

APPENDICES



APPENDIX A: MATRIX OF REQUIRED ELEMENTS

Required Elements	Page
<p>Organization of the Plan</p> <p>Include a matrix in the land use plan or comprehensive plan that shows the location of the required elements.</p>	136
<p>Community Concerns and Aspirations</p> <p>The purpose of this element is to provide an understanding of the underlying planning needs and desires of the community.</p>	11
<p>Significant Existing and Emerging Conditions</p> <p>Describe the dominant growth-related conditions that influence land use, development, water quality, and other environmental concerns in the planning area.</p>	<p>Appendix C: Project Resources</p> <p>Fact Book and Planning Influences Report</p>
<p>Key Issues</p> <p>Describe the land use and development topics most important to the future of the planning area. At a minimum, this description shall include public access, land use compatibility, infrastructure carrying capacity, natural hazard areas, water quality, and may also include local areas of concern as described in Subparagraph (D)(2) (Land Use Plan Management Topics) of the Rule.</p>	<p>5, 11</p> <p>Appendix C: Project Resources</p> <p>Fact Book and New Issues and Opportunities Report</p>
<p>A Community Vision</p> <p>Describe the general physical appearance and form that represents the local government’s plan for the future. Include objectives to be achieved by the plan and identify changes that may be needed to achieve the planning vision.</p>	10, 11
<p>Existing and Emerging Conditions</p> <p>The purpose of this element is to provide a sound factual base necessary to support the land use and development policies included in the plan. Describe the following:</p>	<p>Appendix C: Project Resources</p> <p>Fact Book</p>
<p>Population, Housing, and Economy</p> <p>Include discussion of the following data and trends:</p>	<p>Appendix C: Project Resources</p> <p>Fact Book and Planning Influences Report</p>
<p>Population</p>	<p>Appendix C: Project Resources</p> <p>Fact Book and Planning Influences Report</p>

<p><i>Permanent population Growth Trends using Data from the Two Most Recent Decennial Censuses</i></p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p><i>Current Permanent and Seasonal Estimates</i></p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p><i>Key Population Characteristics</i></p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p><i>Age</i></p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p><i>Income</i></p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p><i>Thirty Year Projections of Permanent and Seasonal Population in Five Years Increments</i></p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p>Housing Stock Estimate current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multifamily, and manufactured).</p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p>Local Economy Describe employment by major sectors and community economic activity.</p>	<p>Appendix C: Project Resources Fact Book and Planning Influences Report</p>
<p>Natural Systems Describe the natural features and discuss the environmental conditions of the planning jurisdiction including:</p>	<p>Appendix C: Project Resources Fact Book</p>

Natural Features

Appendix C: Project Resources

[Fact Book](#)

<i>Areas of Environmental Concern (AECs)</i>	102; Map -103
<i>Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development</i>	Appendix C: Project Resources Fact Book and Planning Influences Report
<i>Environmental Management Commission (EMC) water quality classifications (SC, SB, SA, HQW, and ORW) and related use support designations, and Division of Marine Fisheries (DMF) shellfish growing areas and water quality conditions</i>	Appendix C: Project Resources Fact Book and Planning Influences Report
<i>Flood and other natural hazards</i>	Appendix C: Project Resources Fact Book
<i>Storm surge areas</i>	Appendix C: Project Resources Fact Book
<i>Non-coastal wetlands including forested wetlands, shrub-scrub wetlands, and freshwater marshes</i>	102; Map -103
<i>Water supply watersheds or wellhead protection areas</i>	Appendix C: Project Resources Fact Book
<i>Primary nursery areas</i>	Appendix C: Project Resources Fact Book
<i>Environmentally fragile areas, such as, but not limited to wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests</i>	Wetlands and AEC Map - 103 Appendix C: Project Resources Fact Book
<i>Additional natural features or conditions identified by the local government</i>	Appendix C: Project Resources Fact Book

Environmental Conditions

<i>Water Quality</i>		Appendix C: Project Resources Fact Book
Status and changes of surface water quality, including impaired streams from the most recent NC Division of Water Resources Basin Planning Branch Reports, Clean Water Act 303(d) List, and other comparable data		Appendix C: Project Resources Fact Book
Current situation and trends on permanent and temporary closures of shellfishing waters as determined by the Report on Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the NC Division of Marine Fisheries		Appendix C: Project Resources Fact Book
Areas experiencing chronic wastewater treatment system malfunctions		Appendix C: Project Resources Fact Book
Areas with water quality or public health problems related to non-point source pollution		Appendix C: Project Resources Fact Book
<i>Natural Hazards</i>		
Areas subject to recurrent flooding, storm surges, and high winds		Appendix C: Project Resources Fact Book
Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities		Appendix C: Project Resources Fact Book
<i>Natural Resources</i>		
Environmentally fragile areas or areas where resource functions are being impacted as a result of development		Appendix C: Project Resources Fact Book
Valuable natural resource areas that are being impacted or lost as a result of incompatible development. These may include, but are not limited to the following: coastal wetlands, protected open space, and agricultural land		102; Map -103

Existing Land Use and Development

Include a map and descriptions of the following:

Existing Land Use Patterns

Which may include the following categories: residential, commercial, industrial, institutional, public, dedicated open space, vacant, agricultural, and forestry. Land use descriptions shall include estimates of the land area allocated to each land use and characteristics of each land use category.

Appendix C: Project Resources

[Fact Book, Planning Influences Report, and Land Use Alternatives Report](#)

Historic, Cultural, and Scenic Areas

Designated by a state or federal agency or by local government.

Appendix C: Project Resources

[Fact Book](#)

Community Facilities

Evaluate existing and planned capacity, location, and adequacy of community facilities that serve the community's existing and planned population and economic base; that protect important environmental factors such as water quality; and that guide land development in the coastal area. These shall include:

Appendix C: Project Resources

[Fact Book](#)

Public and Private Water Supply and Wastewater Systems

Describe existing public and private systems, including existing condition and capacity. Describe any documented overflows, bypasses, or other problems that may degrade water quality or constitute a threat to public health. Indicate future needs based on population projections. Map existing and planned service areas.

Appendix C: Project Resources

[Fact Book](#)

Transportation Systems

Map the existing and planned multimodal systems and port and airport facilities. Describe any highway segments deemed by the North Carolina Department of Transportation (NCDOT) as having unacceptable service levels. Describe highway facilities on the current thoroughfare plan or facilities on the current transportation improvement plan. Describe the impact of existing facilities on land use patterns.

Appendix C: Project Resources

[Fact Book](#)

Stormwater Systems

Describe the existing public stormwater management system. Identify existing drainage problems and water quality issues related to point-source discharges of stormwater runoff.

Appendix C: Project Resources

[Fact Book](#)

Future Land Use	18; Map - 22
This element of the plan is intended to guide the development and use of land in a manner that achieves the goals of the CAMA through local government land use and development policies, including a Future Land Use Map.	
Policies	23
Community Concerns and Aspirations and Existing and Emerging Conditions	46
Shall be considered in the development of local government land use plan policies as required in 7B .0702 (b) and (c).	
Policies	18
Shall be consistent with the goals of the CAMA, shall address the CRC management topics for land use plans, and comply with all state and federal rules.	
Policies	N / A
That exceed use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern, shall be identified in the plan.	
Land Use Plan Management Topics	18
The purposes of the CRC management topics are to ensure that land use plans support the goals of the CAMA, define the CRC's expectations for land use policies, and provide a basis for land use plan review and certification. In addition to the management topics outlined below, plans may also include policies to address local areas of concern. Each management topic includes two components: a management goal and planning objectives.	
Public Access	52
Management Goal	52
<i>Maximize public access to the public trust waters of the coastal region for residents and visitors.</i>	
Planning Objective	52
<i>Implement policies and recommendations that address access needs and opportunities, establish policies for beach areas targeted for nourishment, and assure satisfactory access to public trust waters for all Pender County residents and visitors.</i>	
Land Use Compatibility	46

Management Goal	46
<i>Manage the physical growth and development of Pender County by encouraging more intensive land uses in key locations identified for such growth while preserving and protecting the unique physical character and social assets of the rural heritage and coastal habitat that makes the County a unique place to live.</i>	
Planning Objective	46
<i>Ensure that development and use of resources balances protection of natural resources and agricultural lands with economic development, avoids risks to public health and welfare, and is consistent with the capability of the land.</i>	
Infrastructure Carrying Capacity	48
Management Goal	48, 52
<i>Ensure that public infrastructure systems are sized, located, and managed to provide service to residents and businesses and so the quality and productivity of Areas of Environmental Concern (AECs) and other fragile areas are protected or restored.</i>	
Planning Objective	48, 52
<i>Ensure that the location and capacity of public infrastructure systems are consistent with the County's growth and development goals.</i>	
Natural Hazard Areas	57 to 57; 74
Management Goal	57
<i>Conserve and maintain barrier dunes, beaches, flood plains, coastal wetlands, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.</i>	
Planning Objective	57; 80
<i>The County shall be proactive in its efforts to minimize damage and threats to public health and safety associated with hurricanes, severe weather, and other hazards and work to implement the Southeastern NC Regional Hazard Mitigation Plan (2021).</i>	
Water Quality	49; 80

<p>Management Goals</p> <p><i>Maintain, protect, and where possible enhance the natural environment and water quality in all coastal wetlands, rivers, streams, and estuaries.</i></p>	80
<p>Planning Objective</p> <p><i>The County shall take actions designed to prevent or control nonpoint source pollution and protect and where possible enhance and restore the water quality and sensitive natural resources located in and adjacent to the County's Planning jurisdiction.</i></p>	80
<p>Future Land Use Map</p> <p>Depict the policies for growth and development, and the desired future patterns of land use and land development with consideration given to natural system constraints and infrastructure. Include designations with descriptions of land uses and development.</p>	18; Map - 22
<p>Tools for Managing Development</p> <p>The purpose of this element is to describe the management tools and actions the local government will use to implement the land use plan.</p>	18, 21, 100
<p>Guide for land use decision-making</p> <p>Describe the role of the land use plan policies, including the Future Land Use Map, in local decisions regarding land use and development.</p>	21; 100
<p>Existing development program</p> <p>Describe the community's existing development management program, including local ordinances, codes, plans, and policies.</p>	5, 22, 21, 46, 98, 100
<p>Action plan and implementation schedule</p> <p>Describe the actions that will be taken by the local government to implement policies that meet the CRC's Management Topic goals and objectives. Specify the fiscal year(s) in which each action is anticipated to start and finish. Describe the specific steps the local government plans to take to implement the policies, including the adoption and amendment of local ordinances, plans, and special projects. The action plan shall be used to prepare the implementation status report for the land use plan.</p>	104 to 134

APPENDIX B: GLOSSARY

Centralized water and wastewater: Refers to a water or wastewater system or network that transports water or wastewater from residential or commercial premises to a central treatment or disposal facility. Centralized water or wastewater utilities are publicly or privately provided, such as Pender Utilities or a privately operating business. This is the intended form of utilities provided in growth areas identified in the Future Land Use Map. This does not refer to package treatment plants.

Community hubs: A place, structure, area, or other facility used for and providing religious, fraternal, social, or recreational programs generally open to the public and designed to accommodate and serve significant segments of the community.

Complete Streets: A multimodal approach to roadway design and safety that considers all users of transportation infrastructure, including pedestrians, bicyclists, motorists, and transit riders.

Incremental density: Slightly increased density of housing that is sensitive to the existing character of the neighborhood.

Green infrastructure: The range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters (EPA, Clean Water Act 2019).

Greenways: Corridors of undeveloped land preserved for recreational use or environmental protection.

Growth areas: These areas are identified by the Residential Neighborhood, Neighborhood Center, Regional Center, Heavy Commercial, and Industry & Commerce Future Land Use Categories. Growth areas will generally be served by centralized water and wastewater infrastructure, and are intended to provide denser housing, commercial, and industrial opportunities.

Infrastructure: The facilities and services necessary for a society, community, or economy to function. This can include utilities (such as water and sewer); transportation systems, like streets and roads; communications, such as broadband and wireless; and public facilities, such as fire stations, libraries, parks, and schools. It can also refer to social infrastructure

that support community well-being, like healthcare, community or senior centers, and others.

“Missing middle” housing: A range of house-scale buildings with multiple units, compatible in scale and form with detached single-family homes, located in a walkable neighborhood. Types of middle housing include cottage style single-family, townhomes, duplex, triplex, quadplex, apartments, and condominiums.

Mixed-use: A horizontal or vertical mix of non-residential and residential uses within a common development. The term mixed-use is intended to support flexibility for market driven development of compatible land uses. It is also intended to create more sustainable forms of development that reduce vehicle miles traveled, support placemaking and walkability, provide needed entertainment and services to residents, and enhance quality of life.

Package treatment plants: Pre-manufactured treatment facilities used to treat wastewater in small communities or on individual properties as part of a decentralized system.

Place-based economic development: A method of economic development which focuses on leveraging the unique place-based features and assets of a locality.

Planning topic: A specific area or subject of community development. Examples of planning topics include housing, transportation, economic development, and natural resources.

Public services: The institutional systems (education, health care, governance, etc.) that are required to meet the economic, social, and other needs of a community.

Public transportation: Transportation services provided for the public by vehicles such as bus or rail on public ways, using specific routes and schedules, and usually on a fare-paying basis.

Smart growth: An overall approach of development and conservation strategies that can help protect our health and natural environment and make our communities more attractive, economically stronger, and resilient to climate change.

Social determinants of health: The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and

quality-of-life outcomes and risks. Some examples of social determinants of health are housing, transportation, education, job opportunities, pollution, and social contexts.

Third places: Neutral spaces between work and home that individuals frequent for social connection to their community. These spaces allow community members to interact with each other and can include parks, plazas, coffee shops, and other spaces.

Traditional neighborhoods: Development based on human-scale design with concerns for walkability, increasing density, a mix of uses, and reducing automobile usage. Also referred to as conventional neighborhoods.

Vision Zero: A program or policy effort that aims to eliminate traffic-related fatalities and injuries.

Voluntary Agricultural Districts (VAD) and Enhanced Voluntary Agricultural Districts (EVAD): The Voluntary Agricultural Districts (VAD) and Enhanced Voluntary Agricultural Districts (EVAD) provide access to regulatory benefits and programs in exchange for a conservation agreement to protect the land for active agricultural purposes.

Wildland Urban Interface (WUI): The area where homes and communities meet or intermingle with undeveloped wildland vegetation that are more vulnerable to wildfires. For more information, see the North Carolina Forest Service – Resist Wildfire site.

Wastewater treatment facilities: Facilities that treat a wide range of wastewater, including industrial and domestic sewage. Wastewater treatment plants operate on a larger scale than other wastewater or sewer options (such as septic tanks and package treatment plants) and can be run by a private wastewater company or public utility, such as Pender County Utilities.

APPENDIX C: PROJECT RESOURCES

Understanding the influences on Pender County's planning elements required a thorough review of the following sources that were incorporated into the development of this Plan. To access these project resources, please see the Pender County Planning & Community Development webpage.

- **Community Policy Profile:** The Community Policy Profile reviews and summarizes plans, assessments, studies, and other important documents whose guidance can help inform the Imagine Pender 2050 Comprehensive Land Use Plan. The report contains brief descriptions and summaries of each of these documents and highlights the key policy topics addressed in the reports.
- **Fact Book:** The Fact Book provides data on existing conditions and projected future trends to provide a common understanding of Pender County at the start of the Imagine Pender 2050 Comprehensive Plan process. The Fact Book also served as a resource as the Plan was being developed. New data continually becomes available, such as new Census data and updated development features maintained by the County's staff. This Fact Book freezes the data at a moment in time and is a useful snapshot of County conditions to help inform development of the Plan.
- **Planning Influences Report:** Also included in the Fact Book, the Planning Influences Report provides a market analysis for Pender County, including analyses, findings, and recommendations based on current available market data for demographic, economic, tourism, and real estate factors.
- **New Issues and Opportunities Report:** This report identifies new issues and opportunities based on vision and policy themes generated from stakeholder interviews, Steering Committee discussions, and inputs received through public engagement. The topics outlined in this document served as the foundation for policy discussions with County Staff, the Steering Committee, the Planning Board, and the Board of County Commissioners and guided development of this Plan.
- **Community Engagement Window #1 Summary Report:** This document provides a summary of the activities, objectives, and outcomes of Community Engagement Window #1, held in September and October 2024. Participants were asked about their experience in Pender County today and their vision of the future. Verbatim responses to open-ended questions are provided at the end of the document.

- **Land Use Alternatives Report:** This report provides a summary of the land use alternatives exercise undertaken by the Project Team and Steering Committee prior to the development of the Plan and the Future Land Use Map. The report describes the purpose of the land use alternatives, assumptions and methodology, modeling outcomes, and conclusions.
- **Community Engagement Window #2 Summary Report:** This document provides a summary report of the activities, objectives, and outcomes of Community Engagement Window #2, held from April to June 2025. Participants were presented with a summary of the Vision Themes, Goals, Policies, Actions, and Future Land Use Map, and a complete Plan draft for public review and comment. Feedback from these engagement opportunities was then used to fine-tune certain aspects of the Plan and confirm the direction and outcome of the Plan's components and overarching results.