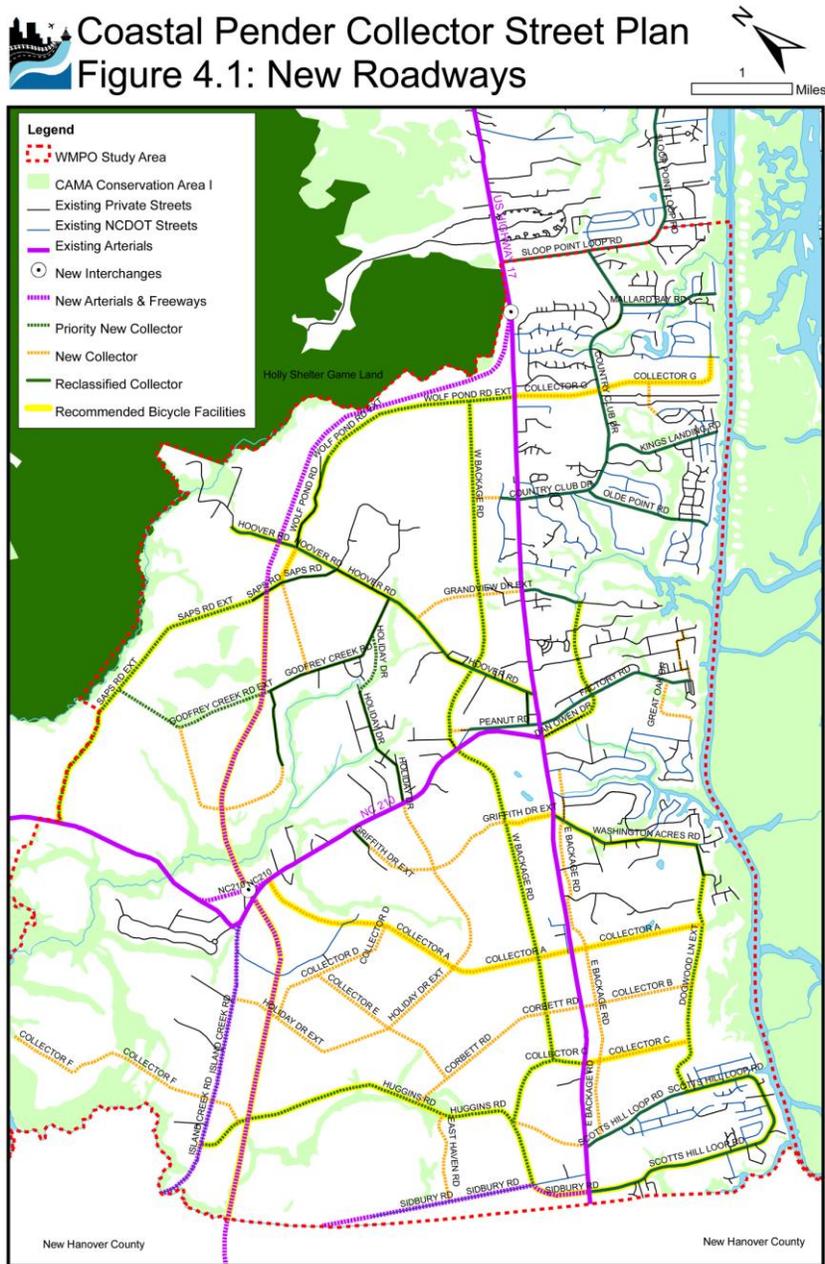
** Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

Collector streets can be designed so that very few or no residences directly access them in order to limit the number of access points and improve traffic flow. Orienting houses away from the collector street decreases the impact of increased traffic on residential neighborhoods. A well conceived and constructed collector street system can also forestall or eliminate the need to locate a thoroughfare through a residential neighborhood.

Pender County Comprehensive Land Use Plan

In the long run, lack of a proper collector street plan and provision for future infrastructure will increase capital and maintenance costs for the community. For growing communities like Hampstead and Scotts Hill, a well planned collector street system would effectively direct growth and maximize infrastructure investments.

Figure 4.1 New Roadways identifies new collector streets, as well as recommended extensions of existing roadways. These new connections are categorized as priority new collector and new collector.



Wilmington Urban Area Metropolitan Planning Organization 2007

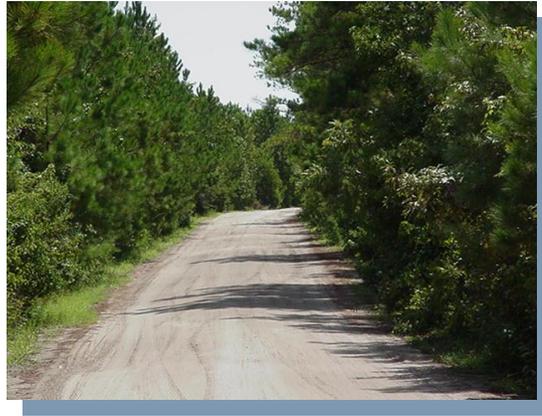
* Graphic courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)

Pender County Comprehensive Land Use Plan

Priority new collectors were rated highly favorable by the public, business owners, land owners, developers and others. They fulfill one or both of the two objectives cited by many who offered input:

- 1) Alternatives to US Highway 17, and
- 2) Better east-west access.

The new collectors are important as well, as they will provide important alternatives to both NC 210 and US Highway 17. Many of these roadways follow existing farm roads and are spaced roughly 3,000 feet apart, the recommended spacing for the medium-intensity mixed suburban development expected to be prevalent in Coastal Pender County.

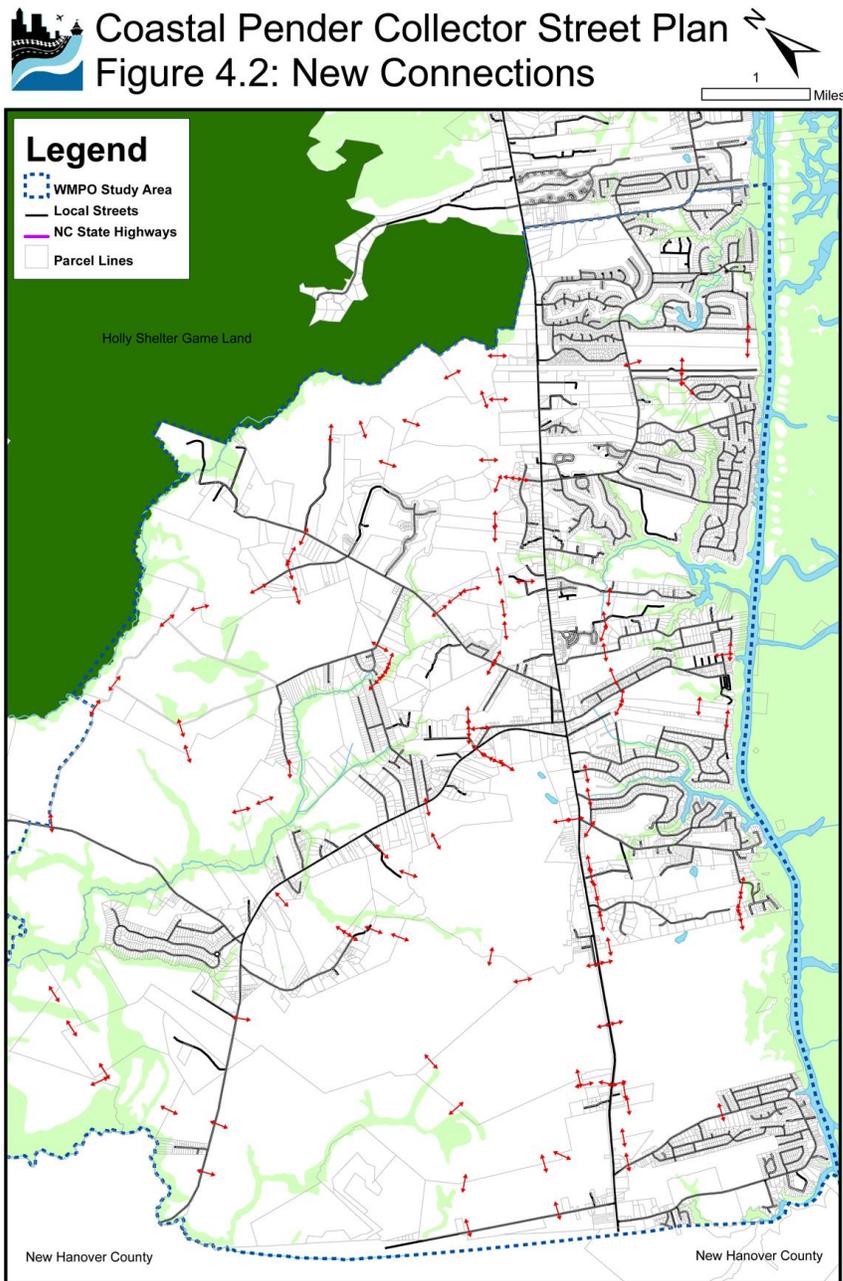


** Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

The recommended collector street network is denser in the southern portion of the study area bordering New Hanover County, where development pressure and land values are expected to be higher and land use will likely be more intense. Existing dirt and gravel roads were identified as connectors where possible to minimize financial impact on small landowners and also to ensure that required rights-of-way can feasibly be preserved even where large-scale subdivisions are not likely to occur. Connector streets are intended to be constructed or reserved if and when the surrounding tracts of land become developed and/or subdivided.

The connections between adjacent roadways and properties are more important than the exact path of the roadway (see Figure 4.2). It is also recognized that due to certain environmental, legal, and logistical reasons some of the collector streets connections shown in Figure 4.2 may not be possible. However, during the study significant efforts were made to anticipate environmental issues which could affect construction of the recommended roadways.

Pender County Comprehensive Land Use Plan



Wilmington Urban Area Metropolitan Planning Organization 2007

* *Graphic courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

Plan Recommendations – Roadway Network Improvements

The Coastal Pender Collector Street Plan has a number of specific recommendations for roadway network improvements to address safety and mobility deficiencies in the system. The Plan also recommends revisions to County zoning and subdivision ordinances to ensure that roadway improvements are considered during the development approval process.

Pender County Comprehensive Land Use Plan

A. Inventory of Stub-out Streets & Easements

The Pender County Subdivision Ordinance requires that streets in new subdivisions conform to the following:

- 1) Adjoining street systems;
- 2) Existing, planned and proposed streets;
- 3) Continuity in existing streets and proposed streets; and
- 4) Reasonable access to adjacent properties for development.

The ordinance requires construction of public collector streets when existing public streets have been dedicated or constructed to the property line of the subdivision. Due to the County's mix of private and NCDOT roadways, connections are sometimes difficult to obtain. The County enforces varying standards for roads planned as private and roads that will be accepted into the state system.

There is also no system for tracking and indexing dedicated stub-outs and "paper streets" (planned streets). This often leaves the Planning Board with a shortage of information required to assess the possibility of interconnectivity between adjacent developments.

"Paper" rights-of-way, if left unmonitored and un-maintained, can revert to private ownership or become entangled in property rights disputes. The Plan recommends that the County develop a system to track and monitor all future right-of-way dedications, "paper streets" and stub-outs in an electronic (GIS) format. The Plan also recommends that the County research all available documents at the Registry of Deeds in order to add existing right-of-way dedications, "paper streets" and stub-outs to the GIS database.

In approving new development, all new streets that have the potential to connect to adjacent developments should be constructed to NCDOT standards and added to the state system. This will limit the potential for disputes and ensure that interconnectivity is feasible when adjacent land is developed. The Plan recommends that the County require that all future streets or right-of way dedications be signed as a future street. Signing will help prevent confusion or misunderstanding at the time of lot or building sale, construction or resale. These signs would be installed and maintained by the County.

Pender County Comprehensive Land Use Plan

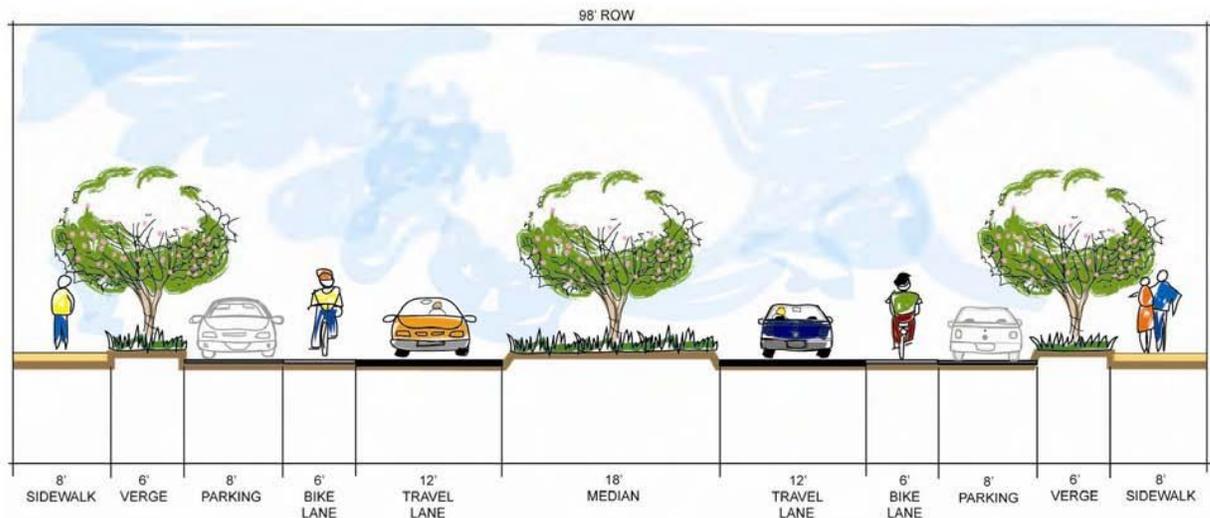
B. Planned Developments:

The Coastal Pender Collector Street Plan recommends that the County require the use of NCDOT *Traditional Neighborhood Development (TND) Guidelines* for the construction of collector streets (see Figure 4.1) that are located within mixed-use PD zoning districts. The “Avenue” or “Main Street” cross-sections that provide for sidewalks, bicycle lanes and on-street parking are recommended as most appropriate for these collector streets. The “Avenue” cross-section also includes a landscaped 18’ median (see Figure 4.3). In areas where curb and gutter construction may not be feasible; the use of the “Hybrid” cross-section should be encouraged. This cross-section includes two 10’ travel lanes and a 10’ multi-use pathway.



* Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)

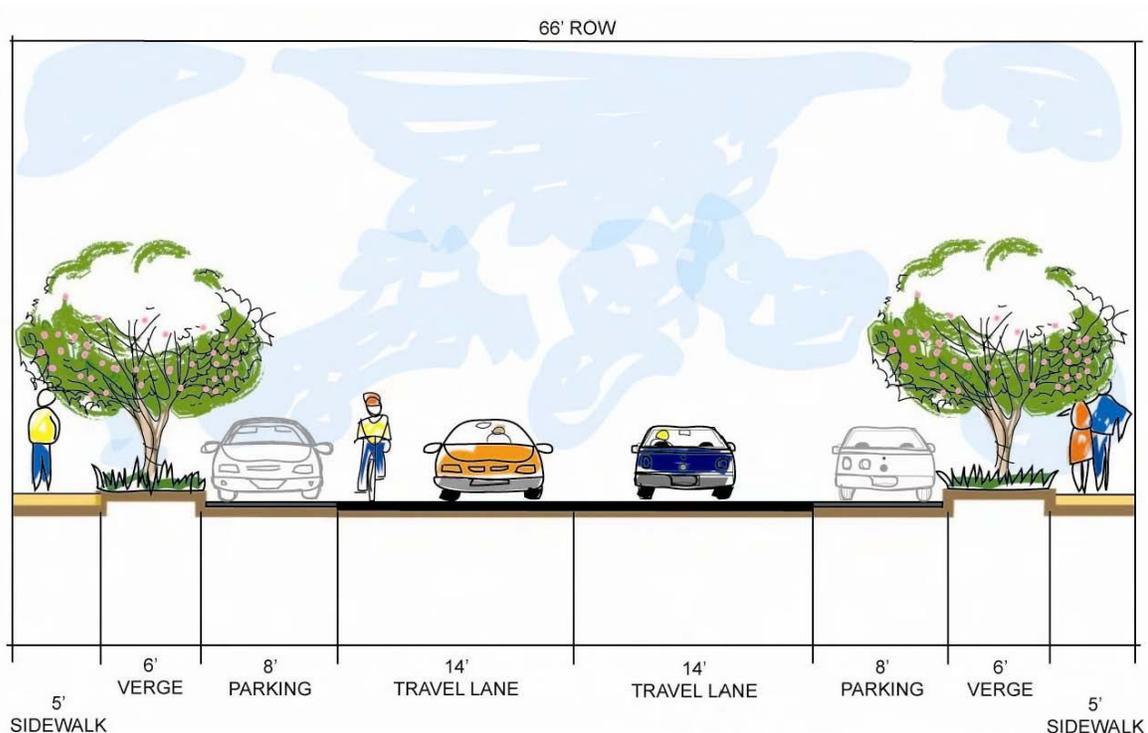
Figure 4.3 Avenue Cross-section



* Graphic courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)

Pender County Comprehensive Land Use Plan

Figure 4.4 Main Street Cross-section



* Graphic courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)

C. Higher Density Developments:

For higher density developments, the Plan recommends sidewalks on both sides of collector streets. These sidewalks are to be connected to all sidewalks and walkways internal to adjacent developments.

D. Lower Density Subdivisions:

For lower density subdivisions, the Plan recommends that all collector streets be built to *NCDOT Subdivision Roads Minimum Construction Standards*, “Residential Collector Roads” standards, and accepted into the NCDOT system. In addition, the Plan recommends that any sidewalks or multi-use pathways constructed as part of these requirements be maintained by a property owners association.

Plan Recommendations – Regulatory & Policy Tools

A. Subdivision Ordinance:

The Pender County Subdivision Ordinance establishes the procedures and standards for development and subdivision of land within the County. This document includes provisions for the dedication and reservation of land for

Pender County Comprehensive Land Use Plan

public purposes and ensures the adequate provision of infrastructure. In order to implement the recommendations of the Coastal Pender Collector Street Plan, the following changes are recommended:

1. The definition of “net density” should exclude the 66’ right-of-way reserved for “priority new collector”, “new collector”, or “reclassified collector” streets identified in Figure 4.1 of the Coastal Pender Collector Street Plan.
2. Submission requirements for preliminary plats for major subdivisions should include:
 - Compliance with the *Coastal Pender Collector Street Plan* as well as the Wilmington Urban Area Metropolitan Planning Organization *Comprehensive Transportation Plan*.
 - Traffic impact analysis prior to the submittal of any preliminary plan that will generate more than 100 trips during peak hours based on the latest version of the Institute of Transportation Engineers Trip Generation Manual. Studies should be prepared in accordance with standards and guidelines adopted by Pender County.
 - For final plats, proposed agreements or covenants ensuring continued maintenance of proposed alleys, sidewalks and multi-use pathways by a property owners association. These agreements should require:
 - adequate maintenance of the proposed alleys to provide safe passage for vehicles;
 - adequate maintenance of the proposed sidewalks to provide safe passage for pedestrians;
 - adequate maintenance of the proposed multi-use pathways to provide safe passage for pedestrians and bicyclists;
 - apportionment of responsibility for maintenance among the property owners served by the facilities; and
 - the provision of enforcement mechanisms for the maintenance agreement.
3. Public dedication of all recommended roadways designated as “priority new collector”, “new collector”, or “reclassified collector” street in Figure 4.1 of the Coastal Pender Collector Street Plan.
4. Requirement to conform to the Coastal Pender Collector Street Plan as well as the Wilmington Urban Area Metropolitan Planning Organization *Comprehensive Transportation Plan*.
5. Permit substitution of the NCDOT Traditional Neighborhood Development (TND) Guidelines for both NCDOT Subdivision Roads Minimum Construction Standards and the Pender County Private Street Standards.
6. Requirement to provide bicycle accommodations (i.e. multi-use paths, wide outside lanes, paved shoulders or bicycle lanes) along recommended roadways identified for “Recommended Bicycle

Pender County Comprehensive Land Use Plan

Accommodations” in Figure 4.1 of the Coastal Pender Collector Street Plan.

7. Prohibit or limit direct driveway access to properties abutting “priority new collector”, “new collector”, or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan.
8. Allow for the construction of “alleys” for access to properties abutting “priority new collector”, “new collector”, or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan. Alleys should have a right-of way of 20-22’ and a pavement width of 12- 14’ and provide access to multiple properties, and connect directly to local streets.
9. Require minimum distance of 300’ between intersections with collector streets, local streets and driveways along all recommended roadways designated as “priority new collector”, “new collector”, or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan.

B. Planned Development (PD) District Requirements

The Pender County Planned Development District is designed to permit suitable tracts of land to be planned and developed in a unified manner. The Coastal Pender Collector Street Plan recommends that the Planned Development District be amended to include:

1. Use of *NCDOT Traditional Neighborhood Development (TND) Guidelines* for the construction of collector streets that are identified in Figure 4.1.
2. Definition of “net density” that excludes the 66’ right-of-way reserved for “priority new collector”, “new collector”, or “reclassified collector” streets identified in Figure 4.1 of the Coastal Pender Collector Street Plan.
3. Review of preliminary plans to ensure compliance with the Coastal Pender Collector Street Plan as well as the Wilmington Urban Area Metropolitan Planning Organization Comprehensive Transportation Plan.
4. Traffic impact analysis prior to the submittal of any preliminary plan that will generate more than 100 trips during peak hours, based on the latest version of the Institute of Transportation Engineers Trip Generation Manual. Studies should be prepared in accordance with standards and guidelines adopted by Pender County.
5. For final plans, proposed agreements or covenants ensuring continued maintenance of proposed alleys, sidewalks and multi-use pathways by a property owners association. These agreements should require adequate maintenance of 1) proposed alleys to provide safe passage for vehicles; 2) proposed sidewalks to provide safe passage for pedestrians; 3) proposed multi-use pathways to provide safe passage for pedestrians and bicyclists; 4) apportionment of responsibility for maintenance among the property owners served by the facilities; and 5) provision of enforcement mechanisms for the maintenance agreement.

Pender County Comprehensive Land Use Plan

6. Public dedication of all recommended roadways designated as “priority new collector”, “new collector” or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan.
7. Provision of bicycle accommodations (i.e. multi-use paths, wide outside lanes, paved shoulders or bicycle lanes) along recommended roadways identified for “Recommended Bicycle Accommodations” in Figure 4.1 of the Coastal Pender Collector Street Plan.
8. Prohibit or limit direct driveway access to properties abutting “priority new collector”, “new collector”, or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan.
9. Allow for construction of “alleys” for access to properties abutting “priority new collector”, “new collector”, or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan. Alleys should have a right-of way of 20-22’, pavement width of 12-14’, provide access to multiple properties, and connect directly to local streets.
10. Require minimum distance of 300’ between intersections with other collector streets, local streets and driveways along all recommended roadways designated as “priority new collector,” “new collector” or “reclassified collector” streets in Figure 4.1 of the Coastal Pender Collector Street Plan.

Pender County Comprehensive Land Use Plan

Pender County Recreation and Open Space Plan 1998

The Pender County Recreation and Open Space Plan, adopted in 1998, identified five areas of need:

- i. Facility development, including upgrading existing park facilities and beginning development of additional parks.
- ii. Greenways, including walking trails and a rail trail from Rockfish Creek on the north to Miller Pond on the south.
- iii. Land acquisition, including district parks.
- iv. Staffing, including district coordinators, program and athletic program specialists, in addition to volunteers.
- v. Operating budget increases as the number of parks and people served increases.

Facility Development



Short term needs identified in the 1998 Plan included upgrading existing park facilities with new ballfields, backstops, playground equipment, picnic tables, benches and trash receptacles. The priority was to concentrate on upgrading existing park facilities within a 1 to 5 year period beginning with Miller Pond Park. The mid-term priority was to update the District Park 3 (near the NC 53/ Burgaw Bypass) master plan and begin development at an estimated cost of \$7 million (1997).

The Plan noted that the capital improvement budget for recreation development had been increased annually from 1995 and that the 1998-99 budget year allocated \$100,000 for recreation improvements. The Plan recommended, beginning with the 1999-2000 budget year that the capital improvement budget for recreation be increased to \$250,000 annually. The Plan noted that this amount of funding could be leveraged with NC Parks and Recreation Trust Fund (PARTF) grants to maximize park development.

Rail Trail and Greenways

Other Plan priorities included developing a rail trail and greenways. The Rail Trail was to start at Rockfish and continue south to Miller Pond – approximately 26 miles. The rail trail was recognized in the Plan as a unique recreational opportunity that would attract visitors to Pender County. The Plan indicated that the communities of Willard, Watha, Burgaw, and Rocky Point had the most potential to benefit economically from development of the rail trail. Greenways were identified as a priority at Maple Hill Community Center, Long Creek Community Center, Old Atkinson School, Miller Pond, and the District Park.

Pender County Comprehensive Land Use Plan

Land Acquisition

The 1998 Plan recommended that the County begin the process of identifying future park and waterfront access sites for acquisition as financially feasible using the \$250,000 capital improvement budget to leverage with PARTF grant monies. The Plan also recommended that the County consider a local bond issue to fund purchase of park land and that the County work with the public school system to include additional acreage for park land as part of future school site acquisitions.

Inventory of Existing Facilities – Park and School Sites

The 1998 Plan included an inventory of park and school sites that were being used for County recreational programming. The inventory identified 14 park sites and 11 school sites and noted that recreational facilities represented a substantial investment by Pender County. In particular, the Plan noted that all recreational facilities on school property should be used to offer recreational opportunities after normal school hours in order to not spend tax dollars to duplicate recreational facilities already being provided at the schools.



Kiwanis Park

Pender County Comprehensive Land Use Plan

Table A-2: Park Sites Used for Recreation Programs

Site	Name	Size	Facilities
1	Surf City Family Park	0.7 acre	2 picnic tables, lighted basketball court, playground equipment
2	Edgecombe Community Center	3 acres	Community center, ballfield, outdoor basketball court, picnic shelter (future – ADA accessible playground equipment)
3	Topsail Ball Club	4.5 acres	Baseball field, playground equipment (future – basketball courts)
4	Maple Hill Community Center	3 acres	Community/learning center, playground equipment, outdoor basketball court, baseball field (future – multi-purpose field, ADA accessible playground equipment, walking/natural trail)
5	Willard Community Center	8 acres	Community center, playground equipment, baseball field (future – basketball court)
6	Watha Community Center	0.5 acre	Community center (future playground equipment)
7	Harrell Park	0.5 acre	Two tennis courts, 2 picnic tables, playground equipment, gazebo
8	Pender Memorial Park	8 acres	Picnic shelter, 3 lighted ballfields
9	Historic Burgaw Depot	2.5 acres	Covered stage
10	Long Creek Community Center	19 acres	Playground equipment, open play areas, baseball field, basketball court (future – walking trail)
11	Atkinson Municipal park	1.2 acres	Two picnic tables, concessions building, playground equipment, two grills (future – ADA accessible playground equipment)
12	Old Atkinson School Playground and Gymnasium	7 acres	Baseball field, playground equipment, gymnasium (future – walking trail, ADA accessible playground equipment)
13	Pender County District Park	82 acres undeveloped	Future Facilities – community building, restroom/concession stands, 8 tennis courts, 4 volleyball courts, 4 basketball courts, 4 lighted softball fields, 3 football/soccer fields, 2 youth soccer fields, open air pavilion, walking trail, parking, maintenance building
14	Miller Pond Park	33 acres undeveloped	Future Facilities – ADA accessible restroom, picnic shelter and trail, nature trail, pond overlook, fishing piers, parking

Source: 1998 Pender County Recreation and Open Space Plan.

Pender County Comprehensive Land Use Plan

Table A-3: School Sites Used for Recreation Programs

School Sites	Hiking Trail	Baseball Field	Basketball Court (outdoor)	Picnic Table / Shelter	Play ground	Soccer Field	Softball Field	Tennis Court	Volleyball Court (outdoor)	Football Field	Gym	Multi-Purpose Room
Elementary Schools												
Burgaw					1						1	
Malpass Corner												
North Topsail					1							1
Penderlea		1			1						1	
Rocky Point					1	1	1				1	
South Topsail											1	1
Middle Schools												
Burgaw			1								1	
Topsail			1				2					1
West Pender			1		1							1
High Schools												
Pender		1	1			1	1			1	1	
Topsail		1	1			1	1			1	2	
Total	0	4	4	0	5	3	5	0	0	2	8	4

Source: 1998 Pender County Recreation and Open Space Plan.

Pender County Comprehensive Land Use Plan

Commentary

Most of the goals and the 1998 Recreation and Open Space Plan have not been accomplished. In order to meet growing recreational needs, the County needs to do a comprehensive parks and recreation open space plan update to reflect current and projected needs. The plan needs to project park development costs and to recommend appropriate methods for financing parks and recreation improvements and program expansions.

The new UDO should include a residential subdivision requirement for the dedication of land or payment of a fee in lieu of dedication to help finance future park facilities and to ensure that adequate recreational space is being set aside to meet recreational needs.

Pender County 1993 Waterfront Access Plan

The 1993 Waterfront Access Plan identified three waterfront access issues: 1) coastal and estuarine water access; 2) residential development; and 3) recreation. The Plan discussed these issues and established policies and implementation actions.

1. Access

The Plan includes a policy for establishing a waterfront access program, including a plan to obtain State and Federal funds to purchase and develop coastal, estuarine, river and stream water access areas. The Plan also includes a recommendation that new subdivisions dedicate or make a payment in lieu of dedication for waterfront access.

2. Residential Development

The Plan includes a policy that Pender County continue to control the type, densities, location and units per acre of all future development through Zoning Regulations.

3. Recreation

The Plan includes a policy that Pender County support recreational opportunities as financially feasible, including securing State and Federal funding.

Pender County Comprehensive Land Use Plan

Commentary

Few, if any, of the 1993 Plan recommendations have been accomplished. To provide waterfront access that residents want and that reinforces and strengthens the coastal location attractiveness of Pender County, the County must not only adopt regulations to require new development to provide for waterfront access, but also must provide funding to acquire, build, and maintain public access facilities. As a recreation activity, the County has the authority to adopt and assess recreation fees on new residential development to help pay for these improvements.

Waterfront access should be included as a priority recreation activity in the update of the parks and open space plan. The new UDO should also include a residential subdivision requirement for the dedication of land or payment of a fee in lieu of dedication to help finance future waterfront access locations to help meet this recreational need.

North Carolina Waterfront Access Study

The NC Waterfront Access Study provides a comprehensive set of recommendations on what the State of North Carolina should do to ensure the viability of existing waterfront-dependent uses, to ensure future diverse waterfront-dependent uses, and to retain and enhance public access to coastal public trust waters. The Report recognized that NC coastal counties were experiencing significant population increases and that these counties were losing diversity of uses along coastal shorelines which is impacting the coastal public trust waters of State. This is certainly true in Pender County.

Among other recommendations, the study identified retention and enhancement of working waterfronts, enhancement of public access to coastal waters, local government adoption of planning and zoning approaches to help protect waterfronts to ensure access, and cooperative state and local partnerships as key priority issues.

Commentary

To be proactive, Pender County needs to address these waterfront access issues to ensure existing waterfront-dependent uses are retained, to ensure that opportunities for diverse waterfront-dependent uses are considered and provided with new development, and to retain and enhance public access to coastal public trust waters. Such goals should be included in the writing of the UDO that will set new requirements for recreation and open space development when residential subdivisions are being considered for approval.

Pender County Comprehensive Land Use Plan

Public Library Long Range Plan (2007-2012)

Like other essential public services provided by local governments, the availability and quality of public library facilities and services play a role in both attracting and serving residential and business development. The location and presence of a public library can impact development decisions and prospective residents and developers recognize public facilities as a positive draw to a community.

The Pender County Public Library Long Range Plan was adopted in June 2007. The Plan reflects a public involvement process with citizens and staff and with presentations to the general public, library trustees, and the County Board of Commissioners.

The Plan identifies five key goals for the public library system:

1. Stimulate the imagination;
2. Satisfy curiosity;
3. Create, encourage and support young readers;
4. Discover heritage; and
5. Provide a comfortable place to visit



Major facility objectives to support the five goals included developing a countywide building program to address existing and future library facility needs and to seek funding necessary to implement the countywide building program. The Plan details a three phase expansion plan over a 20-year period.

First priority is construction of a new library facility in Topsail Beach with expansion of the Burgaw library to follow. The 20 year plan calls for a regional library in southern Pender County to serve the area between NE Cape Fear and Black rivers in the last half of the plan cycle.

A regional size library facility is typically 20,000 square feet or more in size and is ideally located to serve a larger region. Funding such a facility ahead of development is difficult, but it is important that a location search area be established to ensure a proper location is identified and reserved for future development.

The Plan recognizes that the best opportunity for a partnership with a developer for land donation for a regional library facility will probably be in the southwestern

Pender County Comprehensive Land Use Plan

portion of the County. The Plan recommends that the County consider offering a density credit or bonus to encourage developers to support the library capital building program through a site donation or reservation.

Pender County 2005 Hazard Mitigation Plan

(update underway mid-2009)

The State of North Carolina and the Federal Emergency Management Agency (FEMA) require that every local community adopt a Hazard Mitigation Plan and that the Plan be updated every five (5) years. The Plan is intended to identify ways in which the County can avoid and minimize the impacts of natural hazards on existing and future development.

A hazard mitigation plan is developed through a public involvement process and includes a review of the natural hazards likely to impact the community, an assessment of the community's vulnerability to natural hazards, and an assessment of the community's capacity to implement plan goals and objectives. Most importantly the Plan incorporates hazard mitigation actions that are intended to reduce the County's vulnerability to future natural hazards. In mid-2009, the key implementation strategies being considered for the 2009 HMP Update included:



Pender County has a high risk of fire hazards.

1. Review and revise hazard mitigation objectives as part of the update process.
2. Develop policy to minimize public services to proposed new structures that will be located within 100-year floodplain areas.
3. Update Flood Damage Prevention Ordinance to raise the minimum flood protection level above the current requirement of equal to the base flood elevation (BFE) or 2' above adjacent grade where no BFE is established.
4. Update Subdivision Ordinance by reviewing and incorporating hazard mitigation objectives.
5. Revise Zoning Ordinance to allow for clustering of residential lots. (The current Zoning Ordinance contains provisions for cluster development; however the regulations for planned unit, mixed use development need significant revision.)
6. Update regulatory floodplain maps. (Updated FEMA Flood Insurance Study and revised Flood Insurance Rate Maps were adopted in February 2006.)
7. Inspect flood damaged structures. Any and all portions of buildings that have been submerged for any length of time will be inspected for flood related

Pender County Comprehensive Land Use Plan

damage as well as other conditions that may be dangerous to life, health or other property.

8. Consider applying for CRS (Community Rating System) status which would provide for discounted flood insurance rate premiums.
9. Seek grant funding to acquire and / or elevate flood loss structures.
10. Maintain ongoing web-based service to make digital zoning map available for staff and public use.
11. Create and maintain a list of repetitive flood loss properties.
12. Ensure adequate evacuation warning in case of major hazard event.
13. Improve shelter capacities with alternate power/heat sources.
14. Establish program to maintain continuity of government operations during emergency periods.
15. Identify alternate secondary road evacuation routes to be used in lieu of, or in addition to, major traffic arteries.
16. Place flood protection and other hazard education materials in all branches of the public library system.
17. Provide County staff to visit sites and assist property owners and developers with problems associated with drainage, erosion and flooding. Site visits made at request of owner / developer.

Pender County Comprehensive Land Use Plan

II. Ordinances

Zoning Ordinance

The Pender County Zoning Ordinance regulates the location and uses of buildings, structures and land within the County. The ordinance includes provisions for the erection or alteration of buildings, dictates the height and size of buildings, controls the size of yards and open space and regulates the density of population within the County's planning jurisdiction.

The Pender County Zoning Ordinance has undergone a number of amendments over the years. Many of these amendments were isolated, one-time efforts to address specific issues. Over time these piecemeal revisions have impacted the overall effectiveness and consistency of the entire ordinance.

At the beginning to the comprehensive planning and unified development ordinance development process, County staff developed a list of issues/concerns about the zoning ordinance that were combined with a review and analysis performed by the County's planning consultant. These issues and concerns, along with recommendations included in the Coastal Pender Collector Street Plan, were considered during development of the Comprehensive Land Use Plan and the Unified Development Ordinance.

Subdivision Ordinance

The Pender County Subdivision Ordinance establishes the procedures and standards for development and subdivision of land within the County. The ordinance includes provisions for the dedication and reservation of land for public purposes and ensures the adequate provision of infrastructure.

Like the zoning ordinance, the subdivision ordinance needs to receive a complete and thorough rewrite to ensure that requirements and standards are clear and consistent and that the ordinance does not duplicate or contradict requirements in other ordinances. County staff comments and concerns as well as recommendations in the Coastal Pender Collector Street Plan were considered during development of the Comprehensive Land Use Plan and the Unified Development Ordinance.

Pender County Comprehensive Land Use Plan

Flood Damage Prevention Ordinance

Pender County updated the Flood Damage Prevention Ordinance to be in compliance with revised Federal and State Standards on February 16, 2007. The Ordinance currently does not require an additional freeboard elevation (BFE) in Special Flood Hazard areas where the base flood elevations have been determined. The Ordinance does require a two (2) foot freeboard (elevation above adjacent grade) where no BFE has been established.

Commentary

Many localities in NC and throughout the nation now require an extra foot or two of elevation above base flood to help protect structures from damage from flooding events. It is recommended that the County consider adding a two (2) foot freeboard requirement to the finished first floor elevation.

Mobile Home/Travel Trailer Ordinance (1984)

Pender County adopted a Mobile Home/Travel Trailer Ordinance on October 1, 1984. The Ordinance was revised on January 22, 1991 and again on December 17, 2001. The ordinance applies to Mobile Home Parks and Travel Trailer Parks within the County's planning and zoning jurisdiction.

The Ordinance requires issuance of a special use permit and an approved Final Site Development Plan before a mobile (manufactured) home can be placed in a mobile home park or a travel trailer can be placed in a travel trailer park.

Commentary

The regulations and processes for these mobile home and travel trailer uses appear to be adequate; however, the regulations need to be updated to reflect current standards and terminology. The regulations should be incorporated into the new Unified Development Ordinance where the approval process and design standards can be coordinated with other planning processes.

Specific updates should include:

Require that manufactured (mobile) homes comply with construction standards of the Department of Housing and Urban Development (HUD) (current ordinance references the NC State Building Code which is not relevant for manufactured housing.)

Consistently refer to recreational vehicles which include travel trailers and self-motorized camping vehicles.

Update reference to the Pender County Flood Control Ordinance should be revised called the Flood Damage Prevention Ordinance.

Pender County Comprehensive Land Use Plan

Cell Tower Ordinance (1998)

Pender County first adopted a Cell Tower Ordinance on September 8, 1998. The Ordinance was revised on April 17, 2000 and again on September 18, 2000. The Ordinance applies to cell towers that are between 75 and 199 feet in height (a variance can be sought for towers 200 feet or taller.)

The Ordinance regulates the construction of telecommunications towers to avoid potential damage to adjacent properties from tower failure and falling ice; to maximize the use of existing and new towers in order to reduce the number of towers needed; to minimize potential hazards to low flying law-enforcement and medical helicopters; to restrict towers that adversely detract from the natural beauty of the County; and to minimize any negative economic impacts of the towers.

The Ordinance requires the developer of a tower to provide a statement of intent to allow shared use of the tower and an estimate of how many other users can be accommodated on the tower. The owner must provide evidence that the tower is a needed service that cannot otherwise be met by co-location on existing towers or structures. Towers are to be sited to contain all ice-fall or debris from tower failure within the fall zone; the minimum distance to the property line must be equal to or greater than the height of the proposed tower; and an 8' tall opaque fence or wall is required as a screen.

Commentary

The regulations and processes for the permitting and construction of telecommunications towers are similar to those of other communities within NC. The regulations should be reviewed to ensure currency and incorporated into the new Unified Development Ordinance where the approval process and design standards can be coordinated with other planning processes.

Pender County Comprehensive Land Use Plan

Appendix B: Inventory and Analysis of Existing Conditions

General Location and Description of Pender County

Pender County, the 10th largest county in North Carolina, is located on the southern coast of the State. Pender County covers 556,624 acres (approximately 870 square miles) of land area. Municipal corporate limits account for only 12,365 acres – 2.2% of total county acreage. Combined municipal planning jurisdictions including corporate limits and extraterritorial jurisdictions (ETJs) account for 24,492 acres – 4.5% of total county acreage. The County planning jurisdiction (that area outside municipal corporate limits and ETJs) covers 531,682 acres (831 square miles) – 95.5% of total County acreage.

Pender County boundaries are defined by the Atlantic Ocean and seven surrounding counties: Duplin County to the north; Sampson and Bladen Counties to the west; Columbus, Brunswick, and New Hanover counties to the south; and Onslow County to the east. The Town of Burgaw, population 3,337 (2000 Census), is the county seat.

The topography of Pender County is level to gently rolling with predominantly flat upland areas. Elevations range from sea level on the coastline to 110 feet in the northern portion of the County. The coastal portion of the County is traversed by the Atlantic Intracoastal Waterway.

The proximity of eastern Pender County to the Atlantic Ocean and Intracoastal Waterway, the City of Wilmington and the interstate highway system has spurred significant growth in the coastal portion of the County. Most growth has been clustered on the southeast side of US Highway 17; however much of this area is now developed.



Intracoastal Waterway

The Intracoastal Waterway acts as a natural growth barrier on the southeast side, so most future growth will be pushed to the open land on the northwest side of US Highway 17. The proposed US 17 / Hampstead Bypass with potential interchanges at NC 210 and Sidbury Road will improve access and will most likely further stimulate growth in the Hampstead/Scotts Hill area.

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Legend

- County Boundary
- Unincorporated Area
- Water
- Surrounding County
- Pender County

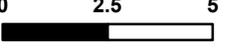
**PENDER COUNTY
LOCATION MAP**



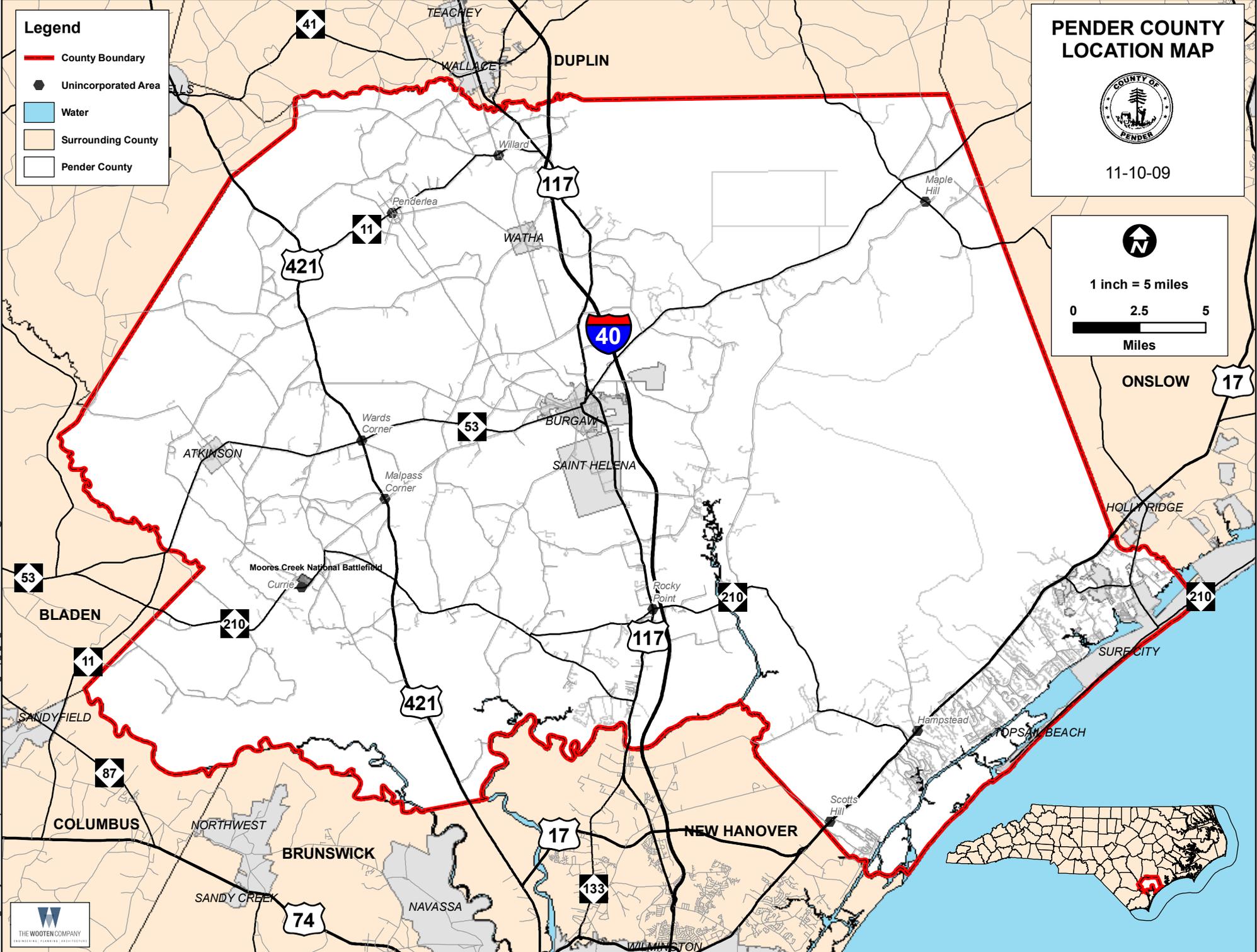
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1 inch = 5 miles



Miles



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Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

Brief History of Pender County

The first explorers discovered what is now Pender County in 1524, but it was not until 1663 that the Barbados commissioners explored the northeast branch of the Cape Fear River. They named the community "Rocky Point," which still remains today. While the area was settled by 1725, the County was not officially formed from New Hanover County until 1875. The Moores settled the area to the south at New Brunswick. The Lord proprietors, looking for good bottom land and tidal river transportation, settled a tract to the north for Welsh settlers. Commercial success followed and large plantations were built during this time.

The people of the Pender area were fervent patriots during the Revolution and it was at Moore's Creek that they defeated the Scottish Highlanders sent by Flora McDonald. President Washington is said to have eaten dinner under the old live oak just south of Hampstead on his way from New Bern to Wilmington. The old road that Washington followed was nothing more than a carriage trail through the woods from Comfort and Richlands south.

Nearly 4,000 troops came out of this area during the Civil War. The area gave the Confederacy its youngest general, William D. Pender, for whom the County was named. After the war, the County was still a part of New Hanover. The plantation system had been destroyed during the Reconstruction years, but it was out of those politics that the County was



Trails at Moore's Creek Battlefield

created in 1875. At that time, Wilmington was under corrupt rule and by popular vote the County was created with Watha as the County seat. Burgaw, the current county seat, was chartered in 1879. In the 1870s, the majority of residents worked in farming, clamming, fishing, milling, salt making and shingling.

During the 1890s, a railroad line was constructed between New Bern and Wilmington, roughly parallel to what would become US Highway 17. The railroad company named the Coastal Pender County stations Annandale and Hampstead. All manner of goods were transported to and from the area by rail and residents could travel into Wilmington or New Bern for shopping and trading.

The highway between Wilmington and New Bern was paved in 1927 and the Intracoastal Waterway was dredged by 1930, offering new transportation options for Coastal Pender County. Hoover Road was widened to a cart trail during President Hoover's term and paved in the late 1940s. NC 210 was paved during World War II in order to better connect Camp Lejeune and Fort Bragg. Passenger service on the rail line between Wilmington and New Bern operated until 1939, however freight service continued until the 1980s.

Pender County Comprehensive Land Use Plan

Pender County Planning Jurisdiction

The NC General Assembly establishes local governments and determines the scope of local government services, that is, local governments must have legislative grant of power before dealing with particular issues. Under the planning authority granted by the General Assembly, Pender County is authorized to study and plan for growth and to develop a land use plan for the County's planning jurisdiction.

The Pender County Planning Jurisdiction consists of the total acreage of the County outside the planning and zoning jurisdiction (corporate limits plus extraterritorial planning jurisdiction) of the municipalities of Atkinson, Burgaw, Saint Helena, Surf City, Topsail Beach, and Watha (Table B-1).

Pender County Comprehensive Land Use Plan

Table B-1: Acreage within Municipal Jurisdictions including ETJs

Municipality	Corporate Limits	ETJ (acres)	Total (acres)
Town of Atkinson	641		641
Town of Burgaw	2,906	3,249	6,155
Village of St. Helena	3,655	3,566	7,221
Town of Surf City	4,737	1,116	5,853
Town of Topsail Beach	670		670
Town of Watha	656	4,646	5,302
Subtotal – Municipal	12,365	12,577	24,942
Unincorporated Pender County			544,259
Pender County Planning Jurisdiction			531,682
Total Pender County			556,624

Source: Pender County GIS (2009)

Municipal Jurisdictions

Town of Atkinson

The Town of Atkinson was incorporated in 1883. In the 2000 Census, Atkinson had approximately 1.0 square miles (640 acres) within the corporate limits. In 2000, Atkinson had a population of 236 and in 2007 the NC State Data Center estimated the population had increased by 4 to 240, a 1.7% population increase. The 2000 median household income was \$34,375 - 96% of the countywide median household income.

Town of Burgaw

The Town of Burgaw was incorporated in 1879. In the 2000 Census, Burgaw had approximately 3.5 square miles (2,240 acres) within the corporate limits. In 2000, Burgaw had a population of 3,337 and in 2007; the estimated population had increased by 731 to 4,068, a 22% population increase. The 2000 median household income was \$28,819 - 80% of the countywide median income.



Village of St. Helena

The Village of St. Helena was incorporated in 1921. In the 2000 census, St. Helena had 5.7 square miles (3,648 acres) within the corporate limits. In 2000, St. Helena had a population of 395 and in 2007 the estimated population had grown by 94 to

Pender County Comprehensive Land Use Plan

489, a 24% population increase. The 2000 median household income was \$36,042 - 100% of the countywide median household income.

Town of Topsail Beach

The Town of Topsail Beach was incorporated in 1963. In the 2000 census, Topsail Beach had 5.8 square miles (3,744 acres) within the corporate limits. In 2000, Topsail Beach had a population of 471 and in 2007 the estimated population had grown by 102 to 573, a 22% population increase. The 2000 median household income was \$55,570 - 155% of the countywide median household income.

Town of Surf City

The Town of Surf City was incorporated in 1949. In the 2000 census, Surf City had 5.3 square miles (3,392 acres) within the corporate limits. In 2000, Surf City had a population of 1,393 and in 2007 the estimated population had increased by 520 to 1,913, a 30% population increase. The 2000 median household income was \$40,521 - 113% of the countywide median household income.

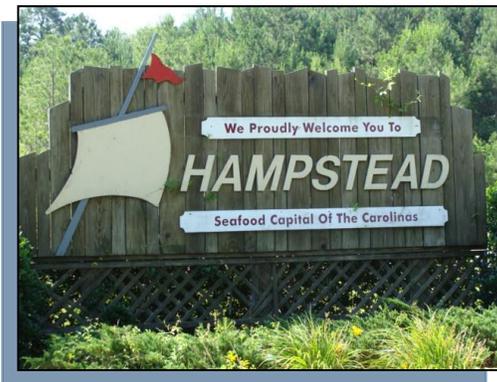
Town of Watha

The Town of Watha was incorporated in 1875. In the 2000 census, Watha had 0.9 square miles (576 acres) within the corporate limits. In 2000, Watha had a population of 151 and in 2007 the estimated population had grown by 54 to 205, a 36% population increase. The 2000 median household income was \$37,500 - 104% of the countywide median household income.

Unincorporated Area

Currie

The community of Currie is located on NC Highway 210, southeast of Atkinson. It also is a rural community and in 2000, the population was 2,360. The 2000 median income was \$25,727 – just 71% of the countywide median household income.



Hampstead

The community of Hampstead is located on US Highway 17 about eighteen miles north of Wilmington. Historically, Hampstead was a rural agricultural community producing peanuts, watermelon, cantaloupe, and blueberry crops. However, the area has had significant residential and commercial growth in recent years, particularly along the US 17 corridor.

The 2000 Census reported a population of 11,679 persons (Census Tract 9802). The 2000 median household income was \$44,542 – 124% of the countywide median household income. Growth in the area has been primarily east of US 17 near the Intracoastal Waterway. Due to increasing growth pressures, the Hampstead and Scotts Hill areas will be included in the

Pender County Comprehensive Land Use Plan

Coastal Pender Small Area Plan being developed as part of the CLUP Update process.

Malpass Corner

Malpass Corner is a crossroad community on NC Highway 421 west of Burgaw. In the 2000 census, Malpass Corner had a population of 2,360 and the 2000 median income was \$25,727 – 71% of the countywide median household income.

Maple Hill

Maple Hill is located along NC Highway 50 in the extreme northeastern section of Pender County. The community is very agricultural and known for their ham and turkey. It is said that Maple Hill was named for the number of maple trees or a large maple tree that stood on a hill. According to the 2000 census, Maple Hill had a population of 2,506 and the median income was \$30,222 – 84% of the countywide median household income.



Penderlea

The Penderlea Homestead was created in March 1936 after the US Department of the Interior purchased for the Subsistence Homestead Corporation a tract of 4,500 acres of land in the northwest corner of Pender County. It is located along the Duplin/Pender County line on NC Highway 11. In the 2000 census, Penderlea had a population of 2,345 and the median income was \$26,607 – 74% of the countywide median household income.

Rocky Point

Rocky Point is an older crossroad community with increasing residential and non-residential development due to its close proximity to I-40. Due to rapid growth within the area, the CLUP Update will include a Rocky Point Small Area Plan.

Scotts Hill

Scotts Hill is a crossroad community located on NC Highway 17 south of the Hampstead area. According to 2000 census data, the population was 17,098. The median family income was \$52,332 – 145% of the countywide median household income. Like Hampstead, the Scotts Hill area, although traditionally a rural community, has experienced significant growth in recent years.

Willard

Willard is located near I-40, to the west of Angola Bay, on NC Highway 11. In the 2000 census, it had a population of 2,345 and a median family income of \$26,607 – 74% of the countywide median family income.

Pender County Comprehensive Land Use Plan

County Population Growth

Pender County has been one of the fastest growing counties in North Carolina. Due to its proximity to the Atlantic Ocean and the fast growing City of Wilmington, the County has attracted dramatic population increases since 1990. The Towns of Burgaw, Surf City, and Watha all experienced dramatic increases with respective growth rates of 125%, 97%, and 107% from 1990 to 2000, while the Town of Atkinson experienced a 3.6% decrease in population. St. Helena (52% increase) and Topsail Beach (65% increase) also experienced growth during these ten years.

Table B-2 outlines Pender County population growth rates from 1970 through 2000 and population growth projections from 2000 to 2030. From 1980 to 2000, Pender County experienced an amazing 85% increase in population - a population increase of 18,820 persons in just 20 years. There was also a dramatic increase in the percentage of the population living in urban areas, from 8% to 18%, between 1990 and 2000. As of 2000, however, the majority of the population (94%) still lived in rural areas.

*Note: All data presented is based on Pender County population as a whole unless otherwise stated.

Table B-2: Population Growth in Pender County 1970-2030

Year	Total Population	Increase	Percent Growth
1970	18,149	-	-
1980	22,262	4,113	22.6%
1990	28,855	6,593	29.6%
2000	41,082	12,227	42.3%
2010*	54,764	13,682	33.3%
2020*	67,889	13,125	23.9%
2030*	80,558	12,669	18.7%

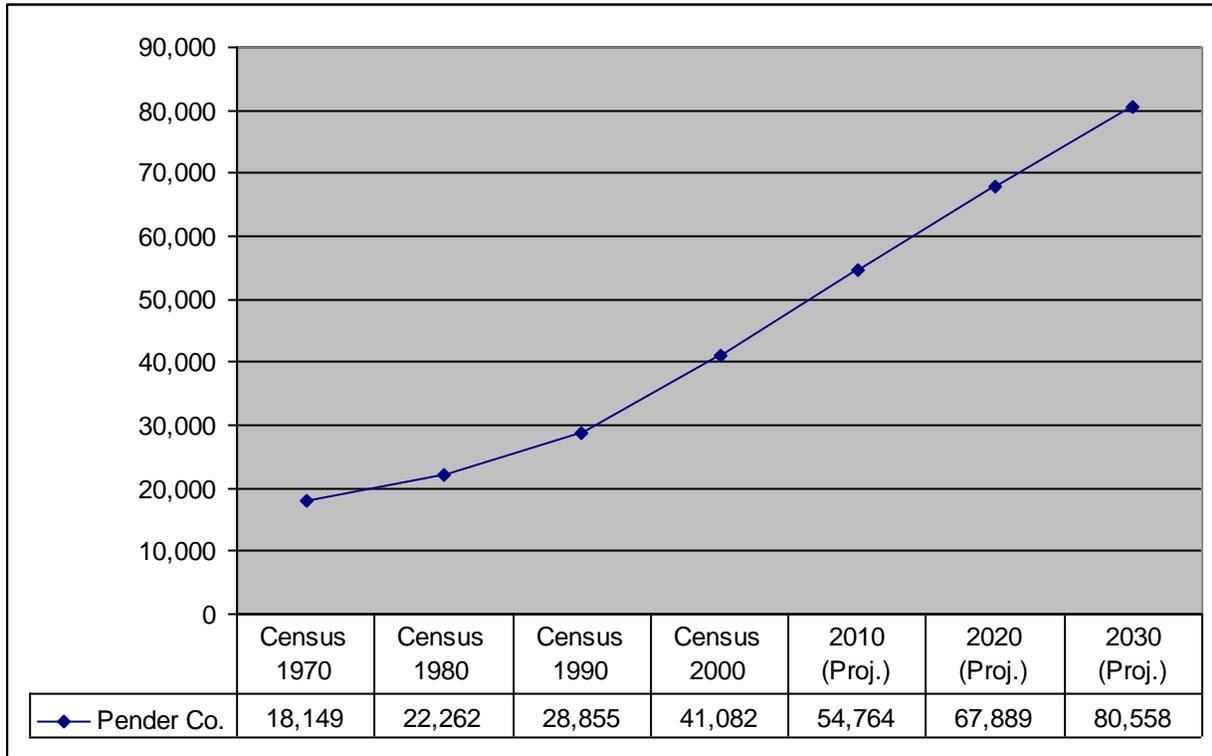
Source: U.S. Census (www.census.gov)

*Projections from NC State Data Center (<http://sdc.state.nc.us>)

The NC State Data Center projects population growth for Pender County at 96.1% from 2000 to 2030 (Graph G-1) – the 11th fastest projected growth rate in NC. At the 2000 Census, Pender County ranked 58th in population among the 100 counties within the State. If NC State Data Center population growth rates hold true, Pender County will increase to the 39th most populous county by the year 2030.

Pender County Comprehensive Land Use Plan

Graph B-1: Pender County Population 1970-2030



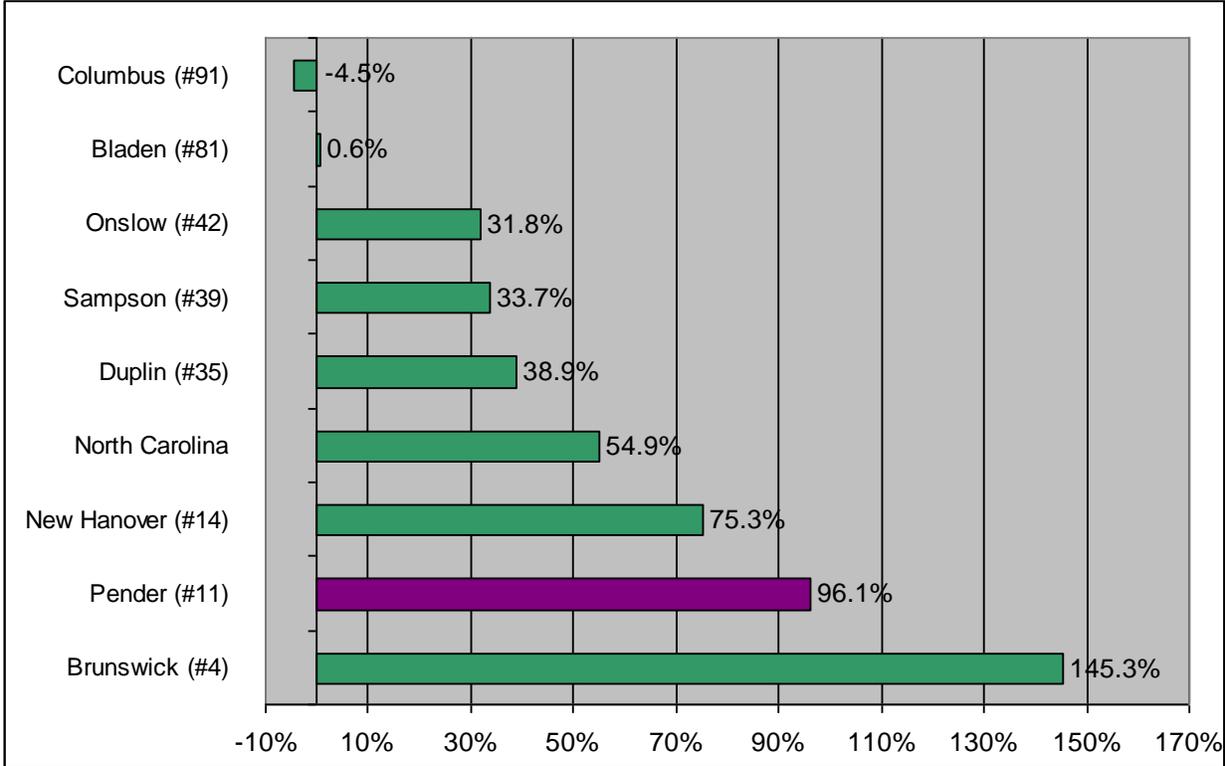
Source: US Census (www.census.gov) and projections based on NC State Data Center (<http://demog.state.nc.us>)

Pender County Comprehensive Land Use Plan

Comparison with Surrounding Counties

The seven surrounding counties were chosen for comparison purposes. Graph G-2 also shows the projected overall growth for the State of North Carolina.

**Graph B-2: Projected Growth
Pender County and Selected Counties in the Region (2000-2030)**



Source: NC State Data Center (<http://demog.state.nc.us>)

Note: Number (#) refers to ranking within the 100 counties, with #1 being the fastest projected growth rate 2000-2030.

General Population Characteristics - Pender County and the Region

From 1980 to 2000, Pender County experienced significant population growth compared to other counties within the region (Table B-3), being second only to Brunswick County which had a 104% population increase. In this 20-year period, the population of Pender County grew almost 85%. During the same time period, the total population of North Carolina grew from 5,880,095 persons to 8,049,313 persons - an increase of 36.9%.

Pender County Comprehensive Land Use Plan

**Table B-3: Comparison of Population Growth Rates- 1980-2000
Pender County and Selected Counties in the Region**

County	1980	1990	2000	% Change		
				1980-1990	1990-2000	1980-2000
Bladen County	30,491	28,663	32,278	-6.00%	12.60%	5.86%
Brunswick County	35,777	50,985	73,141	42.51%	43.46%	104.44%
Columbus County	51,037	49,587	54,749	-2.84%	10.41%	7.27%
Duplin County	40,952	39,995	49,063	-2.34%	22.67%	19.81%
New Hanover County	103,471	120,284	160,327	16.25%	32.29%	54.95%
Onslow County	112,784	149,838	150,355	32.85%	0.35%	33.31%
Pender County	22,262	28,855	41,082	29.62%	42.37%	84.53%
Sampson County	49,687	47,297	60,161	-4.81%	27.20%	21.08%

Source: US Census (www.census.gov)

Net Migration Rate

From 1990 to 2000, Pender County had a relatively high migration rate compared to the other counties within the region (Table B-4). Only Brunswick County (40.3%) had a higher migration rate. Net migration is expected to increase as New Hanover County expands and with completion of the planned US 17 Hampstead Bypass.

**Table B-4: Comparison of Net Migration Rates - 1990-2000
Pender County and Selected Counties in the Region**

County	Births	Deaths	Natural Growth	Net Migration	% Net Migration
Bladen County	4,313	3,545	768	2,847	9.0%
Brunswick County	7,450	5,835	1,615	20,541	40.3%
Columbus County	7,628	5,746	1,882	3,280	6.6%
Duplin County	6,867	4,921	1,946	7,122	17.8%
New Hanover County	18,421	11,950	6,471	33,572	27.9%
Onslow County	32,461	6,681	25,780	-25,263	-16.9%
Pender County	4,407	3,264	1,143	11,084	38.4%
Sampson County	7,656	5,695	1,961	10,903	23.1%

Source: NC State Data Center (<http://sdc.state.nc.us>)

Pender County Comprehensive Land Use Plan

Population Density

Table B-5 and Graph G-3 illustrate the population density increase forecast for Pender County in comparison to surrounding counties.

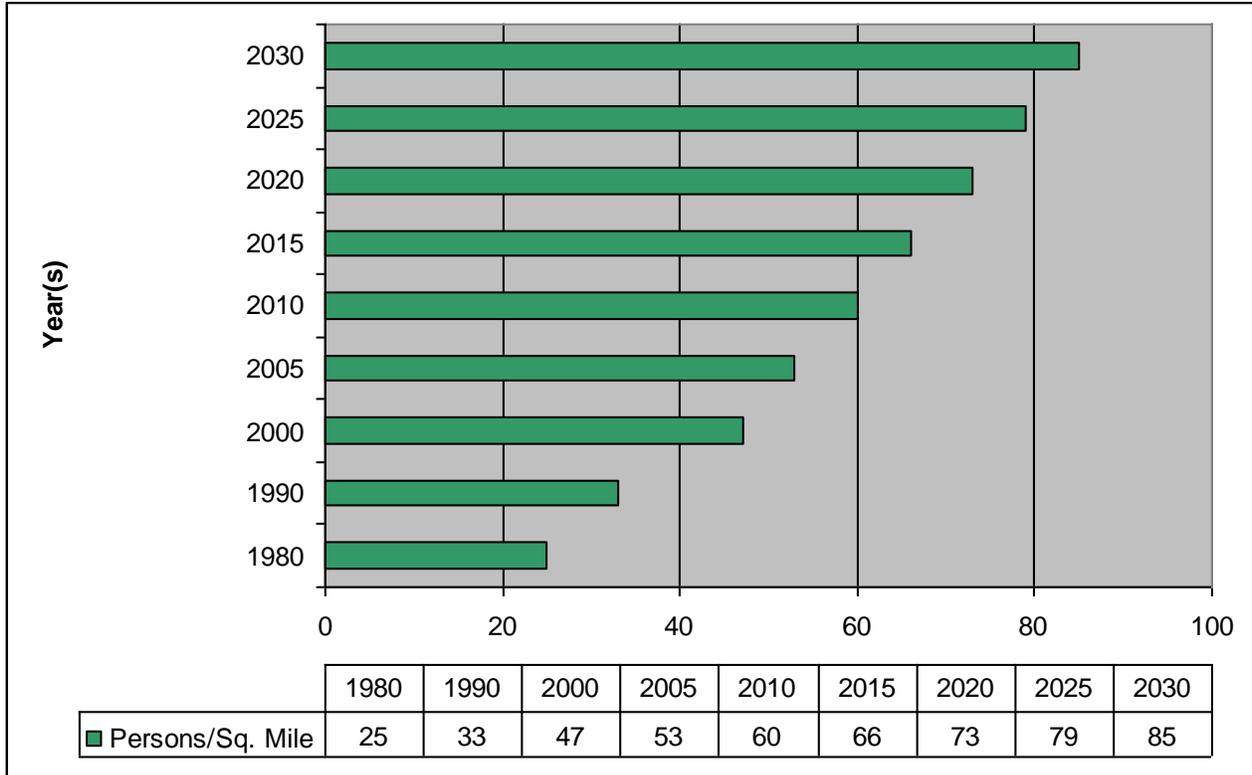
**Table B-5: Comparison of Population Density per Square Mile - 2000-2030
Pender County and Selected Counties in the Region**

County	Population Density (persons per square mile)				% Projected Increase 2000-2030
	2000	2010	2020	2030	
Bladen County	36.9	38.7	40.9	42.89	16.2%
Brunswick County	85.6	120.3	148.9	175.5	105.1%
Columbus County	58.4	59.3	61.1	62.4	6.8%
Duplin County	60.0	68.1	78.1	89.0	48.4%
New Hanover County	806.0	1,006.5	1,185.2	1,353.8	68.0%
Onslow County	196.1	208.0	214.8	219.7	12.1%
Pender County	47.2	60.0	72.7	84.8	79.8%
Sampson County	63.6	72.7	84.0	95.9	50.7%

Source: NC State Data Center (<http://sdc.state.nc.us>)

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Graph B-3: Projected Persons/Square Mile (1980-2030) - Pender County



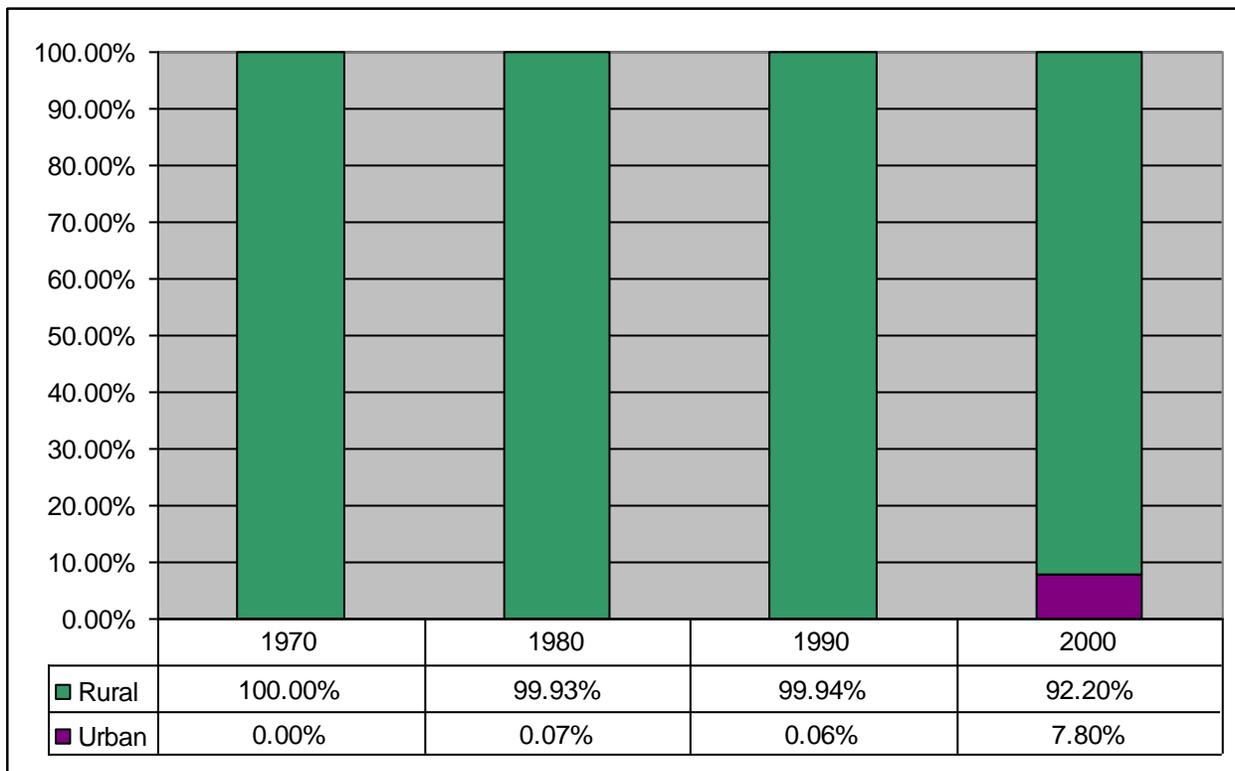
Source: NC State Data Center (<http://sdc.state.nc.us>)

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Urban and Rural Populations

Over the last thirty years, Pender County has remained a largely rural county. In 1970, the entire population was designated as living in a rural area but by 2000, 7.8% of the population had moved to “urban” areas, but with the vast majority of the population (92.2%) still living in rural areas (Graph G-4). For population to be classified as “urban”, the US Census includes all population located in either an urbanized area (UA) or an urban cluster (UC). Urban areas consist of census block groups that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile.

Graph B-4- Rural vs. Urban Population (1970-2000) - Pender County



Source: NC State Data Center (<http://sdc.state.nc.us>)

Pender County Comprehensive Land Use Plan

Population by Race

From 1990 to 2000, the racial diversification of Pender County decreased slightly (Table B-6). The 2000 Census showed a 6.8% decrease in the Black / African-American population and an increase of 4% in the White population. Both American Indian (76 to 201 persons) and Asian/Pacific Islander (44 to 88 persons) populations increased while Other Races increased by 508% (from 137 to 834 persons).

Table B-6: Population by Race in Pender County- 1990-2000

Race	1990	% of Total	2000	% of Total
American Indian/Alaskan Native	76	0.3	201	0.5
Asian/Pacific Islander/Native Hawaiian	44	0.2	88	0.2
Black/African American	8,770	30.4	9,689	23.6
Other Races	137	0.5	834	2.0
White	19,828	68.6	29,882	72.7
One Race			40,694	99.1
Two or More Races	–	–	388	0.9
Total	28,855	100%	41,082	100%

Source: US Census (www.census.gov).

Age Distribution

Comparison of 2000 age distribution data across the eight comparison counties indicates that Pender County had a relatively low number of school-age children (7,117) in the population. In addition, Pender County had a relatively low number of retirement-age persons (5,780) compared to the eight surrounding counties.

The largest concentration of population was in the working age range (25,775). Pender County is also predicted to have the second largest increase in working age population (84.31%) (Table B-7). This is an indication of a good economy as the working age population is the one most likely to earn money and boost the local economy. However, Pender County is also projected to have the second largest increase in retirement age population (199.81%) by 2030. Table B-7 indicates population growth by age category for Pender and surrounding counties.

Planning Implication

Among the eight comparison counties within the region, Pender County is projected to have the second highest growth rate at 96%. The retirement age population is expected to increase by nearly 200% and will demand additional services such as independent and assisted living facilities and quality health care, as well as recreational facilities suited for that specific demographic. The highest concentration of population, however, remains in the working-age population that will tend to increase the County's tax base and help pay for these needed additions.

Pender County Comprehensive Land Use Plan

**Table B-7: Comparison of Age Projections- 2000 vs. 2030
Pender County and Selected Counties in the Region**

Age Category	Totals							
	Bladen	Brunswick	Columbus	Duplin	New Hanover	Onslow	Pender	Sampson
Under 5 Years								
2000	2,138	4,005	3,631	3,609	9,177	13,288	2,410	4,406
2030	1,851	9,559	2,873	4,718	15,008	15,774	4,229	5,352
% Increase	-13.42%	138.68%	-20.88%	30.73%	63.54%	18.71%	75.48%	21.47%
5-17 Years (School Age)								
2000	5,810	11,504	10,438	9,196	24,415	26,050	7,117	11,122
2030	5,357	24,457	8,831	12,476	39,606	30,241	11,495	14,690
% Increase	-7.80%	112.60%	-15.40%	35.67%	62.22%	16.09%	61.51%	32.08%
18-64 Years (Working Age)								
2000	19,732	45,254	33,142	29,942	106,148	101,518	25,775	36,927
2030	18,183	98,165	29,418	40,242	170,107	117,681	47,505	47,901
% Increase	-7.90%	116.92%	-11.24%	34.40%	60.25%	15.92%	84.31%	29.72%
65+ Years (Retirement Age)								
2000	4,598	12,380	7,538	6,316	20,567	9,499	5,780	7,706
2030	7,080	47,243	11,159	10,717	56,256	25,495	17,329	11,026
% Increase	53.98%	281.61%	48.04%	69.68%	173.53%	168.40%	199.81%	43.08%
Totals								
2000	34,278	73,143	54,749	49,063	160,307	150,355	41,082	60,161
2030	34,501	179,424	52,281	68,153	280,977	189,191	80,558	78,969
% Increase	0.65%	145.31%	-4.51%	38.91%	75.27%	25.83%	96.09%	31.26%

Source: NC State Data Center (<http://sdc.state.nc.us>)

Pender County Comprehensive Land Use Plan

Median Age

Median age is expected to increase for all eight counties and for the State through the year 2030 (Table B-8 and Graph G-5). This follows a national trend related to the aging of the “baby boom” segment of the population. The median age for Pender County will remain above that of most of the counties (Brunswick County being the only exception) within the region and the State.

Planning Implication

As median age of the population continues to increase over the next thirty years, this segment of the County’s population will demand specialized services to meet retirement needs including independent and assisted facilities, high quality health care, and both passive and active recreational opportunities.

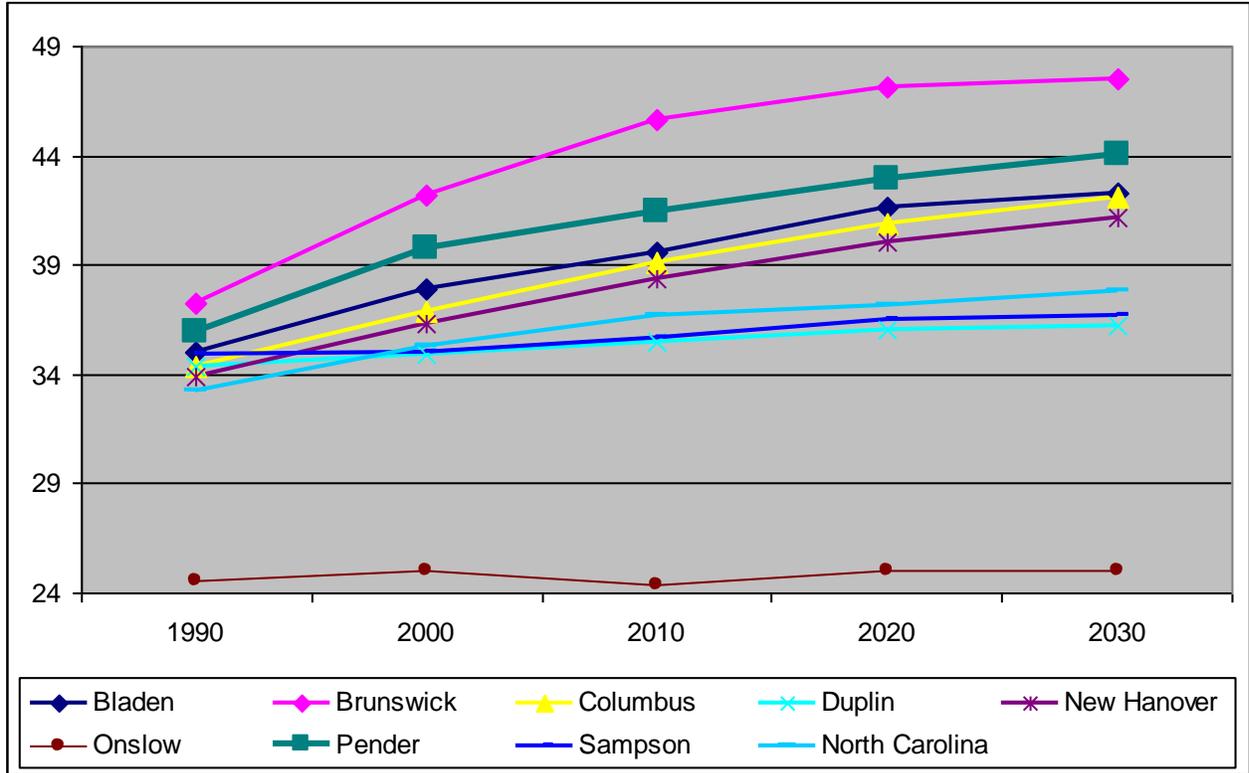
**Table B-8: Comparison of Historical and Projected Median Age - 1990-2030
Pender County and Selected Counties in the Region**

County	Median Age in Years				
	Current		Projected		
	1990	2000	2010	2020	2030
Bladen County	35.0	37.9	39.6	41.7	42.3
Brunswick County	37.2	42.2	45.7	47.1	47.5
Columbus County	34.4	36.9	39.1	40.9	42.1
Duplin County	34.4	34.9	35.5	36.1	36.3
New Hanover County	33.9	36.3	38.4	40.0	41.1
Onslow County	24.6	25.0	24.3	25.0	25.0
Pender County	35.9	38.8	41.4	43.0	44.0
Sampson County	34.9	35.0	35.7	36.5	36.7
North Carolina	33.2	35.3	36.7	37.2	37.8

Source: NC State Data Center (<http://sdc.state.nc.us>)

Pender County Comprehensive Land Use Plan

**Graph B-5: Projected Median Age 1990-2030
Pender County and Selected Counties in the Region**



Source: 2000 US census (www.census.gov)

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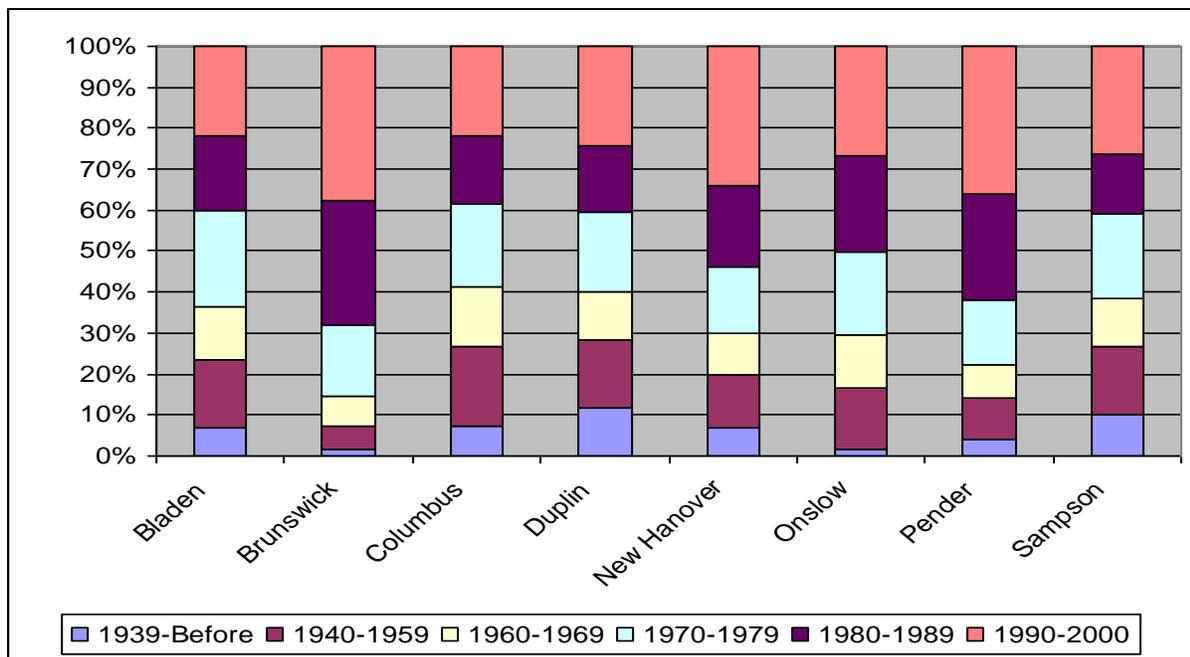
Housing Characteristics

A study of housing characteristics reveals information about residential growth, the percentage of occupied versus vacant units, the average household size, and the unit type of structure.

Housing by Year Structure Built

A comparison with surrounding counties of years that structures were built corroborates population growth figures (Graph G-6). Approximately 62% of structures within Pender County have been built since 1980. With the exception of Brunswick County, this percentage outpaces all comparison counties.

**Graph B-6: Year Structure Built
Pender County and Selected Counties in the Region (2000-2030)**



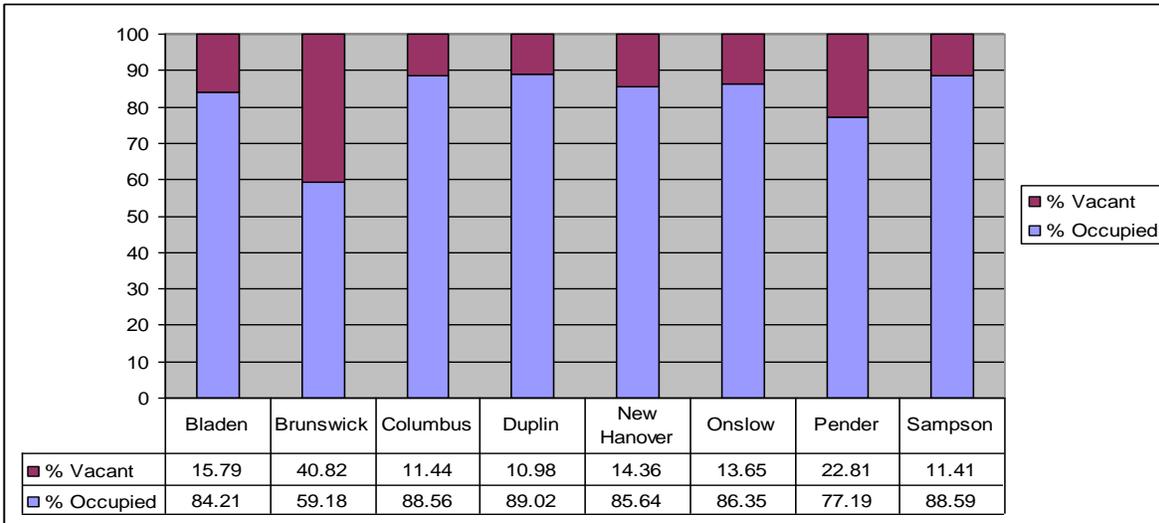
Source: US Census (www.census.gov).

Occupied and Vacant Housing Units

Data from the 2000 Census (Graph G-7) indicate that the percentage of occupied versus vacant housing units is mostly consistent between Pender and surrounding counties with the exception of Brunswick County, which had the highest rate of vacant units (40.82%). Duplin County had the lowest percentage of vacant units (10.98%), leaving Pender with the second highest percentage of vacant units (22.81%) and the second lowest total housing units (20,798) among the eight counties. The high percentage of vacant housing units reflects the number of seasonal units that were not occupied as primary homes at the time of the Census.

Pender County Comprehensive Land Use Plan

**Graph B-7: Occupied Versus Vacant Housing Units - 2000
Pender County and Selected Surrounding Counties in the Region**



Source: 2000 Census (www.census.gov)

Average Household Size

Average household size for Pender County (2.49 persons per household) is similar to the median household size for surrounding counties (Table B-9). The counties with the smallest average households are Brunswick and New Hanover, which are the more urban communities. Rural families tend to be larger than urban families and this pattern holds true for Pender and surrounding counties.

**Table B-9: Average Household Size- 2000
Pender County and Selected Counties in the Region**

County	2000 Population	2000 Households	Avg. Household Size
Bladen	32,278	12,897	2.45
Brunswick	73,141	30,438	2.38
Columbus	54,749	21,308	2.50
Duplin	49,063	18,267	2.63
New Hanover	160,327	68,183	2.29
Onslow	150,355	48,122	2.72
Pender	41,082	16,054	2.49
Sampson	60,161	22,273	2.49

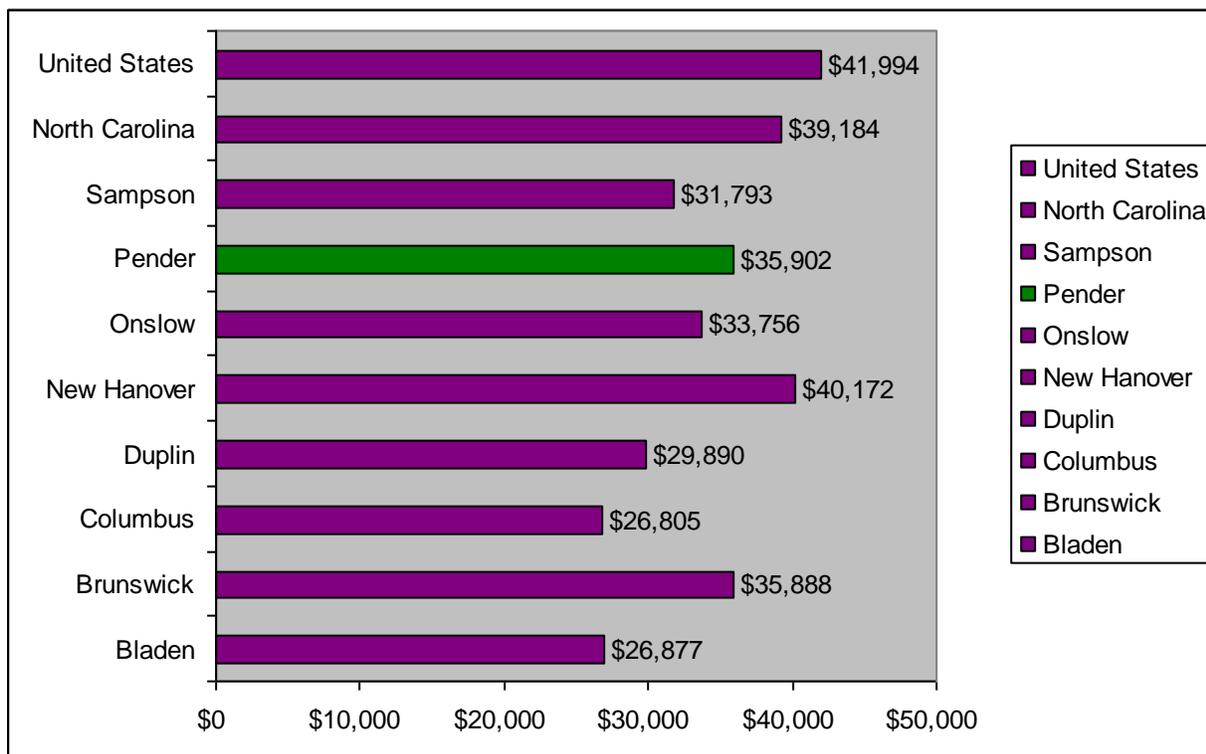
Source: 2000 Census (www.census.gov)

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Median Household Income

The median household income for Pender County at the 2000 Census was \$35,902 - 91.6% of the State median income (Graph G-8). Bladen, Columbus, and Duplin counties had the lowest median household incomes, while New Hanover had the highest. Pender County's median household income is closest to that of Brunswick and Onslow counties.

**Graph B-8: Median Household Income 2000
Pender County and Selected Counties in the Region Compared to the State**



Source: 2000 Census (www.census.gov)

Housing by Structure Type



In the 2000 Census, Pender County had a relatively low percentage of single family site built and modular units (Table B-10). The County also had a relatively low percentage of multi-family units (4.5%).

Compared with other counties in the region, Pender County had the third highest percentage of manufactured (mobile) homes (35.2%) (Graph G-9). The only counties with a higher percentage of manufactured homes were Columbus and Brunswick. Manufactured homes are typically more prevalent in rural areas as this type of home provides entry into home ownership at a lower price point.

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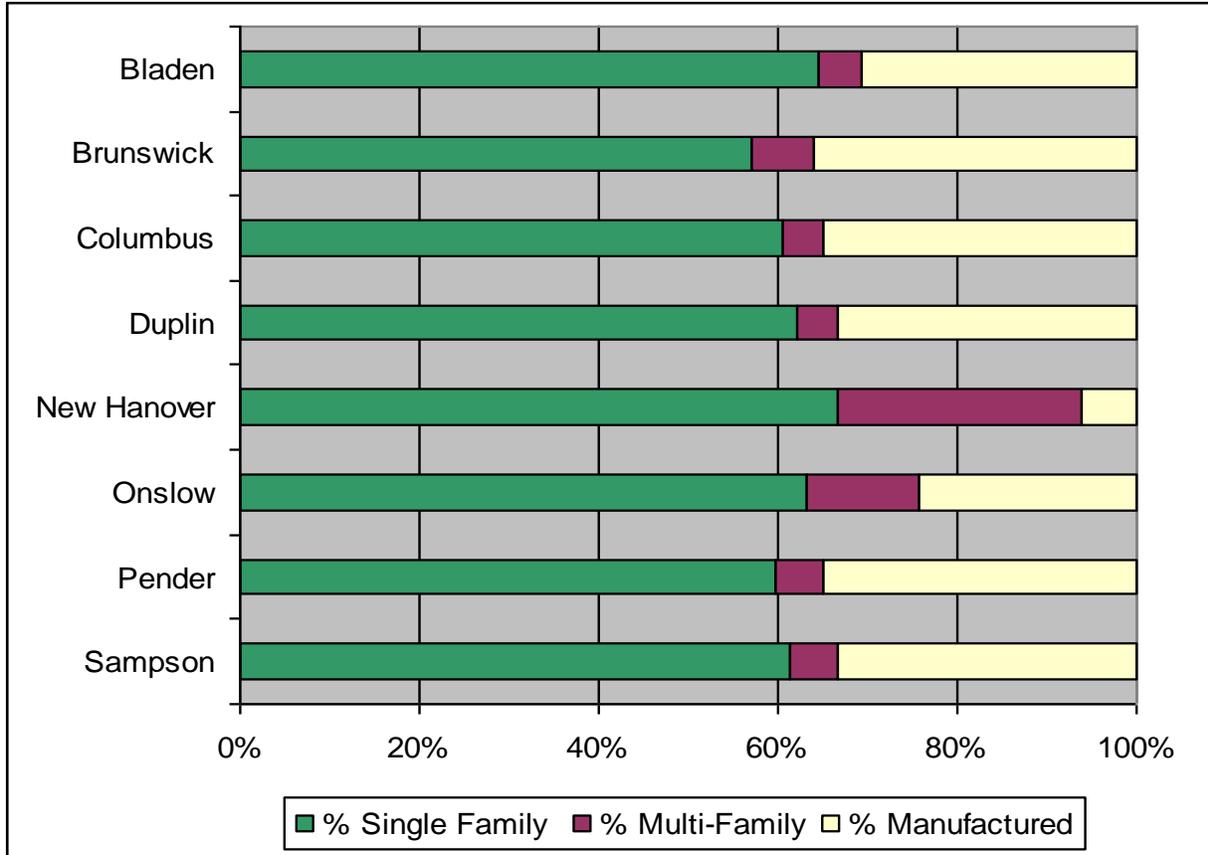
Table B-10: Housing by Structure Type Pender County - 2000

Type of Structure	Number	Percentage of Total
Single Family		
1 Unit Detached	12,235	58.8%
1 Unit Attached	256	1.2%
Multi-Family		
2 Units	198	1.0%
3-4 Units	197	0.9%
5-9 Units	189	0.9%
10-19 Units	164	0.8%
20 or More Units	194	0.9%
Manufactured Home	7,328	35.2%
Boat, RV, Van, etc.	37	0.2%
Total Units	20,798	100.0%

Source: 2000 Census (www.census.gov).

Pender County Comprehensive Land Use Plan

**Graph B-9: Comparison of Housing by Structure Type
Pender County and Selected Counties in the Region**



Source: 2000 Census (www.census.gov).

Pender County Comprehensive Land Use Plan

Housing Tenure – Owner-Occupied versus Renter-Occupied

Graph G-10 shows a comparison of owner-occupied versus renter-occupied units for Pender County and selected counties in the region from the 2000 Census. Pender County had a higher percentage of owner-occupied units compared to surrounding counties. Homeownership is an indicator of wealth and the ability to build equity and improve quality of life.

**Graph B-10: Housing Ownership vs. Rental
Pender County and Selected Counties in the Region**



Source: US Census (www.census.gov).

Pender County Comprehensive Land Use Plan

Planning Implications

Pender County tends to have larger households and more manufactured housing than surrounding counties. Rural lifestyles have traditionally favored owner-occupied over renter-occupied housing. Pender County is not expected to attract significant multi-family development in the near future as this type of housing is usually associated with more urban areas such as New Hanover County. As the working age and the retirement age populations continue to grow, however, more varied housing opportunities should be addressed.

Permitting both site-built and manufactured homes can promote home ownership, which is a key component to building wealth. Concerns over appearance of new individual manufactured homes and manufactured home parks can be addressed through land use regulations.

Pender County Comprehensive Land Use Plan

Economic Indicators

Economic factors such as commuting patterns, employment sectors, agricultural incomes, retail trade including sales tax, revenues, and educational attainment are all indicators of a community's economic vitality and growth potential.

Commuting Patterns

Place of residence versus place of employment data provides insight into how Pender County compares to surrounding counties (Table B-13 and B-14). A high percentage of out-commuters is an indicator that a community is a “bedroom community”, that is a large volume of workers are commuting “out” of the county to their place of employment.

Table B-11: Commuting Patterns - Persons Residing in Pender County

County of Residence	Workplace	Number of Commuters	Total by Percent
Pender County	New Hanover County	8,083	45.6%
Pender County	Pender County	6,765	38.2%
Pender County	Onslow County	913	5.2%
Pender County	Duplin County	868	4.9%
Pender County	Brunswick County	378	2.1%
Pender County	Sampson County	97	0.6%
Pender County	Wayne County	78	0.4%
Pender County	Wake County	74	0.4%
Pender County	Columbus County	62	0.4%
Pender County	Lenoir County	26	0.2%
Pender County	Bladen County	25	0.1%
Pender County	Wilson County	23	0.1%
Pender County	Other Counties/States	340	1.9%

Source: LINC (<http://linc.state.nc.us/>)

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Table B-12: Commuting Patterns - Person Working in Pender County

County of Residence	Workplace	Number of Commuters	Total by Percent
New Hanover County	Pender County	1,353	40.9%
Onslow County	Pender County	776	23.5%
Duplin County	Pender County	605	18.3%
Brunswick County	Pender County	202	6.1%
Sampson County	Pender County	171	5.2%
Columbus County	Pender County	32	0.9%
Bladen County	Pender County	25	0.8%
Orange County	Pender County	24	0.7%
Carteret County	Pender County	19	0.6%
Currituck County	Pender County	19	0.6%
Harnett County	Pender County	15	0.5%
Other Counties/States	Pender County	63	1.95

Source: LINC (<http://linc.state.nc.us/>)

Planning Implication

High volumes of commuters mean more vehicles on the road, more vehicle miles traveled and longer travel times, which all negatively impact public safety. More vehicle miles traveled also negatively impacts air and water quality within and beyond the community.

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Employment

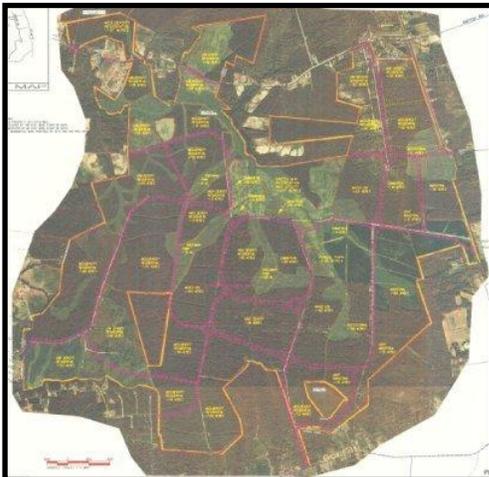
Economic development in Pender County is coordinated through North Carolina's Southeast – a regional economic development marketing organization for the eleven counties located in southeastern NC. Southeast's mission is to diversify the region's economy in order to recruit better jobs and build a stronger tax base. Southeast markets two industrial parks within Pender County - Promethius Properties (3,634 acres) and Pender Commerce Park (350 acres) on US 421.



Shelter Creek Quarry



Atlantic Seafood



Promethius Properties



Pender Commerce Park

Tables B-13, B-14 and B-15 provide information on the types of employment available in Pender County. The top three employment industries in 2007 were retail trade (1,443 employees), wholesale trade (1,113 employees), and health care and social assistance (1,044 employees). Table B-13 lists industries in order of total employment and also includes information on wages. Table B-14 lists the top ten employers in Pender County.

Pender County Comprehensive Land Use Plan

Table B-13: Workforce by Industry in Pender County- 2nd Quarter 2007

Industry	Pender			North Carolina		
	Avg. # Emp.	% Total	Avg. Weekly Wage	Avg. # Emp.	% Total	Avg. Weekly Wage
Total Government	11,247	22.7%	\$630	678,349	16.7%	\$754
Total Private Industry	8,689	77.3%	\$471	3,392,501	83.3%	
Total All Industries	11,247	100%	\$504	4,070,849	100%	\$718
Agriculture/Forestry/Fishing/Hunting	807	7.2%	\$294	30,294	0.7%	\$517
Mining	0	0%	\$0	4,055	0.1%	\$1,176
Utilities	0	0%	\$0	13,939	0.3%	\$1,378
Construction	992	8.8%	\$537	255,709	6.0%	\$729
Manufacturing	843	7.5%	\$631	537,281	13.2%	\$876
Wholesale Trade	1,113	9.9%	\$649	182,823	4.5%	\$1,021
Retail Trade	1,443	12.8%	\$379	462,301	11.4%	\$468
Transportation/Warehousing	93	0.8%	\$627	115,772	2.8%	\$721
Information	0	0%	\$0	72,926	1.8%	\$1,025
Finance/Insurance	116	1.0%	\$876	152,965	3.8%	\$1,183
Real Estate/Rental/Leasing	144	1.3%	\$427	54,786	1.3%	\$673
Professional/Technical Services	271	2.4%	\$629	182,439	4.5%	\$1,082
Management of Companies and Enterprises	0	0%	\$0	69,658	1.7%	\$1,374
Administrative/Waste Services	347	3.1%	\$455	243,995	6.0%	\$505
Educational Services	5	0%	\$613	57,097	1.4%	\$711
Health Care/Social Assistance	1,044	9.3%	\$453	434,459	10.7%	\$688
Arts/Entertainment/Recreation	183	1.6%	\$218	346,693	8.5%	\$260
Accommodation/Food Services	866	7.7%	\$218	346,693	8.5%	\$260
Other Services (Excluding Public Admin.)	177	1.6%	\$509	103,559	2.5%	\$475
Public Administration	0	0%	\$0	228,584	5.6%	\$765
Unclassified	71	0.6%	\$425	17,783	0.4%	\$651

Source: NC Department of Commerce (<http://www.nccommerce.com>)

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Table B-14: Top 10 Largest Employers in Pender County- 2007

Company	Industry	Number of Employees
Pender County Board of Education	Education and Health Services	1,000+
Del Laboratories, Inc	Trade, Transportation, and Utilities	500-999
State of North Carolina	Public Administration	250-499
Gomez Harvesting LLC	Natural Resources and Mining	250-499
Pender Memorial Hospital	Education and Health Services	250-499
Food Lion LLC	Trade, Transportation, and Utilities	100-249
Lowe's Home Centers INC	Trade, Transportation, and Utilities	100-249
Hardee's- Non EDI	Leisure and Hospitality	100-249
Pender Adult Services	Education and Health Services	100-249

Source: NC Employment Security Commission (<http://www.ncesc.com>)

Table B-15: Industry Employment Projections - 2007-2012

Occupation	Year 2007	Year 2012	Percent Growth
Management/Farm Managers	1,394	1,624	16.5%
Business/Financial Occupations	748	944	26.2%
Computer and Mathematical	128	158	23.4%
Architecture/Engineering	419	532	27.0%
Life/Physical/Social Science	179	224	25.1%
Community/Social Services	415	474	14.2%
Legal	146	176	20.5%
Education/Training/Library	1,017	1,249	22.8%
Arts/Design/Entertainment/Sports/Media	182	234	28.6%
Healthcare Practitioner /Technician	948	1,123	18.5%
Healthcare Support	687	806	17.3%
Protective Service	827	949	14.8%
Food Preparation/Serving	911	1,036	13.7%
Building/Grounds Cleaning/Maintenance	1,077	1,201	11.5%
Personal Care/Service	472	572	21.2%
Sales/Related Occupations	2,632	3,111	18.2%
Office/Administrative	2,567	3,010	17.3%
Farming/Fishing/Forestry	254	236	-7.1%
Construction/Extraction	2,817	3,009	6.8%
Installation/Maintenance/Repair	1,192	1,332	11.7%
Production	1,754	1,862	6.2%
Transportation/Material Moving	1,584	1,922	21.3%

Source: NC Employment Security Commission (<http://www.ncesc.com>)

Pender County Comprehensive Land Use Plan

Agricultural Economy

Agriculture continues to make a major contribution to the local economy in Pender County. According to the NC Department of Agriculture, the agricultural industry contributed over \$106 million dollars to the local economy in 2002 (latest year for which financial statistics are available) (Table B-16). Primary agricultural products produced in 2002 (Table B-17) included hay, tobacco, and wheat. Other agricultural sectors (Table B-18) included the production of livestock including broilers (poultry), cattle, beef cows, turkeys, hogs and pigs.

Table B-16: Pender County Farm Cash Receipts - 2007

Cash Receipts: 2007	Dollars	State Rank (100 counties)
Livestock, Dairy, and Poultry	\$73,879,000	23
Crops	\$28,795,000	35
Government Payments	\$3,668,000	43
Total Agricultural Receipts	\$106,342,000	27

Source: NC Department of Agriculture: December 2008 (<http://www.ncagr.com>)

Table B-17 (a): Pender County Crops - 2007

Crops 2007	Harvest Acres	Yield	Production	State Rank (100 counties)
Barley (bushels)	*	*	*	*
Corn for Grain (bushels)	*	*	*	*
Corn for Silage (tons)	*	*	*	*
Cotton (480 lb. bales)	*	*	*	*
Hay, All (tons)	1,700	1.88	3,200	67
Irish Potatoes (weight)	*	*	*	*
Oats (bushels)	*	*	*	*
Peanuts (pounds))	*	*	*	*
Sorghum (bushels)	*	*	*	*
Soybeans (bushels)	*	*	*	*
Sweet potatoes (weight)	*	*	*	*
Tobacco, Burley (pounds)	*	*	*	*
Tobacco, Flue-Cured (pounds)	770	2,595	2,000,000	38
Wheat (bushels)	3,500	29	100,000	53

Source: NC Department of Agriculture: December 2008 (<http://www.ncagr.com>)

Pender County Comprehensive Land Use Plan

**Table B-17 (b): Pender County Crops 2007
Fruit and Berries**

Crops 2007	Total	
	Farms	Acres
Apples	2	(D)
Grapes	6	(D)
Peaches	2	(D)
Blueberries (tame)	13	1,718
Blueberries (wild)	2	(D)
Strawberries	5	257

Source: NC Department of Agriculture (<http://www.ncagr.com>)

*Note: (D)-Information withheld to avoid disclosing data for individual farms

Table B-18: Pender County Livestock Inventory - 2007

Livestock	Number	State Rank (100 counties)
Broilers Produced (2007)	4,300,000	36
Cattle, All (Jan. 1, 2008)	2,400	68
Beef Cows (Jan. 1, 2008)	1,000	66
Milk Cows (Jan. 1, 2008)	*	*
Chickens, Excluding Broilers (Dec. 1, 2007)	*	*
Hogs and Pigs (Dec. 1, 2007)	268,500	10
Turkeys Raised (2007)	570,000	13

Source: NC Department of Agriculture: December 2008 (<http://www.ncagr.com>)

From 1987 to 2002, the total amount of land dedicated to farming decreased almost 11%, while the average farms size increased from 179 acres to 212 acres - an increase of 18% (Table B-19 and Graph G-11).

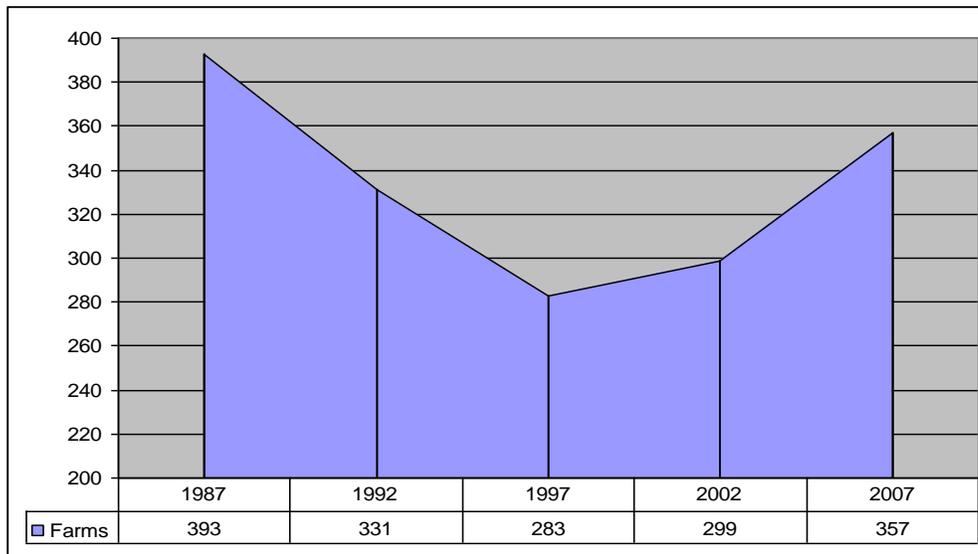
Pender County Comprehensive Land Use Plan

Table B-19: Census of Agriculture for Pender County (1992-2007)

Category	1992	1997	2002	2007	%Change (1992-2007)
Number of Farms	331	283	299	357	7.85%
Total Land in Farms (in acres)	65,136	68,861	62,714	61,571	-5.47%
Average Farm Size (in acres)	197	210	212	172	-12.69%
Harvested Cropland (in acres)	31,390	34,195	33,369	31,911	1.66%
Avg. Market Value Farm and Buildings	262,850	434,172	200,328	694,613	164.26%
Avg. Market Value Machinery/Equipment	34,140	54,897	86,886	81,762	139.49%
Total Farm Production Expense (Avg. \$)	52,018	86,645	30,554	130,542	150.96%

Source: NC Department of Agriculture: December 2008 (<http://www.ncagr.com>)

Graph B-11: Total Number of Farms (1987-2007) - Pender County

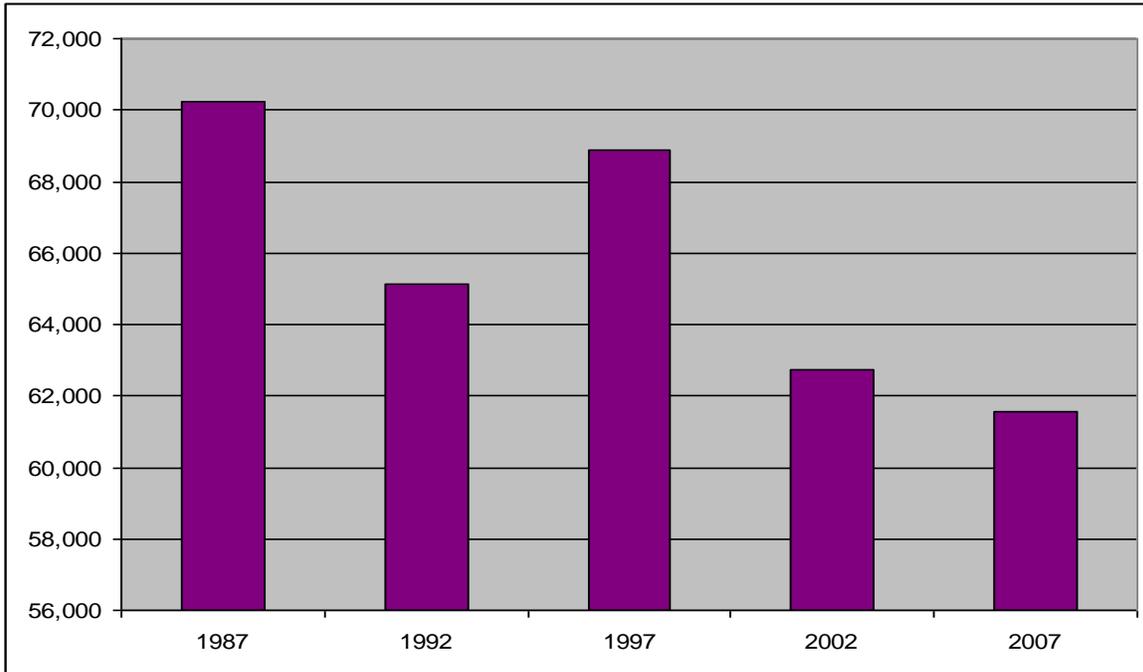


Source: NC Department of Agriculture: December 2008 (<http://www.ncagr.com>)

The 2002 Census of Agriculture also revealed that almost all farms decreased in number from 1987 to 2002 except for those farms ranging in size from 10-49 acres (4.1% increase) and farms that were larger than 1,000 acres (75% increase) (Table B-20). The number of farmers who reported farming as their primary occupation or that another occupation was their primary occupation decreased significantly (-23.4% and -26.6%, respectively) during the same 15-year period (Table B-21).

Pender County Comprehensive Land Use Plan

Graph B-12: Total Number of Acres in Farms – Pender County



Source: US Census of Agriculture (<http://www.agcensus.usda.gov>)

Table B-20: Census of Agriculture for Pender County – Farms by Size (1992-2007)

Size in Acres	1992	1997	2002	2007	%Change (1992-2007)
1 - 9	36	20	27	54	50.0%
10 - 49	91	69	101	134	47.3%
50 - 179	103	90	88	103	0.0%
180 - 499	66	66	47	33	-100.0%
500 - 999	24	27	19	18	-25.0%
1,000+	11	11	14	15	36.4%

Source: US Census of Agriculture (<http://www.agcensus.usda.gov>)

Table B-21: Farm Operators by Principal Occupation (1992-2007)

Primary Occupation	1992	1997	2002	2007	% Change (1992-2007)
Farming	186	165	183	163	-12.4%
Other Occupation	145	118	113	194	33.8%

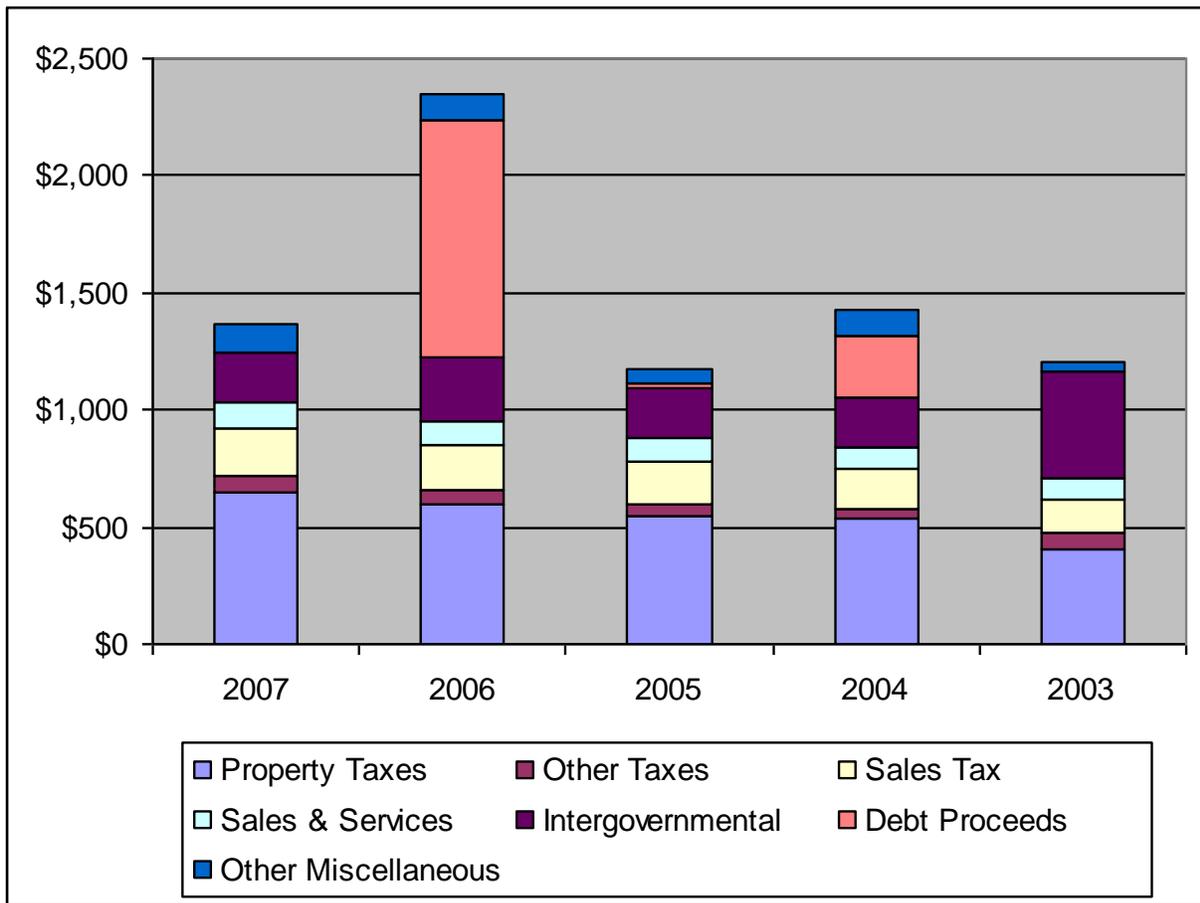
Source: US Census of Agriculture (<http://www.agcensus.usda.gov>)

Pender County Comprehensive Land Use Plan

Retail Trade

Another major indicator of the economic vitality of a community is retail sales activity. Retail sales taxes are a significant percentage of local revenue sources (Graph G-13). The capture of retail sales dollars is essential to local government fiscal stability and growth.

Graph B-13: Analysis of Pender County Revenue (Per Capita)



Source: NC Office of State Treasurer (http://ncdsB-web2.treasurer.state.nc.us/lgc/units/D_70.htm)

Retail sales activity in Pender County has fluctuated within a relatively narrow range since Fiscal Year (FY) 2000-2001 (Table B-22 and Graph G-14). New Hanover County and to a lesser extent Onslow County exhibit the higher sales activity typical of more urbanized counties. Low retail sales activity within Pender County indicates county residents are spending the majority of their retail dollars outside the county.

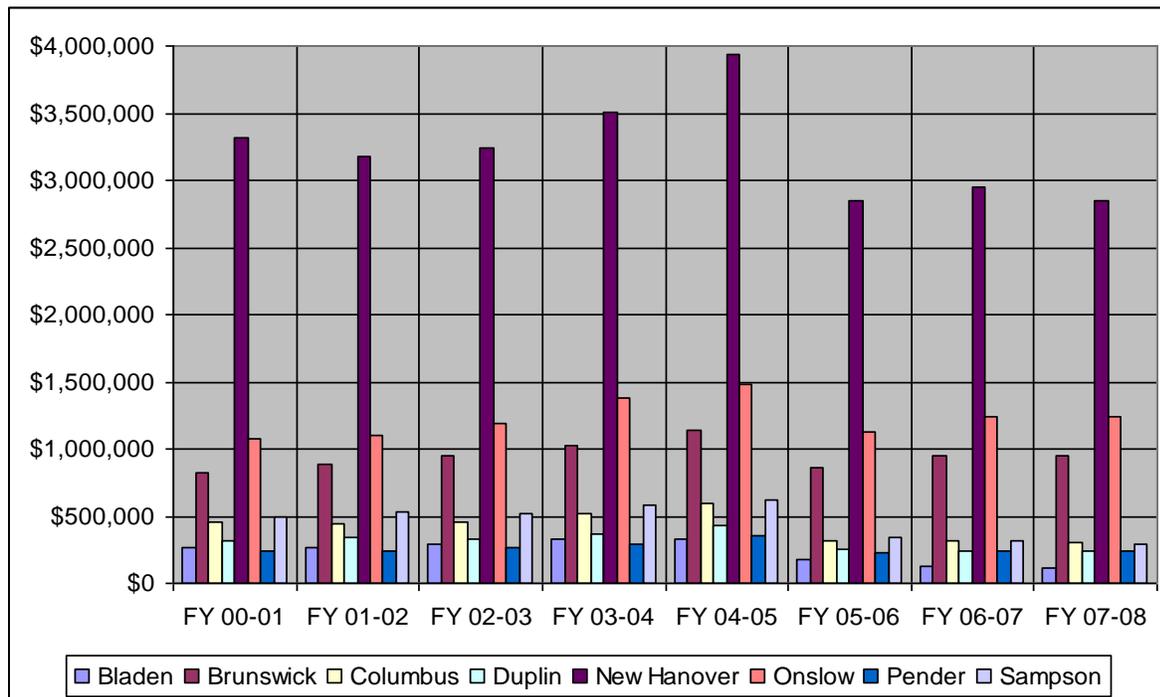
Pender County Comprehensive Land Use Plan

Table B-22: Retail Sales in Pender County – Fiscal Years 2000-2008

Fiscal Year	Total Gross Sales	Annual Increase	Percent Increase
2000-2001	\$237,452,326	*	*
2001-2002	\$246,350,309	\$8,897,983	3.7%
2002-2003	\$263,564,643	\$17,214,334	7.0%
2003-2004	\$291,638,318	\$28,073,675	10.7%
2004-2005	\$359,339,939	\$67,701,621	23.2%
2005-2006	\$227,022,142	-\$132,317,797	-36.8%
2006-2007	\$244,815,739	\$17,793,597	7.8%
2007-2008	\$241,845,086	-\$2,970,653	-1.2%

Source: NC Department of Revenue (<http://www.dor.state.nc.us>)

Graph B-14: County Gross Retail Sales (FY 2000-2008)



Source: NC Department of Revenue (<http://www.dor.state.nc.us>)

Planning Implication

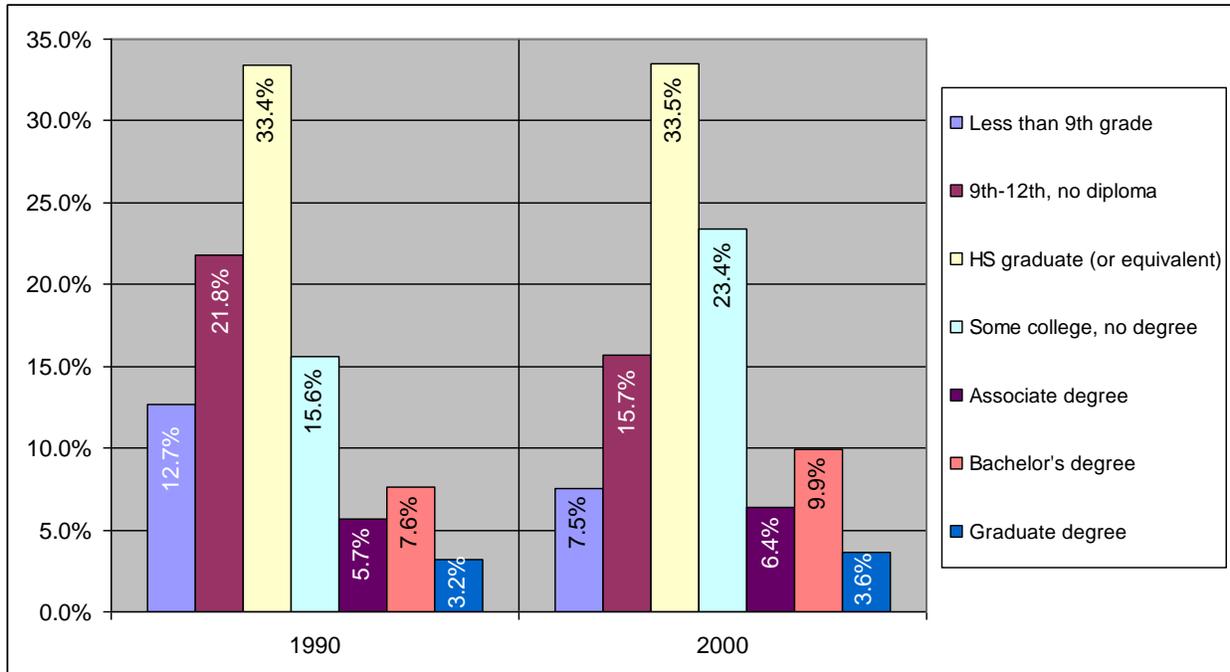
The County can increase sales tax revenues by encouraging more commercial growth within County borders. The County also needs to attract new industries to increase employment opportunities and to decrease the percentage of residents commuting out of the County to work as persons often shop near where they work or while commuting

Pender County Comprehensive Land Use Plan

Educational Attainment

From the 1990 to 2000 Census, there was an increase in the number of persons in Pender County that had completed high school or higher education levels (Graph G-15).

Graph B-15: Educational Attainment Comparison in Pender County – 1990-2000



Source: 2000 US Census 2000 (www.census.gov)

Planning Implication

Educational attainment is a strong indicator of a community's economic vitality and stability. Higher educational achievement levels lead to more employment opportunities, higher paying jobs, and a general overall improvement in the standard of living within a community. A sound, successful public and public/private higher education system is often cited as a key component in attracting new industry and in measuring quality of life and overall economic vitality of a community.

Pender County Comprehensive Land Use Plan

Pender County School System

The Pender County Public School System published a School Enrollment Long Range Plan in May 2008. The report predicted that if growth patterns continue as projected, Pender County would have nearly 50,000 housing units by the year 2028 – a 104% increase over the 24,463 dwelling units found in the 2000 Census. The report also predicted that school enrollment would increase to 25,000 students if the state average household size of 2.5 people per household held true through 2028. Table B-23 shows a comparison between housing units and enrollment in Pender County and Brunswick County.

**Table B-23: Comparison of Housing Units vs. School Enrollment 2006
Pender and Brunswick Counties**

County	Housing Units	Students	Persons per Household
Pender County	24,463	7,651	2.30
Brunswick County	68,996	11,419	2.16

Source: Pender County Public Schools: School Enrollment Long Range Plan

The Long Range Plan further indicated that in Pender County the number of persons per household ranges from as high as 2.7 persons per household in some rural areas to as low as 1.8 persons per household in eastern parts of the County nearest the Atlantic Ocean. A lower number of persons per household typically indicates more elderly or retirement age families.

In the five-year period between 2002 and 2007, there was significant growth in public school system enrollment in Pender County (Table B-23); however growth rates varied based on area of the County with the highest growth rates in the eastern area. Public school enrollment is

projected to increase by 24% between 2008 and 2018 (Graph G-16).



Old Topsail High School

The Long Range Plan reported that schools within Pender County, especially within Burgaw and Topsail Beach, were over capacity in 2007-2008. As of 2008, the Pender County Public School System planned to construct an elementary school, a middle school, and a high school to help alleviate over-crowding.

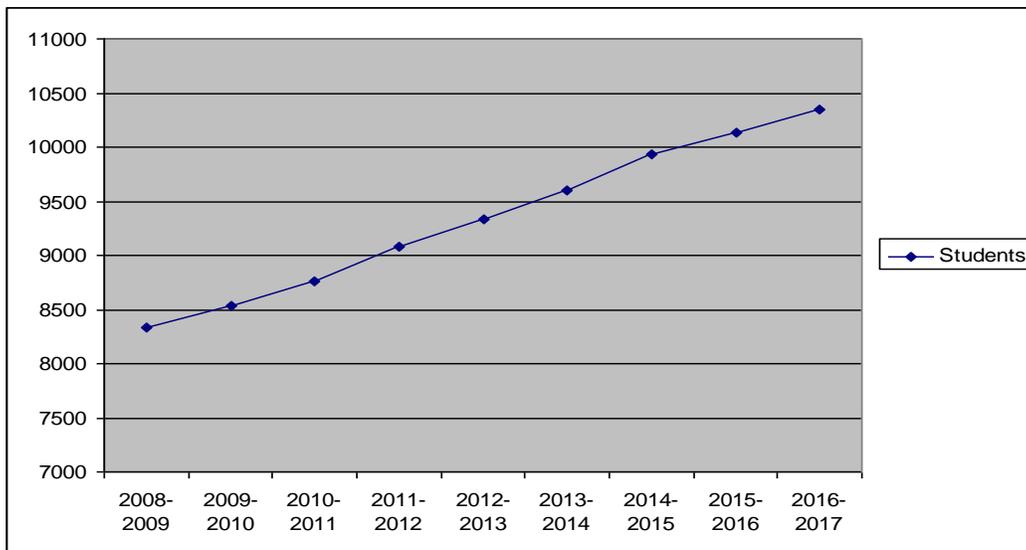
Pender County Comprehensive Land Use Plan

Table B-24: Percent Growth Pender County Public Schools - 2002-2007

Percent Growth Summary Pender County Public Schools – 2002-2007		Total Growth in Percent
Area of County		
Northern Area		
Elementary		3.7%
Middle		-10.5%
High		-2.8%
Southern Area		
Elementary		5.2%
Middle		-0.9%
High		29.0%
Eastern Area		
Elementary		51.0%
Middle		42.7%
High		45.0%

Source: Pender County Public Schools: School Enrollment Long Range Plan

Graph B-16: Pender County Schools Growth Rate - 2008 to 2017



Source: Pender County Public Schools: School Enrollment Long Range Plan

Pender County Comprehensive Land Use Plan

Existing Land Use/Current Zoning

The Pender County planning jurisdiction consists of the total acreage of the County outside the planning and zoning jurisdiction (corporate limits plus extraterritorial jurisdiction) of the six municipalities located within the County.

Table B-25: 2009 Zoning Acreage

ZONING CLASSIFICATION	ACRES	% OF TOTAL
B-1 ~ Business District Neighborhood	26.125	0.005%
B-2 ~ Business District Highway	3624.708	0.68%
B-3 ~ Business District Scenic/Gateway	125.427	0.02%
I-1 ~ Industrial District (Light Industry)	708.4070	0.13%
I-2 ~ Industrial District (Heavy Industry)	5,744.802	1.07%
Incorporated Area	27,386.079	5.11%
PD ~ Planned Development District	12,760.938	2.38%
R-10 ~ Residential District (High Density)	36.018	0.01%
R-15 ~ Residential District (Medium Density)	73.715	0.01%
R-20 ~ Residential District (Moderate Density)	45,874.659	8.56%
R-20C ~ Residential Conventional Housing District	4,483.873	0.84%
RA ~ Rural Agriculture District	423,799.313	79.09%
RT ~ Rural Transition District	8,535.318	1.59%
WSCA ~ Watershed Critical Area District	113.778	0.02%
WSPA ~ Watershed Protected Areas	2,530.184	0.47%
TOTAL	535,823.344	100.00%

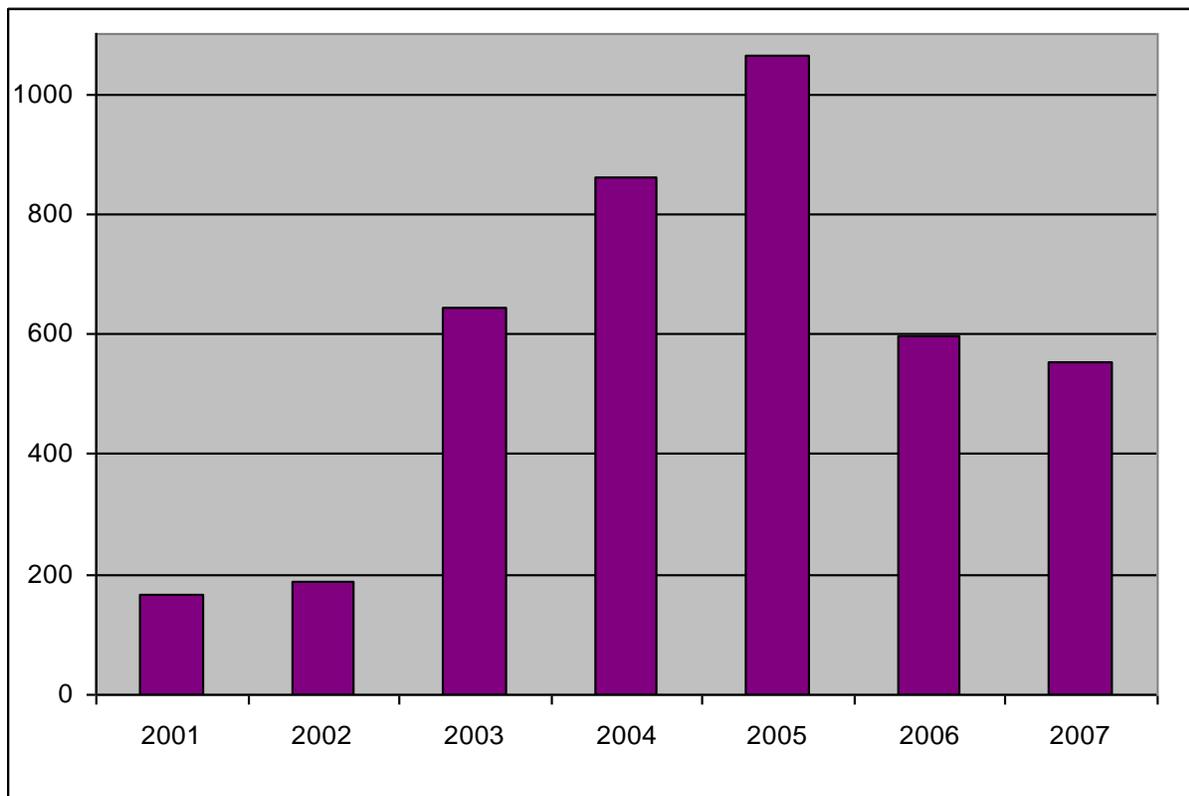
Source: Pender County GIS Information 2009

Pender County Comprehensive Land Use Plan

Residential Building Permits

Graph G-17 displays US Census residential building permit data for the total unincorporated area of Pender County (Census data does not distinguish between County planning jurisdiction and municipal planning jurisdiction outside municipal corporate limits). The County experienced a growth in building permits between 2003 and 2005. The number of permits dropped in 2006, increased some in 2007, and then dropped once more in 2008. The slow down in new residential permits in recent years may reflect the slowing economy. Over the eight-year period from 2001 to 2008, Pender County issued 3,258 new residential building permits.

**Graph B-17: Residential Building Permits 2001-2008
Unincorporated Pender County**



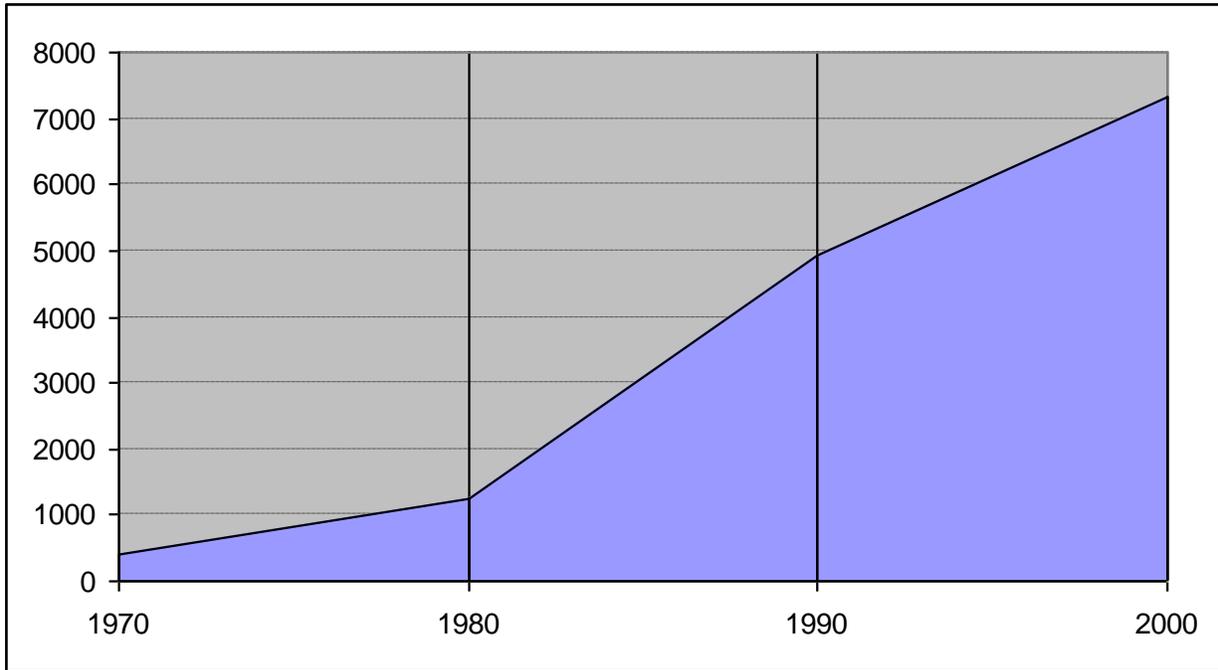
Source: <http://censtats.census.gov/cgi-bin/bldgprmt/bldgdisp.pl>

Pender County had an overall growth in residential building permits of 18% between 2001 and 2008. Growth spiked 195% in 2004 and continued to increase another 19% in 2005. The County experience decreases in 2003, 2006 and 2008. The most dramatic decreases in building permits were in 2006 and 2008, which reflect the slowing economy.

Pender County Comprehensive Land Use Plan

Graph G-18 depicts the growth in manufactured homes in unincorporated Pender County over the 30-year period 1970-2000. The total number of manufactured homes reported in the 1970 Census was 412; in 1980 - 1247; in 1990 - 4929; and in 2000 - 7328. Total percent growth over the 30-year period was 1678%.

Graph B-18: Manufactured Home(s) 1970-2000 - Pender County



Source: LINC – Log into North Carolina; http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show

Pender County Comprehensive Land Use Plan

Physical Conditions

Physical conditions within a community—both natural and manmade—have a tremendous influence on the pattern and intensity of development. Natural ecological systems—stormwater drainage systems, floodplains, wetlands, and soils—should be considered in terms of how they shape the use of the environment as well as from the point of view of how development impacts natural systems. Manmade physical conditions—the provision of public water, sewer, and transportation infrastructure along with other public and semi-public utilities—electricity, natural gas, etc.—influence the timing, location, and success of development projects.

The Natural Environment

The protection of those components that comprise the natural environment has become an important political and social issue in the United States. Over the last twenty to thirty years, there has been a growing realization that protecting the natural environment from undue harm is more cost efficient in the long term and also the wise use of limited resources will ensure that future generations will not be burdened with the cost of cleaning up or restoring damaged ecological systems.

Hydrology (Pender County Hydrology Map)

Pender County is located within the Cape Fear River Basin. The Cape Fear River Basin accounts for 870 square miles or the entire County land area. Only 9% of the Cape Fear River Basin is located within Pender County. The Cape Fear River Basin is located in 26 counties in North Carolina. The Black and Northeast Cape Fear Rivers are major tributaries of the Cape Fear River and do not have their own river basins as they are a part of the Cape Fear River Basin.

Wetlands



** Photo courtesy of Wilmington Metropolitan Planning Organization (wmpo.org)*

Wetlands are transitional areas between land and water, such as swamps and marshes. Some wetlands are connected to streams, and others, such as low lying pine plantations and pocosins, are not. Over the years, approximately half of North Carolina's wetlands have been lost to development, farming, and forestry practices. Wetlands now cover only about 25% of the land area of the state.

As essential components of the natural ecosystem, wetland areas serve to protect water quality and are also important animal habitats.

Fragile wetland areas should also be identified and considered during the land planning and development process. Historically, those areas with the best soils have been cleared by farmers for row crops and those areas with less suitable hydric soils (wetlands) have been allowed to remain in or return to tree cover.

Legend

- Major Stream
- AEC Waters
- AEC Buffer (75ft)
- 100 Yr Flood
- 500 Yr Flood
- Floodway
- Water Supply Watershed

**PENDER COUNTY
HYDROLOGY MAP**

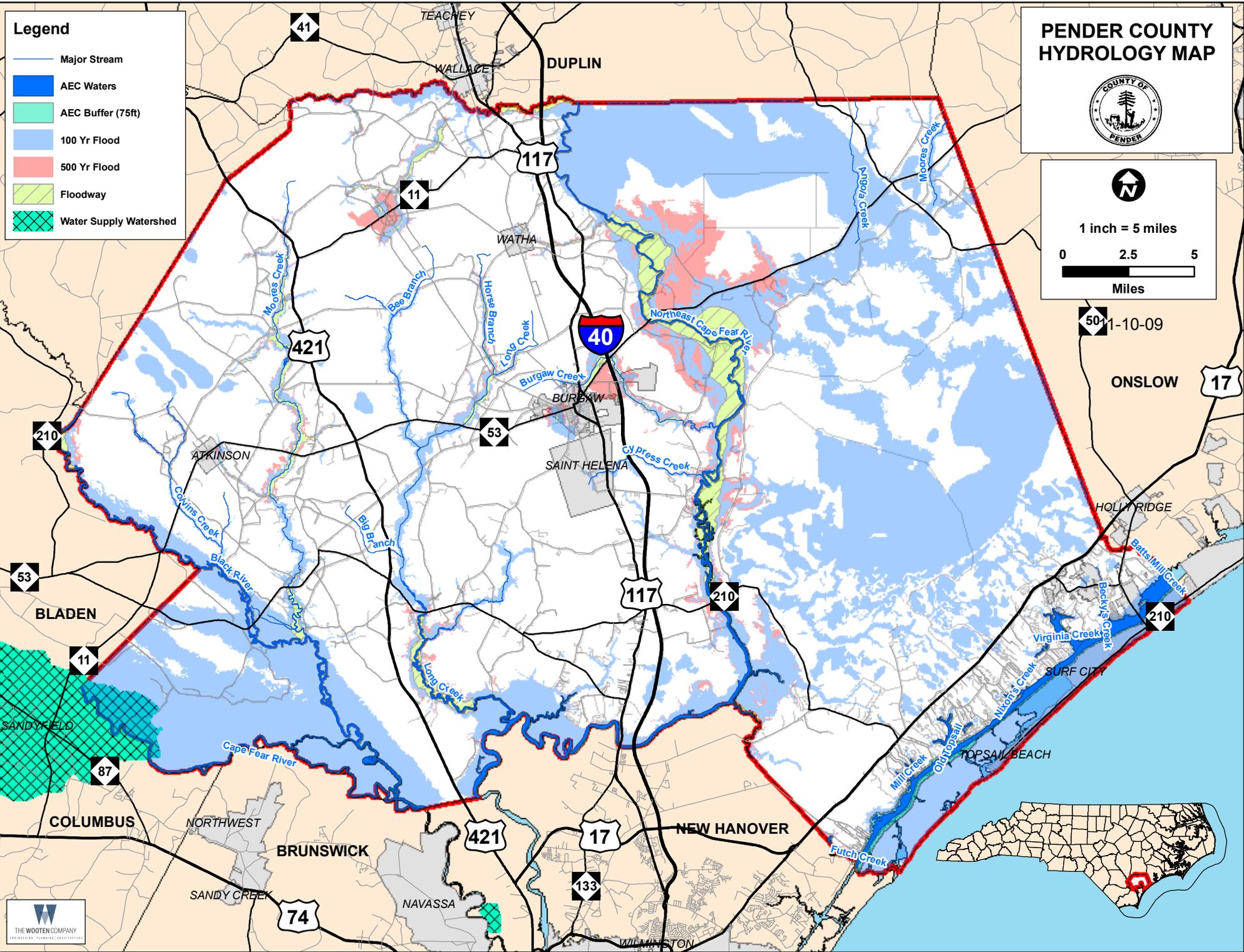


1 inch = 5 miles

0 2.5 5 Miles

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Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

Wetlands provide a variety of benefits to society and are very important in watershed planning because of the functions they perform. Wetlands provide protection for flood prevention to protect property values; stream bank stabilization to prevent erosion and downstream sedimentation; water purification and pollutant removal (especially for nitrogen and phosphorus); and habitat for aquatic life and wildlife and endangered species protection. Wetlands adjacent to intermittent and permanent streams are most important in protecting water quality in those streams, as well as downstream lakes and estuaries. Wetlands located landward or away from streams also have important water storage capacity and pollutant removal potential.

Floodplains (Pender County Hydrology Map)

Pender County has floodplains along major drainageways within the Cape Fear River basin. Floodplains, like wetlands, serve an important function during natural hazard events where flood waters overflow stream banks and rivers. A combination of river basin physiography, amount of precipitation, past soil moisture conditions and the degree of vegetative clearing determines the severity of a flooding event. Protecting floodplains from inappropriate development will protect lives, reduce losses from future flood hazard events, and save public dollars that would have to be spent on recovery and repair activities. Floodplain areas are associated with a number of creeks within Pender County including the Northeast Cape Fear River, the Black River, Cooley Creek, Angola Creek, Burgaw Creek, Cypress Creek, Merricks Creek, and Moores Creek.

Cape Fear River Basin

The Cape Fear River Basin is the largest river basin in North Carolina and is one of only four river basins located entirely within the state. The Cape Fear River originates in Chatham County where the Deep and Haw Rivers converge just below B. Everett Jordan Dam. The river and its streams drain 6,049 square miles of land. The entire County of Pender is located in the Cape Fear River Basin but accounts for just 14% of the total river basin. At the end of the Cape Fear is a 35-foot long coastal estuary that acts as an important nursery area for juvenile fish, crabs, and shrimp.

The Black River and the Northeast Cape Fear River, two major tributaries of the Cape Fear River, converge in Pender County. Both of these tributaries are considered “blackwater” streams that drain the acidic soils of hardwood swamps. The Black River accounts for 17% of the Cape Fear drainage basin and the Northeast Cape Fear River accounts for 18%.

The Black River was designated an Outstanding Resource Water (ORW) in 1994. According to the DWQ, Outstanding Resource Water is a classification intended to protect unique and special waters having excellent water quality and of exceptional state or national ecological or recreational significance. To qualify, waters must be rated as having excellent water quality and also have an

Pender County Comprehensive Land Use Plan

outstanding resource value such as outstanding fish habitat, special ecological significance, or be designated as a wild or scenic river or wildlife refuge.

Water Quality

The NC Division of Water Quality (DWQ) supports clean water as crucial to the health, economic and ecological well-being of the state. Tourism, water supplies, recreation, and a high quality of life for residents are dependent on the water resources within any given river basin. Water quality problems are varied and complex but inevitably, water quality impairment is due to human activities within the watershed. Solving these problems and protecting the surface water quality of the basin in the face of continued growth and development is a major challenge.

DWQ encourages proactive planning efforts at the local level to assure that development is done in a manner that maintains water quality. Local planning efforts need to find a balance between water quality protection, natural resource management, and economic growth. Growth management requires planning for the needs of future population increases as well as developing and enforcing environmental protection measures. DWQ recommends that these actions should include, but not be limited to:

- preservation of open spaces;
- provisions for controlled growth;
- limit on floodplain development and protection of wetland areas;
- examination of zoning ordinances to ensure that they limit large, unnecessary parking lots; allow for vegetation and soil drainage systems; and build in green spaces in parking lots to limit and absorb runoff; and
- sustainable land use planning that considers long-term effects of development.

Public Water Supply Watershed

Pender County has one watershed that is considered a Class II watershed and regulated by the Public Water Supply Section of the NC Department of Environment and Natural Resources. Within this watershed, the State restricts (reference 15 NCAC 18C 1211) septic tank permits to lots that are a minimum of 40,000 square feet. The area affected by this lot size requirement is in southwest Pender County and is denoted as “Public Water Supply Watershed” on the Hydrology Map.

Pender County Comprehensive Land Use Plan

Hazards

Pender County lies in the Coastal 6 region of the state, designated as the most hazardous area of the state by North Carolina Emergency Management. According to the 2007 State Hazard Mitigation Plan, the Coastal 6 region received the highest score overall for all identified hazards that can affect North Carolina with the largest threats being wildfire, sinkholes, hurricane, coastal erosion, severe thunderstorm, and subsidence. It also had the two highest scores out of all the hazards for wildfires and sinkholes. Table B- is a list of wildfires by cause in 2007 and the average for the past five years according to the North Carolina Division of Forest Services (NCDFR).

North Carolina Risk Assessment: Hazard Score Composite Map by County



Hazard Vulnerability Scoring Summary

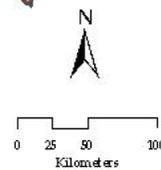
The total hazard scores displayed here are a composite of individual hazard vulnerability assessment scores for the lesser hazards of North Carolina assigned on a climate division level (Guttman and Quayle, 1996). Each county received 40 individual hazard scores and one total hazard score.

Individual Hazard Scores were calculated with the following equation:
 $Hazard\ Score = Scope \times Frequency \times Intensity \times Destructive\ Potential$
 Minimum Hazard Score = 0
 Maximum Hazard Score = 625

Total Hazard Scores were calculated with the following equation:
 $Total\ Hazard\ Score = \sum (Individual\ Hazard\ Scores)$

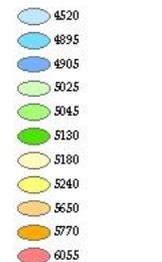


This map was prepared by:
 Katherine Eschelbach
 Hazard Mitigation Planning Clinic
 Department of City and Regional Planning
 University of North Carolina at Chapel Hill
 Last Updated: February 11, 2004



Legend

Total Hazard Scores



Source: NC State Hazard Mitigation Plan,

Pender County Comprehensive Land Use Plan

Soil Suitability

Pender County topography is characterized by relatively flat topography characteristic of the coastal plain. The major soil associations within the County are listed in Table B-25. A soil association is a soil profile that has a distinctive proportional pattern of soils normally consisting of one or more major soils and at least one minor soil. Some soils are more suited for development activities such as construction and on-site septic tank fields. Most of Pender County is classified as having either moderate or severe limitations for septic fields.

Table B-26: Soil Suitability

Symbol	Soil Name	Small Commercial Development	Local Roads and Street Construction	Septic Tank Absorption Fields	Composite Rating
AnB	Alpin	Not Limited	Not Limited	Very Limited	Somewhat Limited
AtA	Altavista	Very Limited	Somewhat Limited	Very Limited	Very Limited
AuB	Autryville	Not Limited	Not Limited	Somewhat Limited	Somewhat Limited
AyA	Aycock	Not Limited	Very Limited	Somewhat Limited	Somewhat Limited
AyB2	Aycock	Not Limited	Very Limited	Somewhat Limited	Somewhat Limited
BaB	Baymeade	Not Limited	Not Limited	Very Limited	Not Limited
Bo	Bohicket, tidal	Very Limited	Very Limited	Very Limited	Very Limited
Ca	Carteret, tidal	Very Limited	Very Limited	Very Limited	Very Limited
Ch	Chewacla	Very Limited	Very Limited	Very Limited	Very Limited
Ch	Chastain	Very Limited	Very Limited	Very Limited	Very Limited
Ct	Croatan, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Ct	Croatan, drained	Very Limited	Very Limited	Very Limited	Very Limited
Do	Dorovan	Very Limited	Very Limited	Very Limited	Very Limited
EmA	Exum	Somewhat Limited	Very Limited	Very Limited	Very Limited
EuA	Exum	Somewhat Limited	Very Limited	Very Limited	Very Limited
EuA	Urban Land	Not Rated	Not Rated	Not Rated	Not Rated
Fo	Foreston	Somewhat Limited	Somewhat Limited	Very Limited	Somewhat Limited
GoA	Goldsboro	Somewhat Limited	Somewhat Limited	Very Limited	Somewhat Limited
Gr	Grantham, drained	Very Limited	Very Limited	Very Limited	Very Limited

Pender County Comprehensive Land Use Plan

Symbol	Soil Name	Small Commercial Development	Local Roads and Street Construction	Septic Tank Absorption Fields	Composite Rating
Gr	Grantham, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Gt	Grifton, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Gt	Grifton, drained	Very Limited	Very Limited	Very Limited	Very Limited
InA	Invershiel	Very Limited	Very Limited	Very Limited	Very Limited
InA	Pender	Somewhat Limited	Somewhat Limited	Very Limited	Somewhat Limited
Jo	Johns	Very Limited	Somewhat Limited	Very Limited	Very Limited
KaA	Kalmia	Not Limited	Not Limited	Very Limited	Somewhat Limited
KeB	Kenansville	Not Limited	Not Limited	Very Limited	Somewhat Limited
KuB	Kureb	Not Limited	Not Limited	Very Limited	Somewhat Limited
LnA	Leon	Very Limited	Very Limited	Very Limited	Very Limited
Ls	Liddell, drained	Very Limited	Very Limited	Very Limited	Very Limited
Ls	Liddell, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Lu	Lumbee, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Lu	Lumbee, drained	Very Limited	Very Limited	Very Limited	Very Limited
Ma	Mandarin	Somewhat Limited	Somewhat Limited	Very Limited	Somewhat Limited
McC	Marvyn	Very Limited	Somewhat Limited	Somewhat Limited	Somewhat Limited
McC	Craven	Very Limited	Very Limited	Very Limited	Very Limited
Me	Meggett, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Me	Meggett, drained	Very Limited	Very Limited	Very Limited	Very Limited
Mk	Muckalee, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Mu	Murville	Very Limited	Very Limited	Very Limited	Very Limited
NhC	Newhan	Very Limited	Somewhat Limited	Very Limited	Very Limited
NkE	Newhan	Very Limited	Very Limited	Very Limited	Very Limited
NkE	Corolla	Very Limited	Somewhat Limited	Very Limited	Very Limited
NmE	Corolla	Very Limited	Somewhat Limited	Very Limited	Very Limited
NmE	Newhan	Very Limited	Very Limited	Very Limited	Very Limited
NmE	Urban Land	Not Rated	Not Rated	Not Rated	Not Rated
NoA	Norfolk	Not Limited	Not Limited	Somewhat Limited	Not Limited
NoB	Norfolk	Not Limited	Not Limited	Very Limited	Somewhat

Pender County Comprehensive Land Use Plan

Symbol	Soil Name	Small Commercial Development	Local Roads and Street Construction	Septic Tank Absorption Fields	Composite Rating
					Limited
On	Onslow	Somewhat Limited	Somewhat Limited	Very Limited	Somewhat Limited
PaA	Pactolus	Very Limited	Somewhat Limited	Very Limited	Very Limited
Pn	Pantego, drained	Very Limited	Very Limited	Very Limited	Very Limited
Pn	Pantego, undrained	Very Limited	Very Limited	Very Limited	Very Limited
Pt	Pits, marl	Not Rated	Not Rated	Not Rated	Not Rated
Ra	Rains, drained	Very Limited	Very Limited	Very Limited	Very Limited
Ra	Rains, undrained	Very Limited	Very Limited	Very Limited	Very Limited
To	Torhunta, drained	Very Limited	Very Limited	Very Limited	Very Limited
To	Torhunta, undrained	Very Limited	Very Limited	Very Limited	Very Limited
W	Water	Not Rated	Not Rated	Not Rated	Not Rated
Wo	Woodington, drained	Very Limited	Very Limited	Very Limited	Very Limited
Wo	Woodington, undrained	Very Limited	Very Limited	Very Limited	Very Limited

Source: US Department of Agriculture (www.usda.gov)

As shown in Table B-25, many of the soils within Pender County are only marginal for small commercial building development and construction of local streets and roads. Even more troublesome is the adequacy of the majority of the soils to support septic tank absorption fields.

Pender County Comprehensive Land Use Plan

Prime Farmland

As defined by the US Department of Agriculture, prime farmland is land that is best suited to food, feed, forage, fiber, and oilseed crops. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources and farming these soils results in the least damage to the environment. Prime farmland soils have an adequate and dependable supply of moisture from precipitation or irrigation and they have few or no rocks, are permeable to water and air, and have acceptable acidity or alkalinity levels. These soils are not excessively erodible or saturated with water for long periods and are not frequently flooded during the growing season. Slope ranges for prime farmland soils range from 0 to 6 percent.

Table B-27: Prime Farmland Soils

Soil Type		Value
Symbol	Name	
AtA	Altavista fine sandy loam	0 to 3% slopes
AyA	Aycock loam	0 to 3% slopes
AyB2	Aycock loam	3 to 6% slopes, eroded
EmA	Exum loam	0 to 2% slopes
GoA	Goldsboro fine sandy loam	0 to 2% slopes
InA	Invershiel-Pender complex	0 to 2% slopes
KaA	Kalmia loamy fine sand	0 to 2% slopes
NoA	Norfolk loamy fine sand	0 to 2% slopes
NoB	Norfolk loamy fine sand	2 to 6% slopes
On	Onslow loamy fine sand	-
AuB	Autryville fine sand	1 to 4% slopes
BaB	Baymeade fine sand	1 to 4% slopes
Fo	Foreston loamy fine sand	-
KeB	Kenansville fine sand	0 to 4% slopes
McC	Marvyn and Craven soils	6 to 12% slopes
Me	Meggett loam	-
LnA	Leon fine sand	0 to 2% slopes
Gr	Grantham loam	Prime farmland if drained
Gt	Grifton loamy fine sand	Prime farmland if drained
Jo	Johns fine sandy loam	Prime farmland if drained
Ls	Liddell silt loam	Prime farmland if drained
Lu	Lumbee fine sandy loam	Occasionally flooded, Prime farmland if drained
Pn	Pantego mucky fine sandy loam	Prime farmland if drained
Ra	Rains fine sandy loam	Prime farmland if drained
To	Torhunta mucky fine sandy loam	Prime farmland if drained
Wo	Woodington fine sandy loam	Prime farmland if drained

Source: US Department of Agriculture (www.usda.gov)

Pender County Comprehensive Land Use Plan



Growth and development result in a loss of prime farmland to urbanization. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, less productive, and cannot be easily cultivated. Table B-26 lists prime farmland soils in Pender County. The Prime Farmland Map depicts the locations of these prime soils – primarily in the western portions of the County.

Results of Soil Disturbance and Erosion

Soil erosion, in transport and re-disposition are among the most essential natural processes that occur in watersheds. Land-disturbing activities such as the construction of roads and buildings, crop production, livestock grazing, and logging can accelerate erosion rates by causing more soil than usual to be detached and moved by water. Unregulated land-disturbance activities can cause accelerated erosion that strips topsoil, decreasing soil productivity, and causing sedimentation in streams and rivers. Soil sediment that accumulates on the bottom of streams and rivers smothers fish habitat and reduces fish food sources. Sediment filling rivers and streams also decrease storage volume and increase the frequency and severity of floods. Suspended soil sediment also increases the cost of treating municipal drinking water supplies.

Pender County Comprehensive Land Use Plan

Legend

-  Prime Farmland (Where Drained)
-  Prime Farmland

**PENDER COUNTY
PRIME FARMLAND**



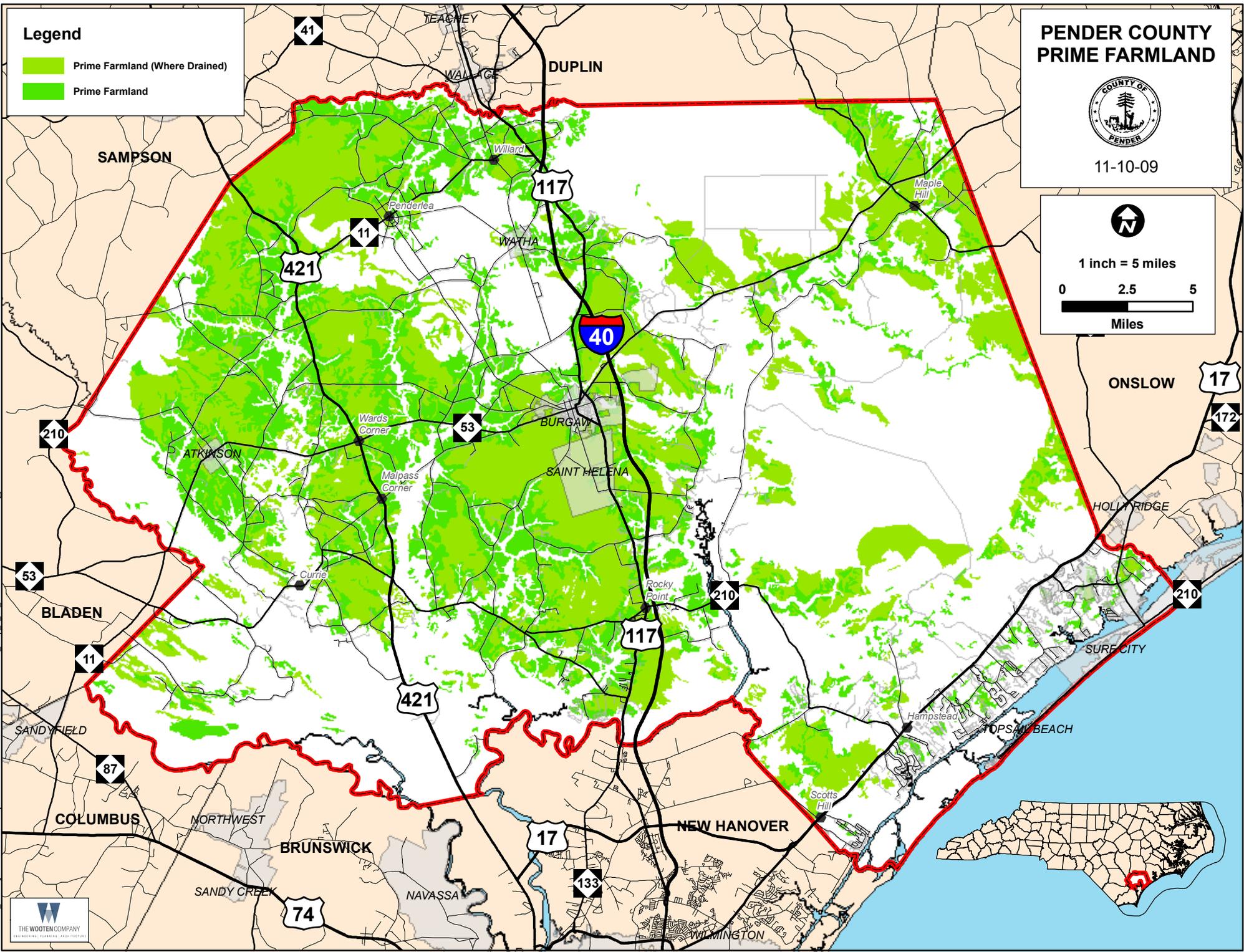
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Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

North Carolina Natural Heritage Program

The North Carolina Natural Heritage Program has identified a number of species of plants and animals and a number of natural communities of significance within Pender County. A list of special classes of endangered plants, animals and natural communities is show in Table B-27.

Table B-28: State Protected Species – NC Natural Heritage Program

Common Name	Scientific Name	Status
Pod lance	<i>Elliptio folliculata</i>	SC
Cape Fear Spike	<i>Elliptio masupiobesa</i>	SC
Atlantic Pigtoe	<i>Sfusconaia masoni</i>	E
Yellow Lampmussel	<i>Lampsilis cariosa</i>	E
Eastern Lampmussel	<i>Lampsilis radiata</i>	T
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	E
Bachman's Sparrow	<i>Aimophila aestivalis</i>	SC
American Alligator	<i>Alligator mississippiensis</i>	T
eastern Henslow's Sparrow	<i>Ammodramus henslowii susurrans</i>	SC
Loggerhead Seaturtle	<i>Caretta caretta</i>	T
Piping Plover	<i>Charadrius melodus</i>	T
Wilson's Plover	<i>Charadrius wilsonia</i>	SC
Green Seaturtle	<i>Chelonia mydas</i>	T
Rafinesque's Big-eared Bat - Coastal Plain Subspecies	<i>Corynorhinus rafinesquii macrotis</i>	SC
Eastern Diamondback Rattlesnake	<i>Crotalus adamanteus</i>	E
Timber Rattlesnake	<i>Crotalus horridus</i>	SC
American Oystercatcher	<i>Haematopus palliatus</i>	SC
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T
Four-toed Salamander	<i>hemidactylum scutatum</i>	SC
Southern Hognose Snake	<i>Heterodon simus</i>	SC
Least Bittern	<i>Lxobrychus exilis</i>	SC
Carolina Diamondback Terrapin	<i>Malaclemys terrapin centrata</i>	SC
Eastern Coral Snake	<i>Micrurus fulvius</i>	E
Southeastern Myotis	<i>Myotis austroriparius</i>	SC
Eastern Woodrat - Coastal Plain Population	<i>Neotoma floridana floridana</i>	T
Eastern Painted Bunting	<i>Passerina ciris ciris</i>	SC
Red-cockaded Woodpecker	<i>Picoides borealis</i>	E
Carolina Gopher Frog	<i>Rana capito</i>	T
Black Skimmer	<i>Rynchops niger</i>	SC
Pigmy Rattlesnake	<i>Sistrurus miliarius</i>	SC
Common Tern	<i>Sterna hirundo</i>	SC
Least Tern	<i>Sternula antillarum</i>	SC
West Indian Manatee	<i>Trichechus manatus</i>	E
Seabeach Amaranth	<i>Amaranthus pumilus</i>	T
Georgia Indigo-bush	<i>Amorpha georgiana var.</i>	E

Pender County Comprehensive Land Use Plan

Common Name	Scientific Name	Status
	georgiana	
Sandhills Milk-vetch	Astragalus michauxii	T
Many-flower Grass-pink	Calopogon multiflorus	E
Golden Sedge	Carex lutea	E
Nutmeg Hickory	Carya myristiciformis	E
Blue Withc Grass	Dichantherium caerulescens	E
Rough-Leaf Loosestrife	Lysimachia asperulifolia	E
Carolina Bogmint	Macbridea caroliniana	T
Pinebarren Smokegrass	Muhlenbergia torreyana	E
Carolina Grass-of-parnassus	Parnassia caroliniana	E
Large-leaved Grass-of-parnassus	Parnassia grandifolia	T
Pineland Plantain	Plantago sparsiflora	E
Yellow Fringeless Orchid	Plantanthera integra	T
Fragrant Beaksage	Rhynchospora odorata	E
Thorne's Beaksage	Rhynchospora thornei	E
Chaffseed	Schwalbea americana	E
Spring-flowering Goldenrod	Solidago verna	T
Coastal Goldenrod	Solidago villosicarpa	E
Giant Spiral Orchid	Spiranthes longilabris	T
Pickering's Dawnflower	Stylisma pickeingii var. pickeringii	E
Cooley's Meadowrue	Thalictrum colleyi	E
Carolina Least Trillium	Trillium pusillum var. pusillum	E
Dwarf Bladderwort	Utricularia olivacea	T

Source: North Carolina Natural Heritage Program (<http://www.ncnhp.org>)

Code	Status	Code	Status	Code	Status
E	Endangered	SC	Special Concern	SR	Significantly Rare
T	Threatened	C	Candidate	EX	Extirpated
P	Proposed (used as a qualifier of ranks shown above)				

Endangered Species

Pender County is home to seven endangered species as identified by the US Fish and Wildlife Service - the Shortnose Sturgeon, the American Chaffseed, the Cooley's Meadowrue, the Golden Sedge, the Rough-leaved Loosestrife, the Red-cockaded Woodpecker and the West Indian Manatee. Species classified within the endangered group (taxon) are "in danger of extinction throughout all or a significant portion of its range." Most of these endangered species reside within Holly Shelter Game Land and Angola Bay which are protected by the Wildlife Resources Commission (WRC). (Source: NC Fish and Wildlife Services; <http://nc-es.fws.gov/es/cntylist/pender.html>)

Game Lands

Pender County is home to two large areas that are being preserved for their unique habitat and rare flora and fauna. These two areas – Angola Bay and Holly Shelter Game Land – are located in the eastern portion of the County.

Pender County Comprehensive Land Use Plan

Angola Bay

Angola Bay is a 56 square mile (35,783 acre) doomed pocosin. Over 45 square miles (29,084 acres) of Angola Bay are located in Pender County (the remaining acreage is in adjacent Duplin County). Domed pocosins are found only in the Coastal Plain region of the Carolinas. Natural plant communities within Angola Bay include Low Pocosin, Pond Pine Woodland and Wet Pine Flatwoods.

Angola Bay provides habitat for the red-cockaded woodpecker and for other rare animals and plants. Such a large expanse of pocosin also provides habitat for black bears and other wildlife. Most of Angola Bay is owned by the NC Wildlife Resources Commission; the remainder is privately-owned. A 2005 NC Clean Water Management Trust Fund (CWMTF) grant was used to purchase an additional 1,420 acres as a buffer to nearby Camp Lejeune in Onslow County. This new acreage will contribute to efforts to link Angola Bay with Holly Shelter Game Land.

Holly Shelter Game Land

Holly Shelter Game Land is one of the largest (48,000 acres – 75 square miles) and highest quality areas of savanna, flatwoods, and pocosin habitat remaining on the Atlantic Coast. Holly Shelter Swamp comprises 75% of the game land.

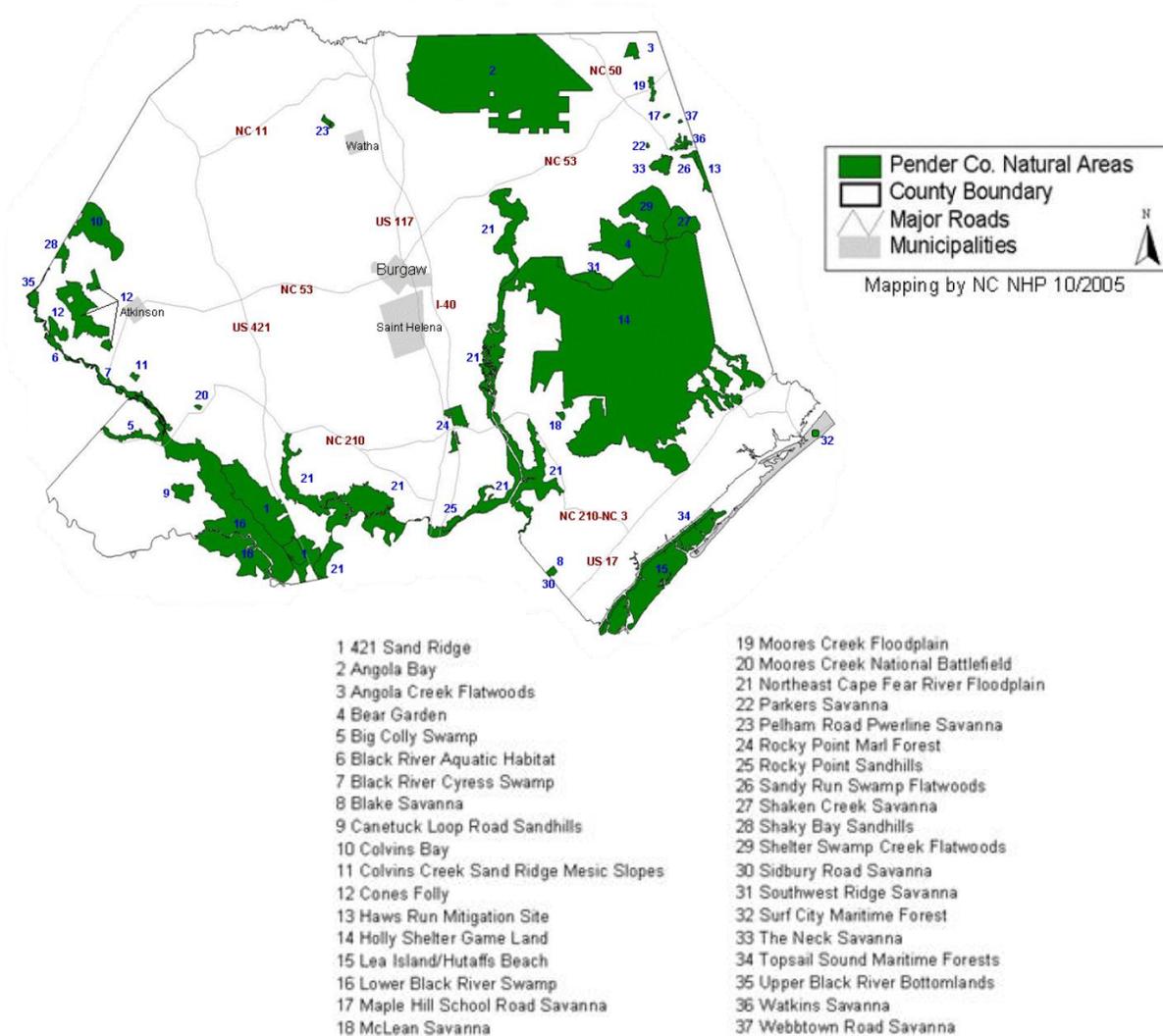
Holly Shelter is comprised of a series of Carolina bays - shallow elliptical depressions of mysterious geological origin that are generally oriented northwest-to-southeast. The Native Americans believed that the depressions were caused by falling stars and one modern day theory holds that they were created by the catastrophic impact of a meteor shower.



Holly Shelter is home to 25 species of rare plants and 19 species of rare animals. Plants include pond cypress, loblolly bay, swamp red bay, casenia holly, rough-leaf loosestrife and the Venus' flytrap. Endangered animals include the red-cockaded woodpecker and the Bachman's sparrow. Wood ducks, white-tailed deer, and black bears thrive in the area. Holly Shelter is owned by the NC Wildlife Resources Commission.

In 1986, nearly 73,000 acres in Holly Shelter Game Land were charred in Pender and Onslow counties when a fire torched 80 percent of the Game Lands. Smoke was sent wafting over Wilmington. County officials are concerned that

Pender County Comprehensive Land Use Plan



the same thing could happen again due to a massive increase in population around the Game Lands area. History has shown that a major fire breaks out in Holly Shelter every 15 years or so. The popularity of Pender County's coast means that people are building homes right up to the game lands, sometimes constructing them deep into the forest and putting them in direct harm of the wildfires. Another fire like the one in 1986 would be devastating to Pender County and would destroy more than just vegetation.

A 2005 CWMTF grant was used to purchase two new tracts of land totaling 1,349 acres in the Shelter Swamp Creek Flatwoods significant natural heritage area. Preservation of this acreage helps protect water quality and provide for a wildlife-conservation corridor connecting Holly Shelter Game Land to Camp Lejeune.

Pender County Comprehensive Land Use Plan

Manmade Environment

Manmade improvements to the physical environment are typically accomplished in small projects or segments that cumulatively and over time have major impacts on both the environment and on how society functions. Improvements covered in this section include public water and wastewater services, the transportation system, and parks and recreation facilities.

Public Water and Wastewater

The availability of public infrastructure has a tremendous impact on the pattern of land use and development. There is probably no other single public expenditure that influences growth and development as much as the infusion of public money into the extension or improvement of public infrastructure. Where the County chooses to invest public money in future public water and wastewater extensions will be the major determining factor on where, when, and how development occurs.

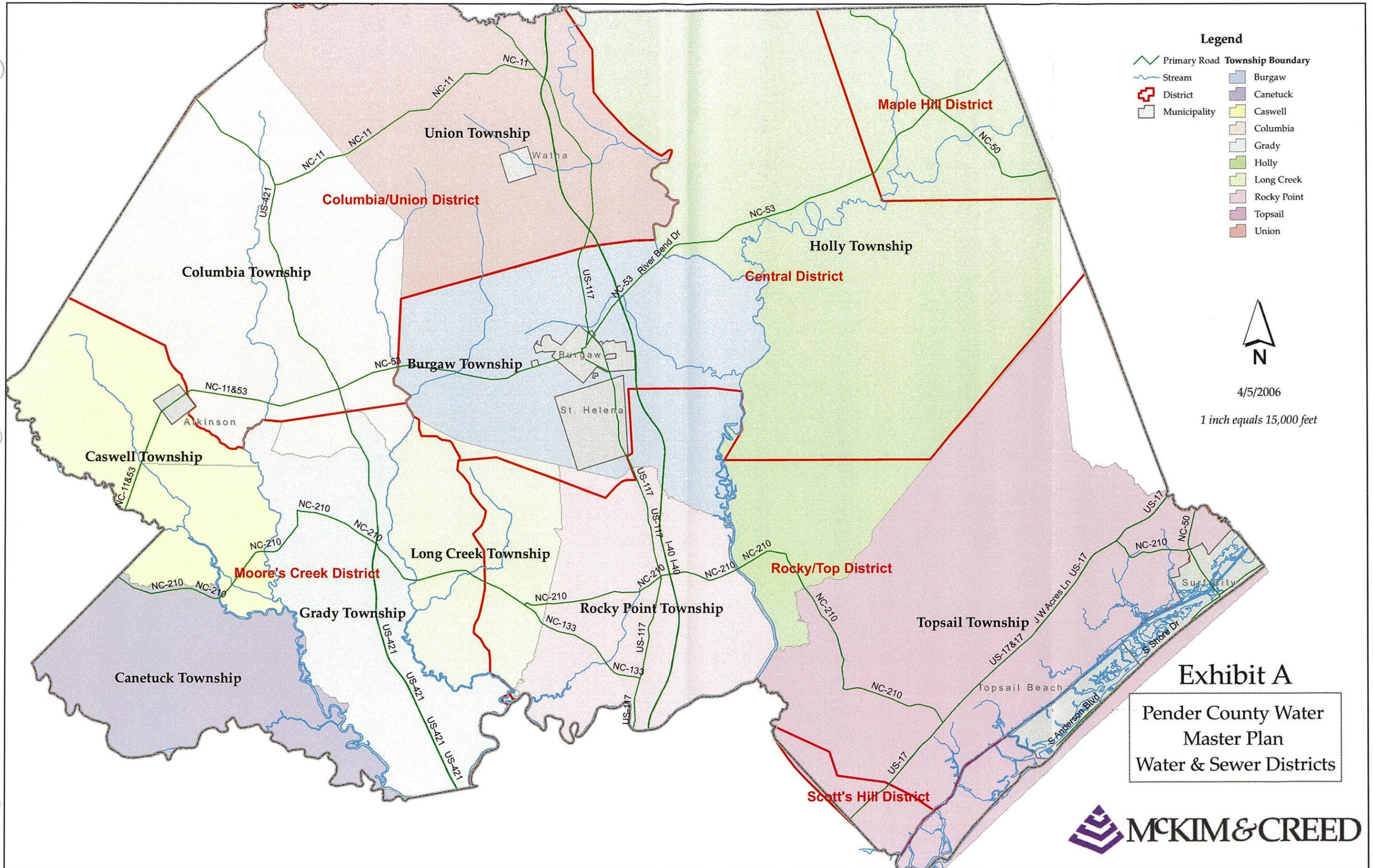
Water Master Plan

With the assistance of McKim & Creed, Pender County completed a 2005-2030 Water Master Plan in July 2006. The County commissioned the study to identify ways to provide a safe and dependable public water supply system to accommodate growth. The study focused on planning for future water demands, identifying required system improvements, and making recommendations for implementation.

The study projected that water demand would exceed the available supply by the year 2010 if the County did not move immediately to construct a new water treatment facility. The recommended facility will be located on US 421 near the Pender/New Hanover county line and will receive bulk raw water from the Lower Cape Fear Water and Sewer Authority. Plans for construction of this new facility are currently underway.

The master plan also recommended that the County establish water and sewer districts (see Master Water Plan Exhibit A Water & Sewer Districts included here for reference) and prioritize the districts for implementation of proposed water system improvements. The plan identified potential growth corridors where placement of public water supply lines would spur growth. These growth corridors are primarily located along major highways including NC 11, NC 53, NC 210, US 421, and US117 (see Master Water Plan Exhibit F Potential Growth Corridors included here for reference.)

Pender County Comprehensive Land Use Plan



Legend

	Primary Road		Township Boundary
	Stream		Burgaw
	District		Canetuck
	Municipality		Caswell
			Columbia
			Grady
			Holly
			Long Creek
			Rocky Point
			Topsail
			Union



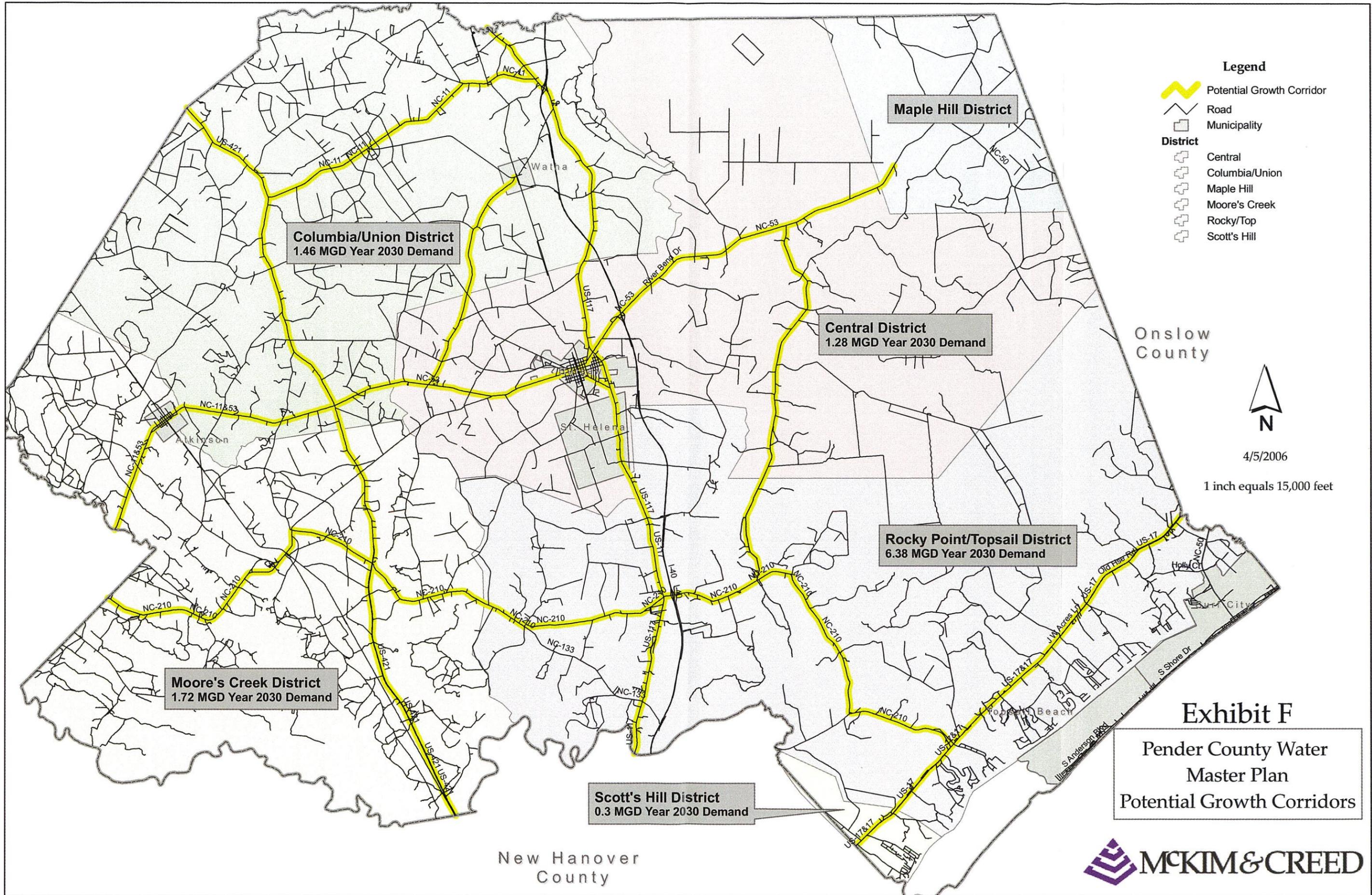
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1 inch equals 15,000 feet

Exhibit A
 Pender County Water
 Master Plan
 Water & Sewer Districts



Pender County Comprehensive Land Use Plan



- Legend**
- Potential Growth Corridor
 - Road
 - Municipality
- District**
- Central
 - Columbia/Union
 - Maple Hill
 - Moore's Creek
 - Rocky/Top
 - Scott's Hill

Onslow
County



4/5/2006

1 inch equals 15,000 feet

Moore's Creek District
1.72 MGD Year 2030 Demand

Columbia/Union District
1.46 MGD Year 2030 Demand

Maple Hill District

Central District
1.28 MGD Year 2030 Demand

Rocky Point/Topsail District
6.38 MGD Year 2030 Demand

Scott's Hill District
0.3 MGD Year 2030 Demand

New Hanover
County

Exhibit F
Pender County Water
Master Plan
Potential Growth Corridors



Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

Wastewater Master Plan

McKim & Creed also assisted the County with development of a 2005-2030 Wastewater Master Plan adopted in July 2006. The Plan notes that the County needs a “municipal wastewater service to support growth, which is relatively incompatible with traditional small-scale individual on-site disposal systems”. The Plan also notes that development of a collection and treatment system would help safeguard the rich natural resources of the County.

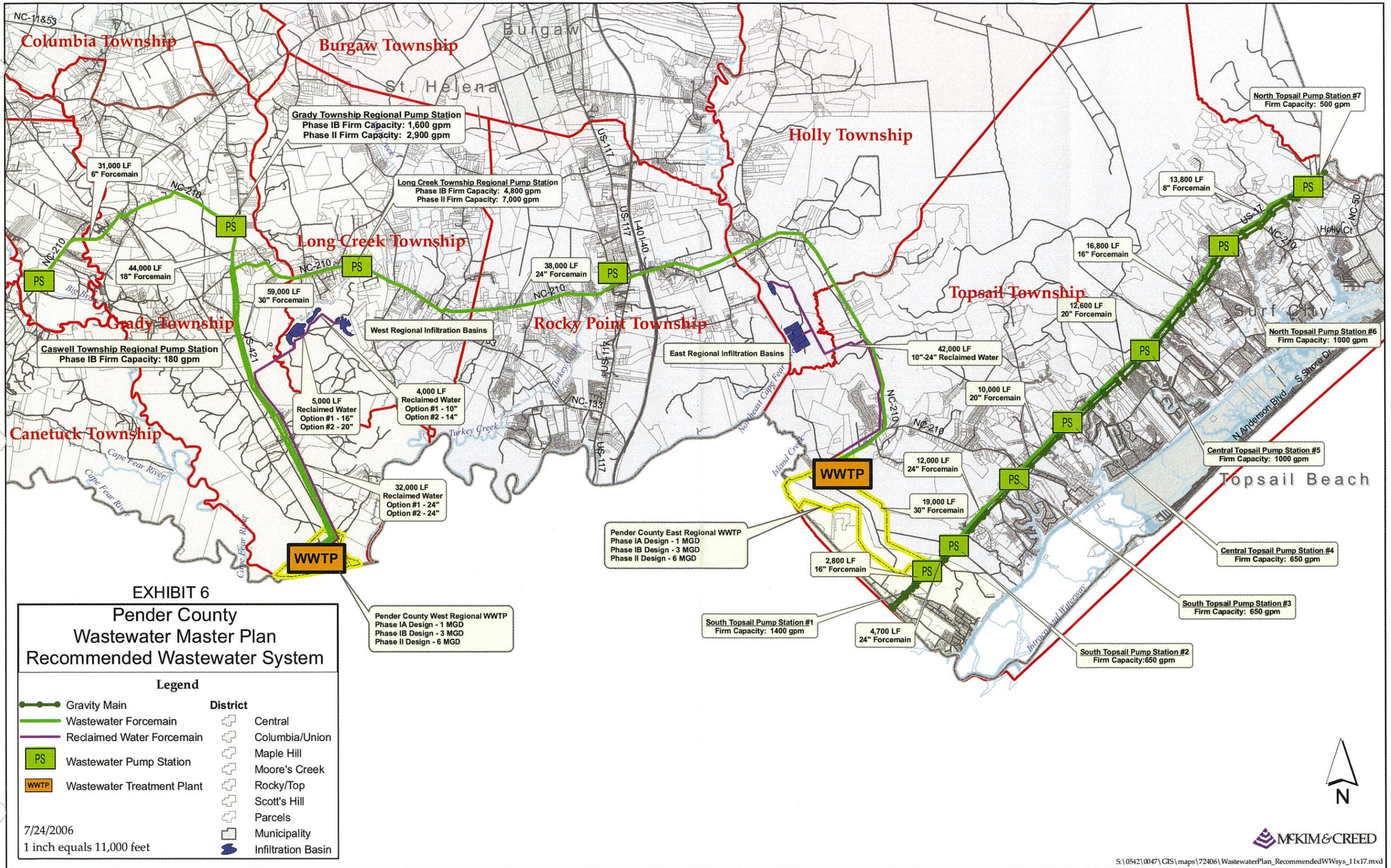
The Plan projects wastewater flows, identifies wastewater system needs, evaluates wastewater treatment and dispersal alternatives, provides opinions of probably cost, and a schedule for implementation of the recommended alternatives. The Plan identifies four county owned and operated wastewater pumping stations serving Del Labs, Cape Fear Middle School, Heidi Trask Senior High School, and the NC 133 / US 117 regional pump station that all collect wastewater and pump to the City of Wilmington’s Northside Wastewater Treatment Plant (WWTP) for treatment. The Plan also notes that several package treatment plants and on-site dispersal systems are operated by private developments or businesses within the County.

The Plan considered a number of alternatives for treatment and dispersal of wastewater including collaborative efforts with a municipality – Wilmington, Wallace, Burgaw or Surf City. Stand-alone alternatives were considered including 1) single central system versus multiple decentralized systems; 2) secondary treatment versus advanced treatment; 3) surface discharge versus land-based non-discharge, 4) dedicated land-based dispersal versus non-dedicated unrestricted reuse; and 5) dispersal by irrigation versus infiltration. Total countywide demand for wastewater treatment in 2030 was estimated at over 13 million gallons per day (see Wastewater Master Plan Exhibit 2 2030 Township Wastewater Flows included here for reference).

Master plan recommendations included that the County enter into agreements with selected developers to fund the design and construction of two new wastewater treatment facilities that would later need to be upgraded along with an expansion of collection systems into other areas of the County (see Master Wastewater Plan Exhibit 6 Recommended Wastewater System included here for reference). By 2030, the Plan projected that the County would need to operate two 6.0 million gallons per day treatment facilities along with multiple regional wastewater pumping stations and infiltration ponds along with a conveyance system to the Town of Wallace. Due to the recent economic downturn, developer participation interest has weakened. Total cost estimate over the 25 year planning period was estimated at \$350 million.

Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan



Grady Township Regional Pump Station
 Phase IB Firm Capacity: 1,600 gpm
 Phase II Firm Capacity: 2,900 gpm

Long Creek Township Regional Pump Station
 Phase IB Firm Capacity: 4,800 gpm
 Phase II Firm Capacity: 7,000 gpm

Caswell Township Regional Pump Station
 Phase IB Firm Capacity: 180 gpm

West Regional Infiltration Basins

East Regional Infiltration Basins

5,000 LF Reclaimed Water
 Option #1 - 16"
 Option #2 - 20"

4,000 LF Reclaimed Water
 Option #1 - 10"
 Option #2 - 14"

32,000 LF Reclaimed Water
 Option #1 - 24"
 Option #2 - 24"

Pender County East Regional WWTP
 Phase IA Design - 1 MGD
 Phase IB Design - 3 MGD
 Phase II Design - 6 MGD

Pender County West Regional WWTP
 Phase IA Design - 1 MGD
 Phase IB Design - 3 MGD
 Phase II Design - 6 MGD

South Topsail Pump Station #1
 Firm Capacity: 1400 gpm

4,700 LF 24" Forcemain

South Topsail Pump Station #2
 Firm Capacity: 650 gpm

South Topsail Pump Station #3
 Firm Capacity: 650 gpm

Central Topsail Pump Station #4
 Firm Capacity: 650 gpm

Central Topsail Pump Station #5
 Firm Capacity: 1000 gpm

North Topsail Pump Station #6
 Firm Capacity: 1000 gpm

16,800 LF 16" Forcemain

12,600 LF 20" Forcemain

42,000 LF 10"-24" Reclaimed Water

10,000 LF 20" Forcemain

12,000 LF 24" Forcemain

19,000 LF 30" Forcemain

2,800 LF 16" Forcemain

North Topsail Pump Station #7
 Firm Capacity: 500 gpm

13,800 LF 8" Forcemain

31,000 LF 6" Forcemain

44,000 LF 18" Forcemain

59,000 LF 30" Forcemain

38,000 LF 24" Forcemain

Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

Transportation Infrastructure

Pender County is a member of the Wilmington Metropolitan Planning Organization (MPO) and also a member of the Cape Fear Rural Planning Organization (RPO) which includes the counties of Pender, Brunswick and Columbus. MPOs are responsible for coordinating transportation efforts in urban areas and RPOs are responsible for non-urban areas.

The MPO and the RPO work with the NC Department of Transportation (NCDOT) in making transportation related decisions for the region. With citizen input, the MPO and RPO are responsible for developing a transportation priority list to promote projects and programs with NCDOT and the Federal Highway Administration (FHWA). In North Carolina, the State assumes the major responsibility for financing and constructing highways and other primary roads that serve as major transportation corridors.

The adequacy of the local and regional transportation infrastructure is a key determinant in economic development and in quality of life issues. Providing well-planned and adequate transportation routes and options will promote economic investment while inadequate infrastructure will slow economic growth. Inadequate highway capacities also result in loss of economic productivity and lead to driver frustration over long commuting times.



US HWY 17 Traffic

Growing Transportation Needs

A concern associated with population growth is that people are driving more than ever. Between 1990 and 2000, the number of vehicle miles traveled in North Carolina increased 39% while the population of the State increased only 21%. More people in more cars driving longer distances are putting an additional strain on limited highway resources.

Pender County Comprehensive Land Use Plan

Legend

-  I
-  US
-  NC
-  SR
-  County Centerline
-  Burgaw Bypass
-  Municipality
-  US 17 Alternative Corridors

**PENDER COUNTY
TRANSPORTATION**



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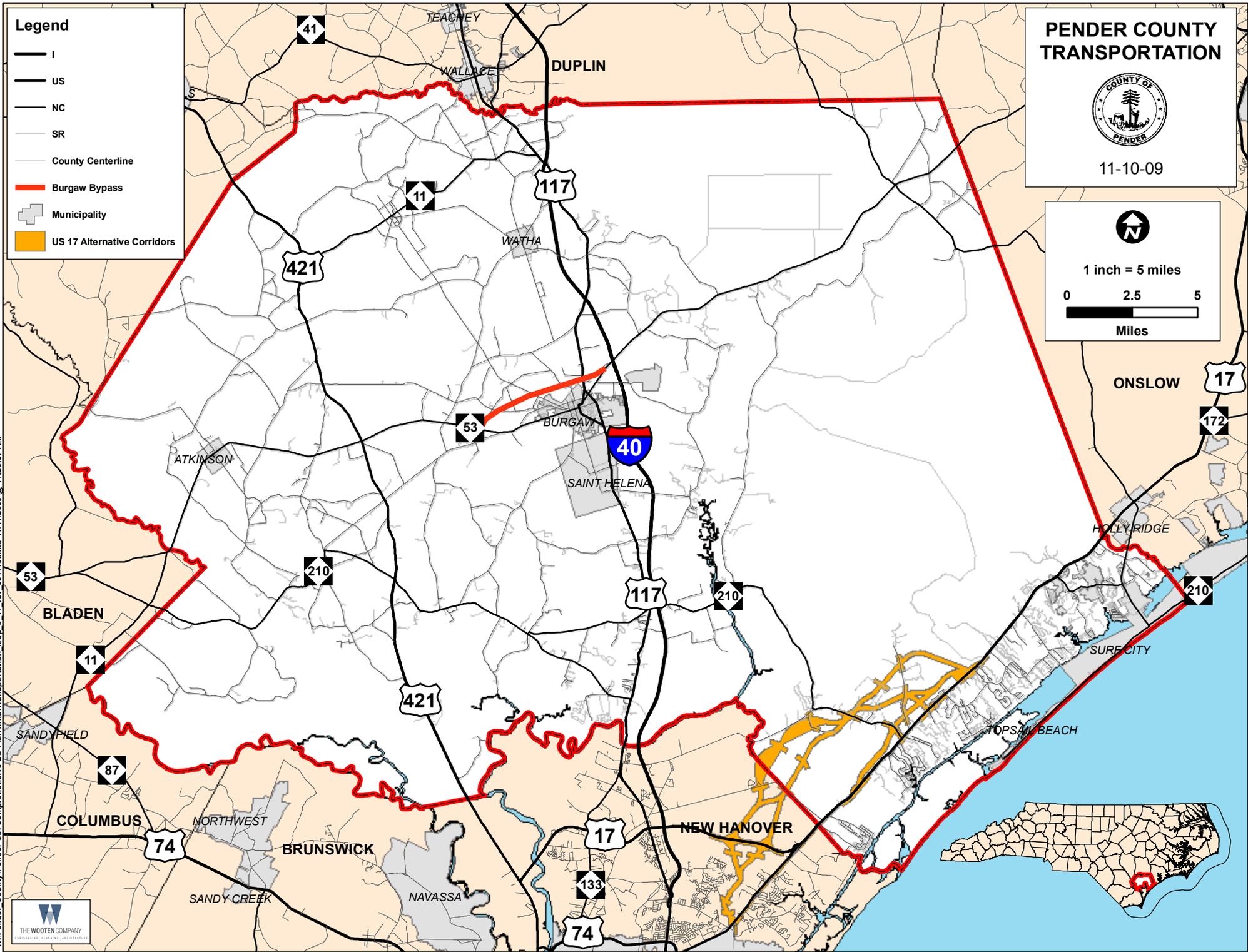


1 inch = 5 miles



Miles

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Pender County Comprehensive Land Use Plan

Pender County Comprehensive Land Use Plan

NC Transportation Improvement Program (TIP)

Every six years, the State updates the Transportation Improvement Program (TIP), which prioritizes major transportation projects for construction. Based on funds available, these projects may be scheduled for planning, design, right-of-way acquisition, or construction within the seven-year funding schedule or a project may be listed as an unfunded need. The major road improvement portion of the 2009 – 2015 TIP for Pender County is shown

in Table B-29.



** Photo courtesy of Wilmington
Metropolitan Planning
Organization (wmpo.org)*

Pender County Comprehensive Land Use Plan

Table B-29: NC Transportation Improvement Projects (TIP) – Pender County (2009-2015)

Location	ID#	Description	Miles	Total Est. Cost	Prior Years Cost (000's)	Work Type	Funding Sources	Cost Est. (000's)	Schedule (Fiscal Years)
Interstate Projects									
I-40	I-5001	Johnston-Sampson County line (milepost 340) to US 117(milepost 390) In Pender County. Mill and resurface	50	41491	2661	Construction	IM	38830	FY 2009-2015
I-40	I-4702	SR 1122 (milepost 339) in Johnston County to NC 132 (milepost 420) in New Hanover County. Seal existing shoulders	81	1700	0	Construction	IM	1700	2009
Strategic Highway Corridor									
US 17	I-4702	Hampstead Bypass, US 17 to US 17 North of Hampstead. Construct multi-lane facility on new location	14	152000	0	Right of Way	T	152000	FY 2013
NC 53	R-3302	Burgaw Bypass, NC 53 east of SR 1120 (Malpass Corner) to NC 53 west of I-40. Two lanes with paved shoulders, some new location.	5.4	26594	2019	Right of Way, Construction, Unfunded	STP	24575	Post Years
SR 1644	R-3824	NC 210 to SR 1569 (Hoover Rd). Upgrade roadway to secondary standards, some new location.	2.5	5825	0	Right of Way, Construction	STP	5825	Post Years
Feasibility Studies									
US 17	FS-0803B	I-140 to NC 50 in Onslow County. Add additional lanes	18.5	Feasibility Study in Progress					

Pender County Comprehensive Land Use Plan

Location	ID#	Description	Miles	Total Est. Cost	Prior Years Cost (000's)	Work Type	Funding Sources	Cost Est. (000's)	Schedule (Fiscal Years)
NC 210	FS-0703A	US 17 to Intracoastal Waterway at Surf City. Widen to multi-lanes.	5.3			Feasibility Study in Progress			
Federal Bridge Projects									
NC 50-210	B-4929	Intracoastal Waterway. Replace Bridge No. 16		26201	2000	Right of Way Construction	FA	26001	Post Years
NC 210	B-5156	Long Creek. Replace Bridge No. 28		3905	0	Right of Way Construction	FA	3905	Post Years
NC-210	B-4223	Northeast Cape Fear River. Replace Bridge No. 21		9525	9525	Under Construction			
SR 1002	B-4591	Island Creek. Replace Bridge No. 4		617	60	Right of Way Construction Mitigation	NFA	557	FFY 2012
Mitigation Projects									
Various	EE-4903	Ecosystems Enhancement Program for Div. 3 Mitigation		5022	5022	In Progress			
Public Transportation Projects									
Countywide	TJ-4970	Provide operating assistance to counties and community transportation systems to meet work first and employment transportation needs		35	0	Implementation	OAWF	35	FFY 2015
Countywide	TL-4970	Provide operating assistance for additional transportation services to the elderly and disabled		350	0	Implementation	EDTAP	350	FFY 2015

Source: North Carolina Department of Transportation (NCDOT) www.ncdot.org

Pender County Comprehensive Land Use Plan

Parks and Recreation

The availability of parks and recreation sites and programs is essential to maintaining a high quality of life for residents of Pender County. Although the current County park system is limited to just two sites with a limited number of ball fields and playgrounds, the County recognizes the need to improve and expand the park system to meet growing community needs for recreational activities.

The current Pender County Recreation and Open Space Plan was completed in 1998. The County had planned to update the plan in 2008-09 but those plans have been delayed due to budget concerns amidst the current economic downturn.



Current park facilities include a small community park, Pender Memorial Park in the Town of Burgaw and a larger facility of about 80 acres in the Hampstead area – the Hampstead Kiwanis Park. The Kiwanis Park is being developed in phases using a combination of local funds and NC Parks and Recreation Trust Fund (PARTF) grant funds. Phase 1 includes two soccer/football fields and a youth baseball/softball facility, a children’s playground, and a concession/restroom facility. Phase 2 will include two additional baseball/softball

fields, a soccer/football field, and a walking trail. The parks and recreation department also works with the public school system to schedule recreational programs in school facilities when available.

Pender County is also exploring the possibility of developing a public hiking/biking trail known as the West Pender Rail Trail, which will follow a former rail corridor that at one time extended from the City of Fayetteville to the City of Wilmington. The rail trail corridor passes by the Moores Creek National Battlefield which is owned and operated by the National Park Service. The park commemorates a Revolutionary War Battle – the 1776 victory by 1,000 Patriots over 1,600 Loyalists at the Battle of Moores Creek Bridge.

Public water access is another key component of the public parks and recreation system in Pender County. The County is working with the NC Wildlife Resources Commission to develop a new Intracoastal Waterway public access location which is being partially funded with a Waterfront Access and Marine Industry grant.

In order to establish a continuing source of funding for acquisition and development of park facilities, the County is currently considering adopting a parks and recreation facility ordinance to require that new residential development either dedicate park land or contribute a fee in lieu of dedication. This type of funding is commonly used in counties and municipalities across the State to help ensure that communities can meet their future park and recreation programming needs.

Pender County Comprehensive Land Use Plan

Appendix C: Comprehensive Land Use Planning Process

Introduction

Prior to beginning the planning process, Pender County made the decision to have an open, inclusive process that involved the general public, a steering committee and the planning board in development of two new planning and regulatory documents. Because the County was undertaking a two-step approach – a land use plan and a unified development ordinance – two committees were formed to oversee development of the two separate but intricately related documents. The planning process was scheduled to take 15 months beginning in October 2008 and ending in January 2010.

Committees

In the fall of 2008 the Pender County Board of Commissioners, on recommendation from the Planning Board, appointed two separate citizen committees to provide guidance and feedback on the development of a comprehensive land use plan (CLUP) and a unified development ordinance (UDO). Committee members were selected from a bank of applicants who responded to the County's call for citizen volunteers who were ready and willing to commit to the project schedule. Committee members represented a cross-section of the greater Pender County community including life-long and more recent County residents, rural and suburban dwellers, working age and retirees. Committee members represented a variety of interests including agricultural/farming interests, residential and commercial real estate, and design and business professionals.

As a condition of participation, all Committee members agreed to attend a mandatory planning workshop and to attend Committee meetings during the duration of the projects. Commitment to the process and the schedule was important to ensure that all Committee members began with a basic understanding of local government planning policies and ordinances and that Committee membership was consistent and committed to the project.

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Planning Workshop

In October 2008, the County and planning consultant conducted a two day workshop that was seen as essential first step before moving forward with the land use plan and unified development ordinance process. The workshop was designed to cover basic local government planning powers, policies, ordinances, processes and procedures so that all Committee members had a basic understanding of the two projects and the desired outcomes. The workshop covered the following topics:

1. Working Together – Planning Roles and Responsibilities
2. Overview of the Legal Basis for Planning in NC
3. Planner Ethics
4. Guiding Growth – Public Infrastructure
5. Comprehensive Land Use – The Planning Process
6. Envisioning the Future – Growth Concerns & Issues
7. Unified Development Ordinance – The Components / The Process
8. Smart Growth Principles
9. Working Together – A Case Study – Nash County
10. Sustainability – Low Impact Development Practices

The planning workshop was attended by citizen committee members, planning board members, planning staff, and other County staff and agencies with interests or responsibilities related to growth and development. Several County Commissioners also attended portions of the workshop.

Project Website

Early in the planning process, the County planning department set up a special projects web page on the planning department webpage to highlight progress on the Comprehensive Land Use Plan and the Unified Development Ordinance projects. The website was regularly updated to ensure that the public had access to project progress and development as the committees made progress on the two projects.

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Comprehensive Plans and Policies Committee

The Comprehensive Plans and Policies Committee (Committee), initially consisting of twelve citizens and guided by County staff and planning consultant, began meeting in November 2008. Committee members were reminded at the outset that even though they were chosen to represent a cross-section of County citizens that their planning obligation was to try and represent the interests of the general public in making decisions and recommendations on future growth and development. A complete list of the eleven citizen planners who participated in Committee meetings is shown on the acknowledgements page.

Committee Meetings

The main purpose of the first Committee meeting was to gain more detailed knowledge about past and current planning practices in Pender County. The Committee reviewed existing plans and ordinances identifying both strengths and weaknesses in the documents. One of the key concerns was that many of the documents were last updated in the 1990s and that many of the recommendations had not been implemented. Initial results of an inventory and analysis of current conditions was presented using power point bullets and GIS (geographical information system) maps.

The planning director gave an overview of recent amendments to the zoning ordinance including conditional use zoning, flood hazard area overlay, off-premise outdoor advertising, and voluntary agricultural districts. The Committee was also briefed on a request for enabling legislation regarding incentives for low-energy developments. (In June 2009, the NC General Assembly passed legislation authorizing counties and municipalities to adopt ordinances to grant density bonuses or to provide other incentives if a developer / builder agreed to construct new development or reconstruct existing development in a manner that made a significant contribution to the reduction of energy consumption.)

The Committee also reviewed GIS maps showing existing land use data which was not complete for all areas of the County. There was discussion about staff and Committee members

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collecting the missing information; however, this effort was subsequently abandoned due to time and manpower required to complete such an analysis.



Dee Turner with Parks and Recreation

The Committee's 2nd meeting in January 2009 continued with further review of existing plans and the inventory and analysis of existing conditions. This meeting also included a presentation by Dee Turner with the County Parks and Recreation Department. Ms. Turner gave an update on current parks and recreation programs and facilities, the construction of a new waterfront access facility being funded with a State grant, and the need for additional park facilities. As a

part of that discussion, the Committee was made aware of NC enabling legislation that provides for local government to require that residential developers either dedicate or pay a fee in lieu of dedication to ensure adequate park and recreation facilities for County residents. This law is being utilized by local governments throughout NC in an effort to have proposed development help meet some of the recreational demands of new residents.



James Holland, P.E.

The third meeting in February 2009 featured two guest speakers. Mr. James Holland, P.E., discussed the advantages and disadvantages of the three primary methods for treating wastewater – on-site septic tanks and drain fields, package treatment plants (usually owned and operated by a private utility or a property owners association), and publicly-owned and operated wastewater treatment plants. Mr. Holland indicated that

on-site systems are the only viable system in very low density residential / rural areas but that larger treatment systems are required to support higher density suburban type developments – both residential and non-residential.

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Mr. Max Merrill with the NC Dept. of Agriculture and Consumer Services discussed Voluntary Agricultural Districts and farmland conservation/preservation with the Committee. Mr. Merrill pointed out the importance of farming as a viable alternative to development. Farming remains essential to economy of Pender County and to preserving the County's predominantly rural character.



**Max Merrill with the NC Dept of
Agriculture and Consumer Services**

At this third meeting, the Committee also completed the review of existing conditions within the County; the review of progress on the 2001 growth management plan policies, and a discussed the proposed boundaries for the three small area plans - Coastal Pender, Rocky Point and US 421 South Corridor

At the fourth and fifth committee meetings held in April and May of 2009, the Committee identified issues and concerns associated with past growth and development and concerns about future growth. The Committee reviewed and revised the strengths, weaknesses, opportunities and threats (SWOT) analysis completed by the County planning staff. The complete review (see Table C-1) directed a focused discussion on growth issues and concerns. The SWOT covered fifteen subject areas:

1. County Organization
2. Land Use Regulations
3. Economic Development
4. Growth
5. Environmental / AECs – particularly Angola Bay and Holly Shelter
6. Transportation
7. Water and Sewer Infrastructure
8. Parks, Recreation and Open Space
9. Public Water Access
10. Agriculture
11. Rural Character
12. Housing
13. Issues Specific to Small Area Plans
14. Tax Base – Residential vs. Non-Residential

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15. Education

The Committee identified topics for in-depth discussion of issues and concerns in order to set the stage for developing goals and policies. The final list of goals and policies were organized into eleven (11) categories:

1. Growth Management
2. Infrastructure and Community Services
3. Preferred Development Pattern / Community Appearance
4. Small Area Plans
5. Housing and Community Development
6. Natural Resource, Historic and Cultural Preservation
7. Parks, Recreation, Open Space, and Waterway Access
8. Agricultural Conservation
9. Hazard Mitigation
10. Economic Development
11. Procedure for Plan Administration and Amendments

Public Input Meetings

In July and August of 2009, the County planning department staff advertised and conducted four public workshops to receive public input on proposed plan goals and policies and to review proposed future land use maps. The workshops were held in four area locations around the County:

1. Maple Hill Community Civic Club
2. Malpass Corner Elementary School
3. Topsail High School
4. Heidi Trask High School

The Maple Hill meeting was attended by approximately 25 people. Generally, the concerns centered around the future waste water treatment plant and its intended service plan. Most all were very eager to have the WWTP constructed and operational as soon as possible to relieve property owners' failing septic systems. Several citizens expressed their desire for the new

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WWTP to have capacity for new growth - either additional homes on their own property and/or new commercial/office/institutional uses. Several attendees expressed dismay at the elementary school closing and wanting the WWTP service to be expanded to cover more area.

The Malpass Corner meeting had only three attendees. Two of the attendees were very active and recommended staff formulate policies and maps to encourage and focus growth along the US 421 corridor, especially the southern section (south of the NC 210 intersection). They recognized that with the County water plant coming on line soon, the possibility of limited sewer being available, the proximity to New Hanover County, good highway facility in place and suitable soils to develop more intensively, that focusing growth along the southern section of the US 421 is a sound land use policy.

The Hampstead meeting had the largest turnout of the public meetings with approximately 50 people in attendance. Generally, attendees at this meeting had been more involved throughout the planning process to date so questions and issues with the draft content were supportive. There were suggested revisions to the land use maps with regard to Conservation and Suburban Growth areas along Trumpeter's Creek, Scotts Hill and the Intracoastal Waterway.

The Rocky Point meeting was attended by approximately 20 people. There were general concerns regarding land use classifications near the Northeast Cape Fear River. Other concerns regarding minimum lot size, the Special Use Permit process, road projects, future development in Rocky Point and issues with previous countywide rezonings were discussed.

Opinion Survey

As another avenue to gather public input, an online opinion survey was created and advertised with a link on the County planning department website. Hard copies of the survey were also available at the public workshops.

The County received a total of 408 completed surveys from the public. Refer to the end of Appendix C for survey results.

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Pender County Planning Board

The Planning Board stayed involved and informed during development of the CLUP. The planning board chairman attended all CCPC meetings, the vice-chair attended most meetings, and other planning board members came as their schedules allowed. County planning staff made regular status reports to the planning board at each regularly scheduled monthly meeting of the board.

The Pender County Planning Board was presented the first final draft of the CLUP on October 6, 2009 for review and comment. This was followed by a public hearing and recommendation of adoption to the Board of Commissioners on November 3, 2009.

Review and Input by Other Agencies

On September 15, 2009, staff distributed 27 CD's of a "95%" complete document to the following County Departments, Regional and State Agencies, adjoining jurisdictions, requesting returned comments:

Review Agencies

NCDENR

NCDOT Highway Division

NCDOT Rail Division

NC Wildlife Resources Commission

NC Division of Forestry Resources

Wilmington Area MPO

Cape Fear COG

County Utilities Dept

County Emergency Management/Fire Marshal

County Libraries

County School Board

Business Alliance for Sound Economy

Wilmington Industrial Development

NC Coastal Federation

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Town of Atkinson
Town of Burgaw
Town of Surf City
Town of St. Helena
Town of Topsail Beach
Town of Watha
Bladen County
Brunswick County
Columbus County
Duplin County
New Hanover County
Onslow County
Sampson County

Pender County Board of Commissioners

On September 15, 2009, staff distributed 13 hard copies of a “95%” completed document to the Board of Commissioners, Planning Board, and County Manager requesting returned comments. The first reading of the CLUP was held at a joint meeting with the Pender County Planning Board on February 15, 2010. The second and final public hearing was held on June 21, 2010 where the CLUP was unanimously approved to become effective July 1, 2010.

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Issues - SWOT Summary

Before proceeding to develop long range goals and policies, the County planning staff completed an analysis of the strengths, weaknesses, opportunities and threats (SWOT) that faced Pender County. This analysis was reviewed and revised by the steering committee and later by the Planning Board. Table II-1 outlines the results of this process.

The SWOT analysis centered on fifteen (15) key areas:

16. County Organization
17. Land Use Regulations
18. Economic Development
19. Growth
20. Environmental / AECs – particularly Angola Bay and Holly Shelter
21. Transportation
22. Water and Sewer Infrastructure
23. Parks, Recreation and Open Space
24. Public Water Access
25. Agriculture
26. Rural Character
27. Housing
28. Issues Specific to Small Area Plans
29. Tax Base – Residential vs. Non-Residential
30. Education

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Table C-1: SWOT Analysis

Issue	Strengths	Weaknesses	Opportunities	Threats
1. County Organization	<ul style="list-style-type: none"> • Geographic location advantage to attract qualified staff, tourism, and development which leads to increased revenue • Staff services are provided to whole county • Small and tight-knit county staff 	<ul style="list-style-type: none"> • Management turnover which leads to lack of local and historical knowledge of issues • Political turmoil; inability to focus on major issues at hand to progress the county • Inefficient data management system • Little coordination between county and municipalities 	<ul style="list-style-type: none"> • Tremendous opportunity to capitalize on strengths if other issues can be rectified • Progressive staff willing to work to correct issues. 	<ul style="list-style-type: none"> • Competition with other areas (Surf City, Onslow, New Hanover County, Brunswick County, City of Wilmington) that have gotten past “growing pains” • Potential inability to correct weaknesses • Economic downturn • Lack of employee retention
2. Land Use Regulations	<ul style="list-style-type: none"> • Countywide zoning implemented 	<ul style="list-style-type: none"> • Antiquated, confusing and overall inefficient • Lack of comprehensive land use inventory which leads to inefficient long range pattern analysis or urban sprawl • Little flexibility in compliance with state regulations • Lack of progressive development regulations • No Adequate Public Facilities ordinance 	<ul style="list-style-type: none"> • UDO and Comp Plan in progress • Majority of county still undeveloped 	<ul style="list-style-type: none"> • Resistance to change and progressive ideas • Anti-development and government philosophies
3. Economic Development	<ul style="list-style-type: none"> • Ideal geographic location for the attraction of economic 	<ul style="list-style-type: none"> • Lack of infrastructure and economic development staff 	<ul style="list-style-type: none"> • US 421 – County industrial park • Rocky Point 	<ul style="list-style-type: none"> • Civic groups lobbying for anti-development philosophy

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Issue	Strengths	Weaknesses	Opportunities	Threats
	<ul style="list-style-type: none"> opportunities • Close proximity to access points (I-40, US17, US117, US 421). • Wilmington Industrial Development (WID) 	<ul style="list-style-type: none"> • Anti-development and government philosophies • Development regulations that keep out opportunities (height, permitted uses, setbacks) • Bureaucracy • Lack of a coherent economic development message 	<ul style="list-style-type: none"> industrial park • NHC built-out resulting in spill-over • Location near port and military bases • Continued partnerships w/ WID and Pender Progress 	<ul style="list-style-type: none"> • Competition with other jurisdictions already with infrastructure in place • Continued lack of infrastructure
4. Growth	<ul style="list-style-type: none"> • Many opportunities from interested parties wanting to develop • Undeveloped property • Coastal county • Desirable for relocation • Diversified population • Positive measures taken by nearby municipalities (examples?) 	<ul style="list-style-type: none"> • Antiquated regulations • Anti-development philosophy and lobbyists • Lack of infrastructure • Strained services • Strictly single-family growth • No developer concessions • Sprawl in growth patterns stretches out public services 	<ul style="list-style-type: none"> • Location; potential for new industry • Innovative growth measures (examples?) • Partnering with private sector to provide regional sewer service • Require developers to consider capital facilities impact 	<ul style="list-style-type: none"> • Lack of infrastructure • Political influence in development decisions • Uncontrolled growth (either stalling or allowing rampant development)
5. Environmental / AECs – particularly Angola Bay and Holly Shelter	<ul style="list-style-type: none"> • One of the county’s greatest assets with state regulated game lands • Pristine rivers, intracoastal waters, tidal creeks, barrier islands 	<ul style="list-style-type: none"> • Hazard areas • Unsuitable land for development • Development pressures particularly along coast (though certainly not limited to coast) • Multiple hazards (wind, rain, fire, flood) 	<ul style="list-style-type: none"> • Promote additional land acquisition • Promote eco-tourism • Educational opportunities • Preserve areas using long-range planning 	<ul style="list-style-type: none"> • Increased development pressure • Natural disasters • Global warming and climate change • Geomorphology • Future transportation and infrastructure projects in environmental areas
6. Transportation	<ul style="list-style-type: none"> • Proximity to I-40, 	<ul style="list-style-type: none"> • Reliance on state and 	<ul style="list-style-type: none"> • Numerous 	<ul style="list-style-type: none"> • Funding crisis of

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Issue	Strengths	Weaknesses	Opportunities	Threats
	US421, US17, US117 <ul style="list-style-type: none"> • Waterway transportation • Good arterial roads 	federal agencies for transportation needs <ul style="list-style-type: none"> • No alternative and/or multi-modal transportation methods • No major airport • Perceived congestion • Inefficient design standards • Lack of historic transportation planning • Mix of public and private roads • No maintenance on private roads 	opportunities for interconnection based on adopted plans for improvement of system <ul style="list-style-type: none"> • Roads can be built by developers • Public transportation between counties and municipalities • Time before mass improvements are vital Proactive in transportation planning, use of RPO and MPO services	NCDOT <ul style="list-style-type: none"> • Impassable roadways during hazards • Unwillingness for progressive design standards and regulations • New technology outdated implementation of new projects
7. Water and Sewer Infrastructure	<ul style="list-style-type: none"> • Master plan adopted and some progress made • Water infrastructure is largely in place 	<ul style="list-style-type: none"> • Lack of complete infrastructure and/or capacity • Lack of funding plan • No centralized sanitary sewer • No internal water source • Reliance on septic systems and package plants 	<ul style="list-style-type: none"> • Grant opportunities • Presence of infrastructure can promote use • Master plan to guide • Public- Private Partnerships 	<ul style="list-style-type: none"> • Failing package plants and septic systems • State moratorium potential • Environmental threats • Future reliance on external providers • Limited water sources • Failing private utility companies
8. Parks, Recreation and Open Space	<ul style="list-style-type: none"> • Cultural areas of county • Boating • Moore’s Creek Battlefield • Regulations requiring 	<ul style="list-style-type: none"> • Lack of public parks and open spaces (besides Kiwanis Park) • Minimal staff levels and funding • Weak open space 	<ul style="list-style-type: none"> • Eco-tourism • Plenty of available land and grant opportunities • Abandoned county schools and flood 	<ul style="list-style-type: none"> • Development pressures • Using existing facilities for non-compatible government uses

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Issue	Strengths	Weaknesses	Opportunities	Threats
	<p>open space from developers</p>	<p>mandates in development regulations</p> <ul style="list-style-type: none"> • Lack of recreational choices • Outdated recreation plan 	<p>buyout properties that can be used for parks</p> <ul style="list-style-type: none"> • Improve land use regulations to increase inventory of usable areas & require conservation-open space zoning classifications 	
<p>9. Public Water Access</p>	<ul style="list-style-type: none"> • Leadership encouraging and seeking new access sites 	<ul style="list-style-type: none"> • Very few existing public access sites • Limited funding 	<ul style="list-style-type: none"> • Acquisition of grant funds • Potential project identifications • Developer concessions 	<ul style="list-style-type: none"> • Private development on waterfront properties • Buyouts of existing access sites • Skyrocketing price of coastal real estate • Increased burden on coastal environment
<p>10. Agriculture</p>	<ul style="list-style-type: none"> • County has historical agriculture/forestry base • Hog industry, blueberries, corn • Approximately 90% property zoned Rural Agricultural 	<ul style="list-style-type: none"> • Collapse of farming industry • Development pressure • International competition • Transition to corporate farming • Labor issues • Lack of promotion and opportunity 	<ul style="list-style-type: none"> • Agrarian growth zones • Voluntary agricultural districts • Green farming • Variety of products • Renewable energy • Enabling markets for locally grown produce • Agritourism 	<ul style="list-style-type: none"> • Unregulated hog farms • Other poorly managed CAFOs • “Suburbanization” and de-emphasis on local farming • County is prone to weather hazards • Globalization • Social change
<p>11. Rural Character</p>	<ul style="list-style-type: none"> • Provides desired lifestyle for many seeking de- 	<ul style="list-style-type: none"> • Lack of services provided • Promotes anti- 	<ul style="list-style-type: none"> • New comp plan can preserve this • Grant funding 	<ul style="list-style-type: none"> • Large scale development in urbanizing areas of

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Issue	Strengths	Weaknesses	Opportunities	Threats
	urbanization <ul style="list-style-type: none"> • “bedroom community” • Provides own identity for the county • Still promotes traditional eastern NC lifestyle 	development sentiment towards new proposals <ul style="list-style-type: none"> • Keeps development philosophy within the “conventional subdivision” method • Economic decline 	available for rural areas <ul style="list-style-type: none"> • Agriculture and silviculture opportunities (exempt from development regulations) • Sustainable energy and food sources 	county <ul style="list-style-type: none"> • East-west divide • Anti-growth philosophies • Decline of rural lifestyle
12. Housing	<ul style="list-style-type: none"> • Code protection with new development • Desirable location 	<ul style="list-style-type: none"> • No range of housing options • East side developments mostly unaffordable to working class income brackets • No minimum housing code • Inefficient migrant housing code • Abandoned structures • Lack of support for code enforcement 	<ul style="list-style-type: none"> • Location attracts new developments • Military Growth Task Force 	<ul style="list-style-type: none"> • Natural hazards • Recession • Abandoned structures lead to health and safety risks
13. Issues Specific to Small Area Plans	<ul style="list-style-type: none"> • Targeting most rapidly developing areas of county • Creates sense of community • Coordination with municipalities 	<ul style="list-style-type: none"> • Conflicting perceptions of development potential in coastal area of county 	<ul style="list-style-type: none"> • Opportunity for pro-active planning in targeted areas • Good decision making tool 	<ul style="list-style-type: none"> • Historical east/west divide in county • Incorporations and expansions of ETJ
14. Tax Base – Residential vs. Non-Residential	<ul style="list-style-type: none"> • Vacation homes • High value homes 	<ul style="list-style-type: none"> • County revenue is almost entirely dependent on residential tax base 	<ul style="list-style-type: none"> • Large market for commercial services 	<ul style="list-style-type: none"> • Economic downturn • Lack of commercial revenue • Lack of infrastructure

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Issue	Strengths	Weaknesses	Opportunities	Threats
		<ul style="list-style-type: none"> • Anti-development lobbyists • All residential base creates strain on services and infrastructure • Minimal attraction of services without infrastructure • County revenue is almost entirely dependent on residential tax base • Anti-development lobbyists • All residential base creates strain on services and infrastructure • Minimal attraction of services without infrastructure 		<ul style="list-style-type: none"> • Loss of businesses to other locations
15. Education	<ul style="list-style-type: none"> • Good primary education • Proximity to regional higher education 	<ul style="list-style-type: none"> • Lack of needed funding • Strain on services • Lack of development concessions and capital planning 	<ul style="list-style-type: none"> • New high school • Long range planning by schools • Developer concessions to education (voluntary) • Commuters to nearby higher education • CFCC expansion to Surf City 	<ul style="list-style-type: none"> • Diminishing funding

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Opinion Survey Results

1. Are you a resident of Pender County?		
	Response Percent	Response Count
Full time resident	94.8%	379
Part time resident	2.0%	8
Not a resident	3.3%	13
	<i>answered question</i>	400
	<i>skipped question</i>	8

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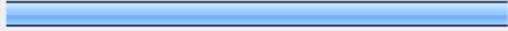
2. In what Pender County community do you reside?		
	Response Percent	Response Count
Atkinson	1.3%	5
Burgaw	7.1%	28
Currie	0.8%	3
Hampstead	61.5%	241
Malpass Corner	0.0%	0
Maple Hill	3.8%	15
Penderlea	0.5%	2
Rocky Point	6.1%	24
St. Helena	0.8%	3
Scotts Hill	5.9%	23
Surf City	5.4%	21
Topsail Beach	2.8%	11
Watha	0.8%	3
Willard	1.3%	5
Rural Pender	1.8%	7
Other	0.8%	3
answered question		392
skipped question		16

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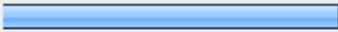
3. Do you own real estate in Pender County?

	Response Percent	Response Count
Rent 	4.0%	16
Own 	88.8%	355
Not applicable 	8.3%	33
<i>answered question</i>		400
<i>skipped question</i>		8

4. Do you rent or own your home?

	Response Percent	Response Count
Rent 	4.8%	19
Own 	91.6%	360
Not applicable 	3.8%	15
<i>answered question</i>		393
<i>skipped question</i>		15

5. What is your employment status?

	Response Percent	Response Count
Employed full-time 	61.4%	245
Employed part-time 	8.5%	34
Retired 	21.1%	84
Unemployed 	2.5%	10
Student 	0.5%	2
Full-time parent/caregiver 	8.0%	32
<i>answered question</i>		399
<i>skipped question</i>		9

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6. How long have you lived in Pender County? (Round up to the nearest whole year)

	Response Percent	Response Count
1-4 years	27.3%	106
5-10 years	27.9%	107
11-20 years	45.3%	174
<i>answered question</i>		384
<i>skipped question</i>		24

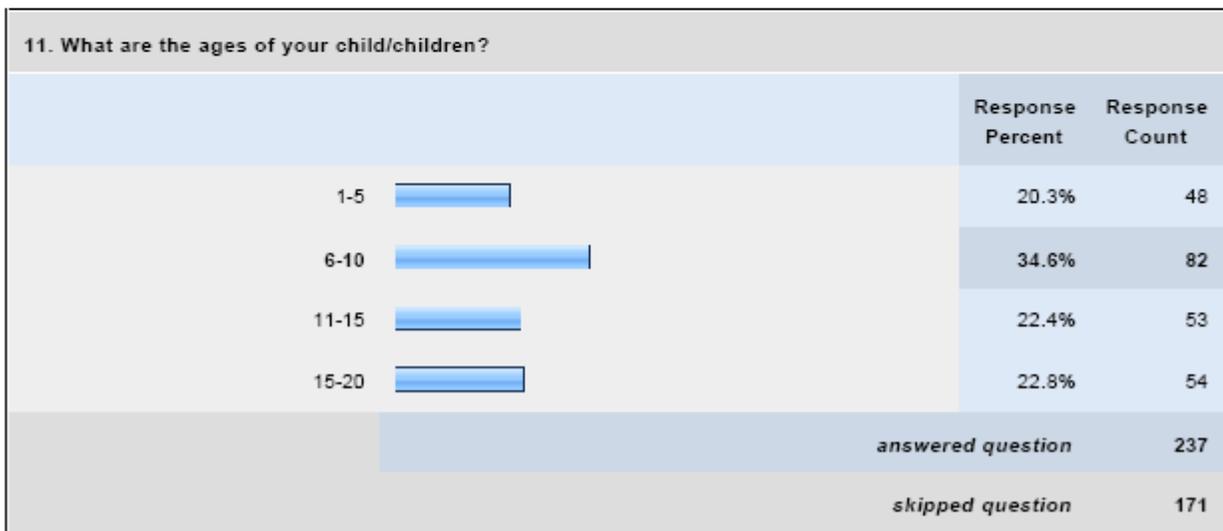
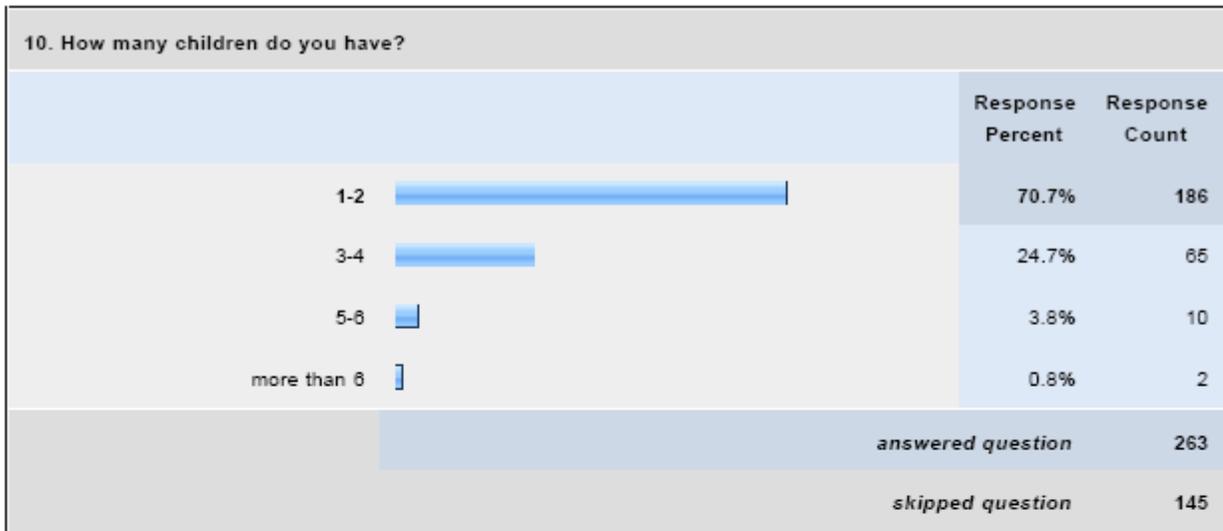
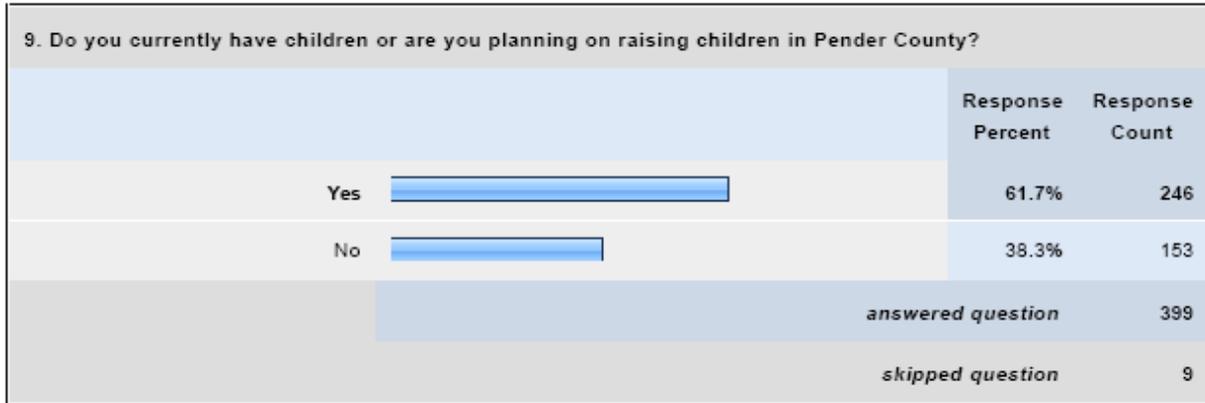
7. What is the estimated total annual income of all persons living in your household?

	Response Percent	Response Count
Less than \$24,999	2.9%	11
\$25,000-\$34,999	7.3%	28
\$35,000-\$49,999	17.2%	66
\$50,000-\$74,999	24.5%	94
More than \$74,000	45.2%	173
Fixed income/retired/student	3.4%	13
<i>answered question</i>		383
<i>skipped question</i>		25

8. Do you own property in Pender County (besides your own residence)? Do you own a business in Pender County? (check all that apply)

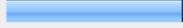
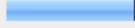
	Response Percent	Response Count
Own property	32.8%	126
Own a business	13.0%	50
Not applicable	61.4%	237
<i>answered question</i>		386
<i>skipped question</i>		22

Pender County Comprehensive Land Use Plan

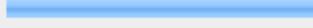


Pender County Comprehensive Land Use Plan

12. Responders Age:

	Response Percent	Response Count
18-25 	1.8%	7
26-35 	14.5%	57
36-45 	31.3%	123
46-55 	22.9%	90
56-65 	15.0%	59
65+ 	14.8%	58
<i>answered question</i>		393
<i>skipped question</i>		15

13. Responders Sex:

	Response Percent	Response Count
Male 	44.7%	172
Female 	56.1%	216
<i>answered question</i>		385
<i>skipped question</i>		23

Pender County Comprehensive Land Use Plan

14. Responders Race:			
		Response Percent	Response Count
White/Caucasian		90.5%	353
Black/African American		7.4%	29
Hispanic/Latino		1.0%	4
American Indian		0.3%	1
Asian		0.5%	2
Other		0.5%	2
<i>answered question</i>			390
<i>skipped question</i>			18

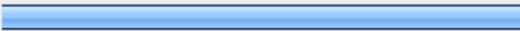
Pender County Comprehensive Land Use Plan

15. What should be the land use objectives for future growth in Pender County?						
	Not at all important	Somewhat important	Important	Most Important	Rating Average	Response Count
Maintain/protect the area's natural beauty.	0.3% (1)	8.8% (33)	46.7% (175)	44.3% (166)	3.35	375
Discourage commercial strip development and cluttered signage.	8.6% (32)	19.7% (73)	32.3% (120)	39.4% (146)	3.02	371
Integrate open space and greenways into urbanizing areas.	7.0% (26)	23.0% (85)	41.7% (154)	28.2% (104)	2.91	369
Mixed use development - retail and offices close to residential uses.	16.3% (60)	32.2% (119)	37.1% (137)	14.4% (53)	2.50	369
Walkable, mixed-use development that reduces need for driving.	11.6% (43)	29.5% (109)	35.4% (131)	23.5% (87)	2.71	370
Avoid development in AEC (Areas of Environmental Concern) adjacent to established conservation areas e.g. Holly Shelter.	6.4% (24)	18.2% (68)	27.5% (103)	47.9% (179)	3.17	374
Support agricultural activities and conservation of agricultural lands.	2.9% (11)	22.0% (82)	41.3% (154)	33.8% (126)	3.06	373
Encourage economic development and job creation/retention.	2.7% (10)	15.7% (58)	38.9% (144)	42.7% (158)	3.22	370
Support public services (water and sewer) especially near existing urban areas.	4.3% (16)	16.1% (60)	35.7% (133)	44.0% (164)	3.19	373
Support growth around incorporated municipalities and other urbanizing areas e.g. Coastal Pender and Rocky Point.	8.1% (30)	26.3% (98)	39.5% (147)	26.1% (97)	2.84	372
Encourage limited business development near rural communities e.g. Currie, Penderlea and Maple Hill.	16.1% (59)	37.1% (136)	32.4% (119)	14.4% (53)	2.45	367
Maintain high levels of public safety services to coincide with projected population increases and identified needs.	2.4% (9)	9.4% (35)	41.7% (155)	46.5% (173)	3.32	372

Pender County Comprehensive Land Use Plan

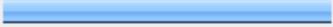
Emphasize cooperative planning among the County, towns and surrounding counties.	1.9% (7)	10.6% (39)	42.8% (157)	44.7% (164)	3.30	367
Support and enhance culturally and historically significant sites.	3.3% (12)	25.7% (95)	38.8% (143)	32.2% (119)	3.00	369
<i>answered question</i>						381
<i>skipped question</i>						27

16. What is your preferred housing type?

	Response Percent	Response Count
Single family 	95.7%	359
Single family attached (duplexes, triplexes, condos) 	2.7%	10
Townhouses 	4.3%	16
Multi-family (apartments) 	1.1%	4
Manufactured homes (mobile homes) 	2.9%	11
<i>answered question</i>		375
<i>skipped question</i>		33

Pender County Comprehensive Land Use Plan

17. What is your preferred lot size?

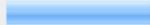
	Response Percent	Response Count
Small lots less than 1/2 acre 	9.7%	38
1/2 to 1 acre 	60.1%	224
1-2 acres 	25.7%	98
2-5 acres 	4.6%	17
5-10 acres 	2.4%	9
10+ acres 	1.9%	7
<i>answered question</i>		373
<i>skipped question</i>		35

Pender County Comprehensive Land Use Plan

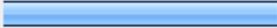
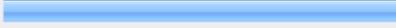
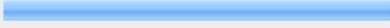
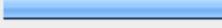
18. Please indicate your priorities for economic growth for Pender County.						
	Not at all important	Somewhat Important	Important	Most Important	Rating Average	Response Count
Increasing arts and cultural facilities	12.4% (46)	36.2% (134)	35.9% (133)	15.4% (57)	2.54	30
Preserving historic and architectural resources	3.0% (11)	30.6% (114)	43.8% (163)	22.6% (84)	2.86	30
Promoting tourism	11.2% (42)	32.6% (122)	37.7% (141)	18.4% (69)	2.63	30
Enhancing commercial corridors	10.6% (39)	30.4% (112)	39.9% (147)	19.0% (70)	2.67	30
Encouraging the growth of small businesses	2.7% (10)	12.8% (48)	47.9% (179)	36.6% (137)	3.18	30
Retaining existing businesses	0.8% (3)	12.4% (46)	49.6% (184)	37.2% (138)	3.23	30
Recruiting new businesses and industries	5.9% (22)	19.2% (71)	39.2% (145)	35.7% (132)	3.05	30
Encouraging new retail development	9.5% (35)	21.7% (80)	37.0% (136)	31.8% (117)	2.91	30
Retaining existing agriculture/farms	1.9% (7)	20.3% (76)	41.7% (156)	36.1% (135)	3.12	30
Encouraging "clean" industrial development	4.6% (17)	9.3% (34)	33.2% (122)	52.9% (194)	3.34	30
Other _____	6.5% (3)	10.9% (5)	28.3% (13)	54.3% (25)	3.30	4
					<i>answered question</i>	30
					<i>skipped question</i>	0

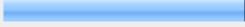
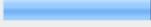
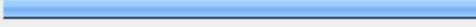
Pender County Comprehensive Land Use Plan

19. What should the transportation priorities be for Pender over the next 2 decades?						
	Not at all important	Somewhat important	Important	Most Important	Rating Average	Response Count
US 17 Hampstead Bypass	9.2% (34)	13.3% (49)	33.6% (124)	43.9% (162)	3.12	369
Safety improvements on existing highways	0.8% (3)	12.2% (45)	44.2% (163)	42.8% (158)	3.29	369
Expanding existing roads to serve more cars	9.6% (35)	29.0% (108)	42.5% (155)	18.9% (69)	2.71	365
Expanding local and regional transit service	16.6% (61)	33.4% (123)	32.3% (119)	17.7% (65)	2.51	368
Expanding the pedestrian network	9.9% (36)	31.2% (114)	30.1% (110)	28.8% (105)	2.78	365
Other _____	12.5% (5)	7.5% (3)	12.5% (5)	67.5% (27)	3.35	40
<i>answered question</i>						373
<i>skipped question</i>						35

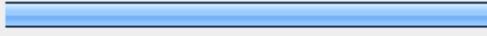
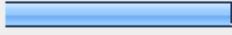
20. What parks and recreation facilities would you like to see provided in Pender County? (choose all that apply)			
A. Outdoor-Active recreation facilities such as:			
		Response Percent	Response Count
Multi-purpose athletic fields		73.0%	257
Outdoor basketball court		25.9%	91
Playgrounds		63.4%	223
Tennis Court		30.7%	108
Pool		48.9%	172
Other _____		8.2%	29
<i>answered question</i>			352
<i>skipped question</i>			56

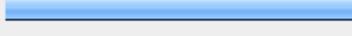
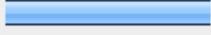
Pender County Comprehensive Land Use Plan

21. B. Environmental - Natural Resources			
		Response Percent	Response Count
Picnic shelter		49.7%	180
Camping		38.7%	133
Water access/boat ramp		71.3%	258
Trails/Greenways		70.2%	254
Environmental education		39.5%	143
Community garden		28.5%	103
Other _____		2.2%	8
<i>answered question</i>			362
<i>skipped question</i>			46

22. C. Indoor - Active recreation facilities such as:			
		Response Percent	Response Count
Basketball court		43.3%	125
Racquetball court		28.8%	77
Aquatics/fitness center		85.8%	248
Other _____		4.8%	14
<i>answered question</i>			289
<i>skipped question</i>			119

Pender County Comprehensive Land Use Plan

23. D. Cultural facilities such as:			Response Percent	Response Count
Multi-purpose community centers			87.8%	273
Amphitheatre			40.5%	126
Other _____			3.2%	10
			<i>answered question</i>	311
			<i>skipped question</i>	97

24. Would you be willing to support a tax increase to provide additional services?			Response Percent	Response Count
Yes			63.3%	231
No			36.7%	134
			<i>answered question</i>	365
			<i>skipped question</i>	43



North Carolina Department of Environment and Natural Resources
Division of Coastal Management

Beverly Eaves Perdue
Governor

Braxton C. Davis
Director

Dee Freeman
Secretary

MEMORANDUM

To: Kyle Breuer, Pender County Planning Director

From: Michael Christenbury, DCM Wilmington District Planner

Date: January 4, 2013

Subject: Pender County Comprehensive Land Use Plan Certification by the CRC

On August 30, 2012, Pender County requested CRC Certification of the Pender County Comprehensive Land Use Plan. On June 22, 2006, the Coastal Resources Commission certified the 2006 Pender County Core Land Use Plan, one of the first plans to be certified under the 2002 7B land use planning guidelines.

Faced with unprecedented growth in the early 2000's, Pender County decided in 2008 to write a more in-depth comprehensive land use plan. The planning process consisted of two inter-related components. The first step was to prepare the comprehensive land use plan that sets goals and policies for the future. The second step, involved updating regulatory standards and procedures and combining freestanding ordinances into a unified development ordinance (UDO). The County recognized that successful completion of both components was essential to ensure that Pender County was ready for the next wave of growth in the future.

Division of Coastal Management Staff recommended Certification of the Pender County Comprehensive Land Use Plan based on the determination that the plan met the substantive requirements outlined within the 2002 7B Land Use Plan Guidelines and that no conflicts were evident with either state or federal law or the State's Coastal Management Program.

The North Carolina Coastal Resources Commission unanimously Certified the Pender County Comprehensive Land Use Plan on August 30, 2012.

Pender County Comprehensive Land Use Plan

Appendix D: CAMA Planning Requirements

Introduction

As this Plan was being developed, Pender County staff worked with staff from the Division of Coastal Management to incorporate CAMA Land Use Planning requirements within. The inclusion of these items enables this Plan to serve as the County's required CAMA Land Use Plan, eliminating the need for a separate long range land use plan for the County. The matrix of required items and their location within this Plan is located in the beginning of the document, subsequent to the List of Acronyms and Abbreviations.

Projections of Future Land Needs

Between 1990 and 2010, Pender and Brunswick were the fastest growing counties in the Cape Fear Region. Pender's growth during this period was 55%. The total population for Pender County in the 2010 Census was 52, 217. Population forecasts place Pender County's population at 80,558 in 2030, a 65% increase totaling 28,341 new residents from the 2010 Census. An analysis of the 13 individual census tracts within the County determined the total number of residents living in the unincorporated areas of Pender County to be 47,530.

The individual census tracts were analyzed to calculate the total population, number of households, and acres allotted to each land use classification in the unincorporated areas of the County. In order to determine the 2030 projected population for each land use classification, an increase of 65% was applied to be consistent with the projected growth rate of the County from 2010 to 2030. This increase was not applied to the Conservation and Industrial classifications as no additional residential uses are permitted within these.

Using an average multiplier of 2.22 persons per household among the 13 census tracts, the amount of acres needed to accommodate the 2030 projected population within each classification was then calculated based on the number of dwelling units or minimum lot sizes allowed, as referenced in Table D-4.

Table D.1 shows the estimate of land needed for planned future land uses and development. The estimate is based upon the projected population growth and related increases in households between 2010 and 2030 as well as the housing units per acre and minimum lot size estimated within each of the future land use classifications.

Pender County Comprehensive Land Use Plan

2010 - 2030 Projected Population Increase	28,341						
2010 - 2030 Projected Household Increase (2.22 persons/household)	28,882						
Classifications	Conservation	Rural Growth	Suburban Growth	Mixed Use	Office/Institutional/Commercial	Industrial	Incorporated or other Areas
Population	198	10,001	13,747	16,764	332	83	8,405
Households	99	4,706	6,026	8,065	144	45	4,589
Projected Population Adjustment (+ 65%)	198	16,502	22,683	27,661	548	83	13,868
Acres Needed	198	7,433	3,518	1,557	716	83	N/A
Acres Allocated to Classification	143,264.11	233,548.32	97,383.11	36,567.60	1,573.48	10,281.62	N/A

The projected population increase between 2010 and 2030 is 28,341 while the increase in households is estimated at 28,882, using an average household size of 2.22 persons. The County is able to meet the acres needed for future development with its existing acreage, land use, and development patterns.

Due to the vast amount of rural land within Pender County and the general low density single-family development pattern, the land area allocated to each land use classification significantly exceeds the acreage needed to support anticipated population growth. The Suburban Growth and Mixed Use classifications are the only classifications that support multi-family development; other classifications require a range of 15,000 square feet to 1 acre per dwelling unit. In addition, thousands of acres within the County are reserved or otherwise limited to development through conservation, timber, farming or other extraction activities, or environmental features.

Allocations of Land to Land Use Classifications

The CAMA planning guidelines require an analysis of the amount of land allocated to each of the land use classifications shown on the future land use map and a comparison with the land needs analysis shown in the previous section. Table D.2 shows that the total land allocated to each classification is consistent with the projected need.

Land Classification	Total Acres Allocated	% of Total	Projected Need
Conservation	143,264.11	25.96%	198
Rural Growth	233,548.32	42.33%	7,433
Suburban Growth	97,383.11	17.65%	3,518
Mixed Use	36,567.60	6.63%	1,557
Office/Institutional/Commercial	1,573.48	0.29%	716
Industrial	10,281.62	1.86%	83
Incorporated Areas	27,208.99	4.93%	N/A
Right-of-Way and Water	1,937.47	0.35%	N/A
Total	551,764.70	100%	13,505

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Environmental Composite and Land Suitability Mapping

The Composite Map of Environmental Conditions classifies Pender County into 3 classes of areas that can be developed based on environmental conditions. Each class is defined below:

- Class 1 – land containing only minimal hazards and limitations that may be addressed by commonly accepted land planning and development practices;
- Class 2 – land containing development hazards and limitations that may be addressed by methods such as restrictions on types of land uses; special site planning; or the provision of public services; and
- Class 3 – land containing serious hazards for development or lands where the impact of development may cause serious damage to the functions of natural systems.

A significant percentage of the County (509,047 acres) is designated as Class 3 due to large portions of the County within Holly Shelter Gameland, Angola Bay Gameland, other conservation areas, hydric soils, coastal wetlands and jurisdictional wetlands. Class 2 makes up 3.6% (18,991 acres) and is generally located within Special Flood Hazard Areas and Areas of Environmental Concern. The remaining .2% (992 acres) is within a Class 1 and represents the highest suitable land for development. These areas are located along the major highway corridors where transportation is most efficient. In addition, water and wastewater infrastructure is either in place or planned within these areas, further increasing suitability for development.

The Land Suitability Analysis is a process for identifying land in the county that is most suitable for development. However, the analysis is not intended to exclude any land or site from development. It is intended to provide information to local decision-makers on land that may have fewer environmental and regulatory restrictions, land where services can be provided at lower cost, or land that is most attractive given its proximity to existing development or to the waterfront areas.

The Composite Map of Environmental Conditions is located on page D-11 while the Land Suitability Analysis is located on page D-12 of this section.

Pender County Comprehensive Land Use Plan

Policy Impact Analysis

Each policy within this plan was cross-referenced with the five Land Use Management topics required within a CAMA Land Use Plan to determine the extent of the policy's impact on each respective topic. The evaluation of each policy results in a determination of a positive, negative, neutral, neutral-positive, or neutral-negative impact on each management topic, as defined in below:

Positive – Implementation of the policy will more than likely have an immediate or long-range positive impact on the Management Topic goals. The policy could foster the attainment of other goals.

Negative – Implementation of the policy will more than likely have an immediate or long-range negative impact on the Management Topic goals. The policy could conflict with the attainment of other goals.

Neutral – Implementation of the policy will more than likely not have any impact on the Management Topic goals. The policy will probably not affect the attainment of other goals.

Neutral-Positive – Implementation of the policy could range from no impact to an immediate or long-range positive impact on the Management Topic goals. The policy may have no effect on the attainment of other goals or the policy could foster the attainment of other goals if actions are coordinated or expanded.

Neutral-Negative – Implementation of the policy could range from no impact to an immediate or long-range negative impact on the Management Topic goals. The policy may not affect the attainment of other goals if carried-out with other policies or goals in mind, or the policy could conflict with the attainment of other goals if carried-out without mitigation or management activities.

Among all the policies within this Plan analyzed, none were determined to have a negative or neutral-negative impact on any of the management topics. A complete summary of the Policy Impact Analysis is displayed in Table D-3 below.

Pender County Comprehensive Land Use Plan

Management Topics	Land Use Compatibility	Infrastructure	Public Access	Water Quality	Natural Hazards
	<i>Reduction in Habitat Loss and Fragmentation Related to Impacts of Land Use and Development Reduction of Water Resource and Water Quality Degradation</i>	<i>Water, Sewer and Other Key Community Facilities and Services Being Available in Required Locations at Adequate Capacities to Support Planned Community Growth and Development Patterns</i>	<i>More Planned Access Locations Upgrades to Existing Access Locations</i>	<i>Land Use and Development Criteria and Measures that Abate Impacts that Degrade Water Quality</i>	<i>Land Uses and Development Patterns that Reduce Vulnerability to Natural Hazards Land Uses and Development Patterns that Take Into Account the Existing and Planned Capacity of Evacuation Infrastructure</i>
LUP Policies					
1A.1.1	Positive	Positive	Neutral	Positive	Positive
1A.1.2	Positive	Positive	Neutral	Positive	Positive
1A.1.3	Positive	Neutral	Neutral	Neutral	Positive
1A.1.4	Positive	Neutral-Positive	Neutral	Positive	Positive
1A.1.5	Neutral-Positive	Neutral	Neutral	Neutral-Positive	Neutral-Positive
1A.1.6	Neutral	Neutral	Neutral	Neutral	Neutral
1B.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
1B.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
1B.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
2A.1.1	Neutral	Positive	Neutral	Neutral	Neutral-Positive
2A.1.2	Neutral	Positive	Neutral	Neutral	Neutral-Positive
2A.1.3	Neutral	Positive	Neutral	Neutral	Neutral-Positive
2A.1.4	Neutral	Positive	Neutral	Neutral	Neutral-Positive
2A.1.5	Neutral	Positive	Neutral	Neutral	Neutral-Positive
2B.1.1	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.2	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.3	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.4	Neutral	Positive	Neutral	Neutral	Neutral-Positive
2B.1.5	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.6	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.7	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.8	Neutral	Neutral	Neutral	Neutral	Neutral
2B.1.9	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.10	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.11	Neutral	Positive	Neutral	Neutral	Neutral
2B.1.12	Neutral	Neutral	Neutral	Neutral	Neutral

Pender County Comprehensive Land Use Plan

Management Topics	Land Use Compatibility	Infrastructure	Public Access	Water Quality	Natural Hazards
2C.1.1	Neutral	Positive	Neutral	Neutral	Neutral
2C.1.2	Neutral	Positive	Neutral	Neutral	Neutral
2C.1.3	Neutral	Positive	Neutral	Neutral	Neutral
2C.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
2C.1.5	Neutral	Neutral	Neutral	Neutral	Neutral
2D.2.1	Neutral	Positive	Neutral	Neutral	Neutral
2D.2.2	Neutral	Neutral	Neutral	Neutral	Neutral
2E.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
2E.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
2F.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
2F.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
2F.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
2F.1.4	Neutral	Positive	Neutral	Neutral	Neutral
2G.1.1	Positive	Neutral	Neutral	Positive	Neutral
2G.1.2	Positive	Neutral	Neutral	Positive	Positive
2G.1.3	Positive	Neutral	Neutral	Positive	Positive
2G.1.4	Positive	Neutral	Neutral	Positive	Positive
2G.1.5	Positive	Neutral	Neutral	Positive	Positive
3A.1.1	Positive	Positive	Neutral	Positive	Positive
3A.1.2	Positive	Positive	Neutral	Positive	Positive
3A.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
3A.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
3B.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
3B.1.2	Positive	Neutral	Neutral	Neutral	Neutral
3C.1.1	Positive	Positive	Neutral	Positive	Positive
3C.1.2	Positive	Positive	Neutral	Positive	Positive
3D.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
4A.1.1	Neutral	Positive	Neutral	Neutral	Positive
4A.1.2	Neutral	Positive	Neutral	Neutral	Positive
4A.1.3	Neutral	Neutral	Neutral	Neutral	Neutral

Pender County Comprehensive Land Use Plan

Management Topics	Land Use Compatibility	Infrastructure	Public Access	Water Quality	Natural Hazards
4A.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
4A.1.5	Neutral	Positive	Neutral	Neutral	Neutral
4A.1.6	Neutral	Neutral	Neutral	Neutral	Neutral
4B.1.1	Neutral	Positive	Neutral	Neutral	Positive
4B.1.2	Neutral	Positive	Neutral	Neutral	Positive
4B.1.3	Neutral	Neutral	Neutral	Neutral	Positive
4B.1.4	Positive	Neutral	Neutral	Neutral	Neutral
4B.1.5	Neutral	Neutral	Neutral	Neutral	Neutral
4C.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
4C.1.2	Neutral	Positive	Neutral	Neutral	Positive
4C.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
4C.1.4	Positive	Neutral	Neutral	Neutral	Neutral
4C.1.5	Neutral	Neutral	Neutral	Neutral	Neutral
5A.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
5A.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
5A.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
5A.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
5A.1.5	Neutral	Neutral	Neutral	Neutral	Neutral
6A.1.1	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive	Neutral-Positive
6A.1.2	Positive	Neutral	Neutral	Positive	Positive
6A.1.3	Positive	Positive	Neutral	Positive	Positive
6A.1.4	Positive	Neutral	Neutral	Positive	Neutral
6A.1.5	Positive	Neutral	Neutral	Positive	Neutral
6B.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
6B.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
6B.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
7A.1.1	Neutral	Neutral	Neutral-Positive	Neutral	Neutral
7A.1.2	Neutral	Neutral	Neutral-Positive	Neutral	Neutral
7A.1.3	Neutral	Neutral-Positive	Neutral-Positive	Neutral	Neutral
7B.1.1	Neutral	Neutral	Positive	Neutral	Neutral
7B.1.2	Positive	Neutral	Neutral-Positive	Neutral-Positive	Neutral
7B.1.3	Positive	Neutral	Neutral-Positive	Neutral-Positive	Neutral-Positive

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Management Topics	Land Use Compatibility	Infrastructure	Public Access	Water Quality	Natural Hazards
7B.1.4	Positive	Neutral	Neutral-Positive	Neutral-Positive	Neutral-Positive
7B.1.5	Neutral	Neutral	Neutral	Neutral	Neutral
7B.1.6	Neutral	Neutral	Neutral	Neutral	Neutral
7C.1.1	Neutral	Neutral	Positive	Neutral	Neutral
7C.1.2	Positive	Positive	Positive	Positive	Positive
7D.1.1	Neutral	Neutral	Positive	Neutral	Neutral
7D.1.2	Neutral	Neutral	Positive	Neutral	Neutral
7D.1.3	Neutral	Neutral	Positive	Neutral	Neutral
7D.1.4	Positive	Positive	Positive	Neutral	Positive
7D.1.5	Neutral	Neutral-Positive	Positive	Neutral	Neutral
7D.1.6	Positive	Neutral	Positive	Positive	Neutral-Positive
7D.1.7	Neutral	Neutral-Positive	Positive	Neutral	Neutral-Positive
8A.1.1	Positive	Neutral	Neutral	Neutral-Positive	Neutral
8A.1.2	Positive	Positive	Neutral	Neutral	Neutral
8A.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
8A.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
8A.1.5	Positive	Positive	Neutral	Neutral	Neutral
8A.1.6	Positive	Neutral	Neutral	Positive	Neutral-Positive
8A.1.7	Neutral	Neutral	Neutral	Neutral	Neutral
8A.1.8	Neutral	Neutral	Neutral	Neutral	Neutral
9A.1.1	Positive	Neutral	Neutral	Positive	Positive
9A.1.2	Neutral-Positive	Positive	Neutral	Positive	Positive
9A.1.3	Positive	Neutral	Neutral	Positive	Positive
9A.1.4	Positive	Neutral	Neutral	Positive	Positive
9A.1.5	Neutral	Neutral	Neutral	Neutral	Positive
9A.1.6	Neutral	Neutral	Neutral	Neutral	Neutral-Positive
9A.1.7	Neutral	Neutral	Neutral	Neutral	Neutral-Positive
9A.1.8	Neutral	Neutral	Neutral	Neutral	Neutral
9A.1.9	Neutral	Neutral	Neutral	Neutral	Positive
9A.1.10	Neutral	Positive	Neutral	Neutral	Positive
9A.1.11	Neutral	Neutral	Neutral	Neutral	Neutral
9A.1.12	Neutral	Neutral	Neutral	Neutral	Neutral
9A.1.13	Positive	Neutral	Neutral	Neutral	Positive
10A.1.1	Neutral	Neutral	Neutral	Neutral	Neutral

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Management Topics	Land Use Compatibility	Infrastructure	Public Access	Water Quality	Natural Hazards
10A.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.3	Neutral	Positive	Neutral	Neutral	Neutral
10A.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.5	Positive	Neutral	Neutral	Positive	Neutral
10A.1.6	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.7	Positive	Neutral	Neutral	Positive	Neutral
10A.1.8	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.9	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.10	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.11	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.12	Neutral	Neutral	Neutral	Neutral	Neutral
10A.1.13	Neutral	Neutral	Neutral	Neutral	Neutral
11A.1.1	Neutral	Neutral	Neutral	Neutral	Neutral
11A.1.2	Neutral	Neutral	Neutral	Neutral	Neutral
11A.1.3	Neutral	Neutral	Neutral	Neutral	Neutral
11A.1.4	Neutral	Neutral	Neutral	Neutral	Neutral
11A.1.5	Neutral	Neutral	Neutral	Neutral	Neutral

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Future Land Use Designations

Section 3 of the Plan contains detailed descriptions of the Future Land Use Classifications as well as the predominant and supporting land uses encouraged within each classification. The chart located in Table D-4 provides supporting data, including acreage within each classification area, compatible corresponding zoning districts, permitted uses allowed, minimum lot size/units per acre, residential structure types allowed, maximum structure height, and percent of lot footprint within setback area.

Classification Area	Total Acres in Classification Area	Compatible Corresponding Zoning Districts	Permitted uses Allowed	Minimum Lot Size/Units per acre	Residential Structure Types Allowed	Maximum Structure Height	Percent of Lot Footprint Within Setback Area
Conservation	158,696.64 Acres	Environmental Conservation	Open Space and water dependent uses	1 Acre	No residential uses allowed	N/A	N/A
TOTAL Conservation	158,696.64 Acres						
Rural Growth	236,095.60 Acres	Rural Agricultural, Manufactured Home	Low density residential, agricultural, very limited office, institutional and commercial	1 acre	Single family	35'	40% of minimum lot size
Suburban Growth	97,878.57 Acres	Residential Performance, Residential Mixed, General Business	Medium to high density residential, limited office, institutional and commercial	15,000 SF	Single family	35'	39-49% of minimum lot size
Mixed Use	36,912.33 Acres	Planned Development	High density residential, high impact office, institutional and commercial	8 dwelling units/acre	Single and multi-family	40'	Dependent upon approved setbacks at Master Plan stage
TOTAL Residential	370,886.5 Acres						
Mixed Use	36,912.33 Acres	Planned Development	High density residential, high impact office, institutional and commercial	8 dwelling units/acre	Single and multi-family	40'	Dependent upon approved setbacks at Master Plan stage
Office/Institutional/Commercial	1,573.47 Acres	Office and Institutional, General Business, Planned Development	Small to large scale commercial, office and institutional, higher density residential	15,000 SF	Apartment/condominium over commercial/office	40'	39% of minimum lot size
TOTAL Non-Residential	38,485.8 Acres						
Industrial	10,339.79 Acres	Industrial Transition, General Industrial	Major industrial, wholesale, office and institutional, limited commercial	1 Acre	No residential uses allowed	50'	57.5% - 58.6% of minimum lot size
Total Industrial	10,339.79 Acres						

*Acreage totals in this table include rights-of-way and water features and therefore differ from the totals in Tables D-1 and D-2.



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Land Suitability Analysis Map

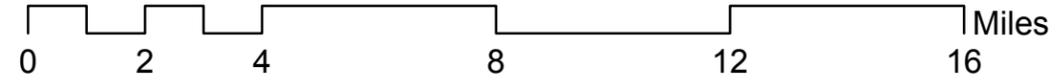
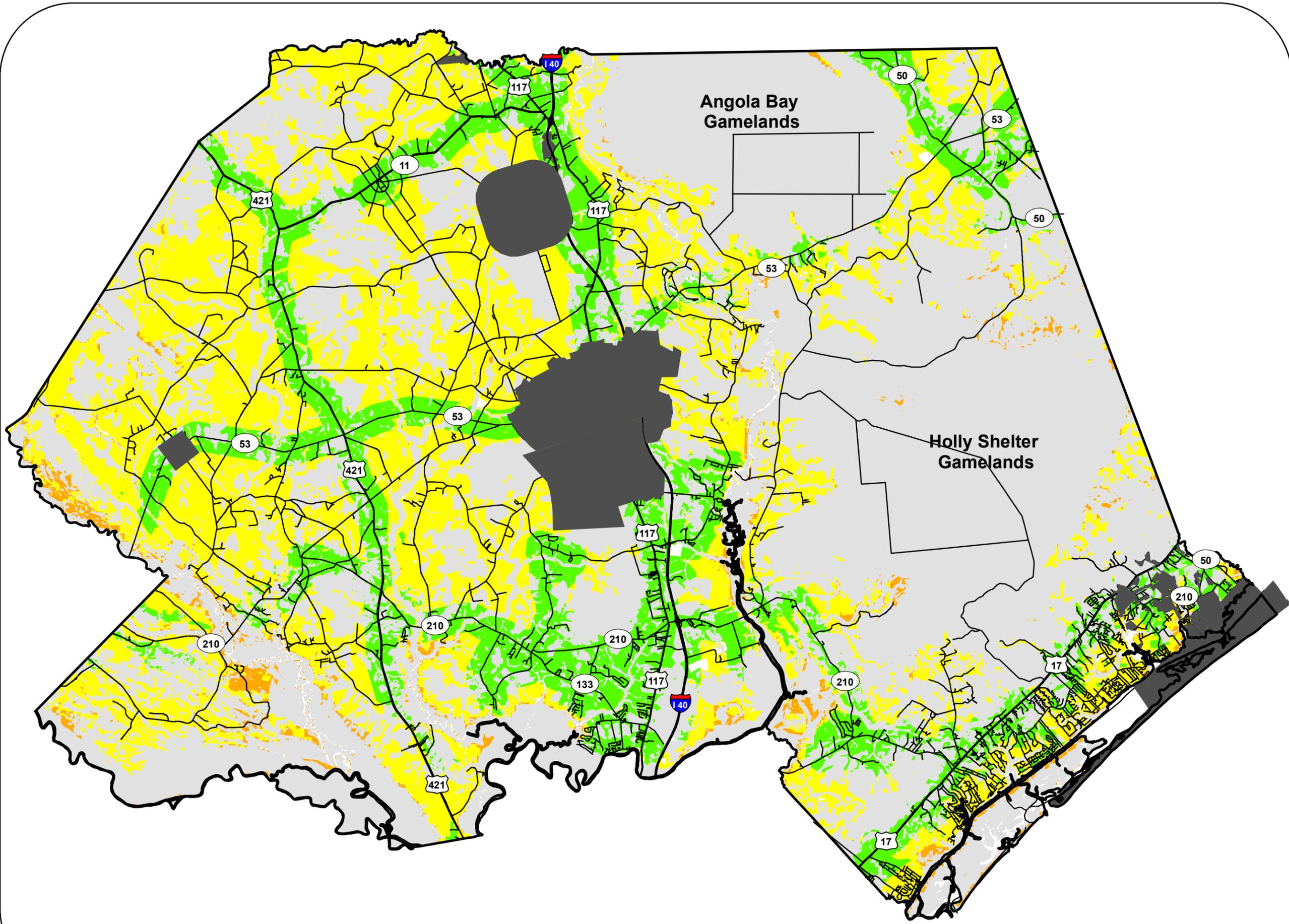
Legend

- Municipal Jurisdictions
- Major Highways
- Land Suitability Analysis**
 - Least Suitable
 - Low Suitability
 - Moderate Suitability
 - High Suitability

1 inch = 16,500 feet



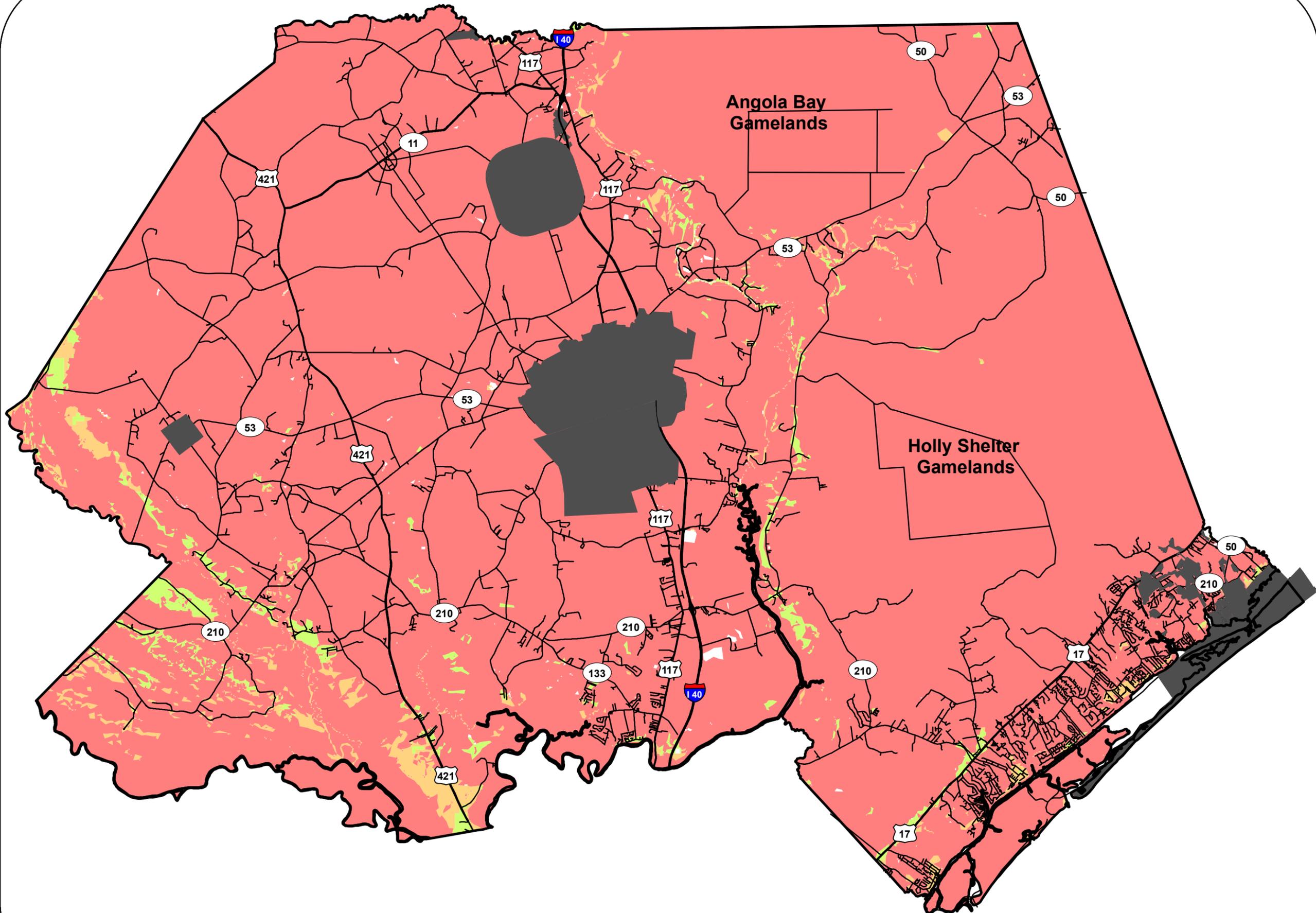
** Please see Appendix D: 3 for a description of the Land Suitability Analysis.





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Environmental Composite Map



Legend

- Municipal Jurisdictions
- Major Highways

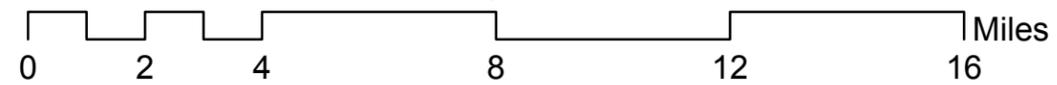
Environmental Composite

- Class 1
- Class 2
- Class 3

1 inch = 16,500 feet



Note:
The Environmental Composite Map is a broad snapshot of existing environmental and natural features within Pender County. This map should be used as a reference tool and not for site specific development as it does not take into consideration the presence or availability of public or private infrastructure.



** Please see Appendix D: 3 for a description of the Environmental Composite Classifications.