

Pender County Fact Book

IMAGINE PENDER 2050 COMPREHENSIVE LAND USE PLAN



Prepared by:

Pender County Planning & Community Development, Clarion Associates, Rose & Associates, and the Cape Fear Council of Governments

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INTRODUCTION

What is a Comprehensive Land Use Plan?

Pender County is launching an exciting effort to imagine the future of the County. Shaped by community feedback, the Imagine Pender 2050 Comprehensive Land Use Plan will build a strong foundation for land use planning to envision the next twenty-five years for Pender County.

The Imagine Pender 2050 Comprehensive Land Use Plan is the planning process to develop and update Pender County's long-range policy document. The previous plan, Pender 2.0, is available on the Pender County website on the Planning and Community Development page. A comprehensive land use plan is a long-term guide that expresses the values and aspirations of a community. It is the broadest public policy document a community can create for its future physical development, considering the input of citizens, businesses, and other stakeholders. It includes a vision statement about the future condition of the County, goals and desired outcomes for each of the plan topics, objectives to measure progress on a goal, and actions to achieve the goal. The plan is a tool to prepare for and manage change. It acts as a guide for decision-makers.

The plan is not a legally binding document, but it can serve as a foundation for budgeting decisions, zoning ordinance updates, rezoning considerations, infrastructure investments, and more.

About the Fact Book

This 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 will also serve as a resource as the plan is 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 today to help inform development of the plan. This Fact Book is not intended to be an encyclopedia of every data point about Pender County. The Fact Book incorporates the "Planning Influences: Sociodemographic, Real Estate & Economic Development Analysis" report prepared by Rose & Associates. For more information and to access this other project resource, please see the Pender County website.

Use of the Fact Book

The Fact Book identifies important community characteristics and demographic trends that warrant consideration when formulating policies and long-term growth strategies. The following analysis provides information on the location, population, real estate market, housing, economic, natural systems, community facilities and services, and land use characteristics of Pender County. Such information is intended to allow staff and officials to make growth management decisions based on an understanding and knowledge of where the County has come from, where it is today, and where it may be heading.

Ten counties – Brunswick, New Hanover, Onslow, Iredell, Duplin, Lincoln, Sampson, and Bladen Counties within North Carolina as well as Horry County and Georgetown County in South Carolina – were selected to provide a comparative analysis to demographics within Pender County for select data points.

The current population size, both permanent and seasonal, and the level to which it will change during the planning period can help estimate the development pressure that may impact fragile environmental ecosystems, rural heritage landscapes, prime farmland, and coastal resources. In addition, demands placed on infrastructure (roads, sewer, stormwater, community services, etc.) are directly related to growth in population and development. As a result, staff and officials can use the information contained in the Fact Book as a resource for decision making.

LOCATIONAL ANALYSIS

History

The first European explorers discovered what is now Pender County in 1524. 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 British colonists in 1725, Pender County was a part of New Hanover County until 1875. The Moore family settled the area south of Wilmington at Brunswick town. 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 and British Loyalists. 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.

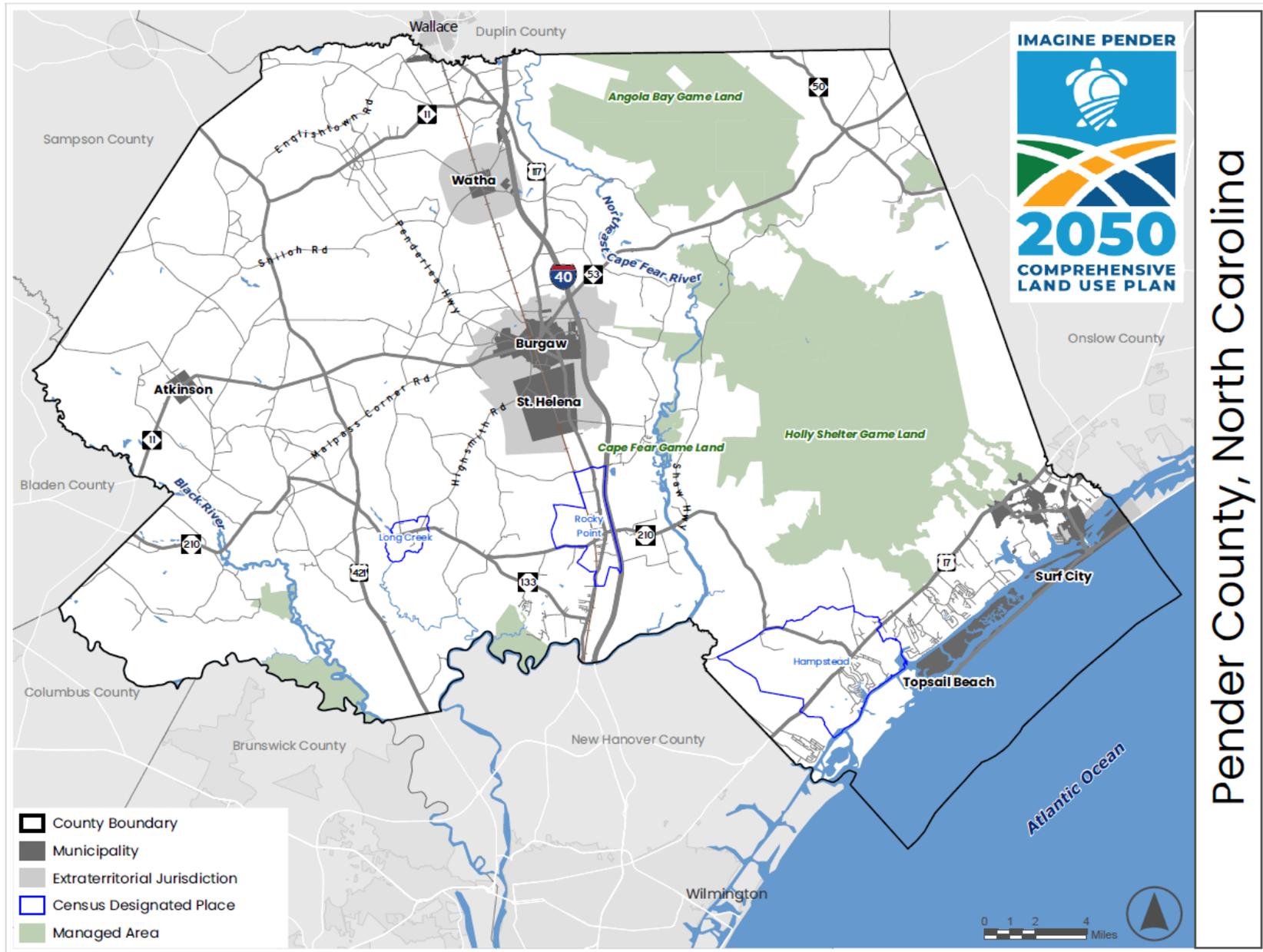
After the Civil War, the County was still a part of New Hanover. The plantation system had been destroyed during the Reconstruction years, but it was out of those politics that the County was created in 1875. Burgaw, the current county seat, was chartered shortly thereafter in 1879. In the 1870s, the 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 manners 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 former Fort Bragg (now named Fort Liberty). Passenger service on the rail line between Wilmington and New Bern operated until 1939; however, freight service continued until the 1980s.

Location

Pender County, the fifth largest county in North Carolina based on total land area, is located on the southern coast of the State. Pender County covers 541,290 acres (approximately 845 square miles) of land area. The municipal planning jurisdictions of all towns in Pender County, including corporate limits and extraterritorial jurisdictions (ETJs), account for 26,742 acres – 4.9% of total county acreage. This includes the towns of Atkinson, Burgaw, St. Helena, Surf City, Topsail Beach, the portion of Wallace in Pender County, and Watha. The County planning jurisdiction (that area outside municipal corporate limits and ETJs) covers 514,548 acres (804 square miles) – 95.1% of total County acreage. Three US Census designated places are located in Pender County: Hampstead, Long Creek, and Rocky Point. These are areas of statistically significant population that are not formally incorporated municipalities. A significant portion of the County's land area is comprised of the two state game lands: Angola Bay (24,483 acres) and Holly Shelter (65,136 acres).



Pender County, North Carolina

Figure 1: Map of Pender County, North Carolina

Geographic Dynamics

Pender County is located within the Wilmington Metropolitan Statistical Area (MSA), one of sixteen in the state of North Carolina. The MSA includes Brunswick, New Hanover, and Pender Counties which include coastal towns, beaches, rural and agricultural areas, and game lands. The region has a rich history in agriculture, trade, transportation, military, defense, and naval operations. Major centers of influence include the City of Wilmington to the south and the City of Jacksonville and the military installations of Camp Lejeune to the north. Primary transportation routes include Interstate 40, US Highways 17, 117, and 421, Wilmington International Airport, and the Port of Wilmington.

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 serves as 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 the Intracoastal Waterway, the City of Wilmington, and the interstate highway system has spurred significant growth in the coastal portion of the County. Likewise, the southern portion of the County has begun to see increased growth pressure due to its proximity to Wilmington and key transportation corridors (I-40, US 117, and US 421).

While Pender County has been rapidly growing, the population and household incomes are unevenly distributed. As shown below, the concentration of population and wealth lies along the coastal areas primarily in the eastern half of the county. As a result of this disparity there is a misperception that one side of the county contributes to its economy more than the other. However, looking further we see that both the east and west side of the county make great contributions to the local economy and its fiscal health. While a large concentration of the population is located along the coastal areas due to the region's pristine beaches, visitors and tourism are only part of the appeal of Pender County. The area's rich historical and agricultural assets also add to the economic vitality and potential in Pender. And most recently, the development of the Pender Commerce Park has added job

opportunities and new industries dependent on transportation networks located in Pender County and the surrounding area. There are several unique assets throughout the county, from its northern edge south along the major corridors to Wilmington and coastal beaches.

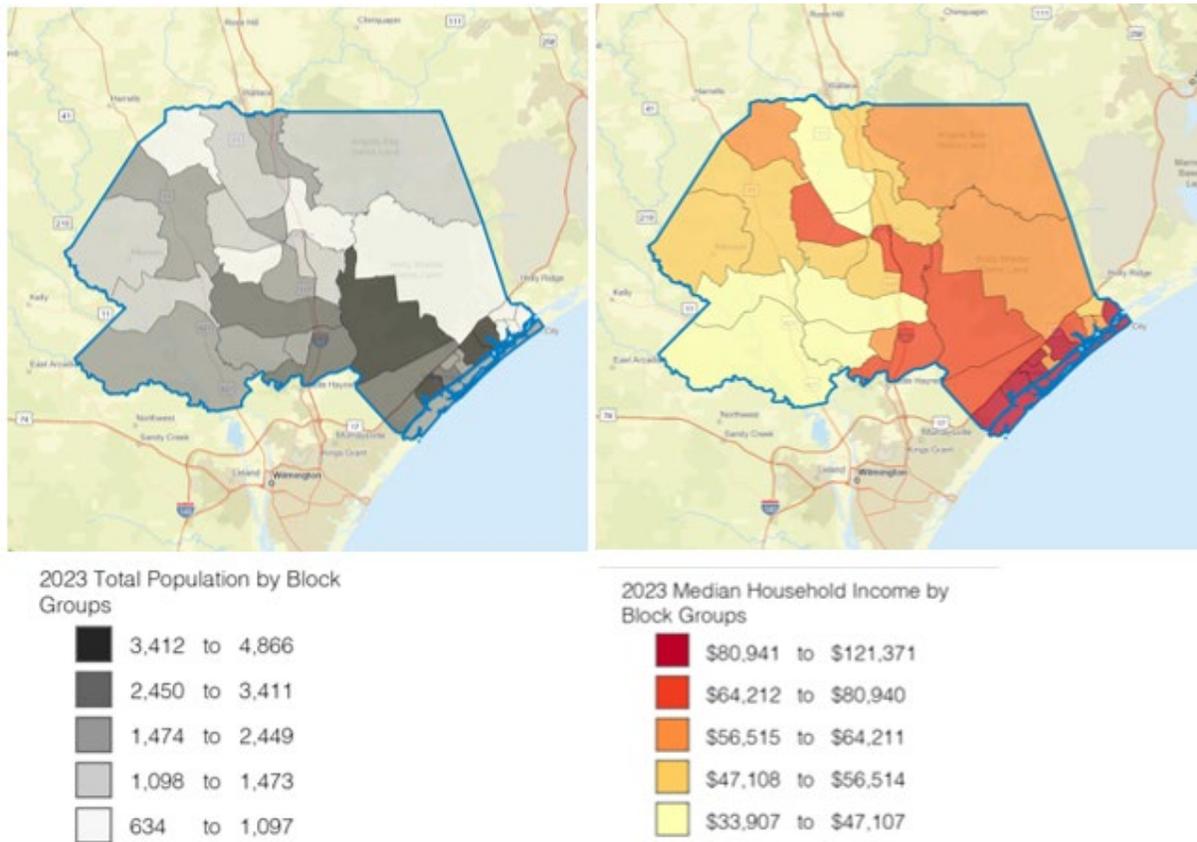
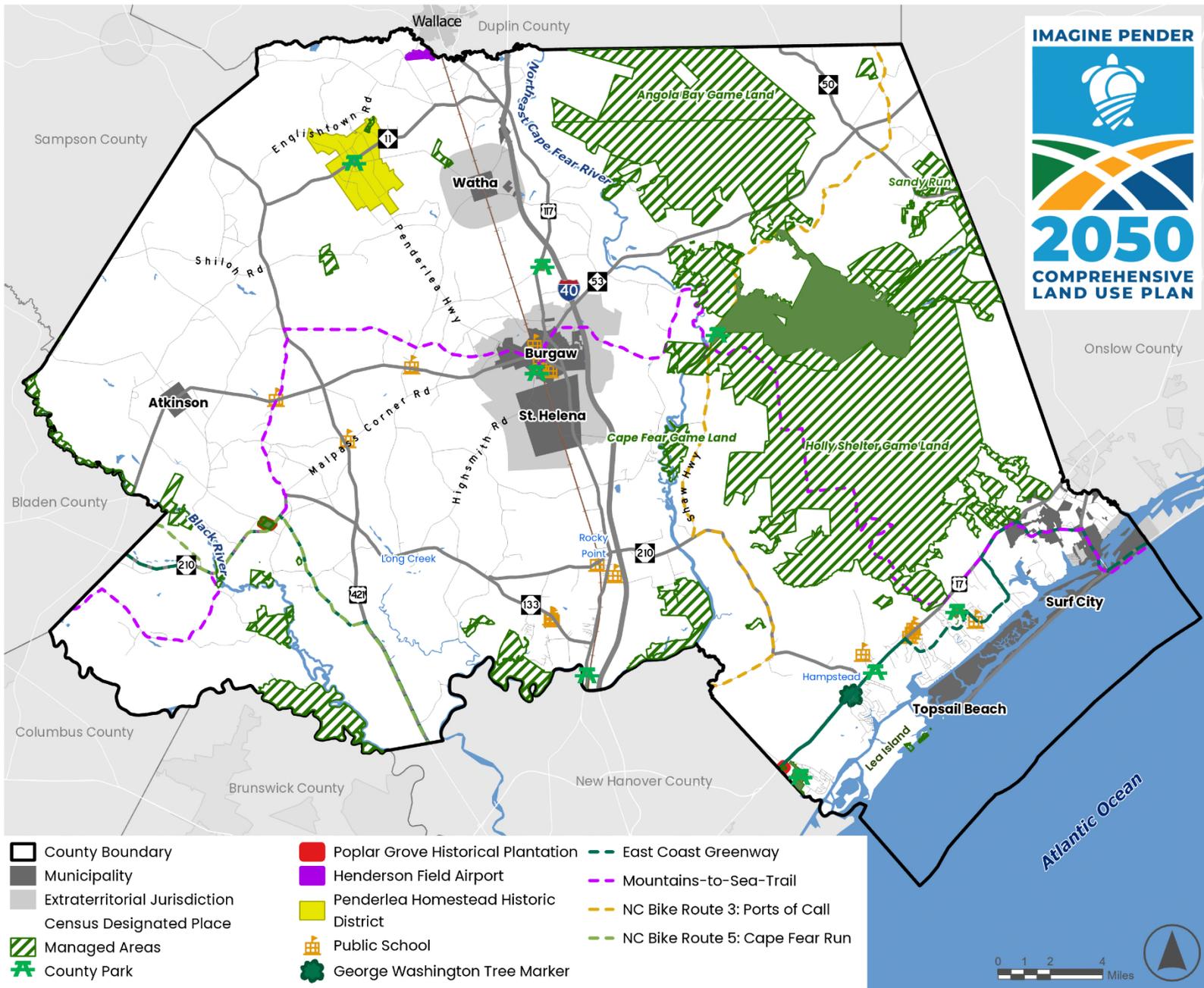


Figure 2: Pender County Population and Median Household Income by Block Groups (Prepared by Rose & Associates, LLC)



Community Assets and Facilities

Figure 3: Community Assets and Facilities

SOCIODEMOGRAPHIC DYNAMICS

Population

The majority of the population in Pender County lives in unincorporated parts of the County. The largest municipality by population is Surf City, followed by Burgaw (see **Table 1**).

Pender County is among one of the fastest growing counties in North Carolina. Updated estimates from the Census Bureau from July 2022 to July 2023 indicated that the counties with the largest population increases were in the coastal areas, and in the Charlotte and Raleigh metro suburbs. Pender County grew by 4.3%, second only to Brunswick County.

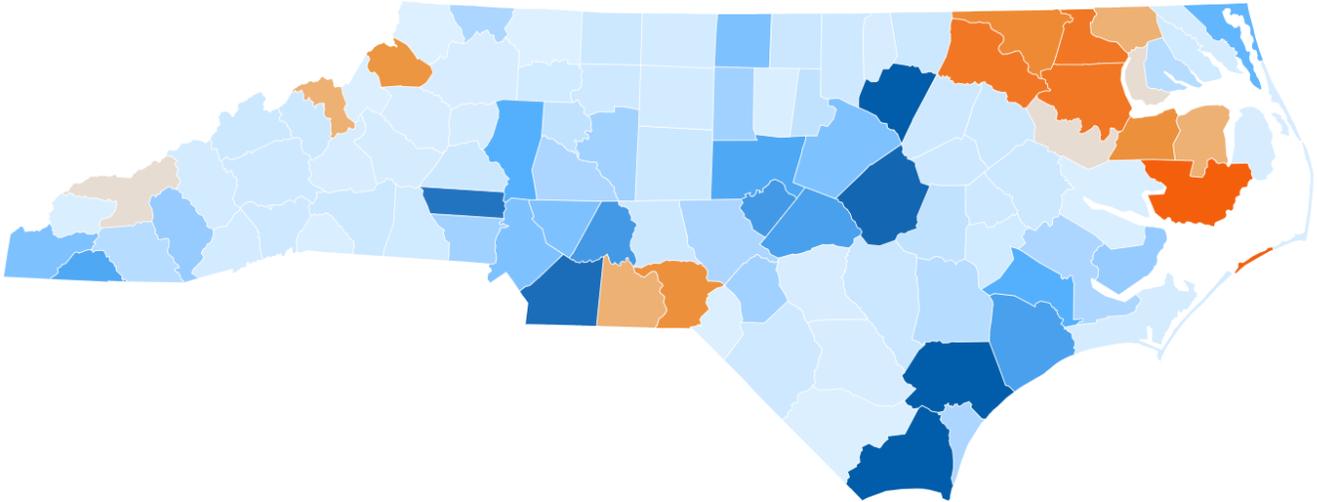
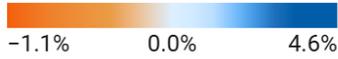
Municipality	Total Population	Percent of Population
Town of Atkinson	487	0.76%
Town of Burgaw	3,249	5.11%
Village of St. Helena	580	0.91%
Town of Surf City	4,160	6.55%
Town of Topsail Beach	444	0.69%
Town of Watha	244	0.38%
Unincorporated Pender County	54,311	85.56%
Pender County Total	63,475	100%

Table 1: Population of Municipalities and Unincorporated Parts of Pender County (5-year ACS, 2023)

Figure 4: North Carolina Population Change by County (Prepared by Rose & Associates, LLC)

Fastest growth in coastal counties, Triangle and Charlotte Suburbs

% population change, July 1, 2022 to July 1, 2023



Map: Carolina Demography • Source: [U.S. Census Bureau](#) • [Get the data](#) • [Embed](#) • Created with [Datawrapper](#)

Pender County has experienced a steady, gradual population growth with a 1.93% compounded annual growth rate from 2000–2020 based on Census data. The total population of **67,009** was reported by ESRI as of 2024. The County’s abundant natural resources, low cost of living, and proximity to Wilmington and Jacksonville/Camp Lejeune will continue to drive population growth for years to come.

Historic and Projected Population of Pender County (2000–2029)

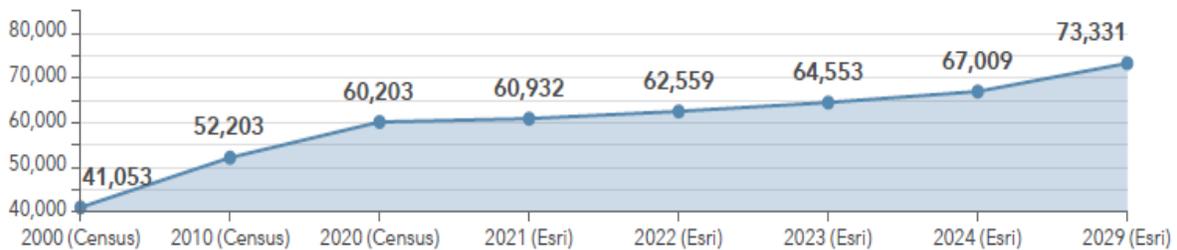


Figure 5: Pender County Population Projections (ESRI, Prepared by Rose & Associates, LLC).

Growth projections vary based on the source. ESRI, shown above, predicts the County’s population will increase to 73,331 by 2029, a 21.8% increase over 2020. The North Carolina Office of State Budget and Management (NCOSBM), which provides

twenty-year population projections for each County in North Carolina through the State Demographer, projects a 25.4% increase in population from 2020–2030, with most of the growth attributed to net migration, not natural births. These projections would place Pender County 9th out of the 100 North Carolina counties for percentage change in population growth.

The graph and table below show the population projections for Pender County through 2060, as prepared by the NCOSBM and Woods & Poole. Woods & Poole Economics, Inc. is an independent firm that provides economic and demographic forecast datasets. Comparing population projections across these three sources (ESRI, NCOSBM, and Woods & Poole) can give decision makers an idea of potential growth for Pender County. **Figure 6**, in addition to population projections, includes an estimate for seasonal population projections. For more information on how this was calculated, please see the Appendix.

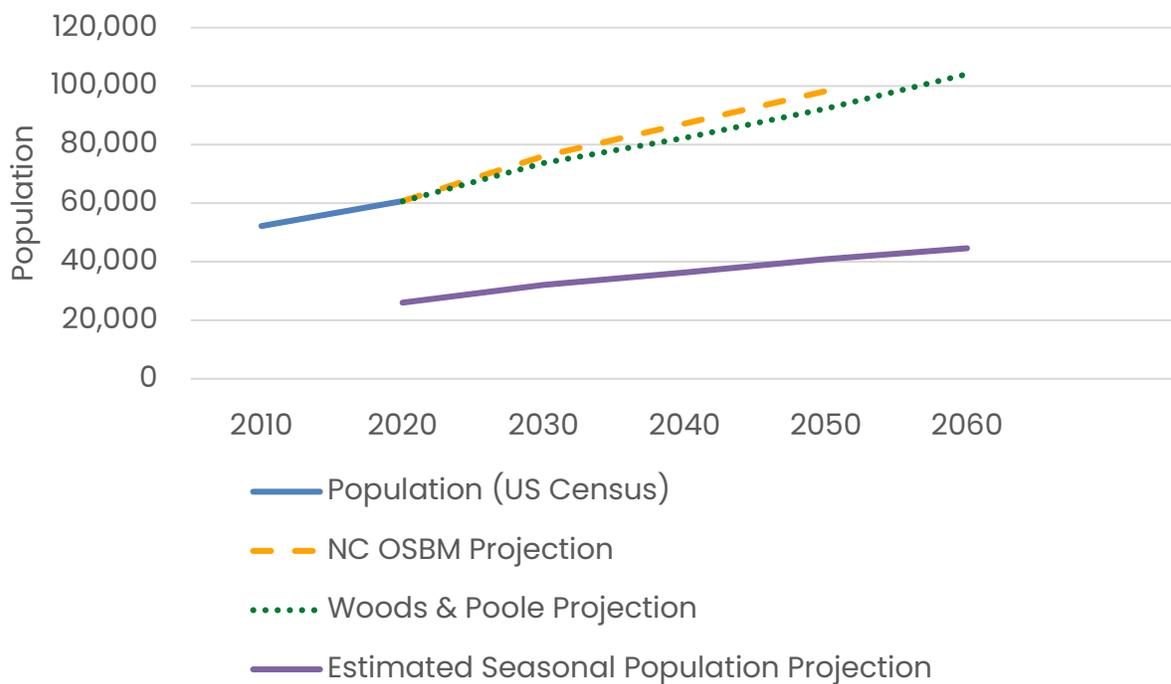


Figure 6: Pender County Population Projections through 2060

Historic and Project Population of Pender County

	2010	2020	2030	2040	2050	2060
Population (US Census)	52,195	60,719				
NC OSBM Projection		60,719	76,143	87,235	98,333	
Woods & Poole Projection		60,639	73,744	82,316	92,368	104,116
Estimated Seasonal Population Projection		26,011	32,105	36,316	40,847	44,602

Percent Change				
	2020-2030	2030-2040	2040-2050	2050-2060
NC OSBM	20.3%	12.7%	11.3%	NA
Woods & Poole	17.8%	10.4%	10.9%	11.3%

Table 2: NC OSBM and Woods & Poole Population Projections (Percent Change)

Age and Racial Demographics

The median age of residents in Pender County is 43.2 and increasing based on 2024 ESRI estimates, with over 60% of the population over the age of 35. The largest age bracket by population percentage is 55-64 years old (13.8%).

Pender County's population is primarily Caucasian (White), comprising three quarters of the overall population. The remaining population profile includes African American (Black) (11.6%) and Hispanic (9.3%) descent.

Estimates indicate that 6.3% of the population is bi-racial.

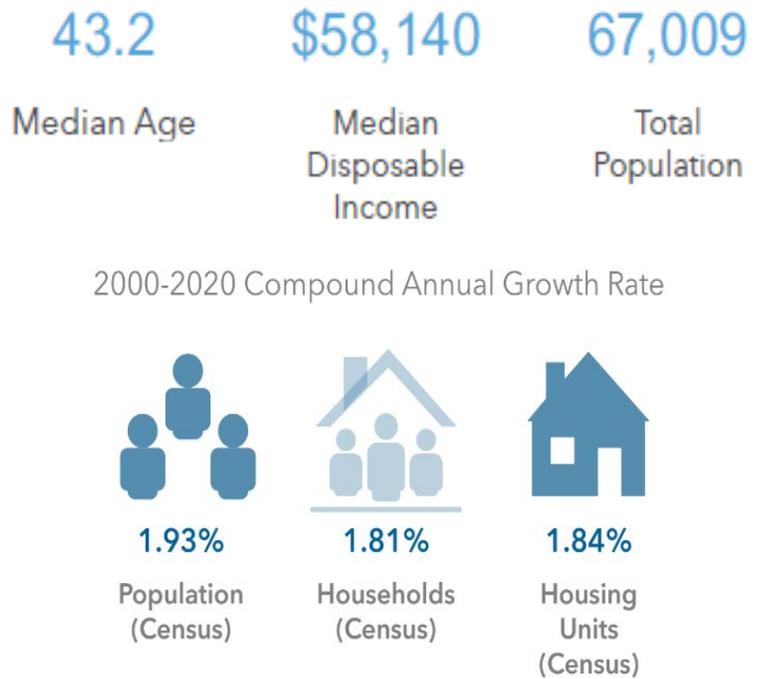


Figure 7: Population Census Data (Prepared by Rose & Associates, LLC)

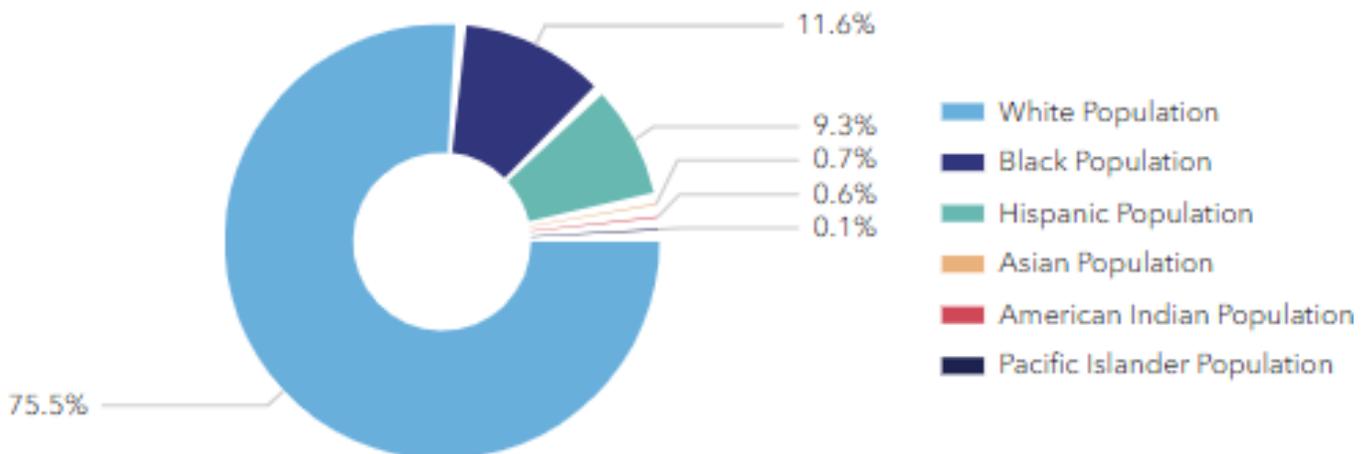


Figure 8: 2024 Racial Demographics (Prepared by Rose & Associates, LLC)

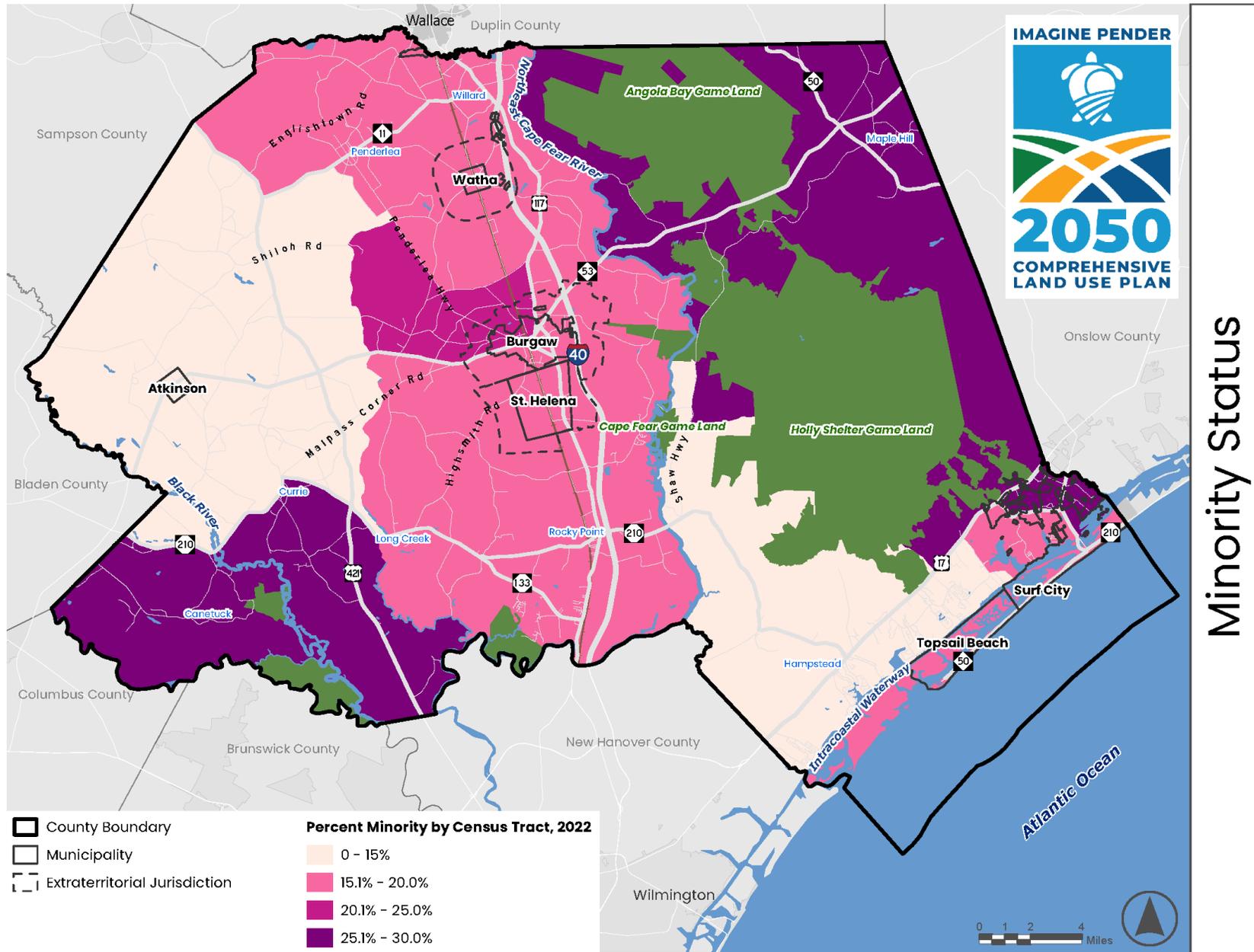


Figure 9: Minority Status by Geography

Social Vulnerability

Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events, ranging from natural hazards, such as hurricanes, to human-caused threats, such as toxic chemical spills, (CDC/ATSDR Social Vulnerability Index Fact Sheet, 2023). The CDC Social Vulnerability Index (CDC SVI) can be used to examine the social vulnerability of Pender County using 16 factors from four key themes. Census tracts are ranked by percentile social vulnerability with 0% being the least vulnerable and 100% being the most vulnerable. The overall Social Vulnerability Index is mapped in **Figure 10-14** to better understand community and individual vulnerability geographically. Other social vulnerability factors are also presented on subsequent pages:

- **Figure 10: Overall Percentile**
- **Figure 11: Household Characteristics** (Aged 65 and older, aged 17 and younger, single-parent households, and English language proficiency)
- **Figure 12: Socioeconomic Factors** (below 150% poverty, housing cost burden, no high school diploma, no health insurance, unemployed)
- **Figure 13: Racial and Ethnic Minority Status** (Hispanic or Latino of any race, Black or African American, Asian, Native Hawaiian or Pacific Islander, two or more races, or any other races)
- **Figure 14: Housing Type and Transportation Access** (Multi-unit structures; mobile homes; crowding, or more people than rooms in a home; no vehicle; group quarters)

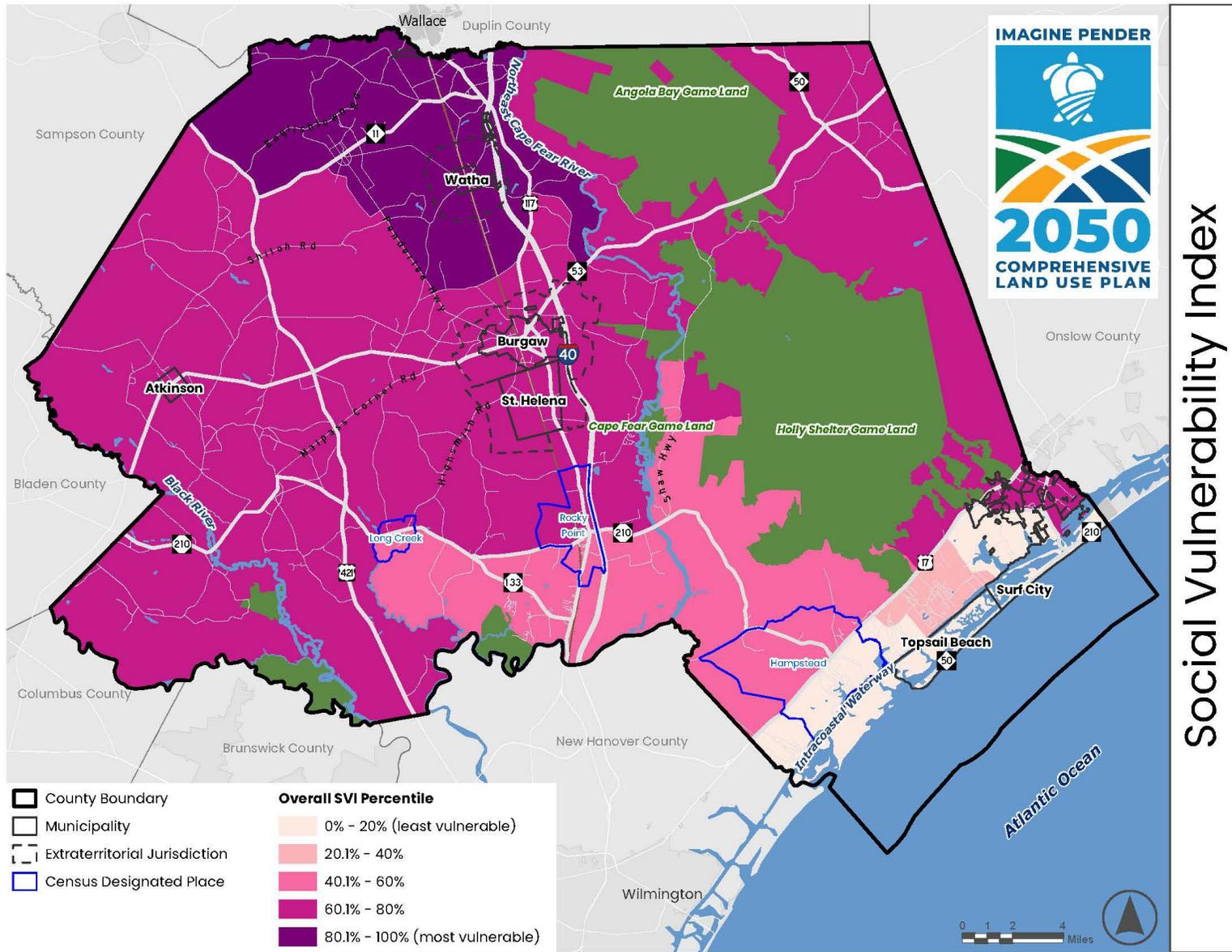


Figure 10: Social Vulnerability Index Map (Overall Percentile)

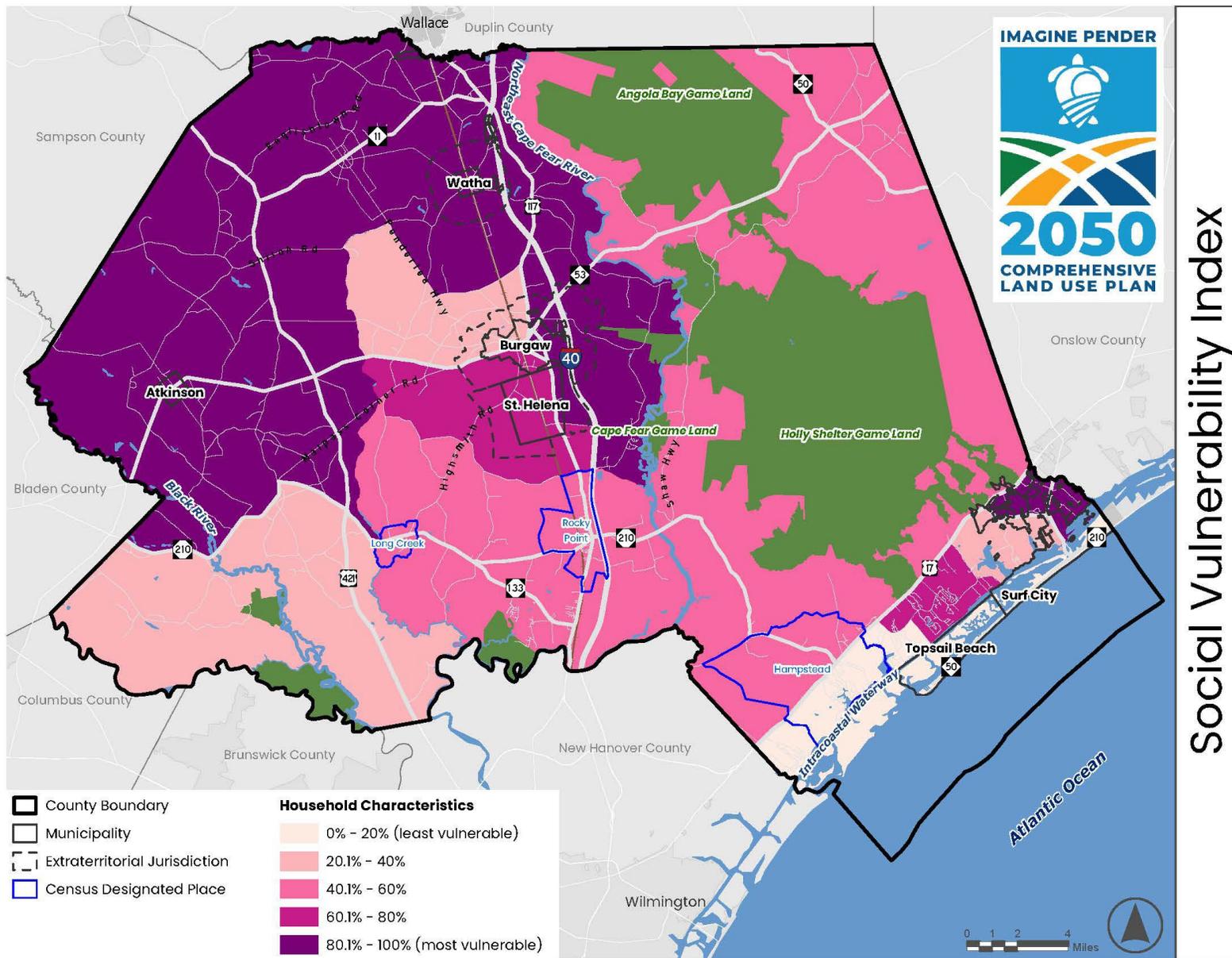


Figure 11: Social Vulnerability Index: Household Characteristics

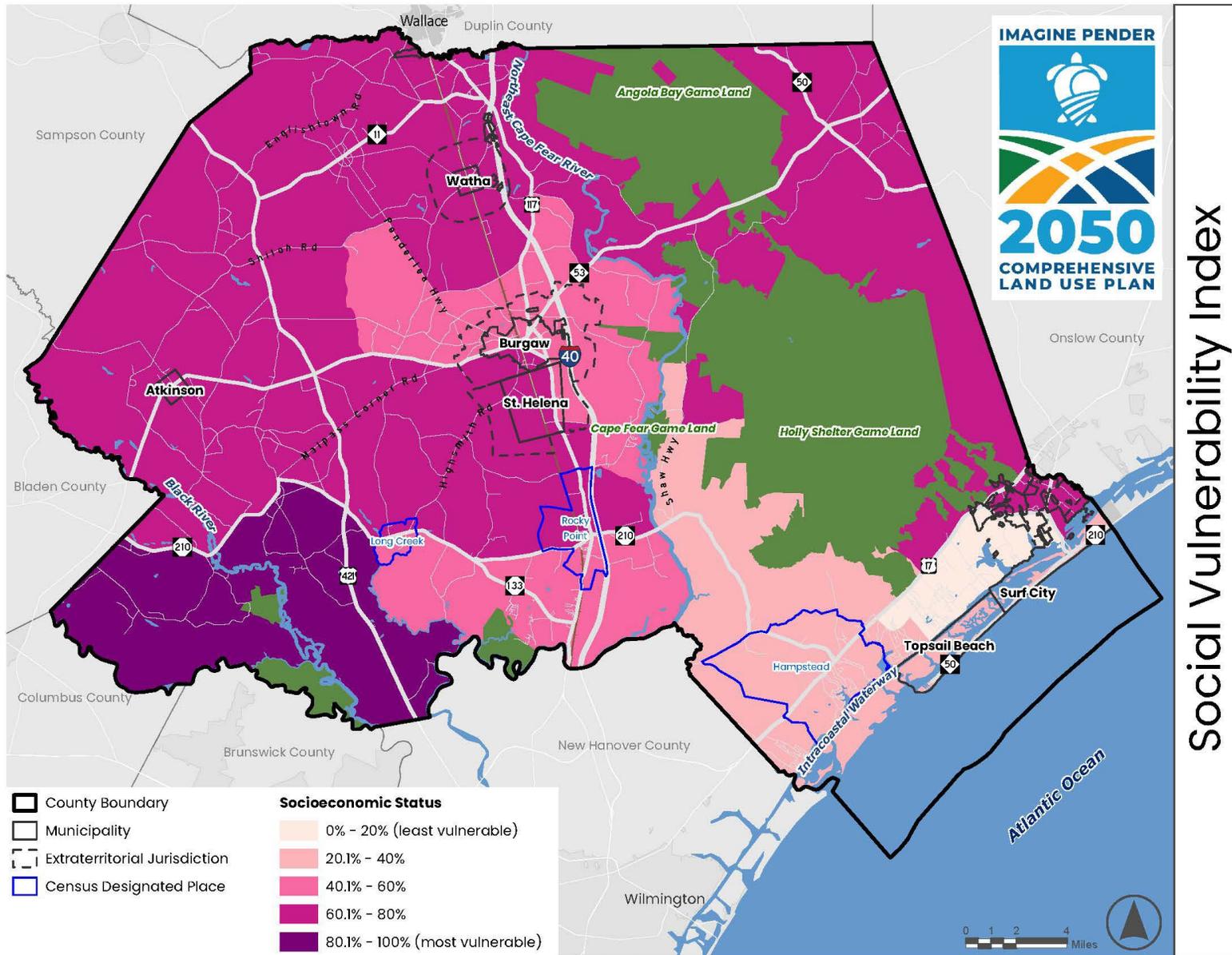


Figure 12: Social Vulnerability Index: Socioeconomic Status

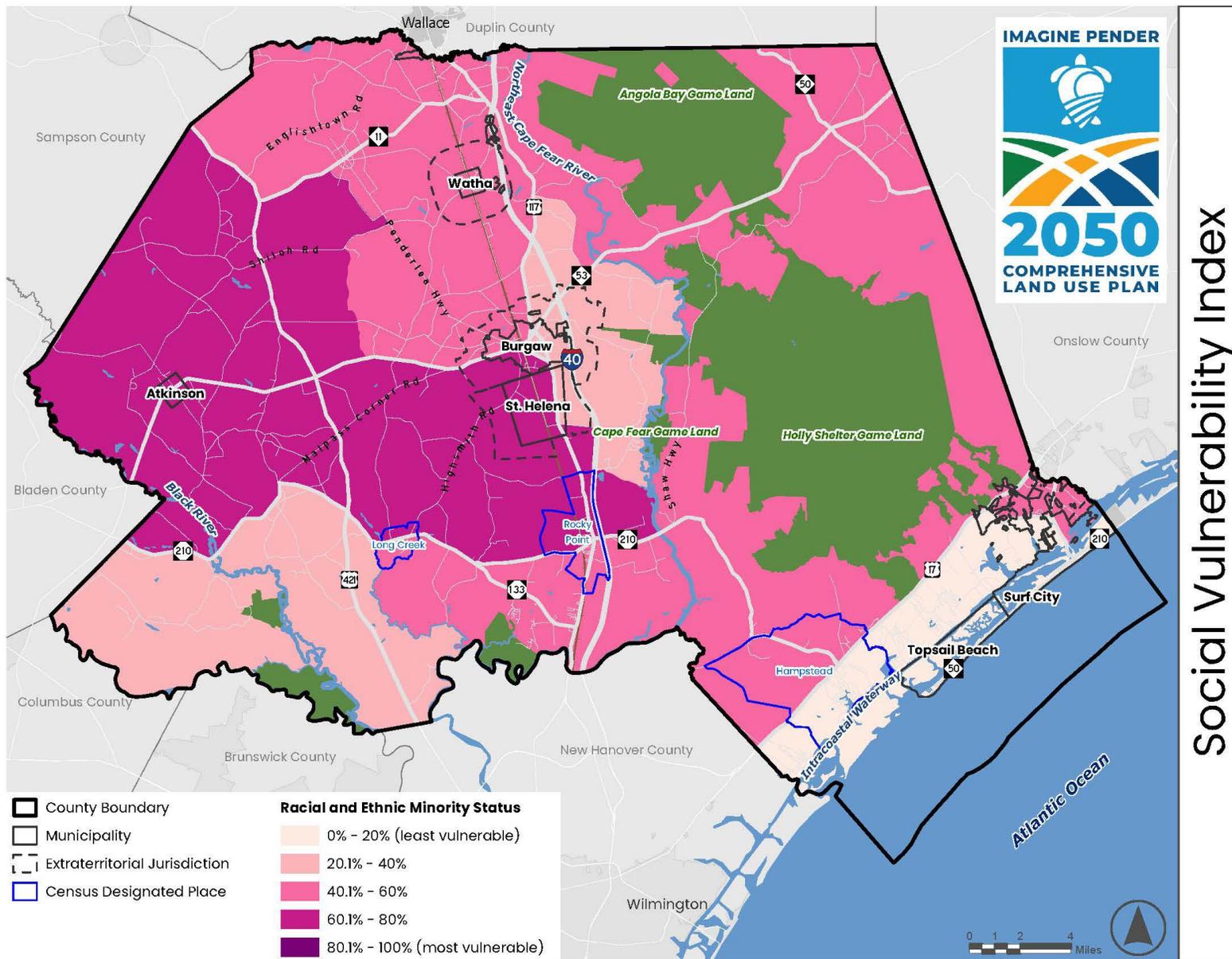


Figure 13: Social Vulnerability Index: Racial and Ethnic Minority Status

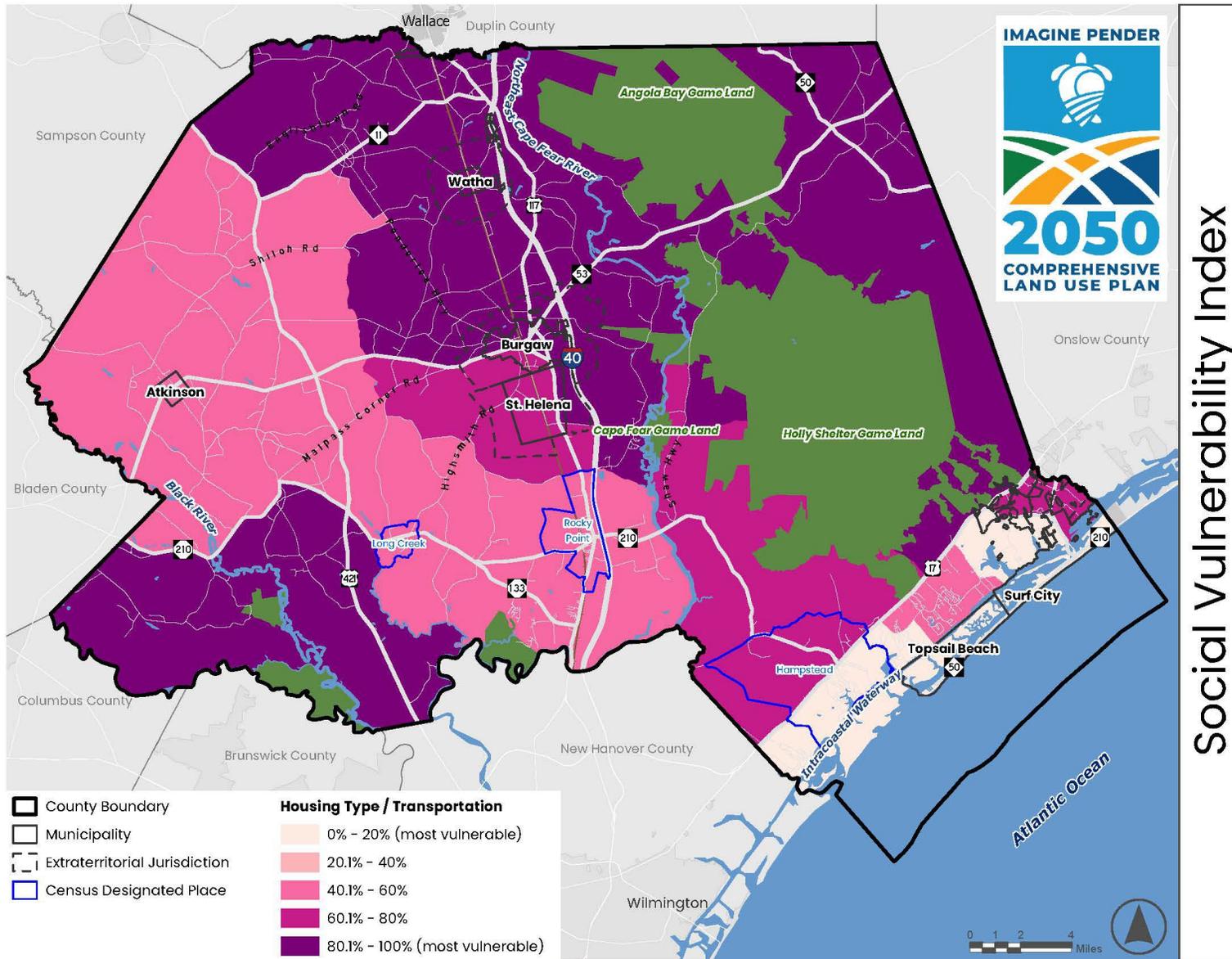


Figure 14: Social Vulnerability Index: Housing Type and Transportation Access

Tapestry Segmentation

Lifestyle Segmentation, as defined by ESRI's Tapestry©, combines socio-economic data to further understand lifestyle characteristics including housing, shopping, and entertainment preferences. The entire US population is categorized within 14 Tapestry LifeMode groups, from which 65 Tapestry Lifestyle Segments can be identified, grouped from rural to urban center populations. These provide in-depth information about the character of all households in the designated study area, combining demographic, social and behavior patterns. There are eight (8) unique Tapestry Lifestyle Segments throughout Pender County. The top three (3) Tapestry Lifestyle Segments within the County represent **63.8%** of households, all of which are in the **Rustic Outposts LifeMode Group**.

The map on the following page provides visual representation of the dominant Tapestry Segments by block groups and provides insight as to the lifestyle characteristics of these residents in relation to the County as a whole. The only variation being in two areas in the northeastern area and along the coast.

Understanding the lifestyle dynamics of residents will influence housing, shopping, and other development recommendations while aligning with the future growth of the county. Additional information on each of the Tapestry Segments throughout the county can be found in the Appendix.

The current median household income for Pender County is **\$72,325**. Just over half of the households fall into the \$50,000-\$150,000 range of income (ESRI). ESRI's projections for 2029 indicate a 16.1% increase to \$83,986.



Figure 15: Tapestry Segmentation: Rustic Outposts LifeMode Groups (Prepared by Rose & Associates, LLC)

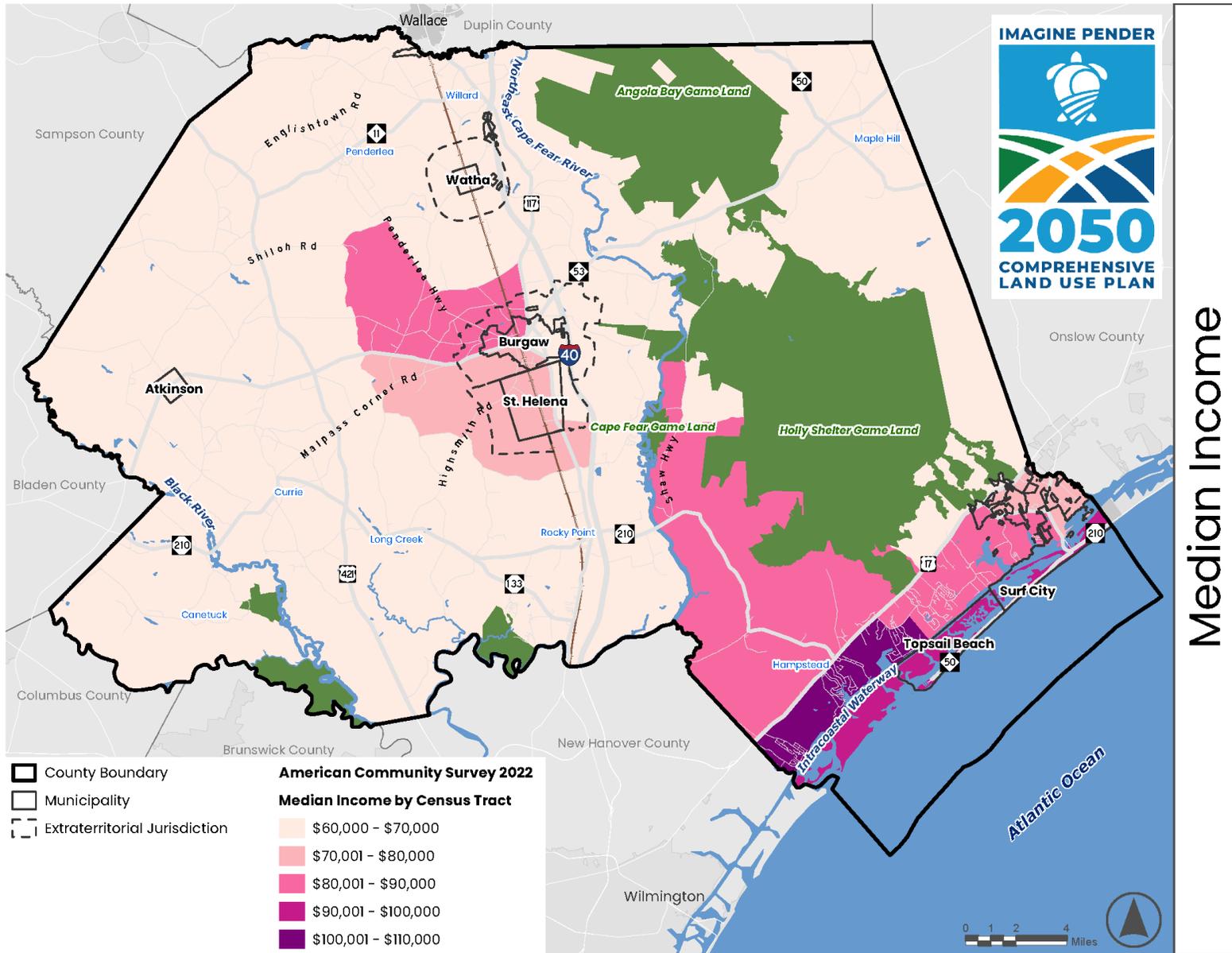


Figure 16: Median Income

While Pender County has been rapidly growing, the population and household incomes are unevenly distributed. As previously shown in **Figure 16**, the concentration of population and wealth lies along the coastal areas primarily in the eastern half of the county. As a result of this disparity there is a misperception that one side of the county contributes to its economy more than the other. However, looking further we see that both the east and west side of the county make great contributions to the local economy and its fiscal health. While a large concentration of the population is located along the coastal areas due to the region’s pristine beaches, visitors and tourism are only part of the appeal of Pender County. The area’s rich historical and agricultural assets also add to the economic vitality and potential in Pender County. And most recently, the development of the Pender Commerce Park has added job opportunities and new industries dependent on transportation networks located in Pender County and the surrounding area. There are several unique assets throughout the county, from its northern edge south along the major corridors to Wilmington and coastal beaches.

There are an estimated **33,332 households** in the county currently, 77% of which are occupied full time and most being two or more person households. Of the homes that are owner-occupied, data from 2020 shows that 28.3% of these households own their homes free and clear of a mortgage. Roughly one out of five households are renter-occupied. This together with vacant housing includes homes that may be short-term vacation rentals in the coastal areas. The 2020 US Census revealed that 53.5% of the vacant units (or 3,726 of 6,965 vacant housing units) were seasonal, recreational, or occasional use. Additional information on the housing market is available in the Real Estate section of this report.

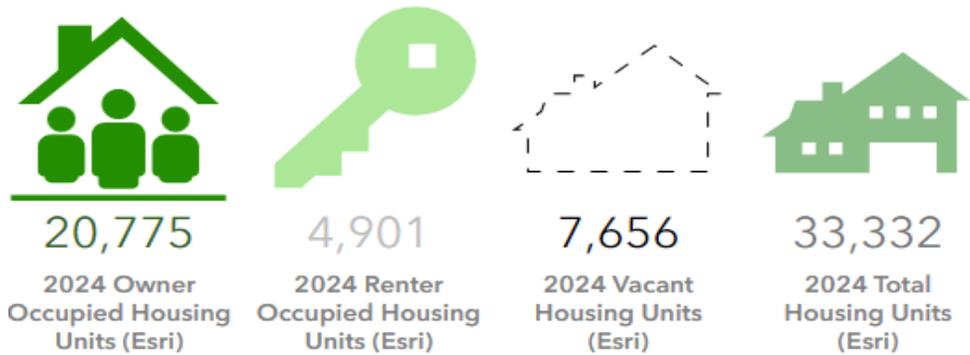
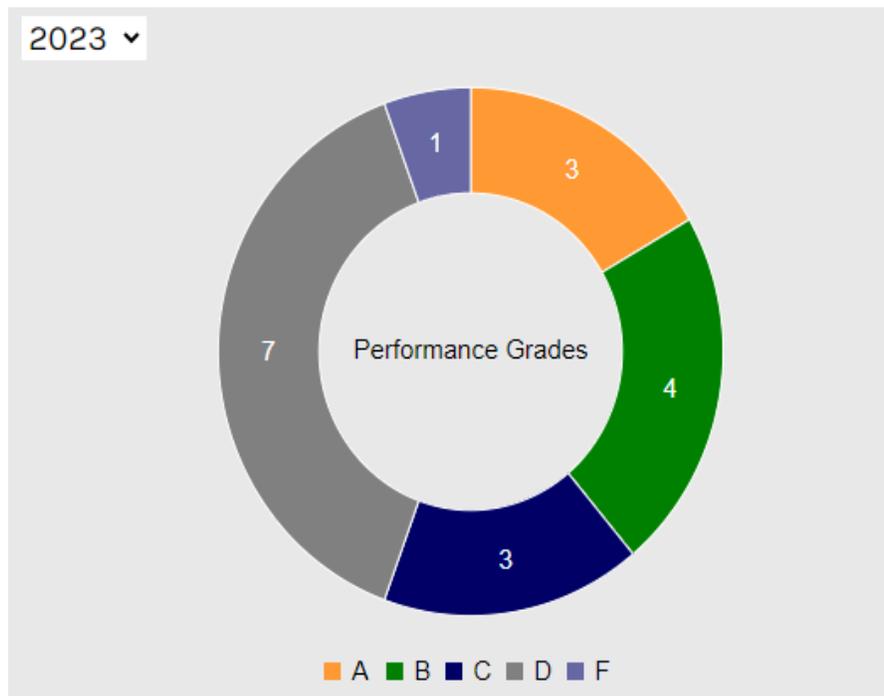


Figure 17: Overview of Housing in Pender County (Prepared by Rose & Associates, LLC)

Educational Attainment

Data shown from ESRI 2024 analytics demonstrates Pender County residents are educated and work-ready, as 43.3% of residents over 25 years of age are college degree holders and 91.9% are high school graduates or GED holders. Of the 19 public primary and secondary (K-12) schools analyzed in 2023, over half of the schools received a grade of “C” or better, with two new schools receiving an “A” grade from the previous year (**Figure 18**). Additional information on school rankings and data can be found on the North Carolina School Report Cards website.



Source: <https://ncreports.ondemand.sas.com/src/>

Figure 18: K-12 School Performance Data for Pender County (Prepared by Rose & Associates, LLC)

Workforce

Pender County boasts a relatively balanced workforce. Of the working population, 58.7% are in white collar professions, 23.2% in blue collar, and 18.1% in services related industries.

The 2024 data from ESRI indicates an unemployment rate of 4.2%, which accounts for the working civilian

population age 16+. Average employment figures from the US Bureau of Labor Statistics (BLS) for 2024 for the month of July, however, suggest a rate of 3.4%, seasonally adjusted, for the year.

The unemployment rate has been gradually decreasing over the past decade and remains historically low, despite summer and fall seasonality.

Employment grew 6.86% from 2019 to 2023 in the Wilmington MSA, however, it experienced a year over year reduction in job growth from 2022 to 2023 compared to other metro areas in the state. Despite regional reductions in employment growth, Pender County grew by 514 jobs. Employment projections by Woods & Poole indicate a steady increase in jobs from a historical point of 16,000 in 2010 to over 40,000 in 2060.

Job Concentration

US Census Bureau data reveals employment clusters within the County. The data is current through 2021 and indicates where the concentration of residents are working, which include along primary transportation routes (I-40 and US Highways 17 and 421), along the coast, and in communities such as Burgaw and Rocky Point.

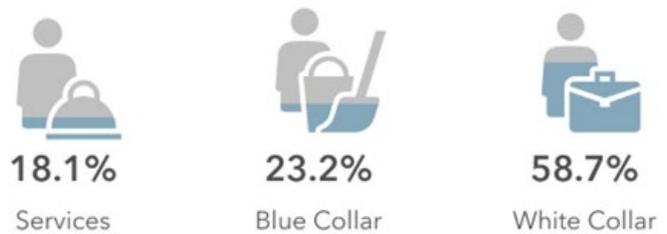


Figure 19. Percent of Profession Type (Prepared by Rose & Associates, LLC)



OVERALL EMPLOYMENT GROWTH BY METROPOLITAN AREA
 [between December 2022 and December 2023]

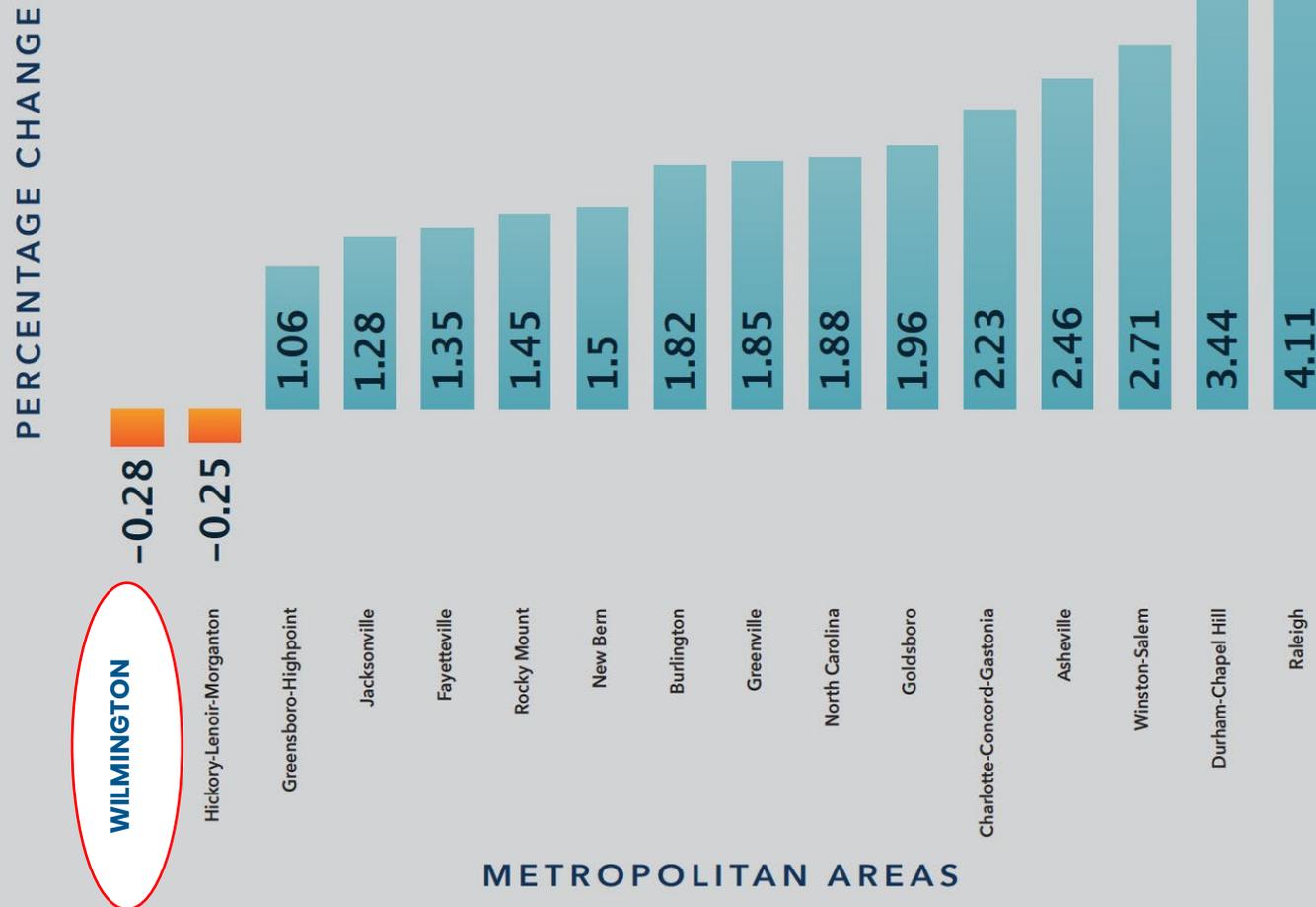


Figure 20: Employment Growth by MSA (Prepared by Rose & Associates, LLC)

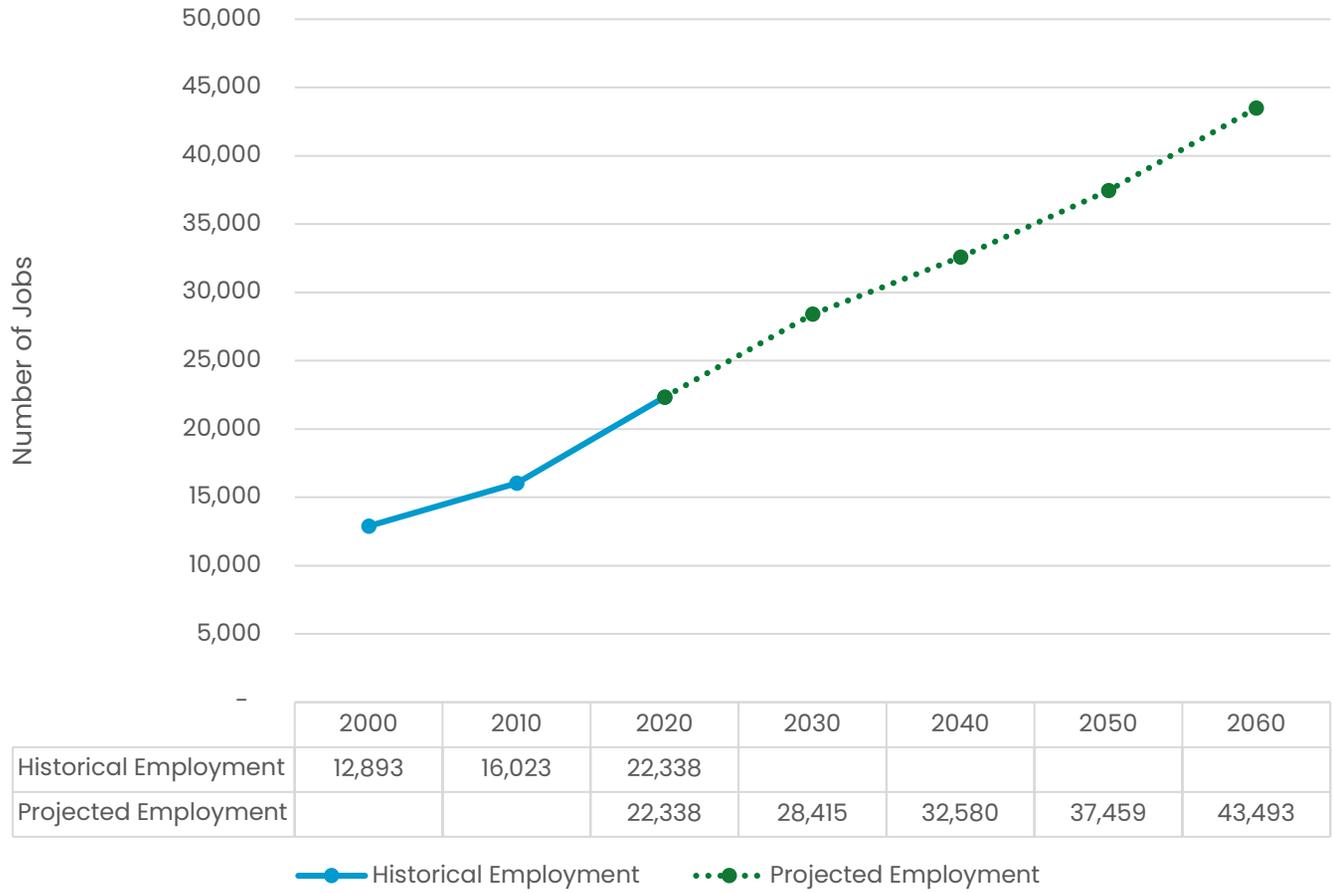


Figure 21: Employment Projections (Woods & Poole)

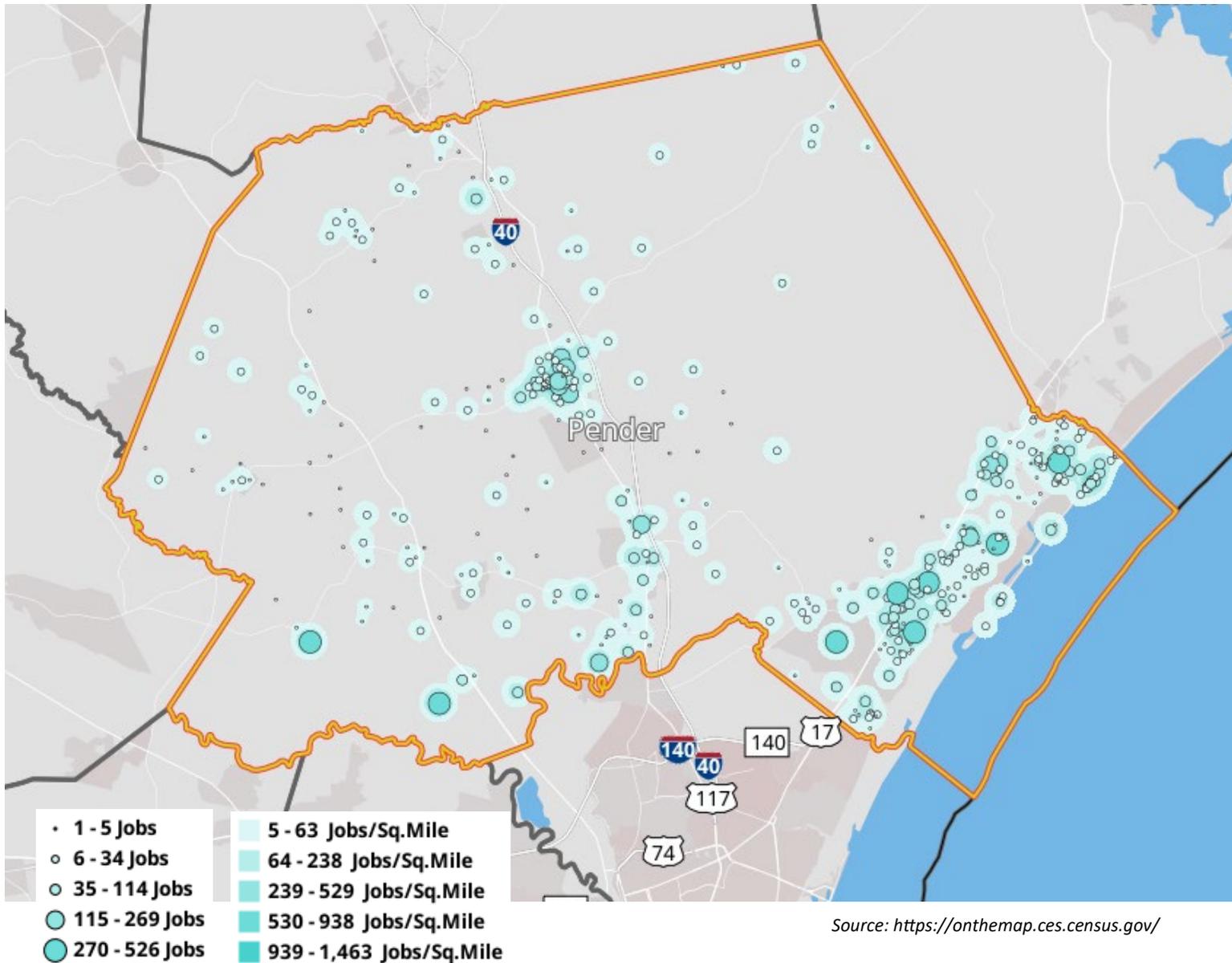


Figure 22: Job Concentration (Prepared by Rose & Associates, LLC)

The top industries (NAICS) within the county by **percentage of employment** include:

- Retail Trade (19.13%)
- Accommodation & Food Services (16.72%)
- Healthcare & Social Assistance (13.92%)
- Construction (11.75%)

Together, these four employment sectors made up 61.52% of the 2023 average employment according to the Bureau of Labor Statistics. The top two industries suggest an economy driven by tourism. Other notable contributing industries include Manufacturing (5.87%) and Administrative (6.05%).

However, the greatest percentage of employment does not necessarily coincide with the primary jobs that have the greatest impact on economic growth. The industries that fuel the economy are based on those products and services exported outside the local market, also known **as primary or basic employment**. The ratio of county employment exceeding US employment averages, or location quotient (“LQ”) above 1.0 are the primary drivers of job and economic growth. The top sectors with the largest LQs in Pender County suggest a different dynamic:

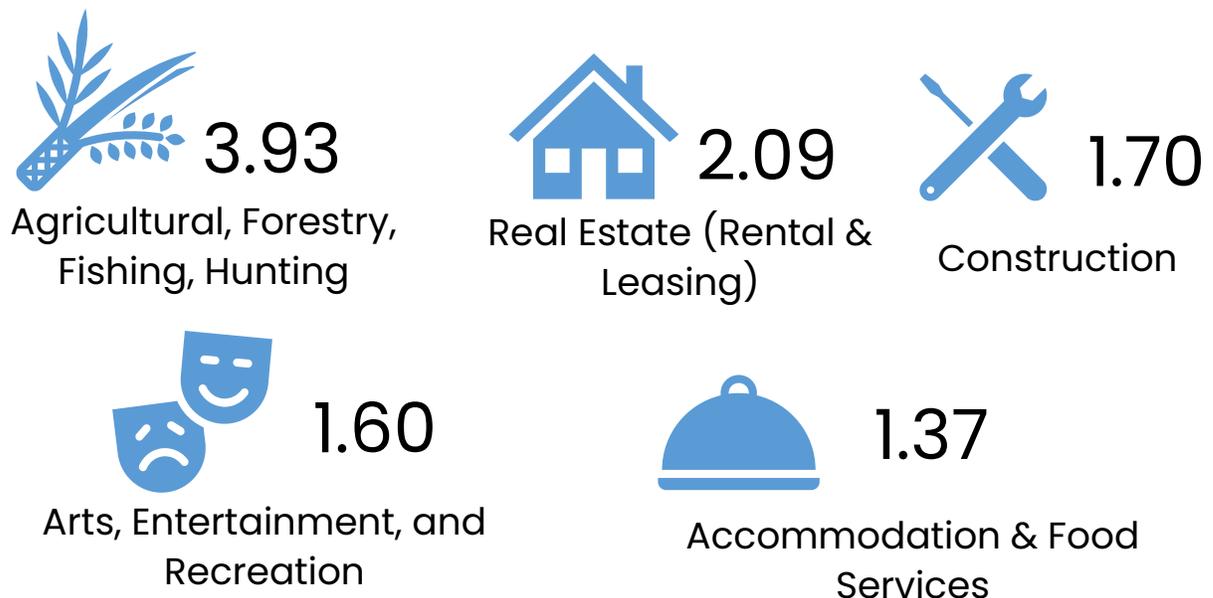


Figure 23: Pender County Employment Industries above US Average (Prepared by Rose & Associates, LLC)

Much of the growth over the past decade in Arts, Entertainment, and Recreation as well as Accommodation & Food Services has come from the county's adjacency to the beach and coastal areas. While much of Pender County's economy points to tourism, the leading economic sectors based on the past year's labor data include Agricultural, Forestry, Fishing, and Hunting as well as Real Estate & Construction, driven by the housing boom because of inbound migration. The addition of manufacturing growth in the western side of the county will impact the ratio between white collar, blue collar, and service employment in the coming years.

The North Carolina Opportunity Zones Program was created by federal tax legislation, known as The Tax Cuts and Jobs Act (H.R.1). The program aims to attract investment capital into low-income areas of North Carolina and offers qualified investors certain tax benefits when they invest unrealized capital gains into these areas. In May 2018, 252 opportunity zones were identified in North Carolina by the US Treasury. Pender County has one opportunity zone, located in the southern area of the county primarily west of 117 and covering a portion of 210 (**see Figure 24**). For more information, please see the North Carolina Department of Commerce website.

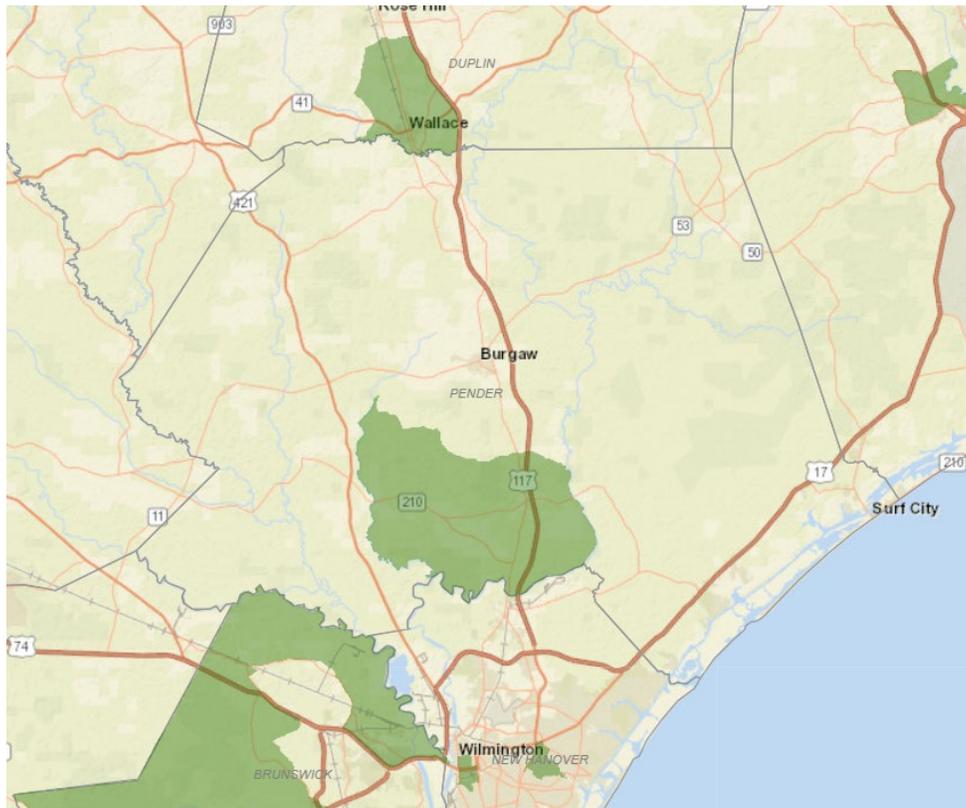


Figure 24: Pender County's NC Opportunity Zone

Tourism

Tourism is widely regarded as a key sector for economic development. Every new resident or business first experiences a place as a visitor. Tourism imports consumer spending, creates jobs, increases the wealth of an area, and often leads to economic growth in the community.

The tourism industry is comprised of various sectors that house, feed, transport, and entertain visitors. There are five primary sectors within the tourism industry, each covers a broad range, providing a distinct variety of goods and services.

1. Lodging
2. Transportation
3. Entertainment, recreation & activities
4. Food & beverage
5. Retail

While separate from one another, they can often overlap and work in conjunction to create one complete and comprehensive visitor experience. The COVID-19 pandemic in early 2020 halted the tourism industry, but research shows that domestic visitor spending has not only fully recovered, but continues to break records for North Carolina in 2023, according to annual data released by Visit NC of the NC Department of Commerce. Travel spending statewide rose 6.9 percent to \$35.6 billion in 2023 to set a record in visitor spending. Direct tourism employment also increased statewide by 4.8% to 227,000.

Pender County ranked 35th in total spending among the 100 North Carolina Counties in 2023. Domestic and international visitors to and within Pender County spent \$199.12 million in 2023, an increase of 5% from 2022. The five sectors within the county's tourism industry generated \$9.1 million in sales tax revenue from spending for the year:

2023 Pender County Spending in Millions	Category
\$60.13	Food & Beverage
\$39.69	Air & Ground Transport
\$52.21	Lodging (hotels + STRs)
\$30.33	Recreation
\$16.77	Retail

Figure 25: Pender County Sales Tax Revenue from Tourism (VisitNC, Prepared by Rose & Associates, LLC)

REAL ESTATE MARKET

The Real Estate Market is assessed by demand, driven by job growth and lifestyle relocations and is impacted by supply. Economic Base Analysis is used to understand the regional economy and determine real estate demand. The underlying theme suggests that for every (basic/primary) job that is created, a multiplier effect increases overall employment (both basic and non-basic), thus increasing both population and income within an area benefiting from such job growth. The corresponding growth (or decline) in jobs, as well as population and income drive demand for commercial and residential uses of real estate.

The primary/basic job growth created in Pender County indicates expanded demand for commercial space resulting from year over year job growth of over 500 jobs for 2022-2023. These provide a conservative estimate of real estate demand based upon the local market (based on previous year job growth) over a 10-year period.

Real Estate supply data is customarily reported by product type to include Industrial, Office, and Retail space. Housing data is also reported for rental in multi-family apartments (4+ units) and for sale units, blending single family, townhomes and duplexes (1-4 units). Real estate data is tracked by both product type and submarkets, which are important elements when understanding the local market in the context of the larger regional marketplace. Data is provided by the US Census, local realtor associations, and other proprietary sources, such as CoStar, a national commercial real estate data provider along with its affiliate LoopNet.

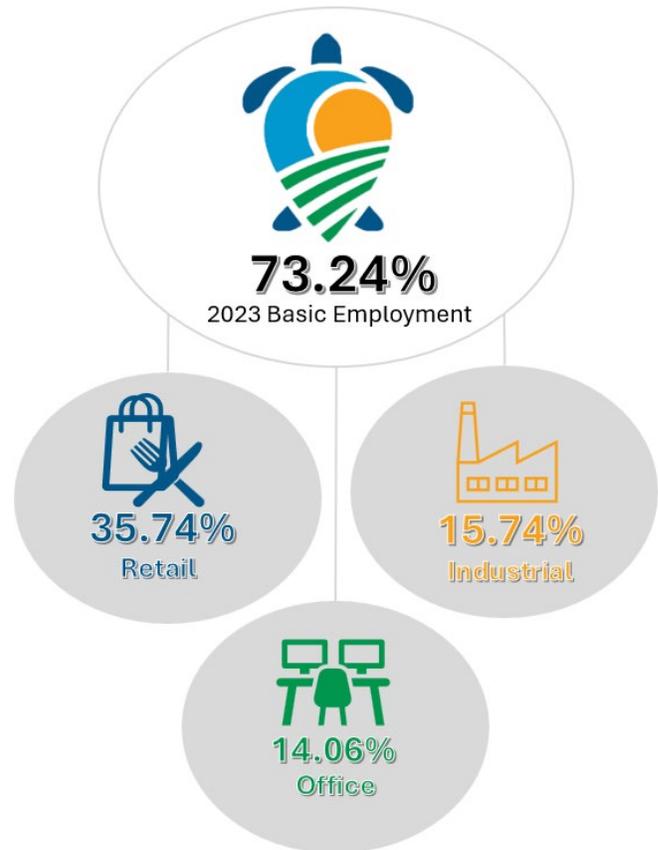


Figure 26: Pender County Basic Employment
(Prepared by Rose & Associates, LLC)

The Wilmington MSA is divided into fifteen submarkets, including East Pender and West Pender County.

The data below includes a summary of units and/or total square footage (SF) of space for each product category, as well as available space (vacancy rate), absorption of vacant space, average rental rates and new construction. Industry standards suggest that low vacancy rates (< 5%) indicate full occupancy or market equilibrium providing for additional supply potential, while high vacancy rates (10% >) suggest product oversupply.

Of the overall regional market, the West Pender submarket currently ranks first in 12-month industrial deliveries and second in overall industrial inventory. West Pender also ranks second in 12-month deliveries for retail space, with the East Pender submarket third in 12-month retail deliveries. There are no notable inventory or delivery rankings in the office category for either submarket as it relates to the overall market.

Pender County has demand for additional product capacity in the industrial and retail categories given the limited supply inventory available or under construction.

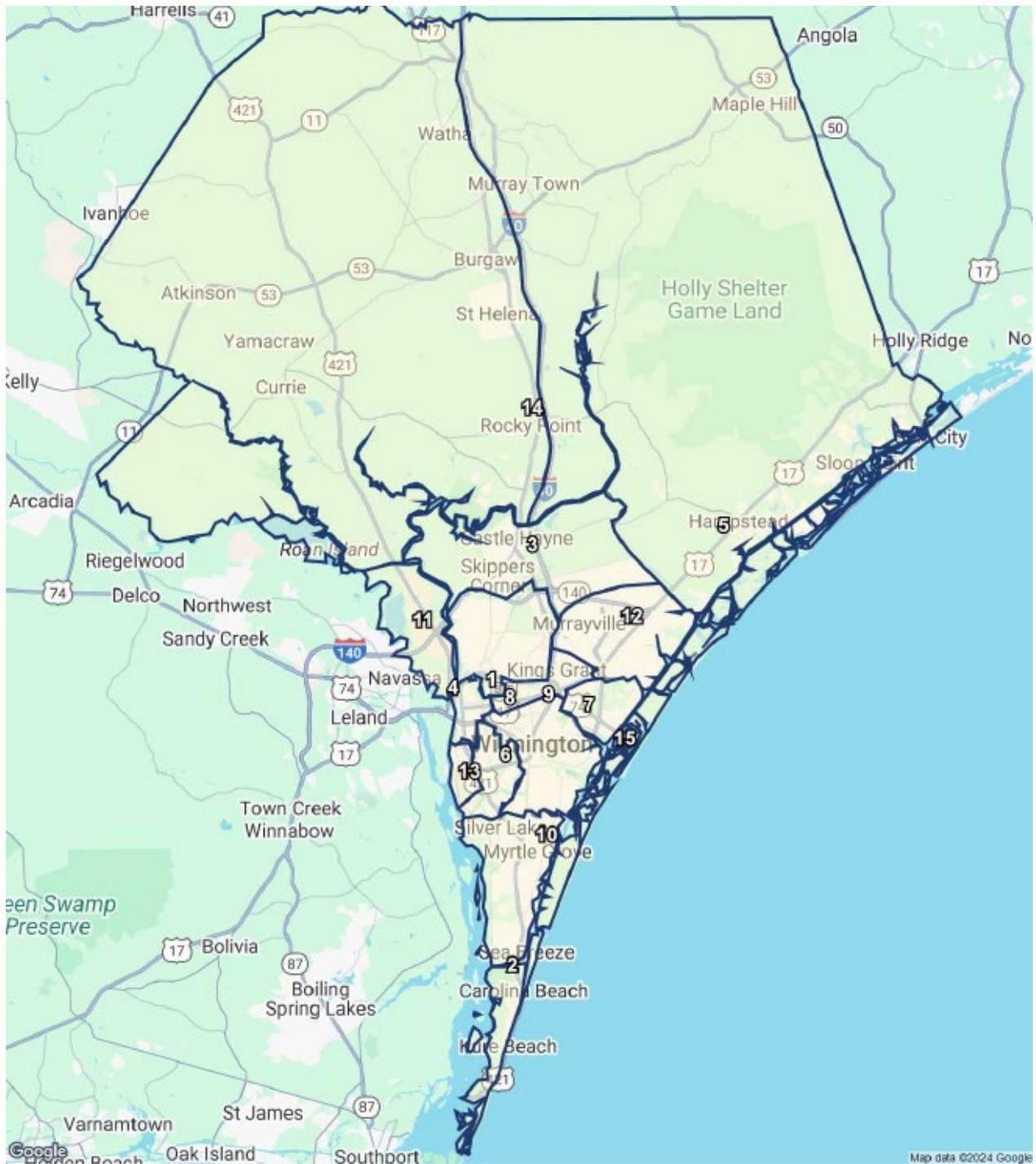


Figure 27: Real Estate Submarkets

	May 2024	West Pender	East Pender
Industrial	Inventory	2,692,722 SF	289,027 SF
	12 Month Net Absorption	416,000 SF	7,200 SF
	Vacancy Rate	4.1%	0%
	Market Rent/unit	\$7.77/SF	\$13.35/SF
	New Construction	433,074 SF	7,200 SF
	Under Construction	0 SF	0 SF
Office	Inventory	252,496 SF	366,145 SF
	12 Month Net Absorption	(7,600) SF	713 SF
	Vacancy Rate	3.0%	6.6%
	Market Rent/unit	\$25.15/SF	\$23.73/SF
	New Construction	0 SF	0 SF
	Under Construction	0 SF	14,960 SF
Retail	Inventory	888,620 SF	1,684,953 SF
	12 Month Net Absorption	1,300 SF	10,900 SF
	Vacancy Rate	0.9%	1.10%
	Market Rent/unit	\$11.98/SF	\$21.00/SF
	New Construction	10,500 SF	35,983 SF
	Under Construction	0 SF	34,460 SF

Figure 28: Pender Retail, Office, and Industrial Markets

Industrial and Retail

Much of the industrial space in Pender County is driven by traditional industry and its need for warehouse and distribution space as a result of online shopping. The recent growth in population has contributed to this dynamic. Therefore, growth in this type of industrial development and retail go hand in hand. The Wilmington Business Development Corporation is the primary economic development organization marketing the communities throughout the Wilmington Region including New Hanover and Pender Counties. In addition to marketing industrial parks and products, the industry sectors it has attracted and continues to target include

Fintech, Distribution & Logistics, Food Processing, Aviation, Pharma/CRO, Call Centers/Back Office, and Advanced Manufacturing. They also provide regional workforce data and training, incentives and other services to attract, retain and expand industry. They have been successful in attracting investment and development at the Pender Commerce Park, which is now nearly 100% occupied.

Most of the growth and expansion of retail nationwide has been in the discount and food and beverage categories. With low- and middle-income shoppers pulling back, big box chains and discounters are revising discounted product lines. Grocery stores continue to dominate the growth in retail, followed by restaurants in various categories from fast casual to eat-in. Small, unique establishments found in rural areas, downtowns, and mixed-use developments provide an opportunity to showcase local fare to attract visitors.

Office

Emerging trends in current workforce practices post-pandemic, however, include increased remote work. Companies integrating a flexible 4-day in-office/onsite work week continues to change the dynamic of when, where, and how people work, particularly in the office environment. The current interest rate environment for new projects impacting costs and returns has impacted new construction, coupled with limited demand. Very little speculative space is being built and space needs in this category will be driven by medical office, as well as small professional and co-working environments.



Figure 29: Penderlea Store

HOUSING

Introduction

Analyzing the existing housing stock enables the community, elected officials, and planners to get an overall picture of the range of housing opportunities available or needed in the jurisdiction. Other housing attributes such as the age of the structure, owner versus renter occupation, and housing value, act as indicators to the nature and characteristic of the existing housing stock and can be considerations when formulating development policies.

Data from the US Census Bureau’s American Community Survey (ACS) and ESRI indicates there were 31,927 housing units within Pender County as of 2023. Of those, 63.1% were owner-occupied, 14.6% renter-occupied, and 22.4% vacant. Mobile homes make up 23.9% of the total housing stock.

Many new residents first experience Pender County as a visitor, and many return to purchase vacation homes as seasonal dwellers. The ACS 2018–2022, 5-year average suggests that of the vacant housing units, 53.6% were seasonal/occasional use. A report by All the Rooms, which tracks Short Term Rentals, suggests that 73% of all the short-term rental inventory in Pender County is located in Surf City and 23% in Topsail Beach. As noted, Pender County has experienced substantial population growth due to job opportunities and lifestyle relocations (e.g. retirement into seasonal home). The resulting expansion of construction of homes has contributed to housing growth and home values. Data is generally collected in two segments: Multi-family apartments and single-family housing.

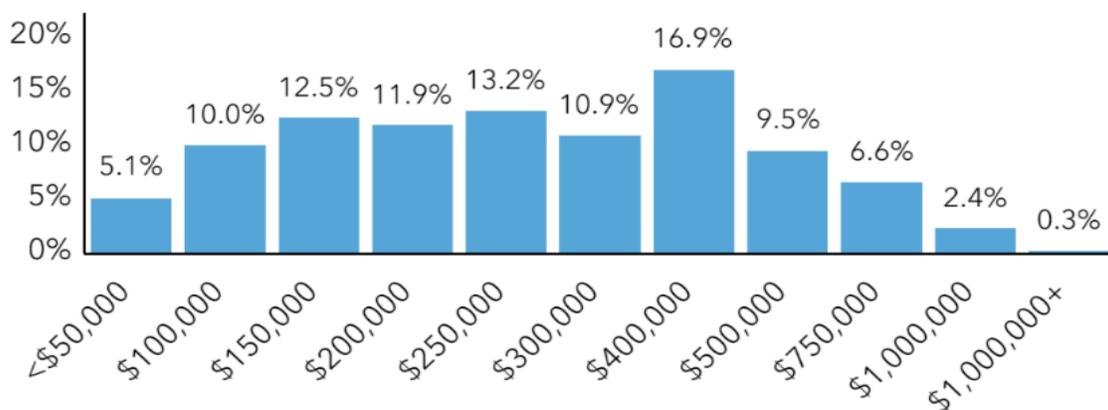


Figure 30: Home Value (ACS)

Multi-Family Apartments

Rental demand comes from a variety of sources, including students (student housing), visitors (vacation rentals), relocating families and those who rent due to income, affordability, or lifestyle choice. The Pender County multi-family (defined as more than four dwelling units) submarket is comprised of roughly 1,500 units, according to CoStar. The overall vacancy rate is 26.7%, ranging from 14.1% vacancy (lower rent, older units) to 33.4% vacancy in newer/updated units with amenities. This vacancy rate is 7.6% lower than it was this time last year (Q2, 2023). The current vacancy is higher than its trailing three-year average of 18.0%. The three-year average for Pender County is above the trailing three-year average for the Wilmington market as a whole, which is 9.0%.

The Pender County market has an average rent of \$1,700/month for all units, with a 1.1% decrease in rent growth from the previous 12 months. Rents have increased 16.5% over the past three years, higher than the 15.8% trailing three-year average of the overall Wilmington market.

Rent

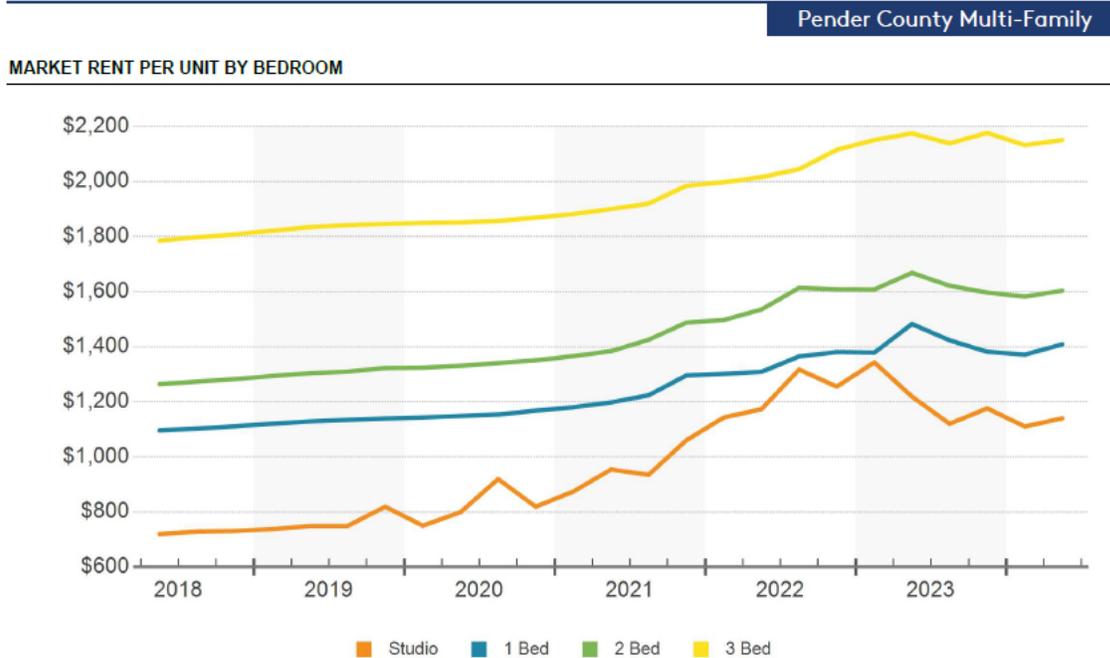


Figure 31: Market Rent Per Unit by Bedroom

According to Costar data, 755 multi-family units have been delivered in Pender County over the past 2 years, with another 484 units under construction expected to be delivered over the next 2 years. These projects are located primarily in East Pender, near the coast and along Highway 17.

DAILY ASKING RENT PER SF

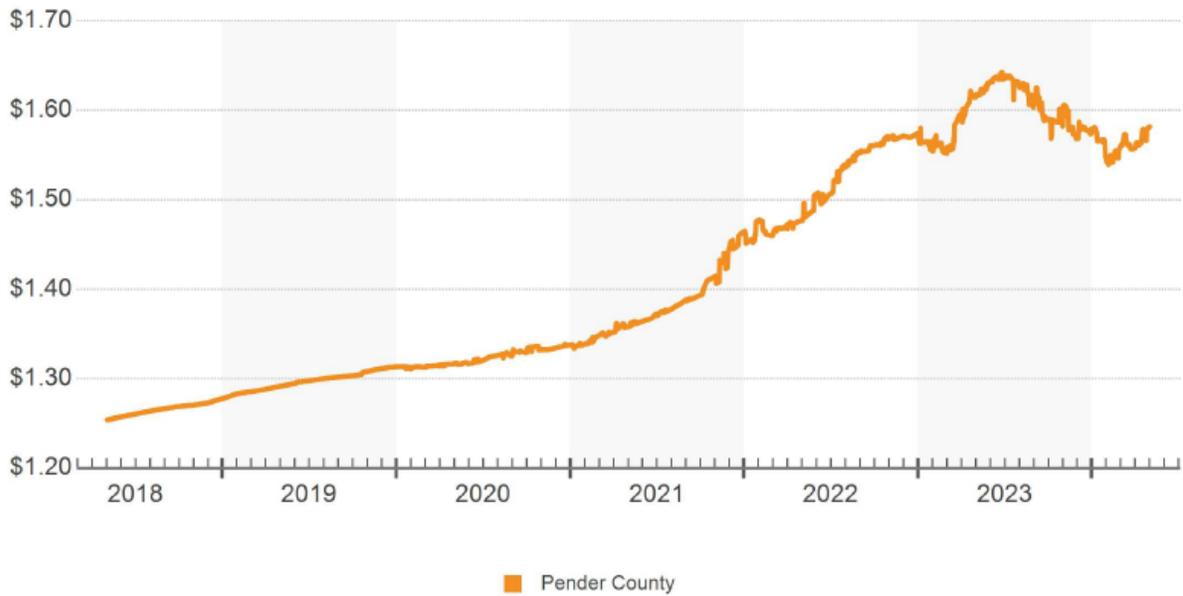


Figure 32: Daily Asking Rent Per Square Foot

Single Family Homes

Single family homes have dominated the new construction landscape in Pender County until 2023 when apartment units outpaced new construction permits.

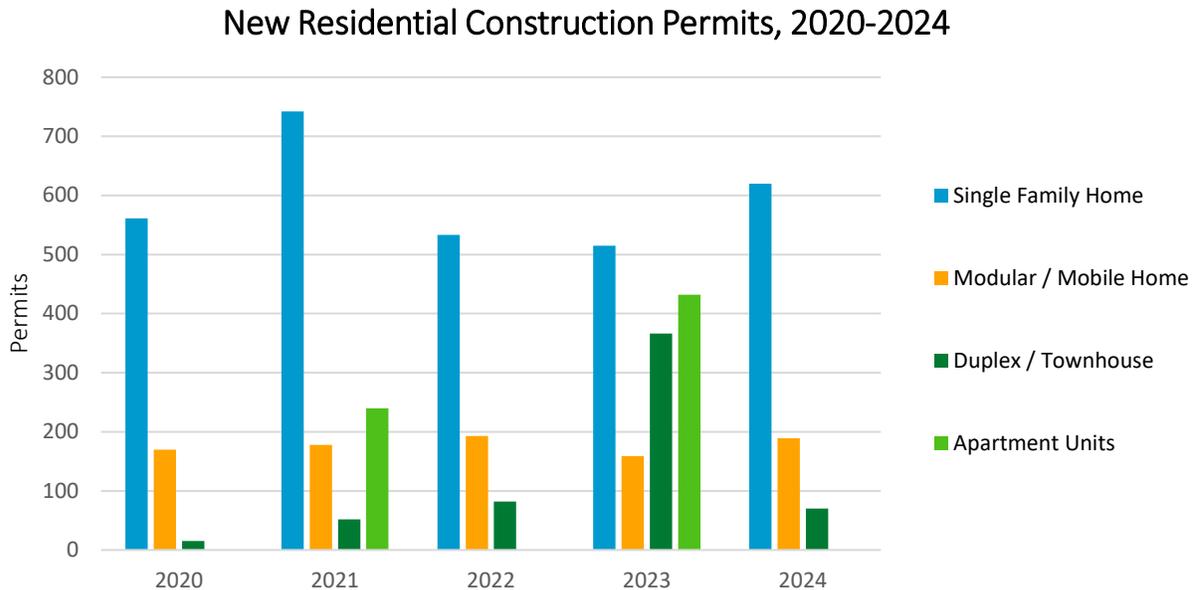


Figure 33: New Residential Construction Permits in unincorporated Pender County 2020-2024 (Pender County Planning & Community Development Department)

As shown on the graph, there were a total of 1,479 new private housing structures authorized by building permits in 2023 for Pender County and 879 units in 2024, showing a healthy increase since the Great Recession of 2008.

American Community Survey records for housing units built up to 2020 indicated that 62.9% of the structures were built after 1990.

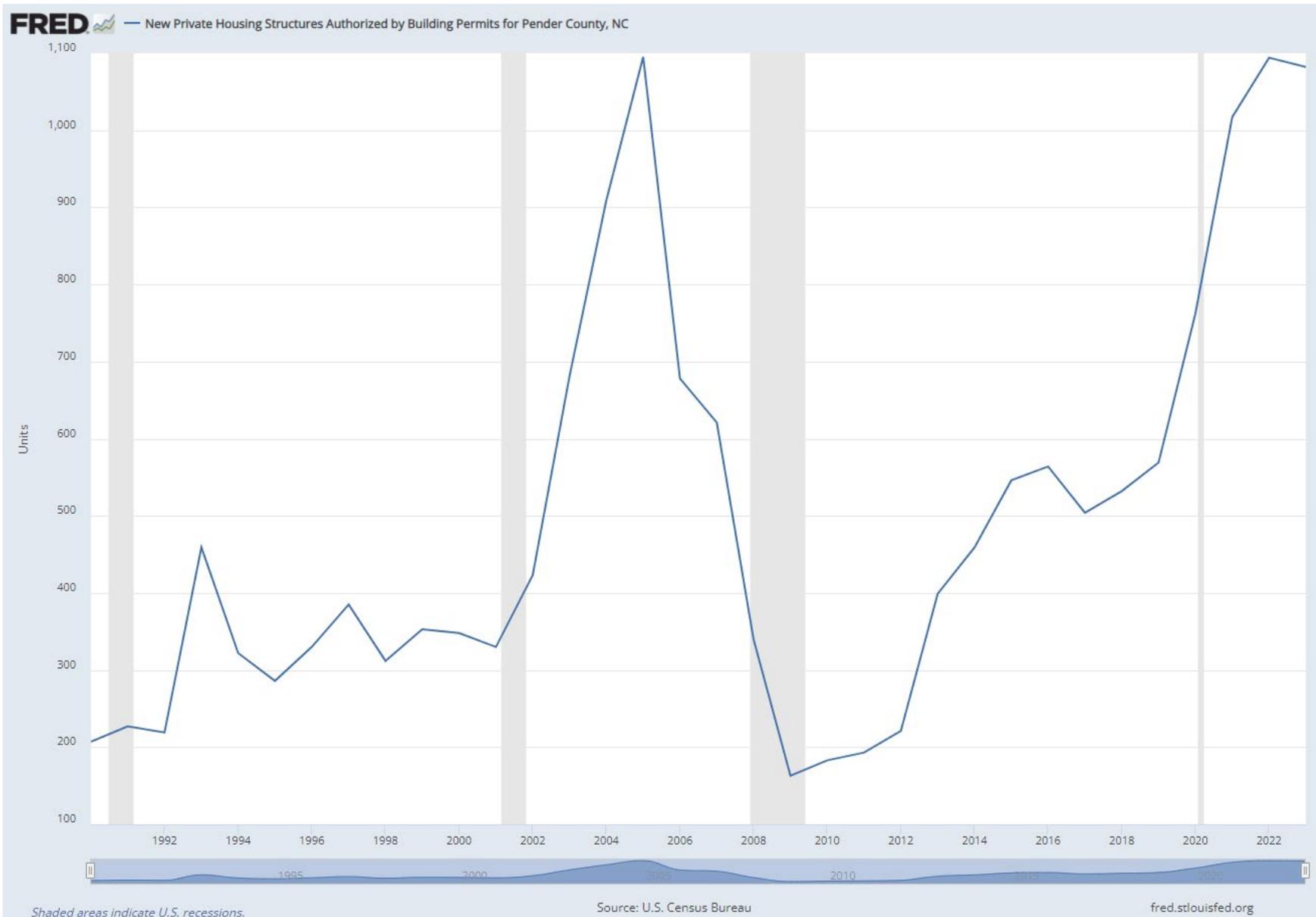


Figure 34: Building Permits

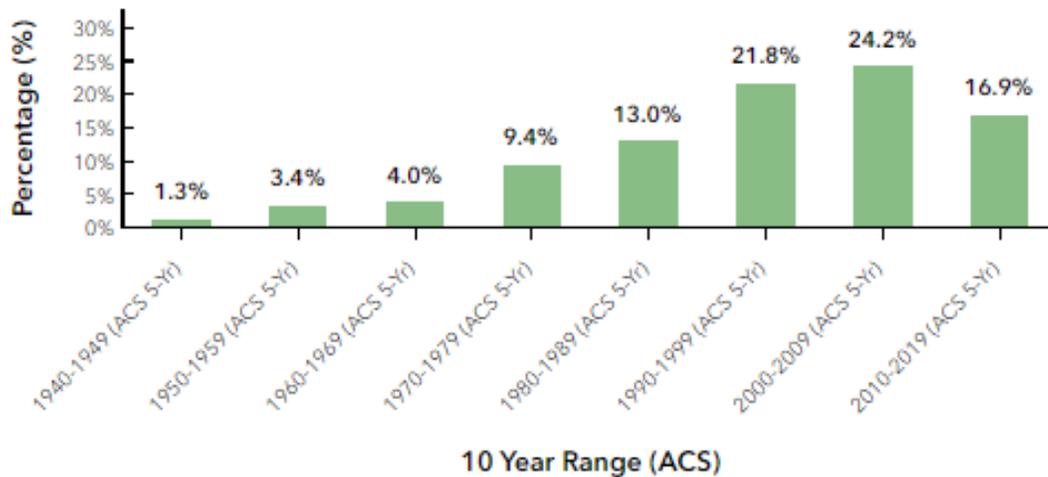


Figure 35: Year Structure Built (ACS)

There has been a recent slowdown of the housing market as evidenced by price reductions over 2023 due to lingering high interest rates and a challenged economy. Traditionally, existing-home sales account for the majority of total home sales. Of the 10,878 closed sales for 2023 in the Wilmington MSA, existing-home sales accounted for 69.44% of total home sales. Existing home inventory sustains a three-year historic low, as demand for new homes continues. However, there remains a wide range of home values.

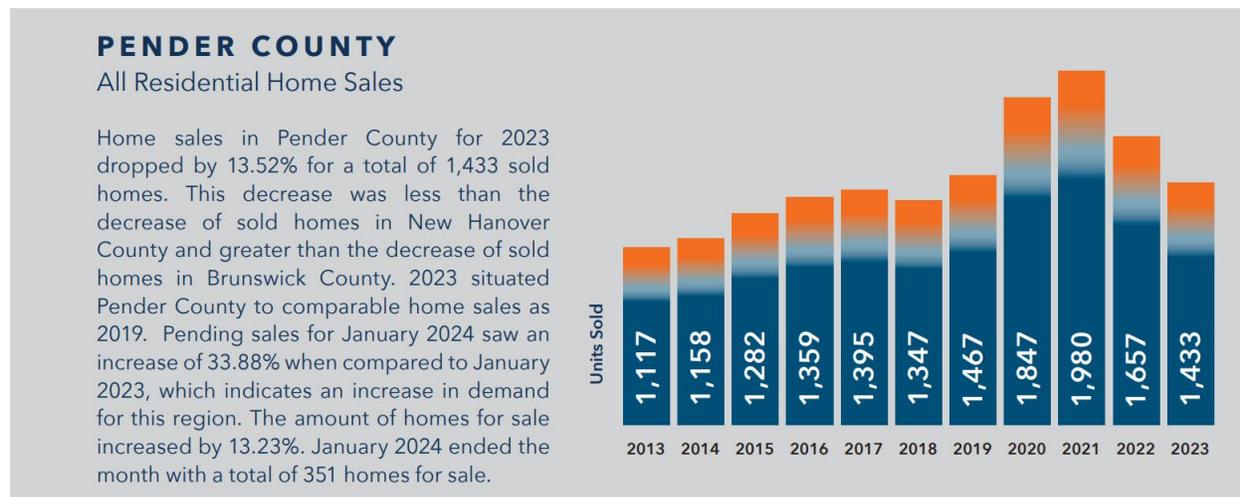


Figure 36: Residential Home Sales (Cape Fear Association of Realtors, Provided by Rose & Associates)

According to the Cape Fear Association of Realtors' Housing Data Reports the housing market remains resilient in Pender County. As of August 2024, the median price of a home is \$432,450 in Pender County with a limited supply of approximately 2 months of inventory.

LOCAL MARKET UPDATE — AUGUST 2024

A reliable source for real estate Market data provided by Cape Fear REALTORS®, compiled from NCRMLS.

RESIDENTIAL	AUGUST			LAST 3 MONTHS		
	2024	% Change	2023	Jul 24	Jun 24	May 24
Key Metrics						
Active Listings	351	8.00%	325	323	347	340
New Listings	152	-9.52%	168	146	173	166
Pending Sales	109	-24.83%	145	129	151	143
Closed Sales	172	10.97%	155	143	163	167
Median Sales Price	\$432,450	-7.00%	\$465,000	\$415,000	\$414,000	\$430,000
Average Cumulative DOM	44	-21.43%	56	42	49	60
Month's Supply of Inventory	2.04	-2.86%	2.10	2.26	2.13	2.04

5-YEAR TRENDS



The Wilmington MSA is the Metropolitan Statistical Area that includes New Hanover, Pender, and Brunswick.

Figure 37: Local Market Update (August 2024)

From 2018 to 2022, the number of single-family homes has remained relatively stable. The share of housing units that are not classified as single family (such as townhomes, multi-family, and duplex) has been increasing in the past five years.

Housing Stock by Type (2018-2022)

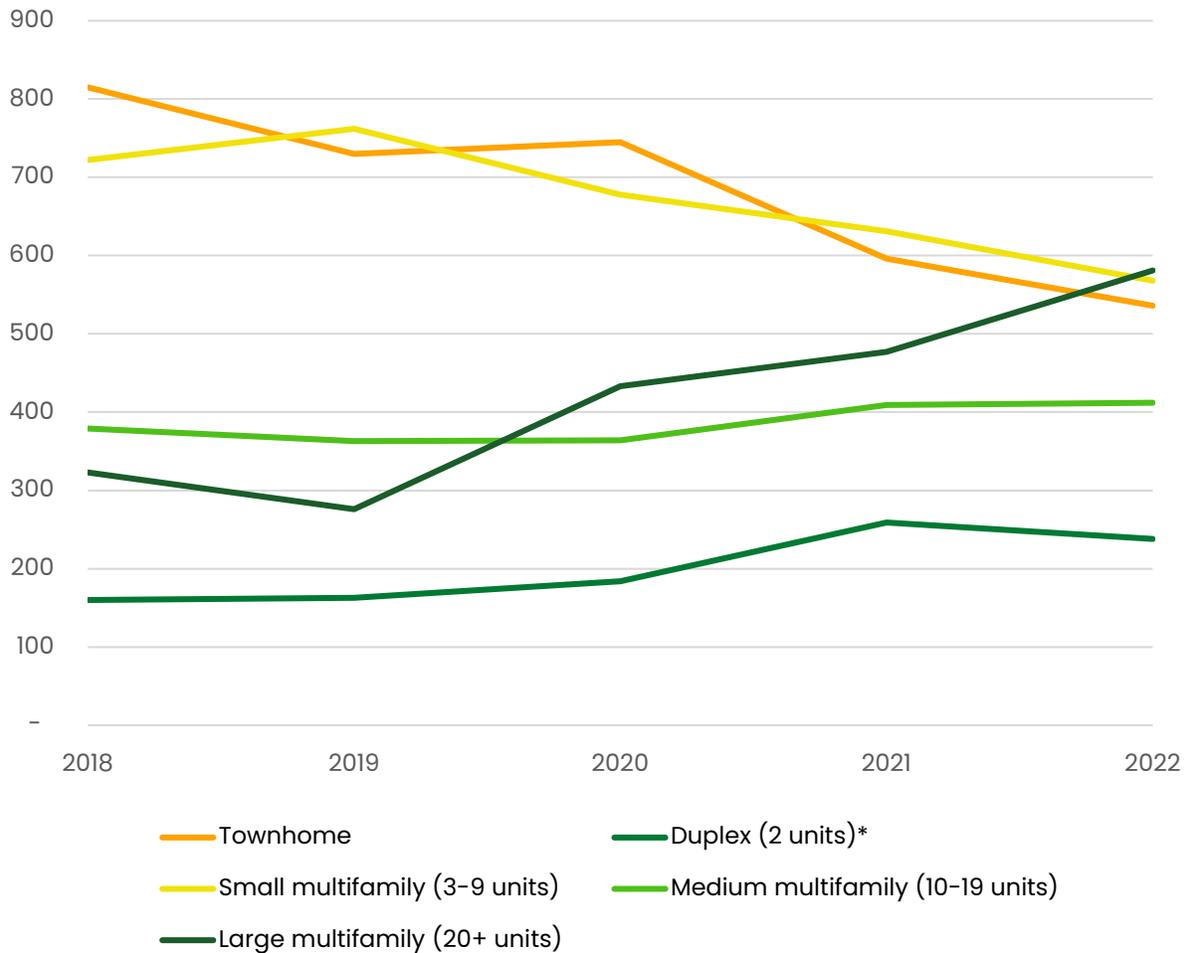


Figure 38: Housing Stock Over Time (Townhomes, Duplex, and Multi-family)

Single Family and Mobile Home Housing Stock (2018-2022)

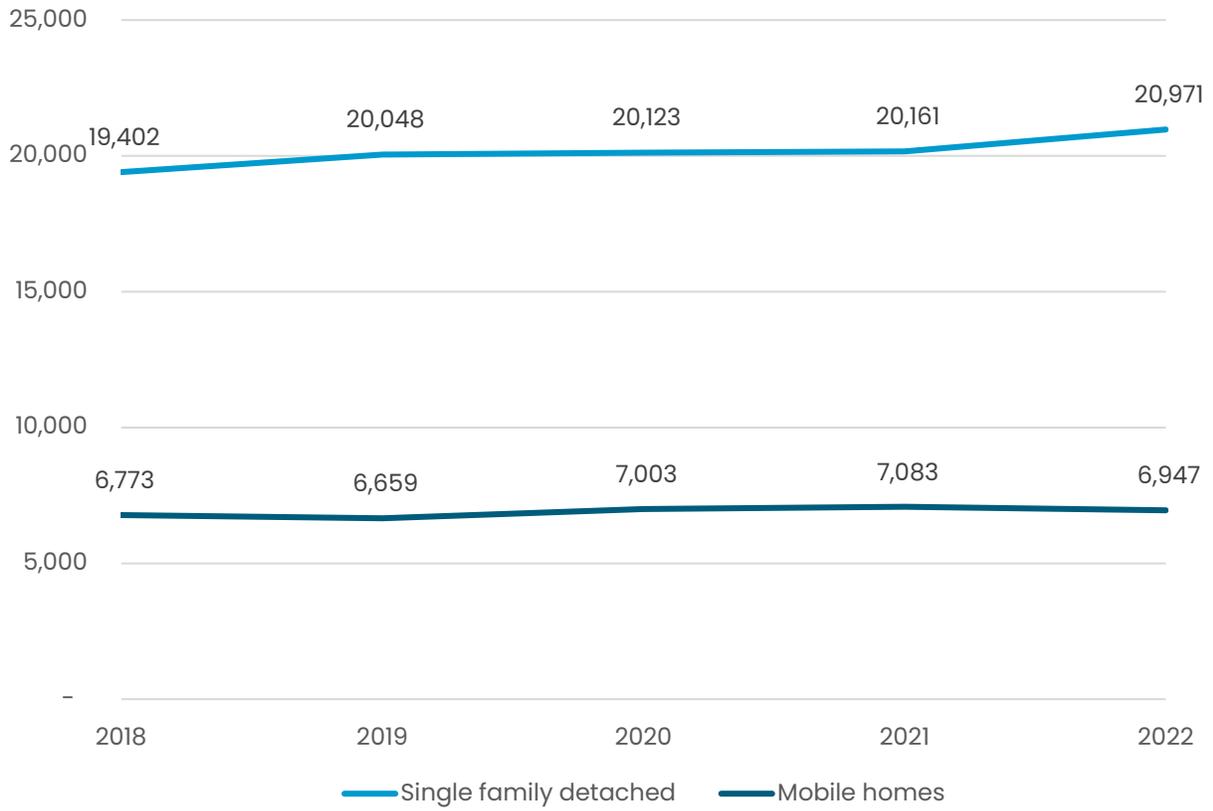


Figure 39: Housing Stock Types Over Time (Single Family Detached and Mobile Homes) (ACS 2022)

Housing Stock by Type (2022)

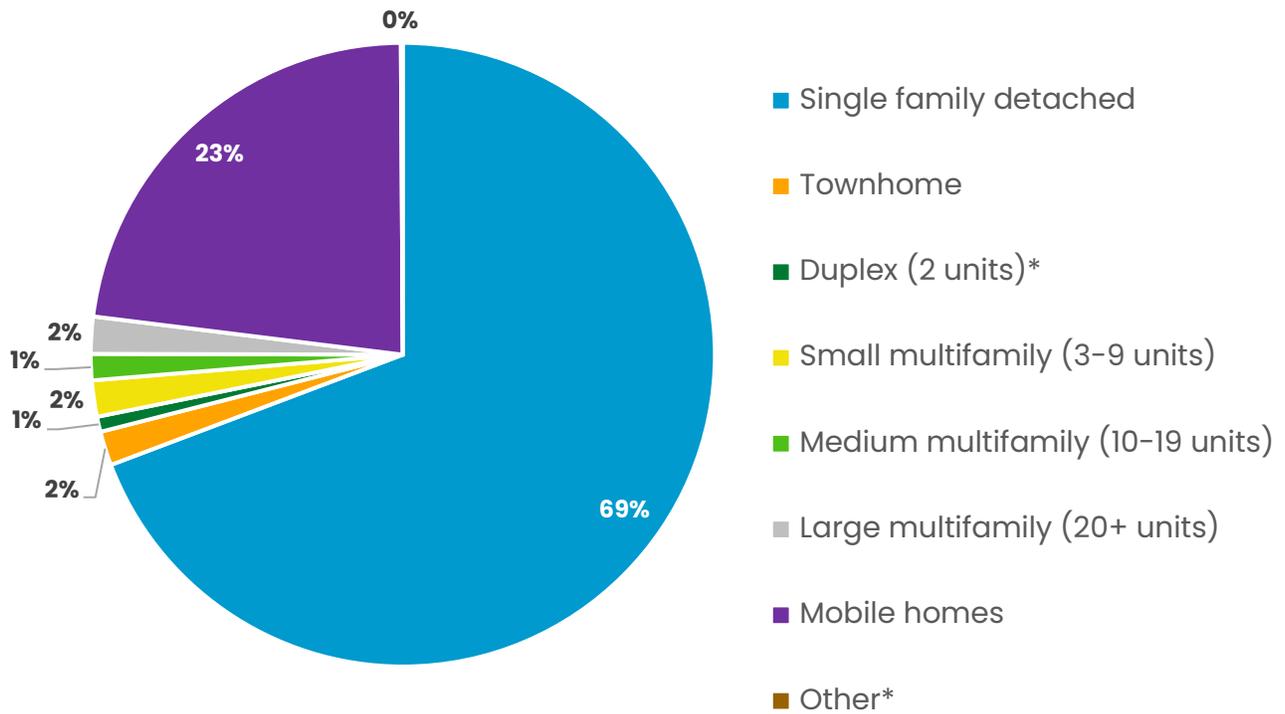


Figure 40: Pender County Share of Housing Units by Type (US Census, 2022)

The majority of housing units in Pender County are located outside of the municipal areas (**Table 3**), primarily in the eastern portion of the county. Throughout Pender County, single-family homes account for the greatest percentage of housing units.

Pender County Housing Units by Area		
Area	Estimate	Percent
Town of Watha	88	0.3%
Town of Atkinson	158	0.5%
Village of St. Helena	197	0.7%
Town of Burgaw	1,234	4.1%
Town of Topsail Beach	1,290	4.3%
Town of Surf City	4,257	14.1%
Remainder (Unincorporated Pender County and portion of Wallace within in Pender County)	23,059	76.1%
Pender County Total	30,283	100.0%

Table 3: Pender County Housing Units by Area

Total Housing Units by County (2022)

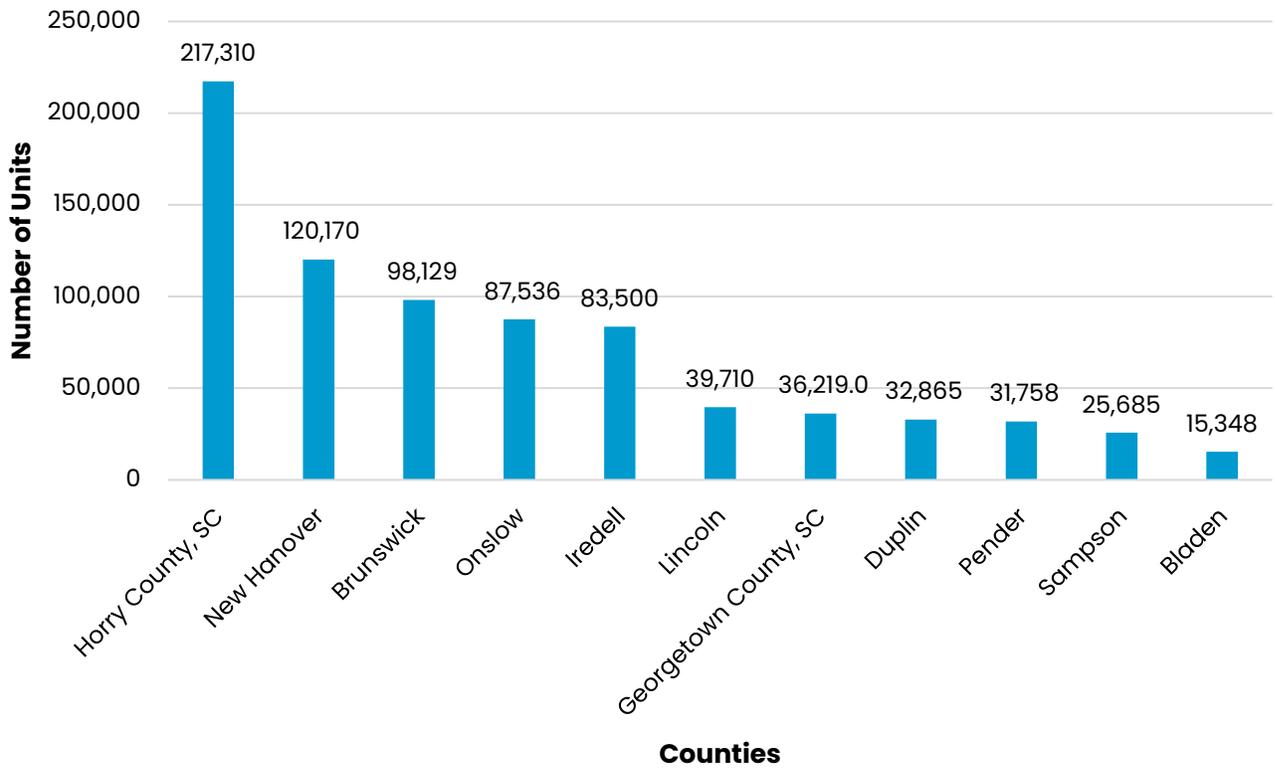


Figure 41: Total Housing Units: County Comparisons (2022)

In terms of county comparisons, Horry County, South Carolina contains the most housing units while New Hanover, Brunswick, and Onslow counties contain a higher number of units in North Carolina. In Pender County, the vast majority of housing units are owner-occupied and 26% are either renter-occupied or seasonal use. In comparison to peer counties, Pender County has a lower number of overall housing units across all categories of housing tenure. In Brunswick County, the presence of six coastal communities is the primary cause for the high number of vacant housing units.

Housing Tenure

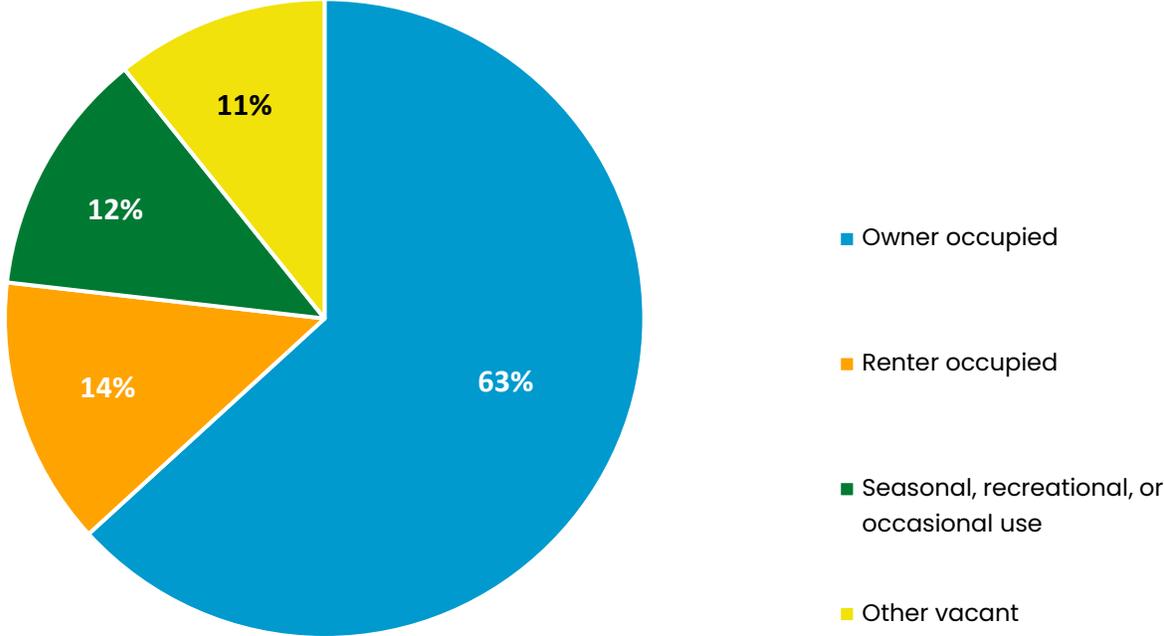


Figure 42. Housing Tenure (ACS 2022)

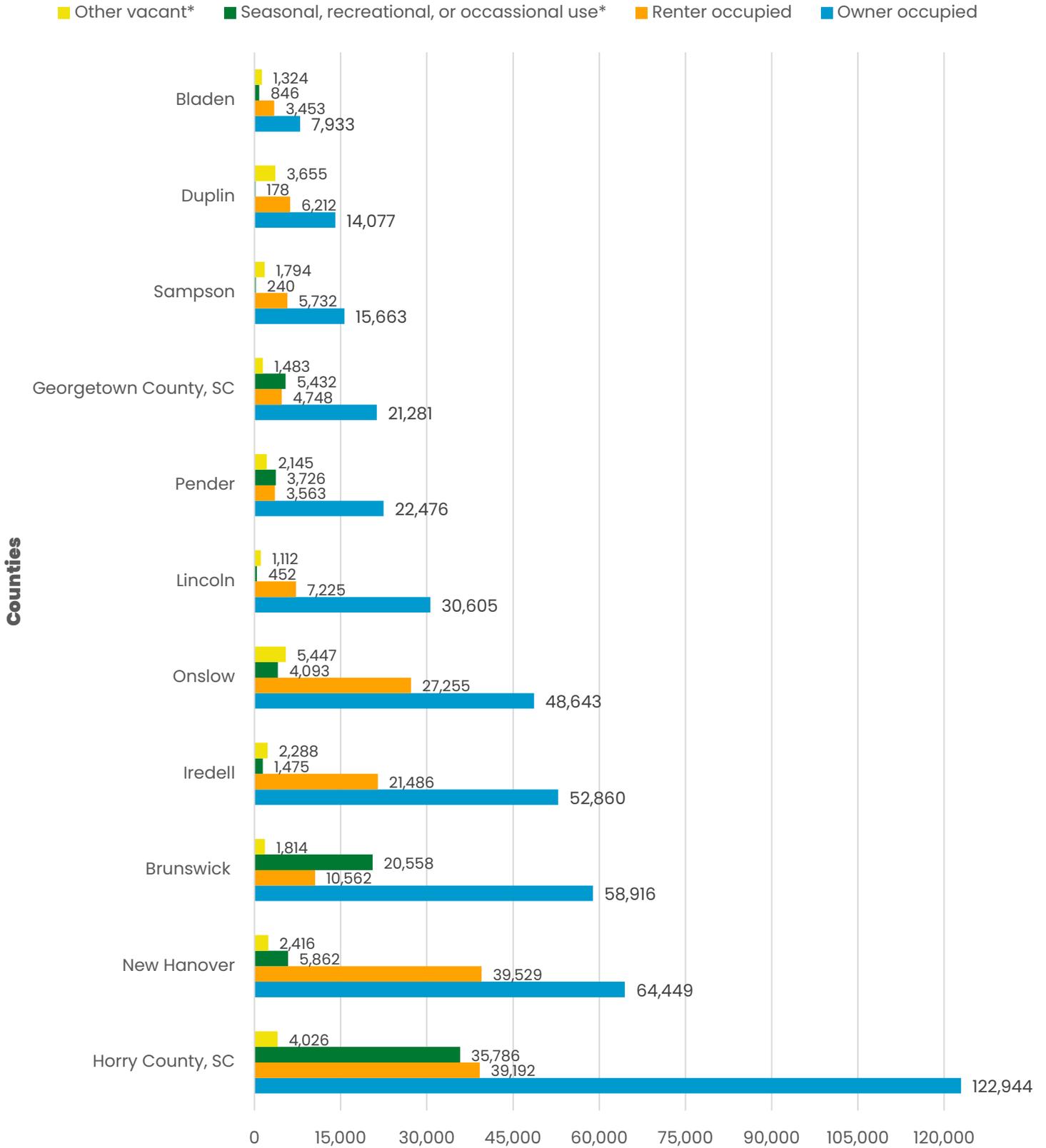


Figure 43: Housing Tenure, County Comparisons (ACS 2022)

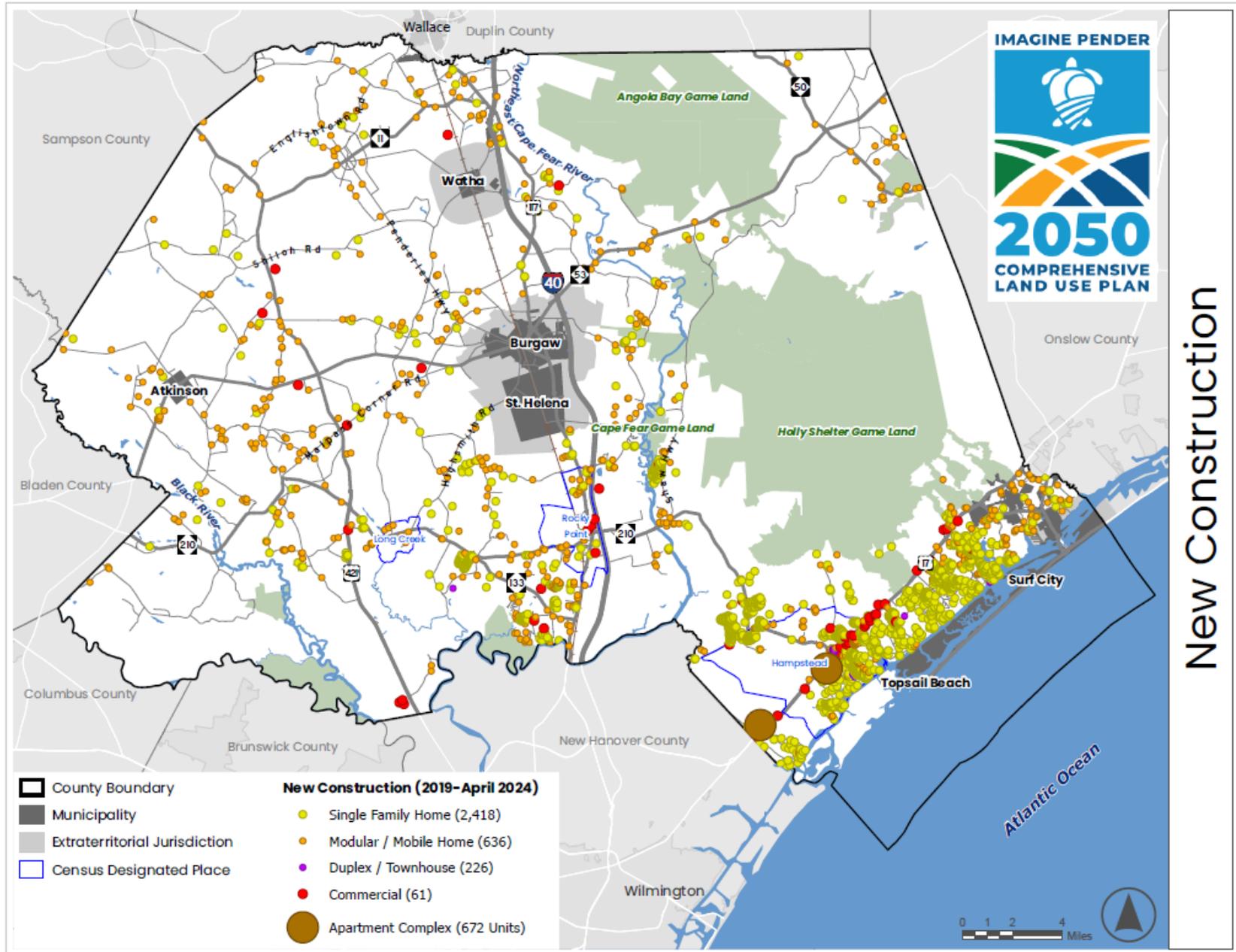


Figure 44: New Construction

Housing Trends

Since 1980, Pender County has experienced a dramatic increase in the number of housing units, with each decade seeing an acceleration in the number of new housing units constructed. As shown in **Figure 45**, it is clear that tremendous housing growth has occurred over the last five years in Pender County and southeastern North Carolina – particularly along the coast.

According to data obtained from the Pender County Planning and Community Development Department, building permit activity for new residential construction varied significantly from 2020 to 2024. During that period, the County experienced an increase in apartments, duplexes, and townhomes being built. From a housing affordability perspective, this trend will lead to more options being available for those seeking employment and residence in Pender County. The continued construction of manufactured and modular housing options does reduce barriers to homeowners and renters looking for more affordable options.

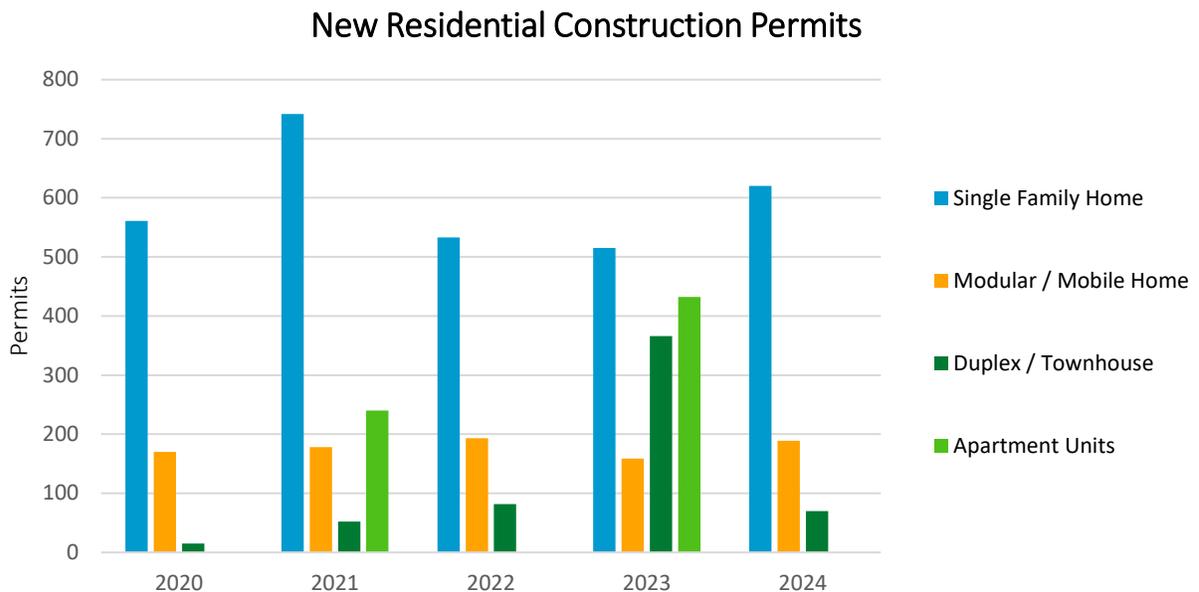
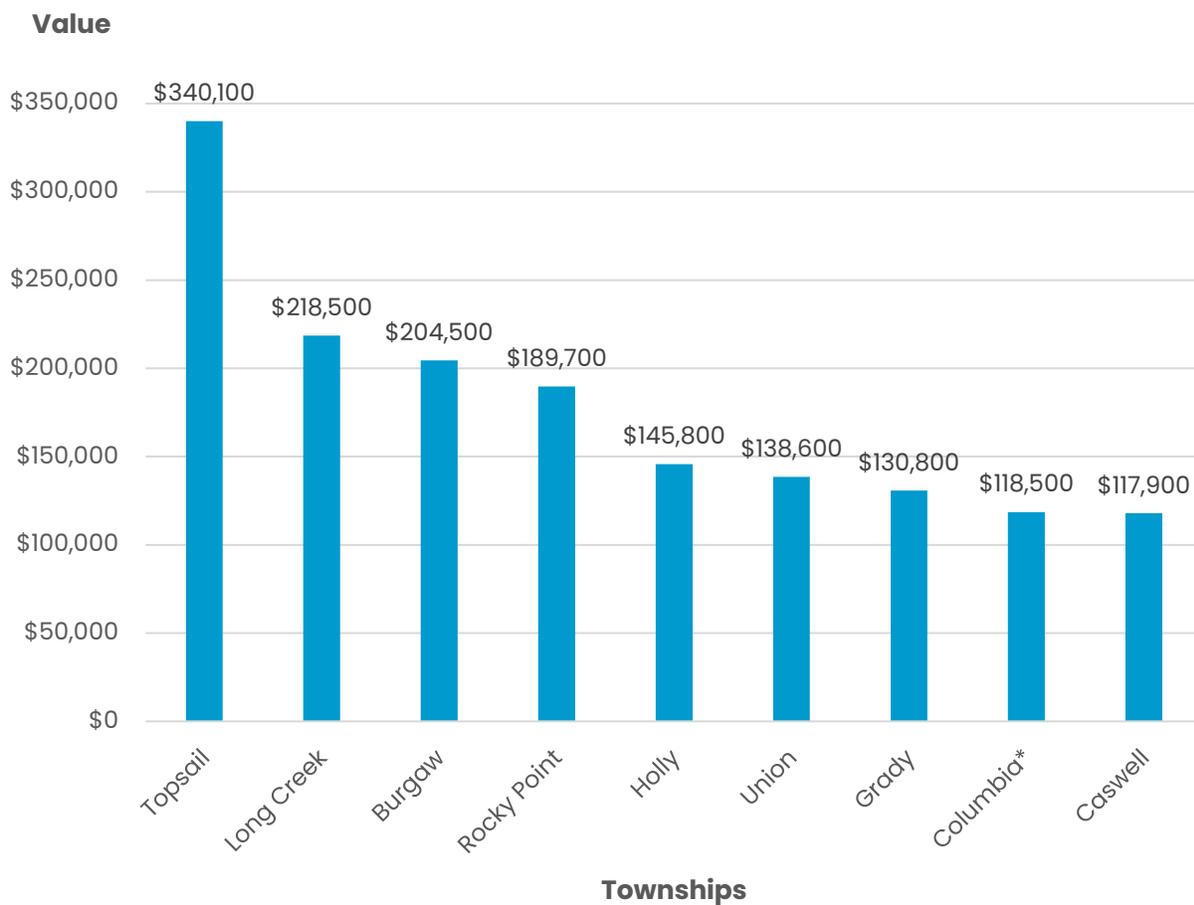


Figure 45: New Residential Construction Permits in unincorporated Pender County 2020–2024 (Pender County Planning & Community Development Department)

Housing Value

According to US Census data, and as shown in **Figure 46**, housing values in Pender County are less than neighboring coastal counties. Within Pender County, housing values vary significantly. Grady, Caswell, and Columbia Townships have the lowest median housing values in the County. The highest housing values are found in the Topsail Township, followed by Caswell and Long Creek. Values for Canetuck Township were not disclosed by the US Census due to a high margin of error.



* Margin of error is greater than 50% of the estimate value

Canetuck township not disclosed by US Census due to a high margin of error

Figure 46: Median Home Value of Pender County Townships (ACS 2022)

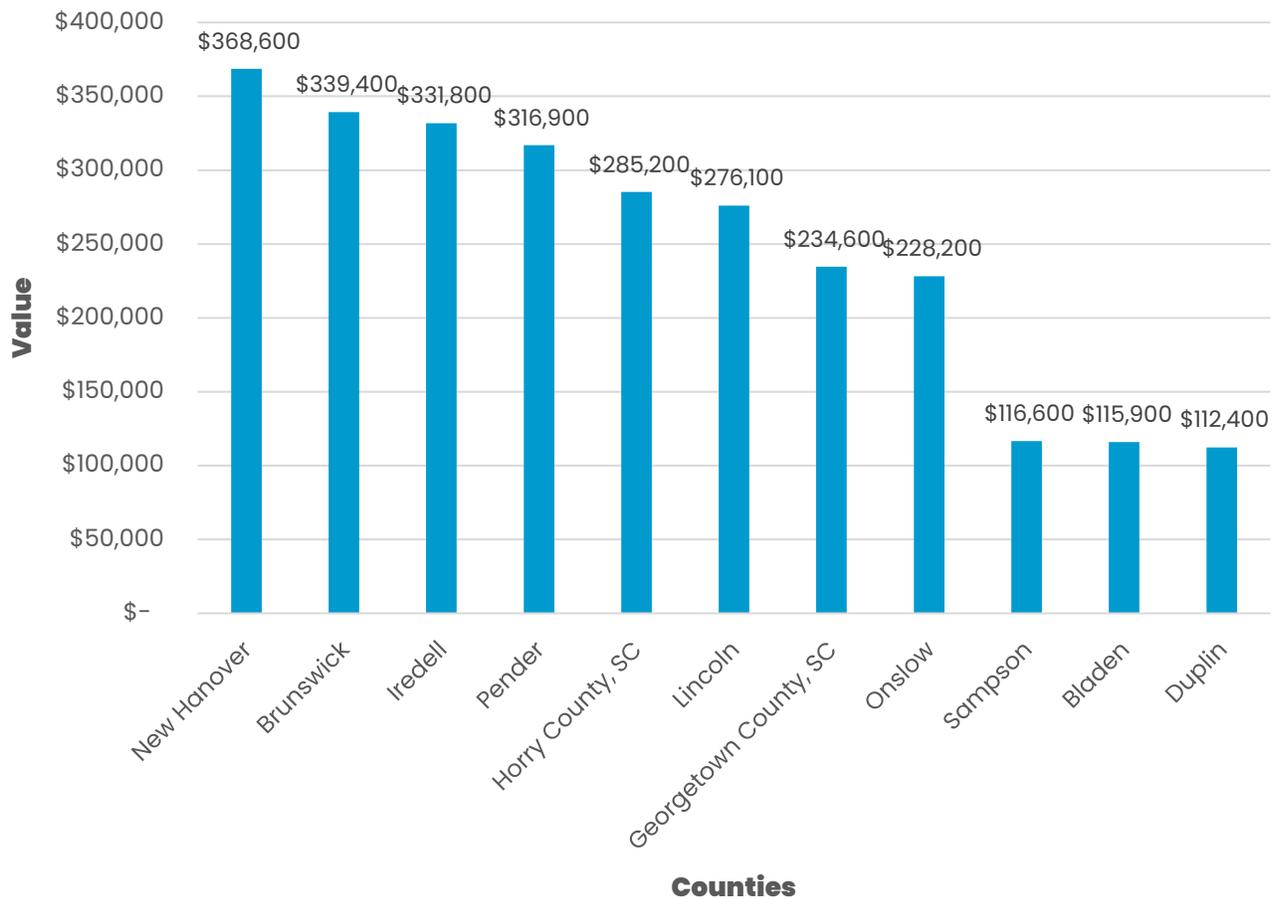


Figure 47: Median Home Value (ACS 2022)

Median home values are highest in New Hanover, Brunswick, and Iredell counties. While Pender County has fewer housing units, its median home values are comparable to those in Brunswick and Iredell counties. Sampson, Bladen, and Duplin counties have similar median home values, but they are the lowest overall.

Housing Unit Demand

The majority of housing consists of single-family homes, with 23.9% of the housing stock consisting of mobile homes. Only 14% of the current households are renter-occupied. In addition to job growth, housing demand is also driven by migration, with relocations from other parts of the country and within the state. The cost of living and home prices often drive commuters further away from employment centers in more urban and suburban areas. A growing trend in housing diversification is the build-to-rent sector. Build-to-rent (BTR) or purpose-built neighborhoods of single family or

townhome rentals has been an emerging sector in the past several years. From a land use standpoint, they are regulated as any other single-family development, however, they are generally owned and rented by institutional investors. This sector began its growth trajectory during the early years of the pandemic due to a variety of factors, including rising interest rates, housing costs and debt which impacted housing affordability. The first of these projects in the Wilmington MSA is the Cottages at Riverlights.

Future housing demand is based on both employment and population growth to estimate a range of overall demand for the county. This would include both for rent and for sale units, in single-family, townhome, or apartment configurations.



Figure 48: Job and Population Growth to Resident Housing Needs

Looking at these dynamics means that policy makers would have to confront the density issue. Areas that might be under consideration for higher density are those that have existing infrastructure in place, including transportation, water, sewer, and broadband. Rural areas that are challenged by water quality and septic capacity might benefit from clustered “agri-hoods” or cluster subdivisions with common well and septic infrastructure.

Housing Needs

The 2012 Pender County Housing Needs Assessment identified areas of need for expanded and affordable housing. The pace of new construction home permits continues to outpace other areas of the state. According to the Cape Fear Housing Report by the Association of Realtors, the Wilmington MSA (New Hanover, Pender, and Brunswick Counties) finished 2023 with a combined total of 6,754 permits. This represents a 1.25% increase above its level one year ago of 6,670 permits. It is currently 329% higher than its 2011 recession-era bottom of 1,571 permits and currently 13.7% below its 2005 peak permit level of 7,685 permits. Pender County accounted for 17% of the MSA permits in 2023:

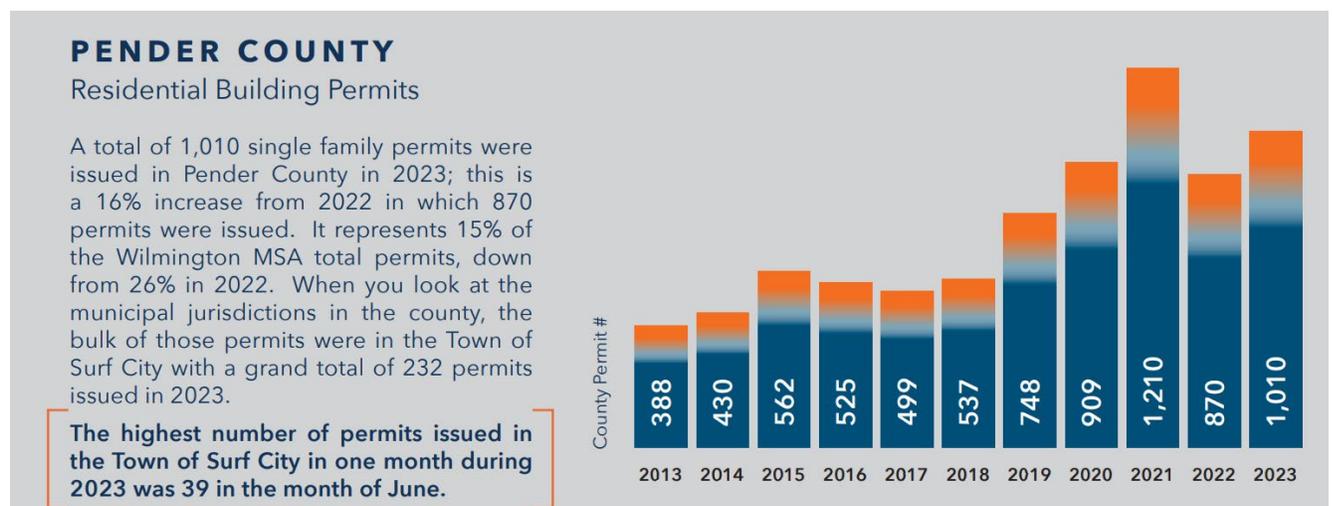


Figure 49: Residential Building Permits (Cape Fear Homebuilders Association, prepared by Rose & Associates)

Housing affordability remains a concern in most areas of the state and Pender County is no exception. Affordable (also referred to as “attainable”) housing is defined as modestly priced nonsubsidized housing that is affordable to households with incomes between 80 and 120 percent of the area median income (AMI). Guidelines are established annually by state housing finance agencies and the FDIC. Households that spend more than 30% of household income on housing costs are considered cost burdened. According to a 2024 report by the NC Housing Coalition, 26% (5,827 households) of Pender County households are cost burdened. With a poverty rate of 14%, the cost burden impacts a greater share of renters, as 41% of renters and 24% of homeowners are cost burdened.

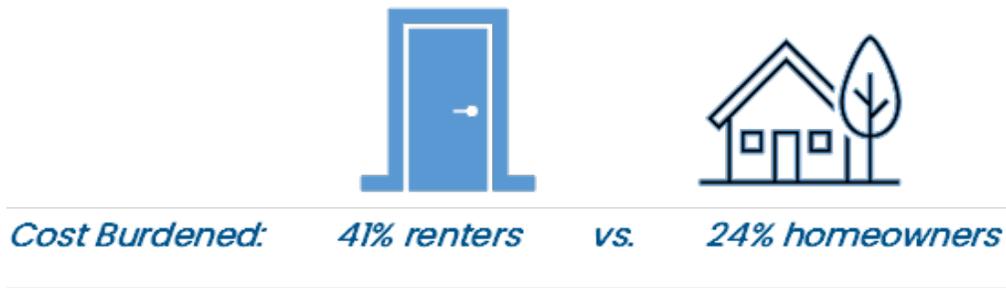


Figure 50: Cost Burdened Renters vs. Homeowners

In a tourism dominant economy such as Pender, vacation homes and short-term rentals constrain housing supply. Often these ownerships are the result of private and institutional investors acquiring multiple properties for investment. Without new construction that provides affordable homes for lease or purchase for local residents and service industry workers that support tourism, this can result in a housing supply vacuum as experienced by other tourism dependent communities. Many communities experience housing relocations to more rural areas as the “drive until you qualify” dynamic pushes workers to expand commutes in search of affordable housing.

ECONOMIC OPPORTUNITIES

Despite the challenges of a changing economy, North Carolina continues to attract new businesses and residents who are moving from other states and regions due to climate, cost of living, and job opportunities. North Carolina continues to be a leading state for business attraction and investment. The Wilmington Metropolitan Statistical Area (MSA) experienced the 5th greatest percentage of job growth from 2019 to 2023 in North Carolina.

As of December 2023, The Wilmington MSA has -0.278% or 400 fewer jobs than it did on the same month last year. The fastest growing metropolitan area is Raleigh at 4.1%, followed by Durham at 3.44% and the statewide average was 1.88%. The overall decline in employment in the Wilmington metropolitan area is largely driven by declines in Leisure and Hospitality and Professional Business services which are down by 7.51% and 4.79%, respectively. On the other end of the spectrum, Healthcare and Manufacturing are leading the area and have added 4.08% and 3.28%, respectively.

The current commercial property tax base in Pender County is approximately 7.2% of the overall tax revenue. By comparison, other similar size counties that lie adjacent to major metro areas in North Carolina can range between 15-35% of the overall tax

County	Residential	Commercial	Industrial	Other	Total*
Pender	\$7,104,742,938	\$544,186,823	\$6,368,572	0	\$7,282,010,057

* Includes reductions for exclusions, exemptions & deferrals.

Pender County Tax Base:

92.8 % Residential | 7.2% Commercial/Industrial

Pender County Municipalities	Total Taxable Real Property
Atkinson	\$ 12,615,982
Burgaw	\$ 241,013,899
Saint Helena	\$ 35,599,356
Surf City (Pender only)	\$1,312,461,948
Topsail Beach	\$ 784,818,923
Wallace (Pender only)	\$ 91,756
Watha	\$ 8,258,943

Figure 51: Pender County Tax Base

revenue. Balancing the tax base will ensure that servicing residential growth in areas of police, fire, and education will be supported by revenues from retail sales tax and commercial property tax revenue. Residential growth should be supported by commensurate commercial growth as the cost to service residential households is often twice as much as the cost to service commercial space.

Tourism is a key contributor to the Pender County economy. However, much of the impact is in the coastal communities and beaches. While providing tax revenue, the challenges include environmental, traffic, and housing affordability. There are several opportunities for the expansion of historical, cultural, and agricultural tourism in other areas of the county that may reduce the burden of cost and provide economic opportunity for the more rural areas. This includes lodging in and around the game lands, historical sites, and farm tours that highlight events and locally produced food, crafts, and other goods.

Community Health & Prosperity

The Pender County Public Health Department, under NC General Statute 130A-35, has a statutory responsibility to protect and promote the public's health. North Carolina accreditation standards for local health departments require strategic plans.

The goals outlined for the comprehensive plan based on market and economic conditions include expanded job growth, housing opportunities, and widening the lens of tourism. During our assessment we compiled over 90 data points in 12 categories that expand beyond these areas to understand current reality and opportunities for improving or preserving quality of life and economic prosperity in Pender County. When benchmarked against current state or national averages, the Prosperity Builder Scorecard™ provides a score for each category and an overall score to assist in guiding policies, resources, and land uses that inform the comprehensive plan.

Quality of Life Factors

12 categories & 90 data points

- ACCESSIBILITY & TRANSPORTATION
- HEALTHCARE & MEDICAL
- ARTS & CULTURE
- HISTORIC PRESERVATION
- CRIME & PUBLIC SAFETY
- HOUSING
- EDUCATION
- INFRASTRUCTURE
- EMPLOYMENT & LABOR
- OPEN SPACE & RECREATION
- GOODS & SERVICES
- PLANNING & LAND USE



Figure 52: Quality of Life Factors

The number of families living below the poverty level is also a key indicator for the economic wellbeing of a given community. Similar to income statistics, Pender County overall has a similar percentage of families living in poverty as the state. According to the North Carolina Department of Health and Human Services, an individual living in poverty makes less than \$15,060 and a family of four lives in poverty if they make less than \$31,200. The poverty rate for families in Brunswick County is similar to that of Pender County, whereas peer counties have higher rates of poverty (**see Figure 53**).

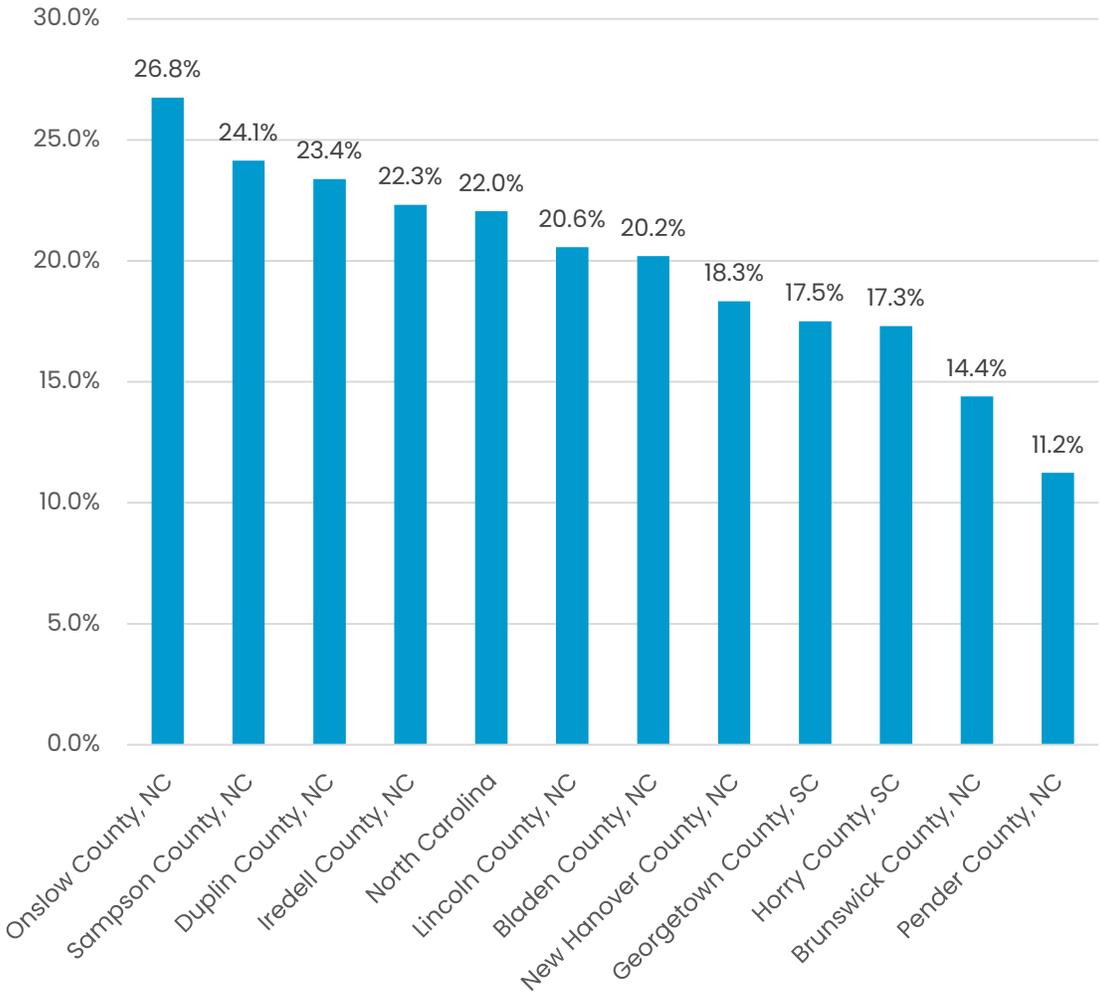


Figure 53: Percent of the Population below Poverty Level, County Comparisons (2022 US Census, 5-Year Estimates)

NATURAL SYSTEMS

Introduction

Preserving the quality of life of Pender County residents and visitors is an important factor to consider as the population increases, and development occurs throughout the area. To do so, a coordinated balance between development, preservation of agricultural working lands, and environmentally sensitive areas must be a goal for the County. The purpose of this section is to describe and analyze the natural resources, environmental conditions, and agricultural lands as they exist today in Pender County.

North Carolina's Coastal Area Management Act (CAMA) establishes provisions for rational and integrated coastal resource management. County wide land use plans utilize the regulation of Areas of Environmental Concern (AECs) to set the foundation for North Carolina's coastal resource management program. These set forth actions that allow state and local governments to retain and complement the state's coastal resources. Local governments, however, are granted significant flexibility when developing policies and taking actions to protect them. Moreover, the majority of Pender County is not impacted by CAMA AECs, thus requiring local land use regulation for the desired level of preservation for environmentally sensitive or prime agricultural lands. The following sections provide an overview of the unique and varied natural systems throughout the County.

Comprehensive Land Use Plan and Coastal Area Management Act (CAMA) Regulations

The Coastal Area Management Act (CAMA) of 1974 mandates all 20 coastal counties to have a land use plan and requires permits for any development in specially designated areas called Areas of Environmental Concern (AEC). Upon adoption, this plan serves as the County's official CAMA land use plan. Regarding CAMA permitting, in Pender County, AECs are generally those areas that are in close proximity to waterways (ocean, ICWW, creeks, etc.) or marshes (wetlands). A CAMA permit must be acquired if a development project meets all the following conditions:

- The project is located within one of the 20 coastal counties of North Carolina.
- The project is considered "development" under CAMA.

- The project is within, or affects, an Area of Environmental Concern established by the Coastal Resources Commission
- The project does not qualify for an exemption.

What Qualifies as a CAMA Regulated Development Project?

Besides construction of residential and commercial buildings in an Area of Environmental Concern, “development” also generally includes activities such as dredging or filling coastal wetlands or waters, and construction of marinas, piers, docks, bulkheads, oceanfront structures, and roads. The Coastal Area Management Act (§ 113A-103(5)(a)) defines a development project as: “any activity in a duly designated area of environmental concern involving, requiring or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading; driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake or canal.”

What is an Area of Environmental Concern (AEC)?

According to the Division of Coastal Management’s (DCM) CAMA Handbook for Development, protecting and managing Areas of Environmental Concern is the basis for the CAMA permitting program. As stated previously, in Pender County, the AECs are generally those areas that are in close proximity to waterways (ocean, ICWW, creeks, etc.) or marshes (wetlands). See **Figure 54** for a map of Wetlands and Areas of Environmental Concern.

A development project is likely in an AEC if it is:

- In, or on the shore of, navigable waters within the 20 coastal CAMA counties
- On a marsh or wetland
- Within 75 feet of the normal high-water line along an estuarine shoreline
- Near the ocean beach (e.g. within 60’-120’)
- Near an inlet
- Within 30 feet of the normal high-water level of areas designated as inland fishing waters by the NC Marine Fisheries Commission and the NC Wildlife Resources Commission

- Near a public water supply
- Within 575 feet of Outstanding Resource Waters defined by the Environmental Management Commission

For more information on the CAMA Handbook for Development in Coastal North Carolina, and for mitigating steps required during development, please visit the Division of Coastal Management website or contact the Pender County Planning and Community Development Department.

The need for CAMA planning and regulations is essential to preserving the quality of life of the County's residents and visitors because of the ever-changing coastline and its fragile wetlands and soils. The transition from aquatic habitats to uplands are fragile wetland areas that can be easily erodible through storm and weather events. Such events naturally exert strong forces on the coastal system. These wetland systems and the wildlife and plants they support clean the water and provide for the fishing and tourism industry. If managed correctly, these dynamic coastal wetlands, beaches, and dunes can protect the County's communities from storm damage.

Estuarine and Ocean Systems

The Estuarine and Ocean Systems AEC is a broad category that includes the County's brackish sounds, marshes, and surrounding shorelines. The system includes the following components:

- Estuarine waters;
- Estuarine/coastal shorelines;
- Coastal wetlands; and
- Public trust areas

Estuarine Waters

Estuaries are typically found where rivers and streams flow into the Atlantic Ocean and/or the Intracoastal Waterway (ICWW). They are unique and essential for coastal life because they serve as transition zones between fresh and salt water. Barrier islands protect estuaries from wind and wave energy. Estuaries also serve as a water filtration system by removing sediments, nutrients, and pollutants before they reach the ocean. The resulting cleaner water benefits marine life and the people that inhabit the surrounding area. Estuaries also assist in flood control, with porous salt marsh soils and grasses absorbing flood waters and dissipating storm surges. They provide natural barriers between the land and the ocean.

Estuarine waters include all waters of the Atlantic Ocean within the boundary of North Carolina, and all waters of the bays, sounds, rivers, and tributaries seaward of the dividing line between coastal fishing waters and inland fishing waters (NCGS 113A-113(b)(2)). Pender County's estuarine waters include the ICWW, and portions of the Cape Fear River, Northeast Cape Fear River, Black River, and others. Estuaries are extremely productive natural systems that are vital to marine life, coastal tourism, and recreation. See **Figure 54** for a map of Wetlands and Areas of Environmental Concern.

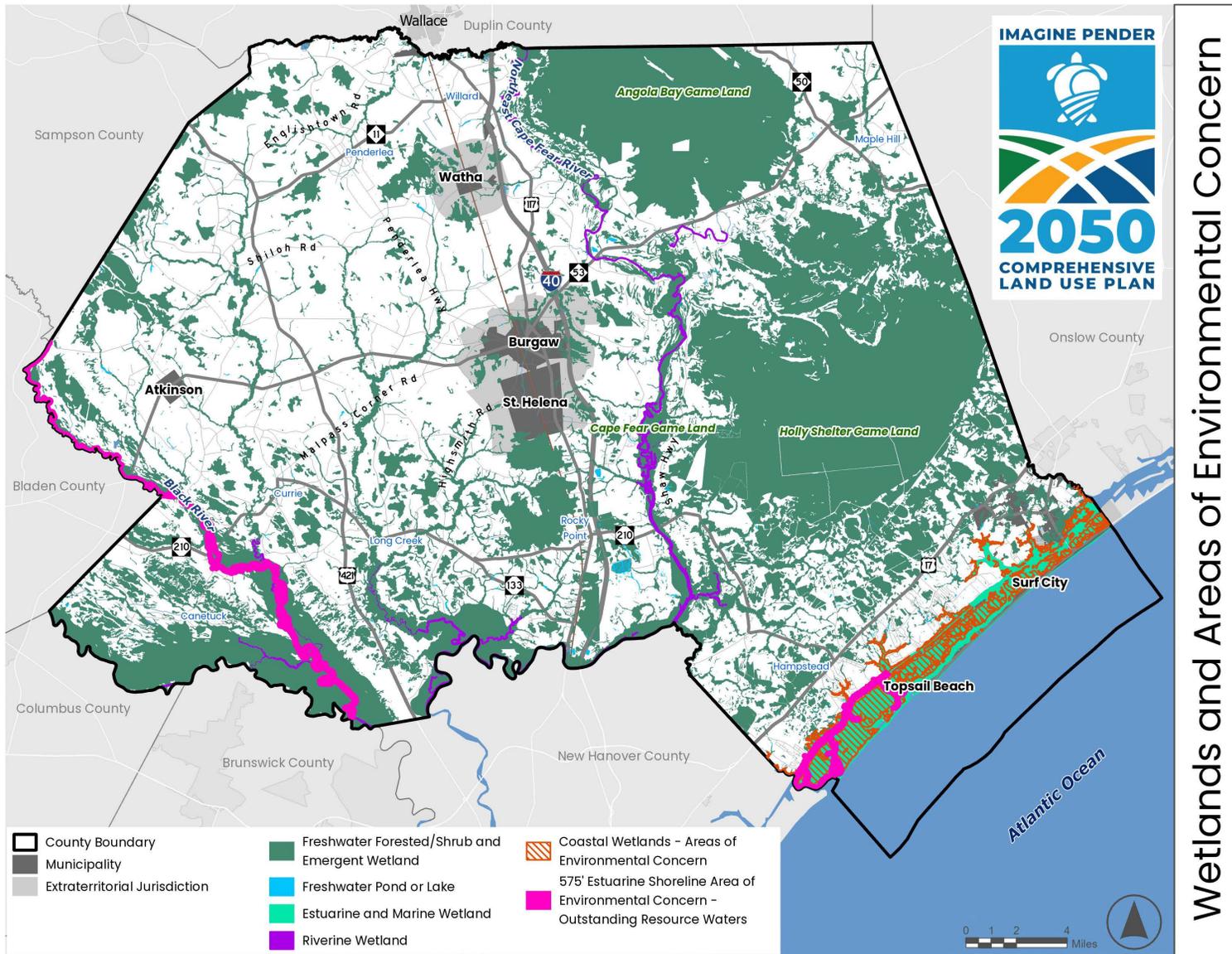


Figure 54: Wetlands and Areas of Environmental Concern

Estuarine waters in and around the County provide important habitat for a diverse range of shellfish, birds, and other forms of marine wildlife. Mud and sand flats, eel grass beds, salt marshes, submerged vegetation flats, and clam and oyster beds are important habitat features of an estuarine system. They provide nursery areas and serve as habitat for a variety of marine and benthic species. The North Carolina Wildlife Resources Commissions (NCWRC) defines benthic as relating to, or of the bottom surfaces of bodies of water. Development activities which are water dependent and require water access and cannot function elsewhere (e.g. simple access structures, structures to prevent erosion, boat docks, marinas, wharves, and mooring piling) may be allowed within this AEC.

Estuarine /Coastal Shoreline

The estuarine shoreline is the non-ocean shoreline, extending from the normal high-water level or normal water level along the estuarine waters, estuaries, sounds, fresh and brackish waters, and public areas (15NCAC 7H.0209). For areas not located in Outstanding Resource Waters (ORW), the estuarine shoreline is defined as 75 feet landward from mean high water line (MHWL). These areas are highly susceptible to wind, water, and development erosion. Development in these areas poses a threat to water quality and can increase the chance of shorefront erosion. For ORW waters, the distance is 575 feet. In Pender County, there are two locations where ORWs are found (Black River and Topsail Sound). Specifically, development within estuarine shoreline AECs may not exceed an impervious coverage limit of 30% (25% for ORW AECs) or be located within 30 feet of the normal high-water level. CAMA permits control development within the shoreline areas.

Coastal Wetlands

CAMA specifically defines coastal wetlands as any salt marsh or other marsh subject to regular or occasional flooding by lunar tides and contains some, but not necessarily all of the following marsh plant species: Cord Grass, Black Needlebrush, Glasswort, Salt Grass, Sea Lavender, Bulrush, Saw Grass, Cattail, Salt Meadow Grass, and Salt Reed Grass. This definition does not include flooding by tides associated with hurricanes, tropical storms, or severe weather events (15A NCAC 07H.0206).

The US Army Corps of Engineers (USACE)/Clean Water Act defines wetlands as those areas inundated and saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation typically adapted for life in saturated soil conditions (this includes CAMA defined coastal wetlands). Wetlands include a

variety of natural systems such as marshes, swamps, and pocosins. While they may not all look the same, they share certain characteristics such as wetland vegetation, hydric soils, and hydrologic features. The United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) defines hydric soils as soils formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions. Wetlands have significant values that support the unique lifestyle and quality of life enjoyed by Pender County residents and visitors. These values include:

- **Water Storage:** Wetlands are able to store heavy rain, surface runoff, and flood waters, thereby reducing downstream flooding.
- **Shoreline Stabilization:** Ground cover and roots of wetland plants help hold soil in place and prevent sedimentation and nutrient transport.
- **Water Quality:** Wetlands plants can enhance water quality by removing pollutants from surface water runoff.
- **Wildlife and Aquatic Habitat:** The variety of plants, hydrologic, and soil conditions associated with wetlands provide abundant food and cover for animal populations and support a number of endangered species and other rare plants and animals.
- **Recreation and Education:** The rich array of plants and animals supported by wetlands provide significant consumptive and non-consumptive use values such as hunting, fishing, bird watching, kayaking, etc.

Conserving wildlife habitat and maintaining as much mature, swamp, bottomland, and floodplain forest as possible will reduce the severity of natural hazards and the extent of inland flooding. In Pender County, the conservation of the natural habitats in and around the Angola Bay and Holly Shelter Game Lands reduces the severity of flooding in the Cape Fear and the Northeast Cape Fear Rivers. According to the United States Environmental Protection Agency (US EPA), conserving one acre of wetlands prevents three acres of flooding.

According to mapping developed by the Division of Coastal Management (DCM), Pender County has coastal wetlands of the brackish saltwater variety. Throughout the County, coastal wetlands cover 7,476 acres. They are mostly found along the ICWW and Topsail Island Sound. Coastal wetlands are considered to be unsuitable for all development activities and other land uses that alter their natural functions.

Public Trust Areas

Public trust areas include coastal waters and the submerged tidal lands below the mean high-water line (MHWL). The water and submerged tidal lands are held in trust for the public to use through activities such as fishing, swimming, and boating. These areas will often overlap with estuarine waters, but they also include many inland fishing waters. As general guidance, the following lands and waters are considered to be public trust areas:

- All waters of the Atlantic Ocean and the lands underneath, from the MHWL seaward to the state's official boundary three miles offshore.
- All tidally influenced waters and associated submerged lands below the MHWL.
- All navigable natural water bodies and the lands underneath from the normal high-water line seaward (Navigable waters include anything you can float a canoe in). This does not include privately owned lakes where the public does not have access rights.
- All water in artificially created water bodies that have significant public fishing resources and are accessible to the public from other waters; and
- All waters in artificially created water bodies where the public has acquired rights by prescription, custom, usage, dedication, or any other means.

Accordingly, Pender County's public trust waters include all estuarine waters, their tributaries, and the Atlantic Ocean. It is the state's policy to ensure that the public is able to maintain access to these submerged tidal waters since they are held in trust. All development, structures, and land uses that interfere with the public's right to the access and use of these waters are inconsistent with state policy. Throughout the state's coastal communities, the degree to which development is required to provide access to public trust areas varies significantly. Ultimately, the provision or requirement for such access falls to the local government and is codified within zoning or subdivision regulations. In Pender County, there are no regulations in place to require public access to public trust areas. Navigation channels, piers, marinas, and bulkheads to control erosion are examples of uses that are frequently considered to enhance the public's use of these public trust areas.

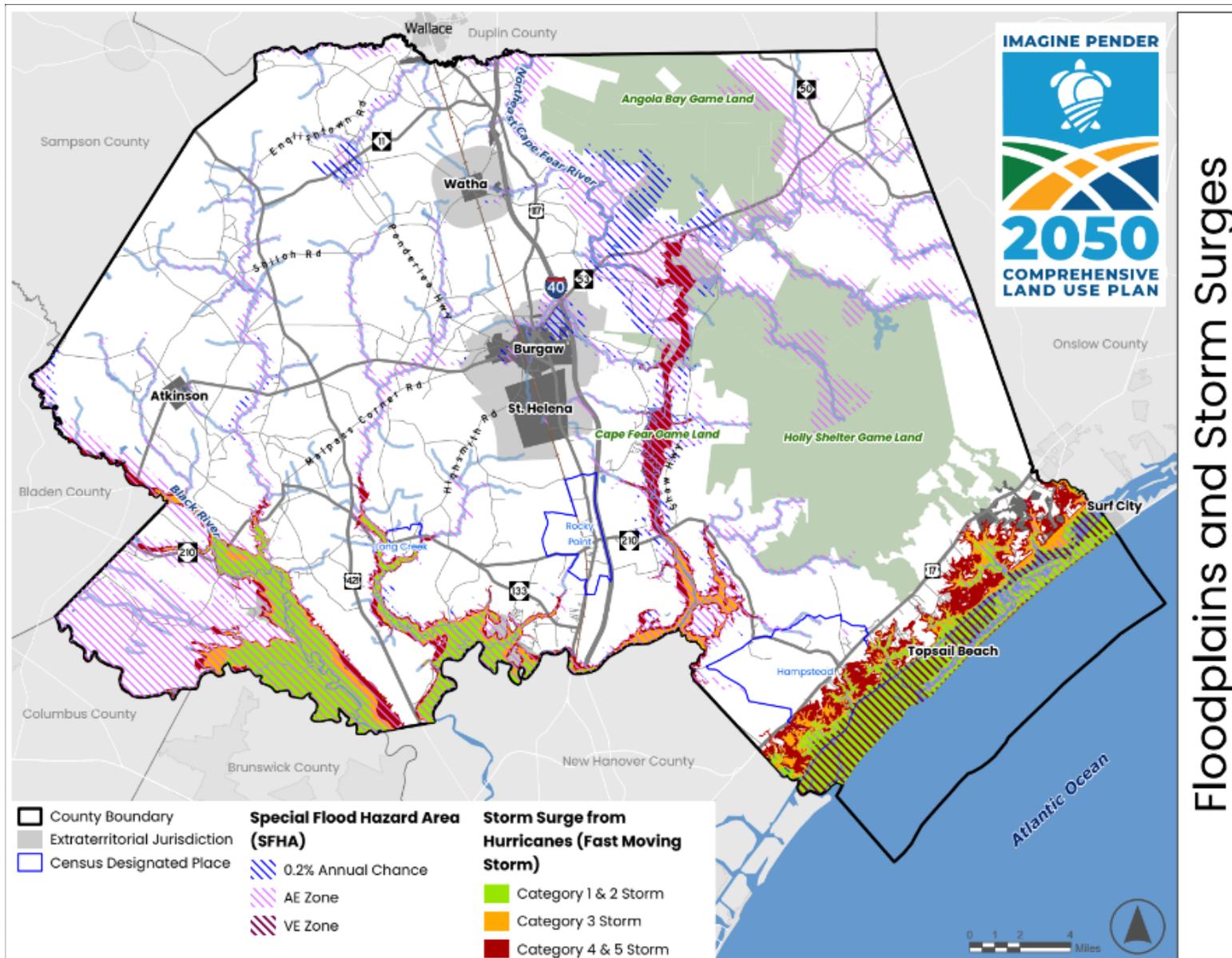
Hazards

Due to its geographic location, the coastal region is susceptible to a variety of natural hazards such as flooding, hurricanes, and storm surge. These hazards are summarized in the following sections.

Special Flood Hazard Areas

The Special Flood Hazard Area is defined as an area of land that has a 1% chance of being inundated by a flood in any given year. The 100-year floodplain is the accepted benchmark for defining flood hazard areas. Given the presence of Topsail Island, and other flood zone areas on the mainland found along rivers and the Intracoastal Waterway, approximately 30% of the County's residential properties are located in the Special Flood Hazard Area. The floodplain in Pender County is mapped including:

- **A zones:** Special flood hazard areas inundated by the 100-year flood (one percent chance of a hundred-year flood event in alluvial plains or riverine systems).
- **VE zones:** Special flood hazard areas inundated by the 100-year flood (one percent chance of a hundred-year flood event); coastal floods with velocity hazards (typically 3-foot wave action); and
- **500-year Floodplain:** Areas subject to a 0.2 percent chance of flooding in any given year.



Floodplains and Storm Surges

Figure 55: Floodplains and Storm Surges

Flooding Hot Spots and Drainage Concerns

Within the flood hazard areas, some portions of the County have experienced a greater frequency of flooding than others. Based on past flood events throughout the County, the Northeast Cape Fear River tends to flood more frequently than the Black River. In 2018, Hurricane Florence produced record rainfall across the County leading to severe flooding along both the Northeast Cape Fear and Black Rivers. The devastation of Hurricane Florence came only two years after substantial flooding from Hurricane Matthew, where the most significant damage occurred along the Black River in southwest Pender County. The Black River is a 50-mile-long tributary of the Cape Fear River. This area is a portion of the County where many major streams converge.

Prior to the enactment of the 1972 Clean Water Act, and subsequent adoption of North Carolina stormwater rules and regulations, development was generally not subject to any particular requirements for the mitigation of stormwater. Many developments, however, were constructed with drainage easements and the like to prevent localized flooding and convey stormwater. A stormwater drainage easement is typically denoted on a recorded plat showing where stormwater runoff must be allowed to flow across the property, either through open ditches or through an underground pipe system. Accordingly, over time drainage ditches, easements, and mechanisms to mitigate stormwater in developments constructed prior to the 1970s have been modified, filled, or outright forgotten. As a result, even minor rain events can impact these areas. In the future, the County desires to educate residents, real estate agents, developers, and Homeowners Associations (HOAs) about this important topic and potential solutions to prevent localized drainage issues and flooding.

FEMA Flood Insurance

According to the Federal Emergency Management Agency (FEMA), there are 4,672,655 flood insurance policies nationwide. Flood insurance is available in 19,859 participating communities nationwide. Pender County has 5,466 policies in force valued at over \$1.5 billion.

Hurricanes

Due to the geographic location of Pender County, hurricanes pose a significant threat to the residents and visitors of the County. A hurricane is a cyclonic storm that originates in tropical ocean waters. As a hurricane develops, barometric pressure at

its center falls while winds increase. Winds at or exceeding 39 miles per hour result in a named tropical storm that is closely monitored by the National Oceanic and Atmospheric Administration's (NOAA's) National Hurricane Center. When winds exceed 74 miles per hour, it becomes a hurricane.

Hurricanes are judged by their power according to the Saffir-Simpson Scale. This measure of the power of a hurricane classifies hurricanes according to a sliding scale from 1 to 5 (with category 5 storms as the most severe). Since hurricanes derive their strength from warm ocean waters, they generally deteriorate in intensity when they make landfall. The forward momentum at the time of landfall can range from just a few miles per hour to upwards of 40 miles per hour. The forward motion, combined with the counterclockwise surface flow make the front right quadrant of the hurricane the most dangerous in terms of damaging winds and storm surge.

Table 4 describes each category of hurricane, their respective wind speed, the types of damages to expect, and the storm surge heights associated with each category.

Significant Storm Events

In the past 25 years, Pender County has been impacted by significant hurricane events. Hurricanes Florence, Matthew, and Floyd resulted in catastrophic flooding and property damage that the County and affected residents are still recovering from.

Hurricane Floyd

On September 16, 1999, Hurricane Floyd, a category 2 hurricane, made landfall near southeastern North Carolina. On September 15, 1999, federal resources and funds were made available to support hurricane response efforts in North Carolina under an emergency declaration issued by President Clinton. Floyd's torrential rains produced record-breaking flooding and caused rivers to rise over 20 feet above flood stage. It has been estimated that over 7,000 homes were destroyed, 56,000 homes were damaged, 17,000 homes were deemed unlivable, and nearly 87,000 individuals registered for financial assistance from FEMA. This storm was a 500-year flood event that has been named The Flood of the Century. To date, Hurricane Floyd remains the single greatest disaster in North Carolina's history. Some residents of Pender County, impacted by Floyd, are still in the final stages of mitigation efforts experienced as a result of the extreme flooding experienced throughout the County.

Table 4: Hurricane Categories and their Effects

Hurricane Categories and their Effects
<p>Category 1 (74–96 mph)</p> <p>Damage: Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.</p> <p>Storm Surge: Storm surge three to five feet above normal. Low lying roads inundated. Minor pier damage.</p>
<p>Category 2 (96–110 mph)</p> <p>Damage: Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.</p> <p>Storm Surge: Storm surge six to eight feet above normal. Low lying roads inundated. Low lying escape routes cut by rising water two to four hours before storm’s arrival. Considerable pier damage. Marinas flooded. Evacuation of some shoreline and low-lying areas required.</p>
<p>Category 3 (111–129 mph)</p> <p>Damage: Devastating damage will occur: Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.</p> <p>Storm Surge: Storm surge 8 to 12 feet above normal. Serious flooding at coast and many smaller structures near the coast destroyed. Larger structures near the coast damaged by battering waves and floating debris.</p>
<p>Category 4 (130–156 mph)</p> <p>Damage: Catastrophic damage will occur: Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.</p> <p>Storm Surge: Storm surge 13 to 18 feet above normal. Major damage to lower floors of structures near the shore due to flooding and battering by waves and floating debris. Major beach erosion.</p>
<p>Category 5 (157+ mph)</p> <p>Damage: Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.</p> <p>Storm Surge: Storm surge possibly greater than 18 feet above normal. Major damage to lower levels of all structures less than 15 feet above mean sea level.</p>

Hurricane Matthew

In 2016 and 2018, Pender County experienced catastrophic flooding from Hurricanes Matthew and Florence. While the County's geographic location on the coast resulted in some damage along Topsail Island, the inland riverine flooding resulted in the most significant flooding and property damage. The County is still working with individual homeowners that have applied for projects with the North Carolina Office of Recovery and Resiliency (NCORR).

Much of Pender County received up to 6 inches of rainfall within the two-week span around Hurricane Matthew's landfall, while the southwest portion of the County received up to 15 inches of rainfall. Aside from the increased amount of rainfall, this area is known to have severe drainage issues which led to serious home and small business damages. These drainage issues can be attributed to the relatively low elevations and the merging of major riverine systems. Due to drainage issues, southwest Pender County experienced several road closures from water overtopping, including sections of NC 210, NC 53, and several secondary roads.

Hurricane Florence

In September 2018, Hurricane Florence came ashore in the Cape Fear region. Power outages and home damage due to flooding were widespread in the County, especially along the Black, Northeast Cape Fear, and Cape Fear Rivers and their tributaries. According to the National Hurricane Center, during Hurricane Florence, "high water levels in the Cape Fear River backed up the Black River and Moore's Creek, leading to exceptional flooding in the Currie and Canetuck communities. The Town of Atkinson was isolated by high water" (Stewart and Berg, 2019). In total, 6,294 homes were damaged by Hurricane Florence with 2,797 of these having major damage or destruction. The estimated value of damage to homes and commercial property in Pender County was \$268,067,825. Many property owners were just returning to their homes after being devastated by Hurricane Matthew in 2016 when their properties were destroyed again by flooding due to Hurricane Florence.

Additionally, the loss of roads due to flooding and washout during Florence made travel in these areas difficult to impossible, keeping owners away from their property for weeks following the storm events. In Pender County, there were 1,600 rescues of people who could not leave their flooded residences. This accounted for half of all rescues conducted in North Carolina during the aftermath of Hurricane Florence. The

impacts of Hurricane Florence weigh heavy on the minds of those in Pender County who were residents at the time and witnessed the widespread devastation it caused.



Figure 56: Extent of Flooding caused by Hurricane Florence, 2018 (Pender County GIS)

Since Florence

Since the adoption of Pender 2.0, Hurricane Dorian (2019), Hurricane Isaias (2020), Post-Tropical Cyclone Ian (2022), Tropical Storm Ophelia (2023), Hurricane Debby (2024), and Hurricane Helene (2024) have impacted eastern North Carolina. FEMA’s Individual Assistance (IA) and Individuals and Households Program (IHP) help the public directly following a Presidential disaster declaration by providing financial help or direct services to those who have necessary expenses and serious needs if unable to provide for themselves. In North Carolina, nearly 82,000 households applied for help from FEMA. These funds help individuals, families, and small business owners recover from storm and flooding events.

FEMA’s Public Assistance (PA) grant program provides federal assistance to government organizations and certain private nonprofit (PNP) organizations following a Presidential disaster declaration. The PA grant program allows communities to promptly respond to and recover from major disasters. Specifically,

grant assistance for debris removal, life-saving emergency protective measures, and the repair, replacement, or restoration of disaster-damaged publicly owned facilities, and the facilities of certain PNP organizations is available through this program.

The County is particularly active in the Hazard Mitigation Grant Program (HMGP). The purpose of the HMGP is to help communities implement hazard mitigation measures following a Presidential Major Disaster Declaration and reduce the risk of loss of life and property from future disasters. A substantial number of homes and structures located in the Special Flood Hazard Area and impacted by storm events have been elevated, relocated, or mitigated through buyout programs to lessen the impacts of future flood damage in the County.

Storm Surge Areas

A large geographic area of the County, particularly along Topsail Island and the Intracoastal Waterway, are vulnerable to storm surges and corresponding erosion, wave action, flooding, high winds, and beach wash over associated with hurricanes. NOAA's National Hurricane Center defines storm surge as an abnormal rise of water generated by a storm, over and above the predicted tides. Storm surge is water pushed toward the shore by the force of winds swirling around the hurricane or low-pressure meteorological system. The advancing surge combines with the normal tides to create the hurricane storm tide otherwise known as the storm surge. As a result, the mean high-water line (MHWL) can rise by 15 feet or more. The rise in water level causes severe flooding in coastal areas, particularly when a storm surge coincides with high tide. Wind and wave action is then superimposed on this storm surge water level.

The speed and strength of a storm is important in estimating the impact of the storm and can be determined by the National Oceanic and Atmospheric Administration (NOAA) Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model. Waves and currents associated with storm surge may cause extensive damage as water weighs approximately 1,700 pounds per cubic yard. Periods of prolonged wave action can demolish any structure not specifically designed to withstand such forces. In efforts to protect the coast from storm surge related damage, oyster beds and marsh vegetation can be placed along the living shoreline. Restoring oyster reefs and vegetation complexity can promote sediment accretion that builds up wetlands and uplands. These complex substrates and diverse wetland vegetation trap sediments and can lead to eventual upland expansion.

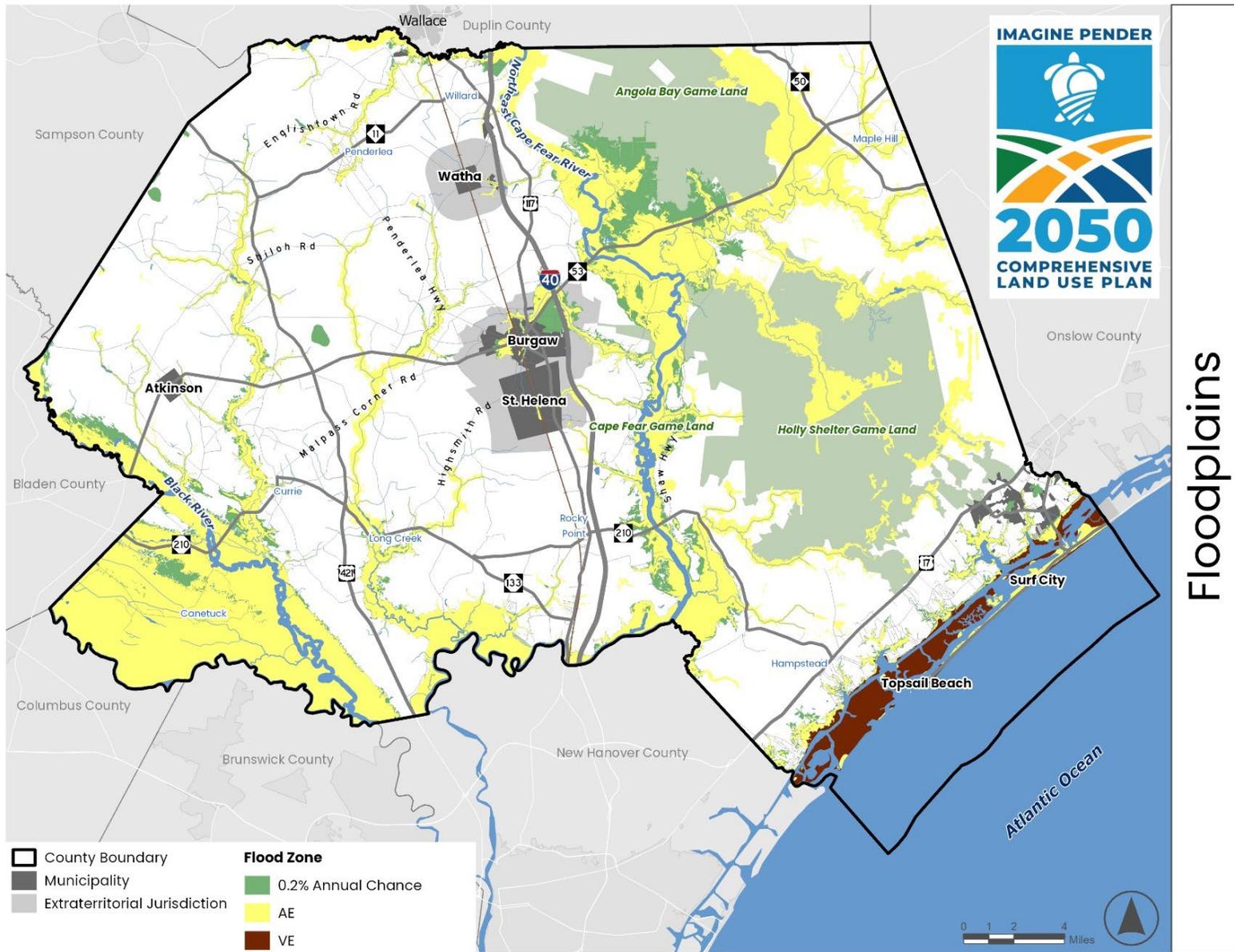


Figure 57: Floodplains

Water Quality

The relative condition of surface water and its ability to support marine life and recreational activities is an important contributing factor to quality of life for County residents. Development has a direct impact on surface water quality as any increase in impervious surface can increase the amount of runoff that terminates in adjacent waterbodies. Surface waters should contain a balanced amount of nutrients and have normal fluctuations in salinity and temperature. They should also have plenty of oxygen and little suspended sediment so that marine life can breathe and receive enough sunlight to grow. Monitoring changes in North Carolina's water quality is important because of the impacts it has on the ecosystem, tourism, and quality of life. Nationwide, the tourism industry loses close to \$1 billion dollars each year, mainly through losses in fishing and boating activities, as a result of water bodies that have been affected by nutrient pollution and harmful algal blooms. From 2022 to 2023, Pender County experienced a 5% growth rate in visitor spending. In 2023, the overall tourism economic impact in Pender County – most attributed to coastal recreational tourism supported by pristine natural habitat and clean waters – was almost \$200 million (the majority of which was attributed to visitor spending on lodging, transportation, and recreation). According to the NC Department of Commerce, this resulted in a total state and local tax savings of \$227 per resident, an increase from the approximate \$200 savings per resident in 2015.

Data collected by the NC Department of Environmental Quality (NCDEQ) helps scientists and regulatory agencies evaluate changing water quality conditions. Factors affecting water quality include:

- **Nutrients:** While essential for plants and animals, they can be harmful if there is an overabundance;
- **Sediments:** Can cloud the water and hamper the growth or even kill aquatic plants;
- **Water temperature:** Changes in normal water temperatures can affect when animals and plants feed, reproduce, and migrate;
- **Salinity:** Changes in salinity can adversely affect a wide range of marine life;
- **Dissolved oxygen:** Is essential for animals living within the water body. Reduced levels of dissolved oxygen (e.g., due to an algae bloom or eutrophic conditions) can adversely affect marine life; and

- **Contaminants and other pollutants:** There are a variety of other contaminants and pollutants that can adversely affect the growth, survival, and reproduction of marine and benthic organisms.

As a strategy for the management of North Carolina’s waters, the NCDEQ’s Division of Water Resources (DWR) assigns classifications to all surface water bodies which identifies the supported uses. The primary classifications are:

- **C:** Waters protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner.
- **B:** Waters protected for all Class C uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.
- **SC:** All tidal salt waters protected for secondary recreation such as fishing, boating, and other activities involving minimal skin contact; fish and noncommercial shellfish consumption; aquatic life propagation and survival; and wildlife.
- **SB:** Tidal salt waters protected for all SC uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.
- **SA:** Tidal salt waters that are used for commercial shell fishing or marketing purposes and are also protected for all Class SC and Class SB uses. All SA waters are also High Quality Waters (HQW) by supplemental classification.

Additional supplemental water quality classifications include:

- **High Quality Waters (HQW):** Supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission.

- **Outstanding Resource Waters (ORW):** All outstanding resource waters are a subset of High Quality Waters. This supplemental classification is intended to protect unique and special waters having excellent water quality and being of exceptional state or national ecological or recreational significance.
- **Swamp Waters (Sw):** Supplemental classification intended to recognize those waters which have low velocities and other natural characteristics which are different from adjacent streams.
- **Nutrient Sensitive Waters (NSW):** Supplemental classification intended for waters needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation.
- **+**: A plus (+) sign identifies waters that are subject to a special management strategy specified in 15A NCAC 2B .0225, the Outstanding Resource Waters (ORW) rule.

Water quality classifications vary slightly within Pender County. **Table 5** provides a listing of water bodies within Pender County that are classified by the NC Division of Environmental Quality, along with their assigned classifications and water quality issues. Twelve of the water bodies are currently listed as High Quality Waters (HQWs) and three as Outstanding Resource Waters.

Table 5: Waterbodies, Classifications, and Water Quality Issues

Stream Name	Description	Class	Water Quality Issues
Banks Channel	From New Topsail Inlet to Topsail Sound	SA; HQW	Shellfish Growing Area-Prohibited (Fecal, SH, SA)
Batts Mill Creek (Barlow Creek)	From source to Intracoastal Waterway	SA; HQW	Shellfish Growing Area-Conditionally Approved Closed (Fecal, SH, SA)
Beckys Creek (Bishops Creek)	From 0.5 miles inland of ICWW to Intracoastal Waterway	SA; HQW	Shellfish Growing Area-Conditionally Approved Open (Fecal, SH, SA)
Black River	From source to Cape Fear River	C; Sw, ORW:+	N/A
Burgaw Creek	From Osgood Branch to Northeast Cape Fear River	C; Sw	Copper (7 g/l, AL, FW)
Cape Fear River	From raw water supply intake at Federal Paper	C; Sw	Benthos Fair (Nar, AL, FW)*

Stream Name	Description	Class	Water Quality Issues
	Board corporation (Riegelwood) to Bryant Mill Creek		
County Line Branch	From source to Batts Mill Creek	SA; HQW	Shellfish Growing Area-Conditionally Approved Closed (Fecal, SH, SA)
Futch Creek	From 0.35 miles inland of Intracoastal Waterway to ICWW	SA; HQW	Shellfish Growing Area-Prohibited (Fecal, SH, SA)
Intracoastal Waterway	From Morris Landing to the eastern mouth of Old Topsail Creek	SA; ORW	Shellfish Growing Area-Conditionally Approved Open (Fecal, SH, SA)
Lillington Creek	From source to Northeast Cape Fear River	C; Sw	pH (4.3 su, AL, Sw)
Long Creek	From source to Cypress Creek	C; Sw	Benthos Severe (Nar, AL, FW)*
Mill Creek (Betts Creek)	From source to Intracoastal Waterway	SA; HQW	Shellfish Growing Area-Prohibited (Fecal, SH, SA)
Mill Pond	From source to Holly Shelter Creek	C; Sw	pH (4.3 su, AL, Sw)
Mullet Run	From source to Virginia Creek	SA; HQW	Shellfish Growing Area-Conditionally Approved Closed (Fecal, SH, SA)
Nixons Creek	From source to Intracoastal Waterway	SA; HQW	Shellfish Growing Area-Conditionally Approved Open (Fecal, SH, SA)
Old Mill Creek	From source to Intracoastal Waterway	SA; HQW	Shellfish Growing Area-Conditionally Approved Open (Fecal, SH, SA)
Old Topsail Creek	From 0.5 miles inland of Intracoastal Waterway to ICWW	SA; HQW	Shellfish Growing Area-Conditionally Approved Open (Fecal, SH, SA)
Topsail Sound	Conditional area at Surf City marina	SA; HQW	Shellfish Growing Area-Conditionally Approved Closed (Fecal, SH, SA)
Topsail Sound and Middle Sound ORW Area	North of ICWW	SA; ORW	Shellfish Growing Area-Conditionally Approved Open (Fecal, SH, SA)
Virginia Creek	From 0.75 miles inland of ICWW to Intracoastal Waterway	SA; HQW	Shellfish Growing Area-Conditionally Approved Closed (Fecal, SH, SA)

Water Quality Issues Descriptions

- Shellfish Growing Area – Prohibited: Based fecal coliform criteria to protect shellfish harvesting in Class SA waters. No Sanitary Survey; point source discharges; marinas; data do not meet criteria for Approved, Conditionally Approved or Restricted Classification.
- Shellfish Growing Area – Conditionally Approved Open: Based fecal coliform criteria to protect shellfish harvesting in Class SA waters. Sanitary Survey indicates an area can meet approved area criteria for a reasonable period of time, and the pollutant event is known and predictable and can be managed by a plan. These areas tend to be open more frequently than close.
- Shellfish Growing Area – Conditionally Approved Closed: Based fecal coliform criteria to protect shellfish harvesting in Class SA waters. Sanitary Survey indicates an area can meet approved area criteria for a reasonable period of time, and the pollutant event is known and predictable and can be managed by a plan. These areas tend to be closed more frequently than open.
- Copper (7 g/l, AL, FW): Numeric water column criteria to protect aquatic life in all NC fresh waters
- Benthos Fair (Nar, AL, FW): Based on narrative criteria to protect aquatic life in fresh water
- pH (4.3 su, AL, Sw): Numeric water column criteria to protect aquatic life in waters with Swamp supplemental classification
- Fecal: presence of fecal coliform
- SH: Shellfish harvesting
- SA: SA Water Classification
- Nar: Narrative Standard
- AL: Aquatic life
- FW: Fresh water
- su: Salinity units
- Sw: Swamp waters

Shell Fishing

There are several waters in and adjacent to coastal Pender County that are closed to shell fishing. These closures are due primarily to stormwater runoff and other non-point sources of pollution, both from within Pender County and surrounding counties located within the watershed. Closed shellfish areas are locations where shellfish harvesting is prohibited by law due to unsafe levels of pollutants caused by conditions such as wastewater discharge and non-point source stormwater runoff. Within the proximity of Topsail Island, shell fishing is prohibited in portions of the Intracoastal Waterway and also in many of the estuaries. Conditional areas are typically open to shell fishing but may be closed following a significant rainfall event because of the resultant runoff. There are also several prohibited shell fishing sites located in Hampstead. NCDEQ's Division of Marine Fisheries website provides maps depicting prohibited shell fishing locations in Pender County.

Figure 58 displays a cluster of oysters that continuously filters the surrounding water and helps enhance water quality. Oyster reefs create important feeding grounds and nursery areas for many other commercially and recreationally important fish species. Shellfish not only enhance North Carolina's waters, but also provide economic impacts such as business revenue and jobs for contractors, fishermen, and freight workers. While oyster farming and aquaculture have become more popular over the last several years, there have been concerns related to public trust access restrictions from new leases. In fact, as of October 2024, the County has requested that the legislature grant a moratorium on new leases until more information and study can be completed to determine potential long-term public trust impacts. The Town of Topsail Beach currently has a restriction on aquaculture (or oyster farming) within its jurisdiction.



Figure 58: Oyster Cluster

Primary Nursery Areas

The salt marshes and estuaries along the North Carolina coast serve as nursery grounds for 90 percent of fish species. North Carolina was the first state to protect these fragile ecosystems. The nursery system in North Carolina contains three categories:

- Primary nursery areas;
- Secondary nursery areas; and,
- Special secondary nursery areas.

Primary nursery areas are found within Topsail Island, Lea-Hutaff Island, Surf City, and southern sections of both the Cape Fear River and Northeast Cape Fear River.

Primary nursery areas are generally located in the upper portions of creeks and bays. These areas are usually shallow with soft, muddy bottoms and are surrounded by marshes and wetlands. Low salinity levels and abundance of food make these areas ideal for young fish and shellfish. To protect juveniles, many commercial fishing activities are prohibited in primary nursery areas including the use of trawl nets,

seine nets, dredges, or any mechanical devices used to harvest clams and oysters. Violators face substantial penalties if these prohibited areas are not taken into consideration. There are approximately 15,598 acres of primary fish nursery areas within Pender County.

Secondary nursery areas are generally located in the lower portions of creeks and bays. Young fish and shellfish (primarily blue crabs and shrimp) move into these waters as they grow and develop. Trawling is not allowed in secondary nursery areas either. There are approximately 119 acres of permanent secondary nursery areas in Pender County, which are located in Mill Creek (Betts Creek), Virginia Creek, and Old Topsail Creek.

Special secondary nursery areas are located adjacent to secondary nursery areas but are closer to open waters of sounds and the ocean. When juvenile species are abundant, these waters are closed to trawling for a majority of the year. There is one special secondary nursery area located in Pender County. This area is located within the ICWW, from the Topsail Island Bridge to the Pender County/Onslow County boundary and covers approximately 252 acres.

Cape Fear and White Oak River Basins

The Cape Fear River Basin is North Carolina's largest river basin and is one of four river basins located entirely within the state. The basin originates in Chatham County where the Deep and Haw Rivers combine, which is below the B. Everett Jordan Dam. The river, streams, and tributaries drain over 9,000 square miles of land. Prior to 2009, Pender County was completely within the Cape Fear River Basin, however, the boundary of the basin has been altered to reflect the natural flow of water, rather than following political boundaries. Currently, the Cape Fear River Basin is located within the inland areas of Pender County and White Oak River Basin is located within coastal areas of the County.

Land Use Impacts on Surface Water Quality

Almost all land uses, which are in close proximity and drain to surface water bodies, can have an effect on water quality. Impervious surfaces such as streets, parking lots, curbs, gutters, ditches and swales all convey stormwater (non-point source pollution) to local surface waters. Piped outfalls and drainage systems convey untreated stormwater from existing impervious surfaces to area surface waters. In order to mitigate these impacts, several coastal communities in southeastern North Carolina are retrofitting their stormwater outfall pipes and drainage systems to allow

water to convey into the ground – rather than into adjacent surface waters – by perforating piping systems and installing rain gardens to increase groundwater infiltration.

Infill development of individual residential lots also contributes to the untreated volume of stormwater runoff conveyed to surface waters. While retrofitting existing stormwater systems by engineered solutions can be expensive and difficult to apply equitably among existing development (i.e. having to evaluate what type of pollutant load in the stormwater comes off different properties and at what volume), there are steps the County can take to inform citizens of already developed properties how to better contain stormwater runoff on a site by site basis. Such homeowner practices could include simple steps such as having “rain barrels” at the ends of roof gutters to collect rainwater or diverting gutter spouts to drain over grass or other vegetated areas rather than onto driveways or other impervious surfaces. Homeowner landscaping practices, if applied at a sufficient scale, could have a beneficial impact on the volume and pollutant load of stormwater runoff entering local surface waters. These Low Impact Development (LID – a land planning and engineering design approach to manage stormwater runoff through the use of on-site natural features to protect water quality) practices can be utilized throughout the County. A customized approach to the use of LID techniques can be identified as part of a Watershed Restoration Plan. Such a plan would identify appropriate mitigation measures to reduce runoff volumes as a means to enhance water quality. Funding is available annually to complete such plans through the NCDEQ.

Fertilizers and pesticides used on local golf courses may also reach local surface waters if not properly managed and applied. Land uses along waterfronts which do not have engineered stormwater retention or vegetated buffers of at least 30 feet can also contribute to surface water pollution by allowing stormwater runoff to reach surface waters untreated.

Public Water Supply and Wellhead Protection Areas

There is one public water supply watershed in Pender County located along the Cape Fear River in Southwest Pender County. Within this watershed, the State restricts septic tank permits to lots that are a minimum of 40,000 square feet (15 NCAC 18C 1211). The Safe Drinking Water Act Amendments of 1986 set forth requirements for states to develop Wellhead Protection Programs (WHPPs). These programs serve as a pollution prevention and management program implemented

to protect underground drinking water sources. Even though WHPPs are not mandatory for North Carolina, they are viewed as a valuable supplement to existing state groundwater protection programs. The Safe Drinking Water Act defines a Wellhead Protection Area as, “the surface and subsurface area surrounding a water well, or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfields.” The Towns of Burgaw and Topsail Beach are the only portions of Pender County that have wellhead protection areas.

Non-Coastal Wetlands

Section 404 of the Federal Water Pollution Control Act (“the Clean Water Act”) defines wetlands as “areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted to life in saturated soil conditions.”

“Any person, firm, or agency (including Federal, State, and local government agencies) planning to work in navigable waters of the United States, or discharge (dump, place, deposit) dredged or fill material in waters of the United States, including wetlands, must first obtain a permit from the Army Corps of Engineers (USACE).” If an activity requires a USACE ‘404’ permit, the State of North Carolina requires that a ‘401’ water quality certification be obtained as well. The ‘401’ certification is basically a verification by the State that a given project will not degrade waters of the State or otherwise violate water quality standards.

Within Pender County, there are 302,976 acres of non-coastal wetlands. The largest type of non-coastal wetland is pocosin, which makes up approximately 35% of the total non-coastal wetlands. Pocosins are often referred to as Carolina Bays, which are elliptical depressions in the land. Managed pinelands are the second largest non-coastal wetland in Pender County, which make up approximately 25% of the non-coastal wetlands in the area. Wetlands and Areas of Environmental Concern are shown in **Figure 54** (on page 69). Important terms related to wetlands are included below.

- **Bottomland Hardwood/Riverine Swamp Forest** – Riverine forested or occasionally scrub/shrub communities usually occurring in floodplains, which are semi-permanently to seasonally flooded. In bottomland hardwood systems, typical species include oaks (overcup, water, laurel, and swamp

chestnut), sweet gum, green ash, cottonwoods, willows, river birch, and occasionally pines. In swamp forest systems, typical species include cypress, black gum, water tupelo, green ash, and red maple.

- **Human Impacted Wetlands** – Areas of human impact have physically disturbed the wetland, but the area is still a wetland. Impoundments and some cutovers are included in this category, as well as other disturbed areas such as power lines.
- **Depressional Swamp Forest** – Very poorly drained non-riverine forested or occasionally scrub/shrub communities that are semi-permanently or temporarily flooded. Typical species include cypress, black gum, water tupelo, green ash, and red maple. These are distinguished from riverine swamp forests in the data by having a hydrogeomorphic (hgm) class or flat (f).
- **Estuarine Shrub/Scrub** – Any shrub/scrub vegetation dominated habitat subject to occasional flooding by tides, including wind tides (whether or not the tidewaters reach the marshland areas through natural or artificial watercourses).
- **Hardwood Flat** – Poorly drained interstream flats not associated with rivers or estuaries. Seasonally saturated by a high-water table or poor drainage. Species vary greatly but often include sweet gum and red maple.
- **Headwater Swamp** – Wooded, riverine systems along first order streams. These include hardwood dominated communities with moist soil most of the year. Channels receive their water from overland flow and rarely overflow their own banks.
- **Managed Pineland** – Seasonally saturated, managed pine forests occurring on hydric soils. This wetland category may also contain non-managed pine forests occurring on hydric soils. Generally, these are areas that were not shown on National Wetland Inventory maps. These areas may or may not be jurisdictional wetlands.
- **Pine Flat** – Palustrine (non-tidal), seasonally saturated pine habitats on hydric (saturated) soils that may become dry for part of the year, generally on flat or nearly flat areas that are not associated with a river or stream system. This category does not include managed pine systems.

- **Pocosin** – Palustrine (non-tidal) scrub/shrub communities (i.e. non-Estuarine Scrub/Shrub) dominated by evergreen shrubs, often mixed with pond or loblolly pines. Typically occurs on saturated, acid, nutrient poor, sandy or peaty soils; usually removed from large streams; and subject to periodic burning.
- **Freshwater Marsh** – Herbaceous areas which are flooded for extended periods during the growing season. Included in this are marshes within lacustrine systems, some managed impoundments, some Carolina Bays, and other non-tidal marshes (i.e. marshes which do not fall into the Salt/Brackish Marsh category). Typical communities include species of sedges, millets, rushes and grasses not specified in the coastal wetland regulations.

Natural Heritage Natural Areas

The North Carolina Natural Heritage Program (NCNHP) compiles the NCDEQ’s list of natural areas as required by the Nature Preserves Act. The NCNHP inventories, catalogues, and facilitates protection of the rarest and most outstanding elements of the natural diversity of our state and are given priority ranks that indicate the degree of their importance for conservation. This includes plants and animals that are rare, or natural communities that merit special consideration as land use decisions are made. The information generated by this program supports informed evaluations of the trade-offs between biological diversity and development projects before plans are finalized. The information also facilitates the establishment of priorities for protecting North Carolina’s most significant natural heritage areas. Further, it provides planners, landowners, developers, and other decision-makers with information and maps to focus incentives to conserve wildlife habitats and corridors. In May 2024, the North Carolina Heritage Program released the Biodiversity and Wildlife Habitat Assessment, which provides mapped relative conservation values and impervious surface areas across the state, displayed in a map of Pender County in **Figure 59**.

Pender County contains 40 Natural Heritage Natural Areas (NHNAs), spanning nearly 140,000 acres. Of these 140,000 acres of NHNAs, approximately 27,643 acres are within private lands and approximately 42,143 acres are within public lands. The remaining 70,214 acres are within Managed Areas throughout the County. For more detailed information on the NHNAs, refer to the Natural Heritage Inventory of Pender County, North Carolina.

There are several natural heritage natural areas of exceptional and very high importance identified within Pender County. There are 107,908 acres of significant natural areas with exceptional importance and 22,246 acres of significant natural heritage areas with very high importance.

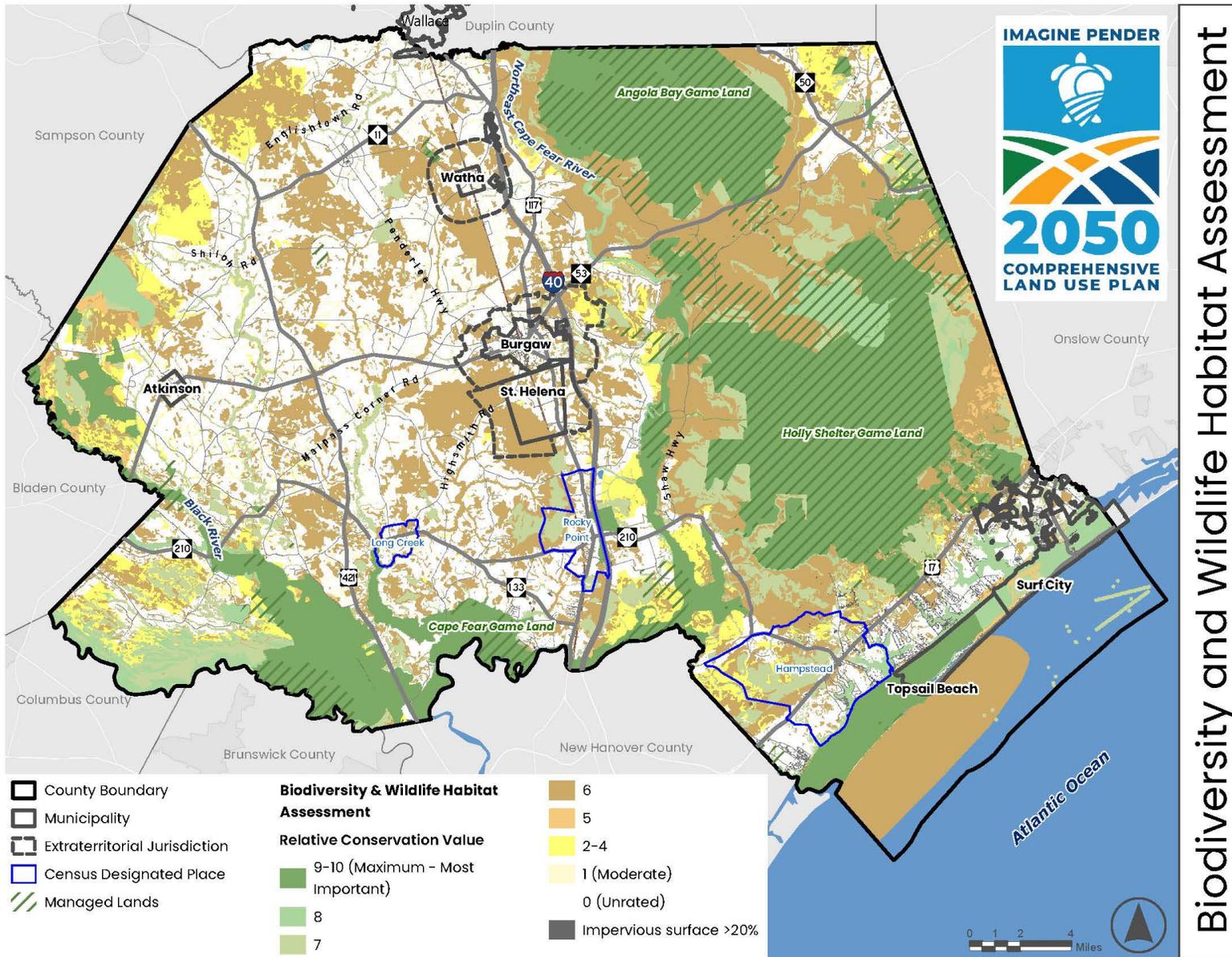
Table 6: Managed areas within Pender County

Site Name	Acres	Percent Acreage	Rating
421 Sand Ridge	5,388	3.88%	1 - Exceptional
Angola Bay	29,105	20.93%	1 - Exceptional
Angola Creek Flatwoods	254	0.18%	2 - Very High
B.W. Wells Savanna	121	0.09%	2 - Very High
Bear Garden	3,928	2.83%	3 - High
Big Colly Swamp	505	0.36%	4 - Moderate
Black River Aquatic Habitat	209	0.15%	6 - Unranked
Black River Cypress Swamp	1,360	0.98%	1 - Exceptional
Blake Savannah	108	0.08%	5 - General
Bryant Mill (Greenbank) Bluff	2	0.002%	1 - Exceptional
Canetuck Loop Road Sandhills	480	0.35%	5 - General
Clarks Landing Coastal Goldenrod Site	677	0.49%	2 - Very High
Colvins Bay	2,224	1.60%	5 - General
Colvins Creek Sand Ridge Mesic Slopes	59	0.04%	2 - Very High
Cones Folly	2,929	2.11%	2 - Very High
Futch and Foy Creeks Natural Area	61	0.04%	5 - General
Holly Shelter Game Land	48,552	34.92%	1 - Exceptional
Lea Island/Hutaffs Beach	4,851	3.49%	2 - Very High
Lower Black River Swamp	10,342	7.44%	2 - Very High

Site Name	Acres	Percent Acreage	Rating
Maple Hill School Road Savannah	34	0.02%	3 – High
McLean Savannah	904	0.65%	1 – Exceptional
Moore's Creek Floodplain	162	0.12%	1 – Exceptional
Moore's Creek National Battlefield	38	0.03%	2 – Very High
Neils Eddy Landing	0.33	0.0002%	2 – Very High
Northeast Cape Fear River Floodplain	16,645	11.97%	1 – Exceptional
Parkers Savannah	19	0.01%	2 – Very High
Rocky Point Marl Forest	653	0.47%	1 – Exceptional
Rocky Point Sandhills	218	0.16%	2 – Very High
Sandy Run Swamp and Savannahs	785	0.56%	1 – Exceptional
Shaken Creek Savannah	1,262	0.91%	1 – Exceptional
Shaky Bay Sandhills	294	0.21%	2 – Very High
Shelter Swamp Creek Flatwoods	2,668	1.92%	1 – Exceptional
Sidbury Road Savannah	2	0.001%	3 – High
Southwest Ridge Savannah	1,198	0.86%	3 – High
Surf City Maritime Forest	108	0.08%	4 – Moderate
The Neck Savannah	393	0.28%	1 – Exceptional
Topsail Sound Maritime Forests	2,179	1.57%	2 – Very High
Upper Black River Bottomlands	29	0.02%	1 – Exceptional
Watkins Savannah	265	0.19%	2 – Very High
Webbtown Road Savannah	20	0.01%	4 – Moderate
Total	139,028	100%	

Areas Containing Endangered Species

Endangered species describe plant or animal species in danger of extinction within the foreseeable future throughout a significant portion of its range. The term “threatened species” is used when a plant or animal is deemed likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Areas that contain, or are likely to contain, endangered species in Pender County include the dry sand areas of the oceanfront beach, dunes, and the marshes along the estuarine shoreline, as well as within the Holly Shelter and Angola Bay Game Lands. Areas adjacent to the Cape Fear River and Northeast Cape Fear River are also classified as areas containing endangered species. Endangered animals identified within Pender County include various types of birds, including the Piping plover and the Red-cockaded woodpecker, and a variety of sea turtles, including the Leatherback sea turtle and Loggerhead sea turtle. In order to help preserve endangered wildlife, turtle nesting areas are marked each year to protect the nests. It is important to keep in close contact with state and local agencies charged with protecting endangered species, and sightings of rare and endangered plants and animals should be reported.



Biodiversity and Wildlife Habitat Assessment

Figure 59: NC Natural Heritage Program Biodiversity and Wildlife Habitat Assessment

Priority Upland Habitats in Pender County

The North Carolina Wildlife Resources Commission (NCWRC), along with several other federal and state agencies, conservation organizations, and stakeholders, developed a comprehensive planning tool to help conserve and enhance the state's full array of fish and wildlife species and their habitats. Throughout the development process, the NCWRC worked with expert biologists to identify fish and wildlife Species of Greatest Conservation Need (SGCN). A few species that are included in the SGCN category and found in Pender County are the Atlantic sturgeon, Shortnose sturgeon, West Indian manatee, Diamondback terrapin, Wilson's plover, and American oystercatcher.

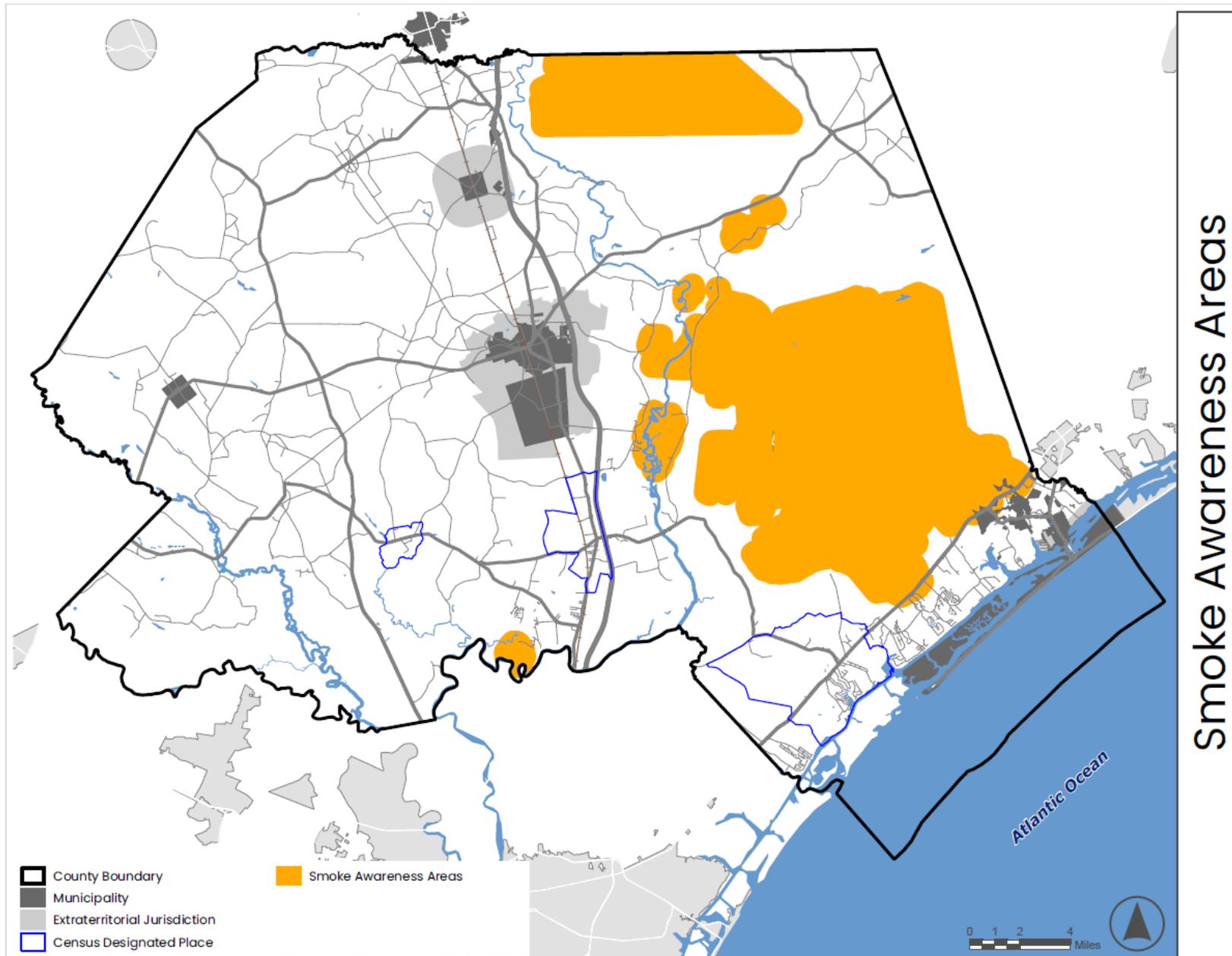
Aside from the species previously stated, Pender County is home to more than 100 land-living wildlife Species of Greatest Conservation Needs. Because there is an abundance of conservation land throughout the County, focus should be placed on conserving Conservation Need Priority Habitat types that are not protected. The North Carolina Wildlife Action Plan Conservation Opportunity Areas Tool demonstrates that the highest priority habitats of Conservation Need, in Pender County, are maritime forests and dry longleaf pine forests that connect with floodplain and wetland systems. Pender County contains one of the top five places to conserve unprotected maritime forest blocks and unprotected beaches. The area northeast of Burgaw and adjacent to the Game Lands is one of the five best places to conserve dry longleaf pine forest on the coastal plain. These habitats and areas, floodplain forests, and wetlands should be a focus of resource conservation policies. The remaining priority upland habitat type in the County is mesic hardwood forest.

The primary habitats of greatest conservation need south of US 17 are upland maritime forests, coastal wetlands, and estuaries. The Painted bunting depends entirely on the maritime forest trees and shrubs for breeding on the North Carolina coast. The species requires at least five acres of diverse shrub layer to breed. Ten acres is ideal. According to the NCWRC, their populations have declined by approximately 60% in the last thirty years. As development occurs, landscaping comprised of wax myrtles and other native coastal shrubs will aid in protecting the Painted bunting population. To learn more, see the NC Wildlife Diversity Program website.

Smoke Awareness Areas and Managed Areas

Smoke awareness areas are locations that are most likely to experience smoke from prescribed burning. These areas are indicated by a half mile buffer around the perimeter of lands managed with fire. Prescribed burning is used to reduce hazardous fuel buildups, which provides increased protection to the County's residents, homes, and natural habitats. This method is also useful in controlling disease among young pines, improving wildlife habitat, and preserving endangered plant and animal species. The Florida Forest Service finds that for every one dollar spent on prescribed burning to prevent wildfires, over two dollars in taxes are saved in reduced fire emergency response. Most prescribed burns occur on smaller units within larger tracts of managed lands and are conducted by agencies and organizations to protect communities from wildfire and to restore managed wildlife habitat. Managed areas are a diverse collection of properties and easements where conservation of biodiversity and ecosystem function are among the goals of the land management programs. This collection of conservation areas is useful when making decisions about conservation, land management, land use planning, and recreation. There are approximately 163,345 acres of smoke awareness areas throughout Pender County. Prescribed burning is conducted only under conditions that favor maximum vertical smoke dispersion, thus minimizing any impacts to public safety. The majority of smoke awareness areas in Pender County are within Holly Shelter Games Land and a half mile outside of its boundaries. **Figure 60** shows smoke awareness areas in Pender County.

Since prescribed burning takes place throughout the County, it is important to note and define the Wildland/Urban Interface (WUI). A WUI is the area where homes and communities meet undeveloped wildland vegetation. These areas have an increased chance of experiencing wildfires, which can be dangerous or destructive to lives and property. To reduce the potential for wildfire damage, Firewise landscaping can be implemented to create survivable space by selecting, placing, and maintaining plants around one's home to make it less vulnerable to such. Survivable space is the area extending outward from the home 30 feet or more to serve as a buffer to slow or stop wildfire.



Smoke Awareness Areas

Figure 60: Smoke Awareness Areas

Biodiversity and Wildlife Habitat Assessment

Biodiversity describes the variation of life forms within a given ecosystem and is used to measure the health of the ecosystem. Both terrestrial and aquatic ecosystems are made up of co-dependent communities of organisms and environments that provide important ecosystem and economic services to the residents and visitors of Pender County. Some key ecosystem functions include supporting the hydrologic cycle, the cycling of nutrients, filtering pollutants, fixing carbon, producing oxygen, supporting plants, animals, and fungal species, pollination and gene dispersal, and generating soils. The main focus areas for biodiversity and wildlife habitat are terrestrial and aquatic habitats, landscape function, habitat connectivity, wetlands, and stream buffers. Habitat connectivity is decreasing across Pender County due to habitat fragmentation, which occurs when connected natural areas are disjointed by habitat removal, land use changes and development, and increased infrastructure. When any of these processes occur, the landscape is bisected into smaller, more isolated habitat resulting in population level changes to native species. For areas where more development is desired near sensitive habitat areas, built areas should be placed outside of and at least 350 feet from habitats.

The most important biodiversity areas in Pender County are Angola Bay Game Land, Holly Shelter Game Land, Topsail Island's South End, Lea-Hutaff Island, the Black River, the Cape Fear River, and the Northeast Cape Fear River. **Figure 59** shows the areas of highest conservation value in green based on the NC Biodiversity and Wildlife Habitat Assessment.

Implemented by the North Carolina Wildlife Resources Commission (NCWRC), the Green Growth Toolbox is a technical assistance tool designed to help communities conserve high quality habitats as communities and developers continue to build new homes, workplaces, and shopping centers. In 2024, Pender County was awarded a grant from the Green Growth Partners to support development of a Preferred Development Guide by staff, assisted by NCWRC wildlife biologists. For more information, see the North Carolina Wildlife Resources Commission website.

Soil and Septic Suitability

The last detailed soil survey for Pender County was completed in 1985 by the Soil Conservation Service and released for public use in 1990. That report, Soil Survey of Pender County, North Carolina, identifies 43 soil series located within the County. For more information on the soils series in Pender County, please contact the Pender County Soil and Water Conservation District office.

In the game lands, in the southwestern areas of the county, and the southeastern areas of the County, the soils are very limited for small commercial development and septic tank absorption fields.

Tidal marsh soils are nearly level, are very poorly drained, and can be found in Scotts Hill, Hampstead, Topsail Beach, and Surf City. Generally, tidal marsh areas have very limited suitability for development. Soil scientists with the Natural Resources Conservation Service (NRCS) have developed a list of soil properties that are known to be important for septic tank filter fields. These soil properties include depth to water table, depth to bedrock, soil permeability, slope and susceptibility to downslope movement, and flooding and ponding. **Figure 61**, the map of septic system suitability, depicts areas that may pose constraints for permitting of septic systems.

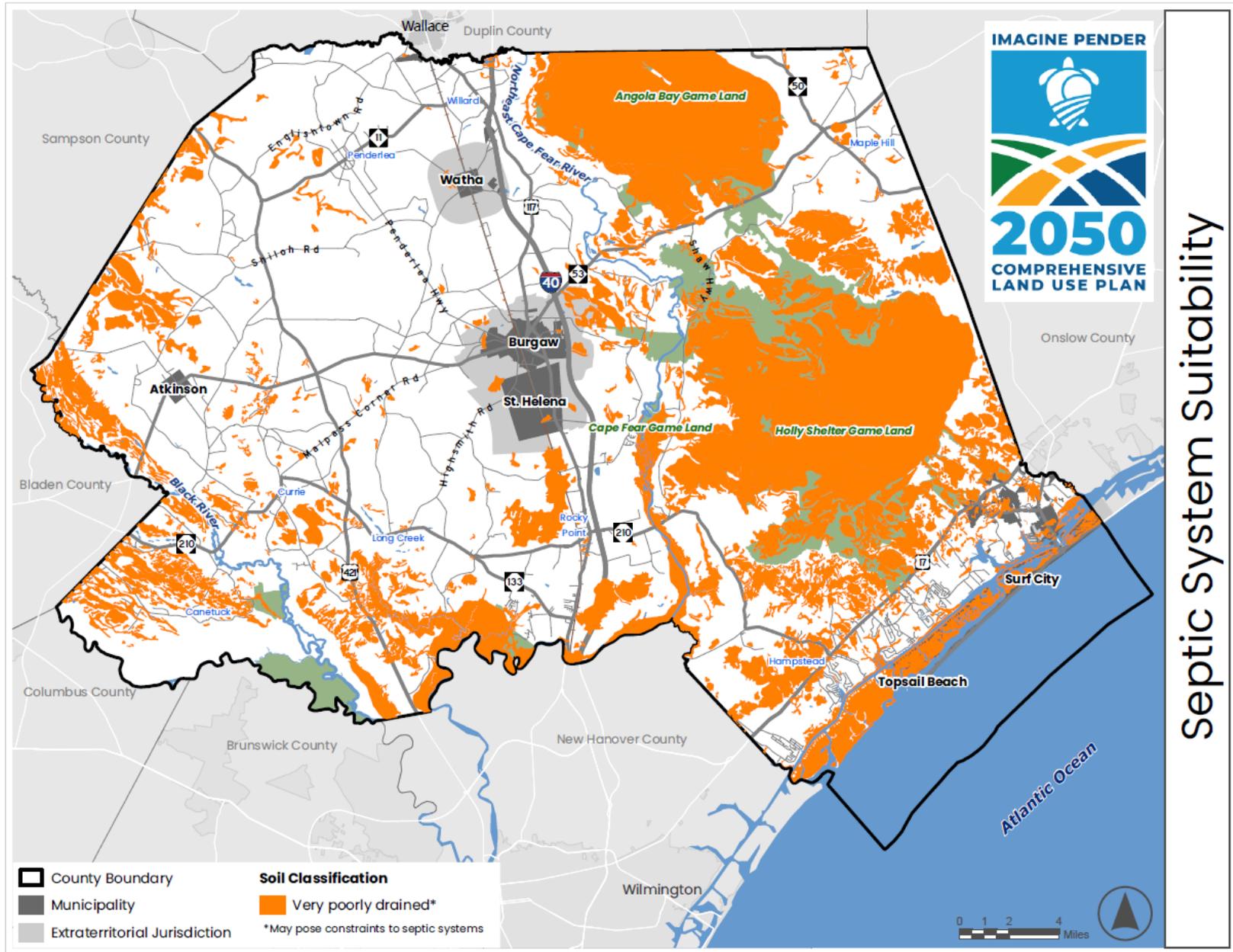


Figure 61: Septic System Suitability

Agricultural Lands Assessment

Agriculture land is important for economic development and environmental stability in Pender County. See **Figure 62** for agricultural lands, including prime farmland and farmland of statewide importance. The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) administers the Agricultural Development and Farmland Preservation Trust Fund (ADFP). This program is intended to support the purchase of agricultural conservation easements, cover transaction costs, and fund private and public enterprise programs that promote profitable and sustainable farms. The intent is to develop and implement plans for food and fiber products, agritourism activities, marketing and sales of agricultural products, and fund farmland conservation agreements targeted at the active production of food, fiber, and other agricultural products. In order to administer the funds, the ADFP Trust Fund Advisory Board developed an agricultural assessment tool to help prioritize the preservation of important agricultural lands in North Carolina.

Voluntary Agricultural Districts

The purpose of the Voluntary Agricultural District (VAD) Program is to encourage and promote the preservation and protection of farmland from non-farm development. In 2008, the Pender Soil and Water Conservation District (SWCD) submitted a formal request for the Pender County Board of Commissioners to instruct the SWCD to begin developing a VAD Ordinance and an Agricultural Advisory Board to implement the provisions of the ordinance. The Pender County Board of Commissioners approved the VAD ordinance in December of 2010 and appointed five members to the Agricultural Advisory Board. The Board holds public hearings on public projects likely to have an impact on agricultural operations, reviews and approves applications for qualifying farmland, establishes the agricultural districts, and performs other related tasks or duties assigned by the County. VAD members may be eligible for farmland preservation funds, present-use tax value assessments, waived water and sewer assessment, and increased protection from nuisance suits. VADs are primarily located in the western and central portions of Pender County. Locations of VADs in Pender County are shown in the map on the next page.

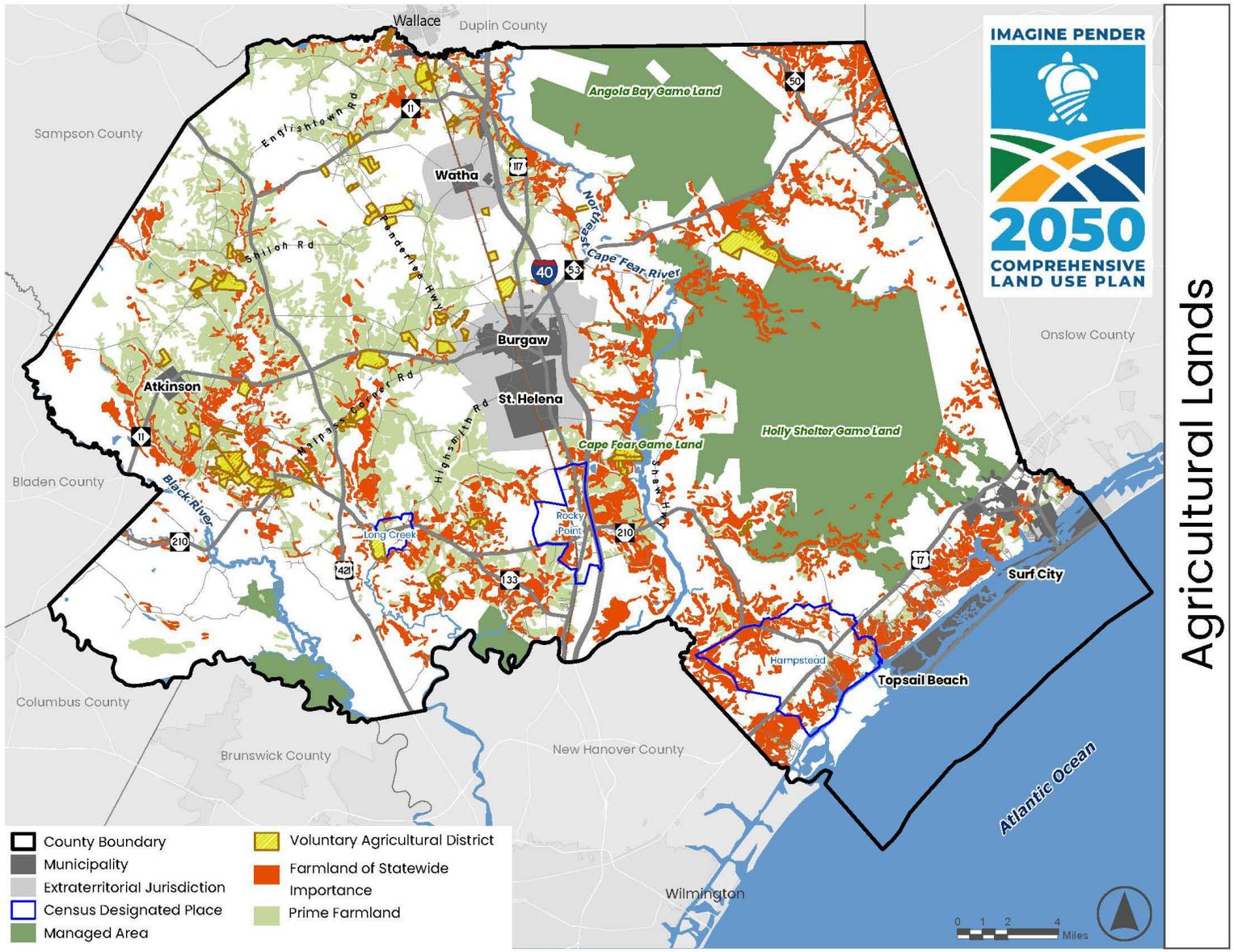


Figure 62: Agricultural Lands

Farmland Classifications

Prime Farmland

The United States Department of Agriculture's Natural Resources Conservation Service defines prime farmland as land with the best physical and chemical composition for producing food, feed, forage, fiber, and oilseed crops. The land is characteristic of soil quality, growing season, and moisture supply necessary to produce economically consistent high yields of crops. Generally, prime farmlands have sufficient and stable water supply from precipitation or irrigation, acceptable acidity or alkalinity, acceptable salt and sodium content, minimal rocks, and a favorable temperature and growing season. Pender County contains 72,738 acres of prime farmland, which are generally found in the western and northwestern portions of the County. The previous map shows areas of prime farmland throughout the County.

Farmland of Statewide Importance

Farmland of statewide importance include lands that are characteristic of producing economically consistent high yields of crops, such as food, feed, fiber, forage, and oil seed crops. The criteria used to classify farmland of statewide importance is determined by appropriate state agencies. There are 59,633 acres of farmland of statewide importance within Pender County, which are generally located in the southeastern, northeastern, and central portions of the County, as well as intermittently among prime farmlands. This is a decrease from the 64,484 acres of farmland of statewide importance identified in Pender 2.0.

In 2022, the USDA released the Census of Agriculture for counties across North Carolina. In 2017, there were 336 farms, which increased to 354 farms in 2022. Pender County has 78,903 acres in farmland and the average size of a farm is 223 acres (median size is 3 acres). This is an increase from 2017, when the average size of a farm was reported as 192 acres. For more information, see the 2022 Census of Agriculture. **DISCLAIMER:** While the USDA Census of Agriculture is intended to be a thorough accounting of agricultural lands across the nation, there has been feedback from local experts that draw into question the reliability of the Pender County data for the 2022 Census of Agriculture. Local experts tend to agree that total farmland acreage in production is shrinking in the county.

Table 7: Number of farms within Pender County and their size

Farms by Size	Number of Farms
1 - 9 Acres	57
10 - 49 acres	146
50 - 179 acres	59
180 - 499 acres	47
500 - 999 acres	27
1,000 acres or more	181
Total	354

COMMUNITY FACILITIES AND SERVICES

Introduction

Community facilities and services are vital to supporting economic development and quality of life and are necessary to provide for the continued growth and development of the County. The CAMA planning guidelines encourage the coastal communities to evaluate the location and adequacy of community facilities that protect important environmental factors and that attract land development in the coastal area. This section provides analysis and information pertaining to each item listed below:

- water supply systems
- wastewater systems
- transportation systems
- recreational opportunities and public access facilities
- schools
- broadband service (internet)

Water Supply System Status and Trends

Water Supply System

Throughout Pender County, there are approximately 1500 miles of water lines, ranging in size from 2 to 24 inches, serving customers and residents. **Figure 63** depicts water facilities in Pender County. Of these water lines, approximately 1% are made of ductile iron and approximately 99% are made of Polyvinyl Chloride (PVC) and HDPE (High Density Polyethylene). In 2024, Pender County Utilities served 13,000 customers with centralized water, with the remaining residents utilizing personal groundwater wells or other providers for water service. The County has a finished water storage capacity of 4.3 million gallons, which is available to equalize permanent and seasonal water demands, reduce pressure fluctuations in the distribution system, and provide reserves for firefighting, power outages, and other emergencies.

Prior to 2001, the majority of County residents received their drinking water from private groundwater wells. In 2000, Pender County Utilities began constructing water infrastructure to provide centralized water service to residents. Initially, the water was sourced from the Town of Wallace through a series of unused groundwater wells that previously serviced a textile mill. In 2012, Pender County Utilities finished construction

of a 2 million gallon per day (MGD) permitted capacity water treatment plant on US 421 to allow for treatment of raw water sourced from the Cape Fear River as part of a purchase agreement with the Lower Cape Fear Water and Sewer Authority (LCFWSA). The LCFWSA pumps surface water from the King's Bluff Reservoir, located up-river from Lock and Dam No. 1 on the Cape Fear River. In April 2024, the Pender County Utilities water system added three operational wells and a 500,000-gallon elevated tank in the Hampstead area.

In June of 2017, it was made public that the toxin GenX was introduced into the Cape Fear River. On June 15, 2022, the EPA published final drinking water health advisories (HAs) for perfluorobutane sulfonic acid and its potassium salt (PFBS) and hexafluoropropylene oxide dimer acid (HFPO-DA) and its ammonium salt ("GenX chemicals"). The EPA issued interim updated drinking water health advisories. On April 10, 2024, the EPA announced the final National Primary Drinking Water Regulation (Final PFAS NPDWR) for six PFAS, including PFBS and GenX chemicals (specifically, HFPO-DA). The EPA's NPDWR established legally enforceable levels, called Maximum Contaminant Levels (MCLs) including individual MCLs for PFOA, PFOS, PFHxS, PFNA, and HFPO-DA, and a PFAS mixtures MCL containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS. For more information on this, see the EPA website.

Efforts are underway to better understand the impacts that GenX has on the County's drinking water and the health of residents. The North Carolina Department of Environmental Quality investigated and ultimately issued an order to the Chemours facility in Fayetteville to stop the discharge of processed wastewater, drastically reduce emissions, and provide alternate water for thousands of households whose drinking water wells have been contaminated. For more information, see the NCDEQ website.

In 2024, Pender County Utilities announced that the existing water treatment plant sufficiently removes PFAS from the water. Pender County is continuing a proactive approach to addressing PFAS concerns, which include plans for a new membrane filtration plant expected to be operational by 2028. Pender County Utilities received a \$400,000 grant from the NC Department of Environmental Quality Division of Water Infrastructure to explore strategies for fighting PFAS and "forever chemicals," which includes GenX. The Pender County Surface Water Treatment Plant has utilized Granular Activated Carbon (GAC) vessels since 2012 to remove PFAS contaminants from water from the Lower Cape Fear River.

Water Demand

The water supplied by the LCFWSA is treated at the Pender County Water Treatment Plant, which has a 6 MGD permitted capacity. According to data obtained from the Local Water Supply Plan (2023), Pender County purchased a daily average of 1.612 MGD. Water demand is typically the highest in the summer months, which is consistent with the influx of seasonal visitors and residents. In addition, irrigation use is typically higher in the warmer months. It should be noted that water utilized for irrigation purposes is also considered potable water.

In 2023, Pender County’s drinking water system saw 2.2772 MGD of Service Area Demand, whereas the Total Available Supply was 7.704 MGD Demand. The demand in 2023 was, therefore, about 30% of the supply. Ground Water Supply accounted for 0.504 MGD and the remaining 7.2 MGD were purchased from the LCFWSA (6 MGD) and the Town of Wallace (1.2 MGD).

According to projections outlined in the Local Water Supply Plan, the County should have sufficient capacity to serve residents and businesses through the year 2060. It can be estimated that with the addition of seasonal visitors, it is more prudent to plan for more substantial population growth and therefore the higher population estimate is valid. Despite the difference in population projections, and possible impact on water demand, the County has ample supply through its primary water source (Cape Fear River) to allow for an increase in the current purchase agreement if necessary. It should be noted that the Local Water Supply Plan calls for the purchase of an additional 8 MGD from the LCFWSA to meet water demand by 2060.

Table 8 provides the County’s projected population and water demand through 2060.

Table 8: Water Demand from the Local Water Supply Plan

	2020	2030	2040	2050	2060
Year-Round Customers*	68,600	86,400	101,800	118,100	132,272
Total Available Supply (MGD)	6.0	6.0	14.0	14.0	14.0
Total Demand (MGD)	2.035	3.435	5.435	7.753	9.553
Demand as Percent of Supply	34%	57%	39%	55%	68%

Wastewater System Status and Trends

Public Wastewater Provider

Pender County currently owns and operates the Rocky Point Sewer Collection System, Maple Hill Septic Tank Effluent Pump (STEP) System, and the Pender Commerce Park Treatment Plant. The Rocky Point Sewer Collection System provides non-residential wastewater service along US 117 from the New Hanover County Line to NC 210, NC 210 from US 117 to Heide Trask High School, and NC 133 from US 117 to Little Kelly Road. Wastewater is collected from this system and sent to the Cape Fear Public Utility Authority (CFPUA) for treatment. The County has an agreement with CFPUA to allow for the collection of 250,000 gallons per day (0.25 MGD). Only 15% of the 250,000 gallons per day is currently used. There is a need for interagency and interdepartmental coordination, collaboration, and intentional planning for the expansion of any wastewater systems.

The Maple Hill STEP system has a capacity of 42,000 gallons per day (0.042 MGD). This system was installed with grant funds provided by the Clean Water Management Trust Fund (CWMTF) and the Rural Center for the purpose of eliminating failing septic systems and straight pipe discharges. The County does not foresee any capacity issues in this area over the next 10 to 20 years.

Completed in 2017, the Melinda K. Knoerzer Adaptive Ecosystem Wastewater Treatment Facility serves the Pender Commerce Park and treats domestic and industrial wastewater. It utilizes an ecological treatment approach that has a different look, feel, and smell when compared to the typical activated sludge treatment plants. This cutting-edge facility treats more water to a higher quality, produces less sludge, and mitigates odors in a more compact footprint than a typical WWTP. The system's initial design capacity is 1.00 MGD, which will accommodate the existing Pender Commerce Park operations. In 2024, Pender County started the installation of the first public sewer lines to run down US 421 and Blueberry Road to the Pender Commerce Park WWTP.

Other Wastewater Providers and the Future of Wastewater in Pender

Other than the existing Pender County facilities listed previously, County residents rely on individual private wastewater providers for service or on-site septic systems. Some of these wastewater providers and facilities are listed below:

- Aqua Resources
- Pluris (serving much of the Hampstead area)
- Utilities Inc. (Carolina Water Service of North Carolina)

Over the past thirty years much discussion has surrounded the desire to provide centralized wastewater facilities Countywide. Current demands are met through a combination of on-site septic systems, public centralized wastewater, and private systems, including localized package plants. The challenge of managing rapid suburban growth and its negative externalities (farmland and natural area loss as well as the increased burden on the transportation, school, and utility infrastructure) is seen in the uncertain future of wastewater treatment utilities in Pender County. Some areas and individuals experience failing septic tanks and are in favor of expanding sewer lines across rural areas of the County. Others, interested in building and developing land for a single development uses, encourage expansion of sewer lines to service new growth. However, still others who are interested in environmental, rural character, and farmland preservation along with fiscally prudent approaches to infrastructure seek to find ways to discourage large expansion of sewer lines into rural areas of the County. How Pender County handles these challenges moving forward will impact the community for decades to come.

Transportation Systems

Understanding the relationship between transportation systems and land use planning is vital to fostering a desirable quality of life for County residents. Planning for where we live, work, and play, should coincide with the design of transportation networks. In addition, planning that considers not just the automobile, but also the pedestrian and cyclist, will result in better quality development, more attractive places to live, and positive public health and social outcomes.

Pender County is a member of the Wilmington Metropolitan Planning Organization (WMPO) and the Cape Fear Rural Transportation Planning Organization (RPO) which includes the counties of Pender, Brunswick, and Columbus. The WMPO boundary in Pender County includes the Scotts Hill and Hampstead areas, follows NC 210 west from Hampstead to Montague Road, then follows Montague Road until the Black River, which travels to the New Hanover County line. The RPO boundary abuts the MPO boundary and spans the rest of the County.

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. Furthermore, in County jurisdictions, roadway construction and maintenance is only financed through private development or funding through NCDOT.

The County's location along the coast of North Carolina ensures that a significant amount of traffic will result from residents and visitors traveling to area beaches. With anticipated population growth, transportation systems will continue to be an important component in improving the quality of life for current and future residents. This section summarizes the existing transportation conditions, adopted plans, and future recommendations for the County's vehicular roadway network, pedestrian and bicycle transportation network, and transit service.

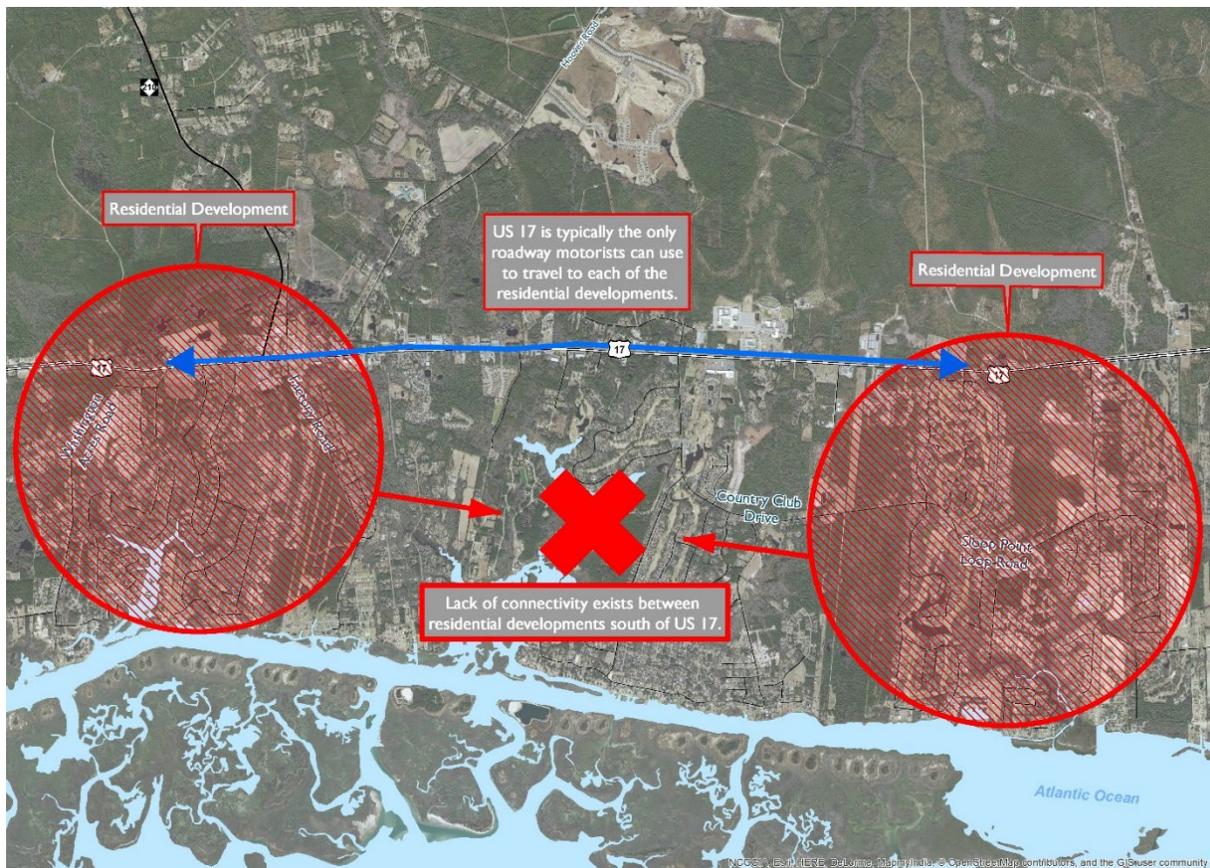


Figure 64: US 17 Connectivity Graphic

Existing Conditions

The roadway network within Pender County – especially along the US 17 corridor – highlights how rapid economic development and population growth influence the geometry of the existing roadway facilities. Without proper coordinated planning efforts, increased land use development can hinder the network’s ability to provide connectivity throughout the area. As the roadway network developed in the County, existing major roadways became the mode to move both regional traffic and local traffic, rather than developing a grid network to better distribute the traffic across the region. The current, non-grid development of the roadway system relies on select primary routes and prevents the utilization of alternate routes when crashes and other types of congestion occur. Thus, the area has become unsafe and congested. Scotts Hill Loop Road, Country Club Road, and Sloop Point Loop Road are the only roadways that provide connectivity to multiple housing units within the coastal area. **Figure 64** shows the limited connectivity of the existing transportation network in Hampstead.

Even though rapid economic development and population growth played a key role in the development of the existing roadway network in the County, the region's unique geography has led to some of the limited connectivity in the transportation network – adjacent land uses are divided by waterways and environmentally fragile lands. Accordingly, existing and future roadway connections will face inevitable constraints.

Aside from the congestion and connectivity issues within the County's jurisdiction, many roadways built in the past were not constructed to minimum NCDOT roadway standards. As these roadways degrade from vehicular wear and tear, maintenance and improvements will be required. However, as they do not satisfy NCDOT roadway standards, NCDOT will not accept responsibility for the upkeep of these roads and the onus for such falls upon residents served by the roadway. To help eliminate future problems, County regulations should continue to require roads to be built to NCDOT standards.

Traffic Counts

The annual traffic count used for transportation planning purposes is called the Annual Average Daily Traffic Count (AADT). The AADT is the number of vehicles passing in both directions over a single point on a roadway over the course of a year divided by 365 days in a year. For example, if 36,000 vehicles pass a single point on the road in a year, the AADT is 98.6 vehicles per day ($36,000 / 365 = 98.6$). It must be noted that these annual traffic counts are averages, and certain peak season days may produce traffic counts well in excess of the AADT count. Seasonal traffic counts are of particular concern in Pender County due to its proximity to the coastline. In 2008, the NCDOT Traffic Survey Group suspended standalone seasonal traffic counts. As a result, only AADT counts are available. Peak volumes are included in the AADT but are not available separately for comparison purposes.

To evaluate transportation and roadway deficiencies, the AADT counts are typically compared to a road's design capacity. Traffic on key segments of various roadways is counted, calculated, and compared to a standard road design capacity based on that roadway's individual type. For example, a two-lane roadway has a different design capacity than a roadway that has two-lanes with a center turn lane.

Table 9: Annual Average Daily Traffic

Roadway Name/Location	2015 Annual Average Daily Traffic	2023 Annual Average Daily Traffic	Percent Change (2015-2023)
NC 50 – North of NC 53	1,600	1,700	6.25%
US 17 – South of NC 210	33,000	44,000	33%
Shaw Highway – North of NC 210	1,300	2,400	84%
NC 210 – West of I-40	13,000	16,500	26.9%
I-40 at NC 210	26,000	28,000	7.7%
NC 133 – West of US 117	10,000	13,500	35%
US 421 – North of NC 53	4,000	4,900	22.5%
NC 210 – West of US 17	7,600	11,500	51.3%

The highest AADT counts in Pender County are found on US 17 at NC 210, US 17 (South of NC 210), and I-40 at NC 210. Average daily traffic counts on these roadways range from 28,000 to 44,000 vehicles per day. Several of the roads included in **Table 9** have experienced significant AADT increases since 2015. Shaw Highway north of NC 210 experienced the largest AADT percentage increase (84%) followed by NC 133 and US 17 in the Hampstead area.

Automobile Crash Locations

From a safety perspective, there are multiple NCDOT High Frequency Crash locations and Fatal Crash locations within the County. Traffic crashes are often used as indicators for locating congestion and roadway problems. There have been numerous crashes along US 17 in the Hampstead/Scotts Hill area, along the entirety of US 117, and along the central segment of US 421.

Commuter Trips

At present, Pender County’s economy is predominantly comprised of farming, manufacturing enterprises, and tourism-based services. With limited job availability

in the County, a significant percentage of residents commute outside the County to seek employment. Of the 21,331 Pender County residents who are employed, 82% work outside Pender County and 18% work in Pender County. Of the 10,946 people employed in Pender County, 64.9% live outside of the county and 35.1% live inside the County. See **Table 10** for more information. This indicates the strain on the transportation networks within the southeastern part of the County. While the population of those living and/or working in Pender County has increased since Pender 2.0, the proportional inflow/outflow share has remained similar to that of 2018.

Inflow/Outflow Job Counts (All Jobs)		
	Count	Share
Employed in Pender County	10,946	100.0%
Employed in Pender County but Living Outside Pender County	7,099	64.9%
Employed and Living in Pender County	3,847	35.1%
Living in Pender County	21,331	100.0%
Living in Pender County but Employed Outside Pender County	17,484	82%
Living and Employed in Pender County	3,847	18%

Table 10: US Census OnTheMap Commuting Data (2022)

With such a large commuting population and further development forecast in the area, it will be critical to maintain major roadways at relatively uncongested levels. **Figure 65** displays a graphic of the number of commuters traveling to work inside and outside of Pender County.

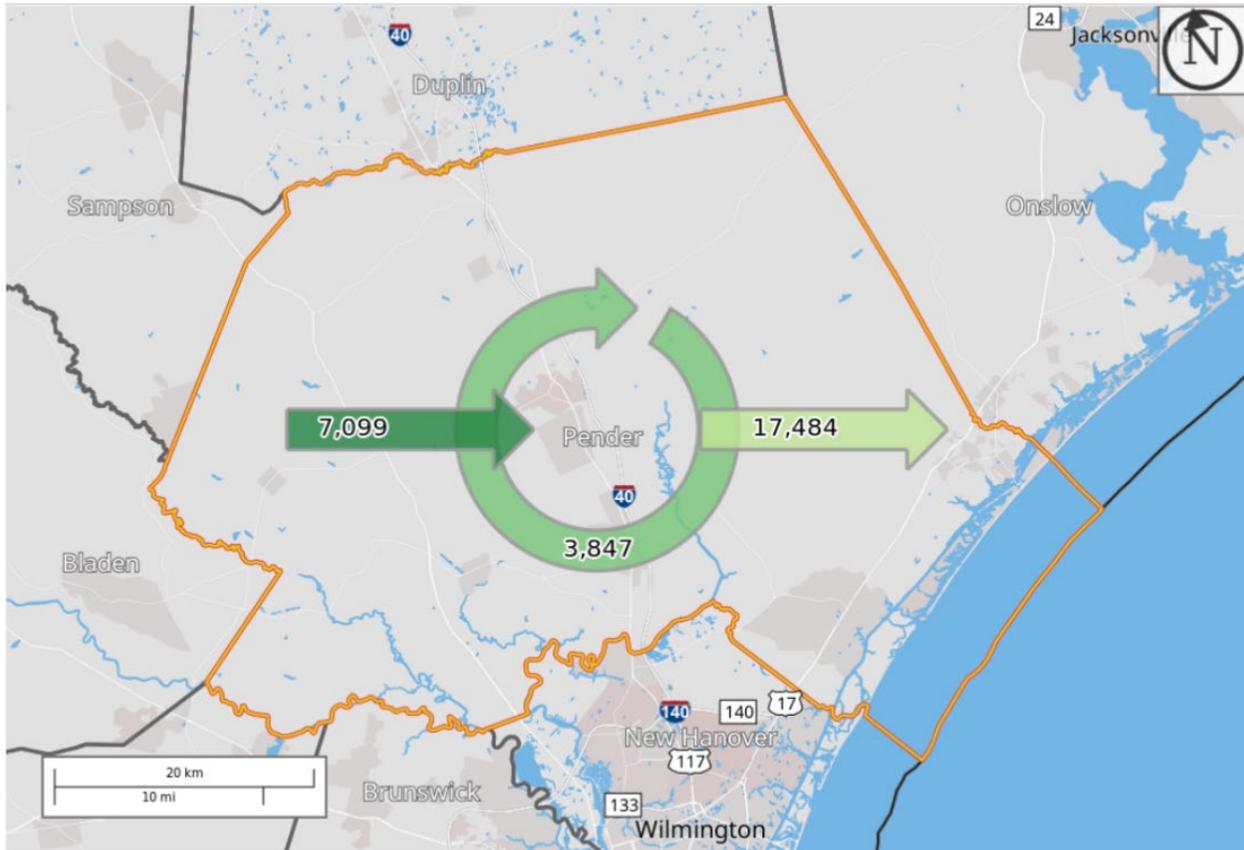


Figure 65: Inflow/Outflow Job Counts (2022, US Census OnTheMap)

Non-Motorized Transportation

Non-motorized transportation is increasingly desirable nationwide. There are many economic, social, environmental, and health benefits of a pedestrian and bicycle friendly community. In recent years, Americans have begun to desire walkability over increased household square footage and now place a large preference on the ability to walk or bike to destinations. According to a study conducted by the National Association of Realtors, the presence of sidewalks, greenways, and places to walk or bike are among the top community characteristics people consider important when deciding where to live. While non-motorized transportation is often considered a leisure travel mode, it can also be utilized to travel for utilitarian purposes. In the past, and as indicated by survey results and public input, residents have expressed interest in expanding options for cycling and pedestrian travel in the County. The areas of the County with the greatest housing density and proximity to employment, recreation, schools, or entertainment opportunities may be ideal for prioritizing investment in these facilities.

Transit Service

Pender Adult Services Transit (PAS-TRAN), run by Pender Adult Services, Inc. provides transit for seniors (age 65 and up), any person with a disability, and the general public (age 18 or older). PAS-TRAN riders may be picked up or dropped off at one of four highlighted stop locations including Heritage Place Senior Center (901 S. Walker Street, Burgaw), Topsail Senior Center (20959 US 17, Hampstead), Cape Fear Community College North Campus (4500 Blue Clay Road, Castle Hayne), and Wallace Airport-Henderson Field (250 Henderson Field Road, Wallace). PAS-TRAN riders may also be picked up or dropped off directly from their house. This service addresses a vital need for those without a personal vehicle or that may be unable to drive. The primary use of the service is for traveling to medical care. Pender County has been exploring opportunities for Park and Ride facilities at key locations. There are currently no fixed route transit services available throughout the County. A partnership with Wave Transit may be necessary to provide these services.

Long Range Planning Initiatives and Future Improvements

Hampstead Bypass

The North Carolina Department of Transportation (NCDOT) is in the process of constructing the proposed Bypass around Hampstead. This facility will extend from I-140 (Wilmington Bypass) in New Hanover County to Sloop Point Loop Road in Pender County. The project, which is identified as R-3300A and R-3300B, is intended to improve traffic flow by providing an alternative north-south route through the area. The Hampstead Bypass was first identified in the 1997 Thoroughfare Plan for Pender County as a proposed principal arterial road that runs parallel to US 17. The Bypass will provide higher speed-controlled access within the coastal region of the County. Once the principal arterial road is constructed, it is expected to improve the traffic carrying capacity, as well as improve the safety of the roadway users in the area. Work began on R-3300B in March 2022 and is expected to be complete in late 2027. This segment of the corridor spans from south of NC 210 to Sloop Point Loop Road. After the completion of the Hampstead Bypass, daily traffic volumes on US 17 are expected to significantly decrease.

In addition, as part of a 2016 capacity analysis report for US 17 from Washington Acres Road to Sloop Point Road, it was indicated that if the Hampstead Bypass were not constructed, by 2040 significant delays would result and the majority of intersections would function at a Level of Service (LOS) grade of F. For example, by

2040, during the average morning commute, the intersection of Country Club Drive/Jenkins Drive would operate on a 115.7 second delay, with left turning vehicles exiting Country Club Drive facing a nearly eight-minute delay. During the evening commute, traffic delays would be most significant at the intersection of Washington Acres Road, where projected congestion would slow traffic by an average of 188.5 seconds. While traffic heading northbound between Washington Acres Road and NC 210/Dan Owen Drive would be slowed by five to seven minutes on average. Furthermore, the travel speeds from Washington Acres Road to Sloop Point Road would vary between 11 and 23 miles per hour – significantly slower than current peak commute speeds of 35 to 38 miles per hour. Accordingly, completion of the Hampstead Bypass is among the top public input priorities identified as part of this land use planning process.

US Highway 17 Median Installation (Superstreet Conversion)

In addition to the Hampstead Bypass, safety and traffic flow improvements are slated to be constructed along US 17 from Washington Acres Road to north of Sloop Point Road. This will entail the construction of a median along the majority of this segment of US 17 to a “superstreet” facility. A “superstreet” has intersections in which the minor cross-street traffic is prohibited from going straight through or left at a divided highway intersection. The minor cross street traffic must turn right but can then access a U-turn located in the median to proceed in the desired direction. Doing this reduces the number of traffic signal phases required to move traffic through the intersection thereby allowing for longer green times on the major roadway and thus reducing congestion caused by the signals.

Pender County Collector Street Plan (2016) and Streets Plan (2021)

The Wilmington MPO, in partnership with the Pender County Planning and Community Development Department, commissioned the Pender County Collector Street Plan (2016) to determine future roadway connectivity demands in the southern portion of the County. The Collector Street Plan includes three US routes and one NC route that are considered arterial roads: US 17, US 117, US 421, and NC 210, respectively. Collector streets are streets that connect neighborhoods and local roads to arterial roads. Pender County currently has several collector streets, including Scotts Hill Loop Road, Country Club Drive, Sloop Point Loop Road, NC 133, and Hoover Road. Collector streets are commonly two lanes, no longer than two or three miles long, and have speed limits between 25 and 45 mph. They function to carry lower volumes of traffic while keeping the traffic congestion on arterial roads at a minimum. Collector streets

are suitable routes for shorter, local trips, while long-distance trips remain on the arterial streets. Collector streets are also beneficial to the residents and visitors through providing enhanced mobility opportunities for all users of the roadway, including emergency service providers, pedestrians, bicyclists, school buses, and municipal services. It is important to note that Pender County does not own or maintain the roadways, therefore, the roads are either publicly owned and maintained by NCDOT, or privately owned and maintained.

The Collector Street Plan also provides requirements for cross-section designs that accommodate automobiles, cyclists, and pedestrians in the more densely populated areas of the County. The Collector Street Plan separates the cross-section designs into four groups with three different design options, all of which were designed based on the most current version of NCDOT's Complete Streets Policies. The different design options within each group suggest improvements to increase bicycle and pedestrian safety and ensure that options are provided for non-motorized transportation. The Collector Street Plan serves as an important step toward ensuring that the newly constructed roads maintain appropriate connectivity across the southern portion of Pender County. More information about the plan can be found on the Pender County website.

The 2021 Pender County Streets Plan is an update to the 2016 plan that simplified recommendations through the incorporation of new data and analysis. To date in early 2025, some of the recommended collector streets have been built out and others have been incorporated into forthcoming development proposals.

NC 210 East Coast Greenway Feasibility Study (2023)

The Cape Fear RPO, in partnership with Pender County, the Town of Surf City, and the Wilmington MPO, developed the NC 210 East Coast Greenway Feasibility Study (2023) to evaluate potential routes and implementation strategies for the East Coast Greenway segment that aligns with the NC 210 corridor in Pender County. The preferred route will provide users with a safe path, separated from roadway traffic, for approximately 16 miles from Nelva Arberry Park in Surf City to Country Club Road in Hampstead. The route consists of road adjacent side paths, boardwalks, bridges and some scenic greenway segments.

Feasibility studies bridge the gap between conceptual planning, prioritization, and programming of projects. They build upon higher-level planning efforts and take a comprehensive look to identify possible alignment alternatives. The purpose of this

type of study is to evaluate technical feasibility from a design, permitting, and constructability perspective. Input solicited from the local community and stakeholders help guide the recommended alignments. Quantity-based preliminary cost estimates are generated for the alignments to help inform further decision making, identify funding needs, and identify next steps for project implementation. It is important to note that a feasibility study does not present a final design for construction. Willing property owners and available funding will help determine the final alignment for a project. In 2024, Surf City and Pender County Planning and Community Development Department initiated efforts to complete design work for the two ends of the route, with some grant funding having been awarded.

Cape Fear Regional Bicycle Plan (2017)

The Cape Fear Regional Bicycle Plan aims to identify key bicycling routes and provide recommendations for new facilities, programs, and policies to increase the options for recreation-based tourism, affordable personal mobility, and carbon-free transportation. According to the plan, there are several low-volume rural roadways throughout Pender County that have potential to provide safe regional bicycle connections without significant investments.

The Cape Fear Regional Bicycle Plan highlights several types of new bicycle infrastructure opportunities that are suitable for the area. Since the majority of the area is rural and typically contains long distances between many destinations, the focus of the plan is to route bicyclists to roadways with low traffic volumes. Ideally, these routes should be located along roadways with paved shoulders so that limited changes to the existing roadways are required. However, when this is not possible, bike lanes, shared use paths, shared-lane markings, separate bike lanes, and signed bike routes are suitable to promote public health and safety.

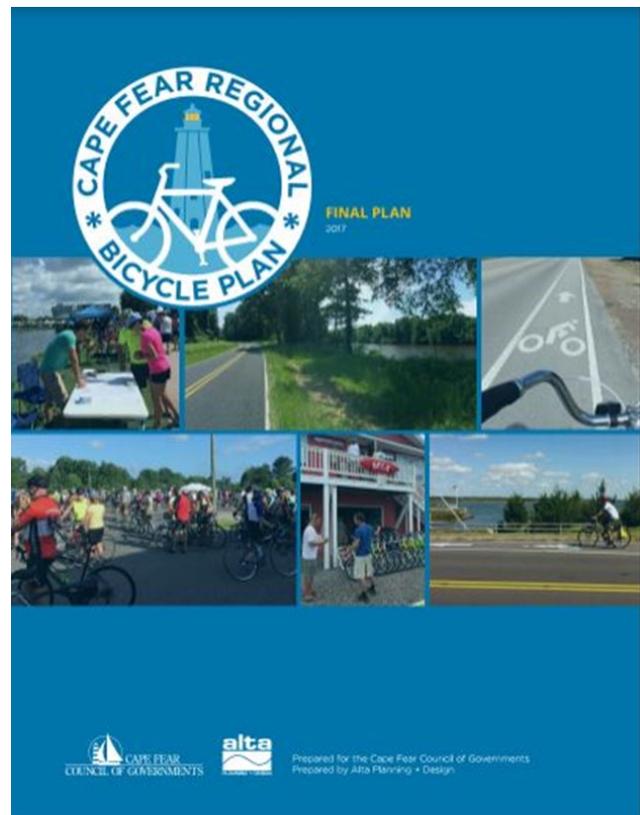


Figure 566: Carpe Fear Regional Bicycle Plan

One of the short-term priority projects included in the plan is the Burgaw Osgood Canal Greenway Link. This project consists of widening the existing pedestrian trail along Hayes Street to South Walker Street, as well as the section along the east side of South Walker Street. Shared-lane markings will be installed following the completion of the widening project. This project will complete the bicycle connectivity between the Osgood Canal Greenway at Hayes Street and the Osgood Canal Greenway at Fremont Street and improve access to Burgaw Middle School, Cape Fear Community College, Rotary Park, Johnson Park, Wilmington Street Park A & B, Ashe Street Park, Pender Memorial Park, and the Pender County Library. Phase II of this project is projected to be completed by the end of 2025. The Cape Fear Regional Bicycle Plan can be found on the Pender County Planning and Community Development Department website.

Pender County Bicycle and Pedestrian Plan (2023)

The Bicycle and Pedestrian Plan directly addresses the current and proposed bicycle and pedestrian network in the portions of the County that lie within the planning boundary of the WMPO, though the policy and implementation recommendations are applicable to the entire County. The plan was funded through the WMPO. The plan's guiding values include connectivity, safety, health, equity, provision of transportation choices, and reduction of traffic congestion. The goal of the plan is to assess the current network, propose future improvements and additions, and provide recommendations for policies and implementation strategies that will allow the County to see a completed and useful network come to fruition.

The need for safe biking and walking facilities becomes clear when the high rates of bicyclist and pedestrian injuries involving motor vehicles were noted. These primarily occur on major corridors in the County, such as US 17, US 117, NC 210, NC 133, and Sloop Point Loop Road. Providing safe routes along these roads would allow for safe travel and alternatives to traveling in a car each time a trip is made. Increased biking and walking can also reduce traffic congestion and provide safe and equitable access for those who do not drive, whether by choice or necessity.

The plan provides a proposed pedestrian and bicycle network and a complementary high priority network, meant to focus on allowing safe access to popular and important destinations along the US 17 corridor. These destinations include grocery stores, restaurants, businesses, medical offices, and schools. Proposed path and sidewalk facility types and intersection improvements are described to guide

decision-makers when new bicycle and pedestrian facilities are considered as part of a roadway project as well as any off-street or greenway projects.

To enable the proposed network to be built out, the plan examined current ordinances, State guidelines, local and regional plans, and example policies from other areas of the State. These recommendations and examples can help inform County staff as they administer the regulatory process that shapes the current and future bicycle and pedestrian network in the County.

The adopted plan guides staff when making policy and network facility decisions. The WMPO will also consider the plan and integrate its findings into their related plans. The North Carolina Department of Transportation often considers adopted plans such as this one when designing facility improvements and additions. As the County applies for grant funding for transportation, infrastructure, recreation, and other related programs through Federal, State, non-profit, and private sources, the plan will give credibility to support the County's funding applications and increase the chance of receiving grant funding. The Plan can be found on the Pender County Planning and Community Development Department website.

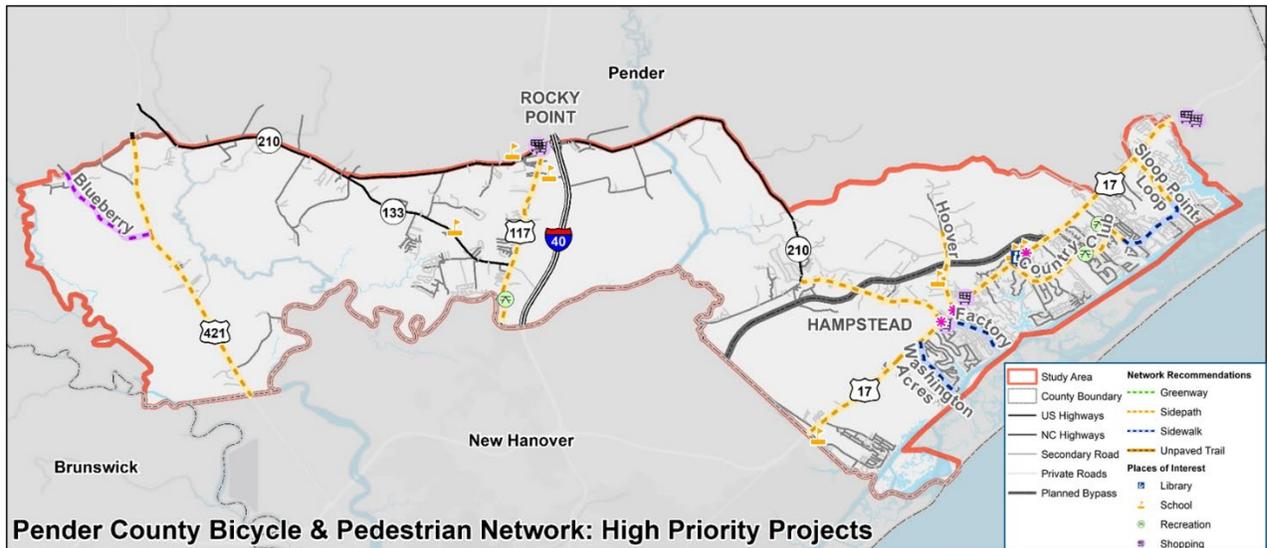


Figure 67. Bicycle & Pedestrian Network High Priority Projects

Recreational Opportunities and Public Access Facilities

According to the Coastal Area Management Act (CAMA), public facilities are considered a key component of a community's infrastructure. This section of the Fact Book inventories public access facilities and available recreation facilities that residents and visitors can utilize.

Parks, recreation, and public access facilities are important to a community's economic and social well-being and also promote a healthy lifestyle. Parks provide an opportunity for stress relief, exercise, social interaction, and offer a gathering place for families and friends. Communities with adequate parks and recreation opportunities are generally highly sought after by residents and attract future residents as a more desirable location for development of homes, neighborhoods, businesses, and industry. Aside from the parks that the County provides, there are several public access sites that allow for residents and visitors to embrace the natural scenery and water-based recreational opportunities of the Northeast Cape Fear River, Black River, Intracoastal Waterway, and the Atlantic Ocean.

In 2022, Pender County adopted the new Parks and Recreation Master Plan, which assessed, inventoried, and provided recommendations for future improvements for the seven park facilities owned, operated, and/or maintained by Pender County. Recommendations were developed based on state and national standards as well as information gained through the community engagement process. In addition to facility needs, the plan identified program needs for the growing population of Pender County. Future facility recommendations in the plan include two new district parks (northern-central Pender and southern Pender), three new community parks (in western Pender), and one new neighborhood park (Maple Hill).

Parks and Recreation

Pender County owns and operates the following public facilities and parks:

- Abbey Nature Preserve
- Hampstead Kiwanis Park
- Millers Pond Park
- Penderlea Community Park
- Pender County Courthouse Square
- Pender Memorial Park
- Penderlea Auditorium
- Hampstead Annex
- Penderlea Gym
- Central Pender Park (planned to open by 2026)
- Parks, local cultural and historical assets, schools, and greenways and trails can be seen on the map in **Figure 68**

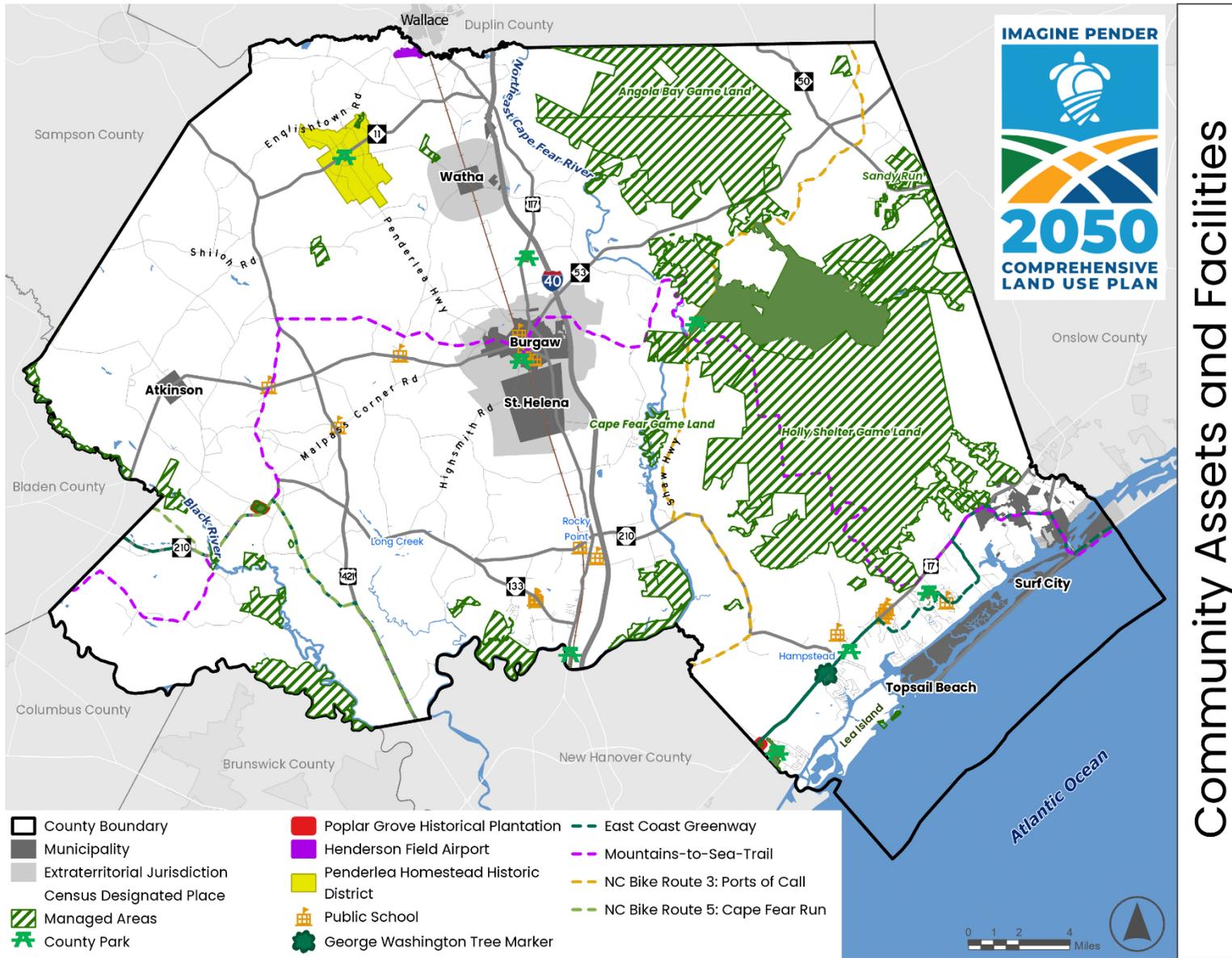


Figure 68: Community Assets and Facilities

In February 2024, Pender County released the concept plan for Central Pender Park, located on US-117 north of Burgaw.



Figure 69: Concept Plan for Central Pender Park

The County currently has five NC Wildlife Resources Commission (NCWRC) public boat access sites, four of which are in unincorporated areas of the County. The fifth is located at Soundside Park in Surf City. These sites provide boat launches and parking facilities. Two of the sites are located off Shaw Highway, along the Northeast Cape Fear River and Shelter Creek. The third is located at the end of Whitestocking Road, which is also along the Northeast Cape Fear River. The fourth public access is located in Hampstead, at the end of Lewis Road. This facility allows the public to launch their boat into the Intracoastal Waterway.

Other than these five NCWRC public boat access sites, there are 51 CAMA public access sites along Topsail Island (22 miles long), which provide access to the sound and beach. This equates to roughly one public access site every 0.43 miles. It is important to note that there are no CAMA public access sites in unincorporated Pender County.

Schools

Parents typically consider the quality of schools in the area when 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 regard to proposed residential developments. If the school systems are involved in the new development review process, then they may be able to identify needed sites for new schools within these areas. 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 needs for community facilities, such as parks and libraries. Currently, the County does not require the reservation of school sites as part of the development approval process.

During the early 1980s, the Pender County School system lost enrollment. However, just 5 years later, rapid growth and an increasing birth rate pushed student enrollment up by over 700 to nearly 5,000 students. Beginning in the 1990s, Pender County experienced rapid population growth that has placed a severe strain on the County's public school system capacity, especially as the residential composition shifted from a significant number of retirees to an increased number of families with school-age children. The Pender County November 2022 election ballot included a proposal for a \$177,770,897 million (plus interest) school bond that will address student population in schools and aged buildings in the district. The bond will fund the construction of a K-8 school located along Highway 210 across from Whispering Pines Court, and renovations to existing campuses. All told, the bond will include:

- The construction of a new middle and elementary school (\$111,556,800)
- Topsail Middle School Renovation (\$22,601,432)
- Rocky Point Elementary School Addition (\$1,219,065)
- Burgaw Middle School Cafeteria Rebuild (\$4,272,000)
- Construction of a new Central Services Building (\$21,000,000)
- Construction of a new eight-bay Maintenance Building (\$17,121,600)

In 2023, Pender County Schools released a land study that generated the countywide average Student Generating Potential for all subdivisions, which is 0.30 K-12 students per developed residential acre. According to the report, these values may be used to estimate the average potential impact of anticipated residential developments. Note

that each development has its own set of characteristics and certain factors. For more information, please see the Pender County Schools website.

For the 2023–2024 school year, the total enrollment for all Pender County Schools was 11,604, with a projection of 15,724 by the 2033–2034 school year. Pender County Schools operates 93 bus routes and transports approximately 5,500 students daily.

Figure 70 displays the historic and projected capacity of high schools in Pender County. The appendix contains a more detailed chart of projected capacity by schools at all levels and zones. These projections indicate that the Heide Task and Pender High Zone schools will remain under 100% capacity through the 2033–2034 school year, whereas most of the Topsail Zone schools will continue to operate over 100% capacity. Moving forward, partnership with Pender County Schools and the Planning and Community Development Department will be paramount to ensuring the proper allocation of resources and capital. A top concern is the availability and suitability of land for school acquisition to continue planning for school capacity in decades to come. Capital budgets are set to build new schools and complete much needed renovations. For example, a new K–8 school, Cape Fear Elementary and Middle, was added to help alleviate overcrowding from Rocky Point Elementary and Malpass Corner Elementary as well as from Burgaw Middle and West Pender Middle.

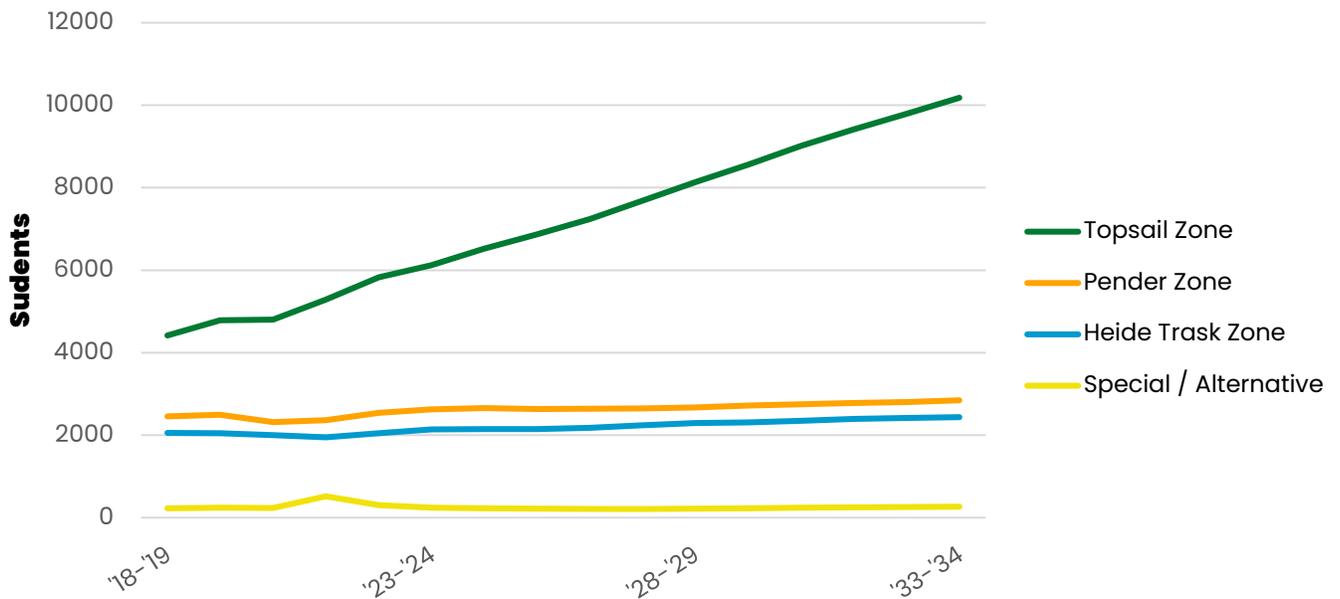


Figure 70: Population Projection of Students in Pender County Schools

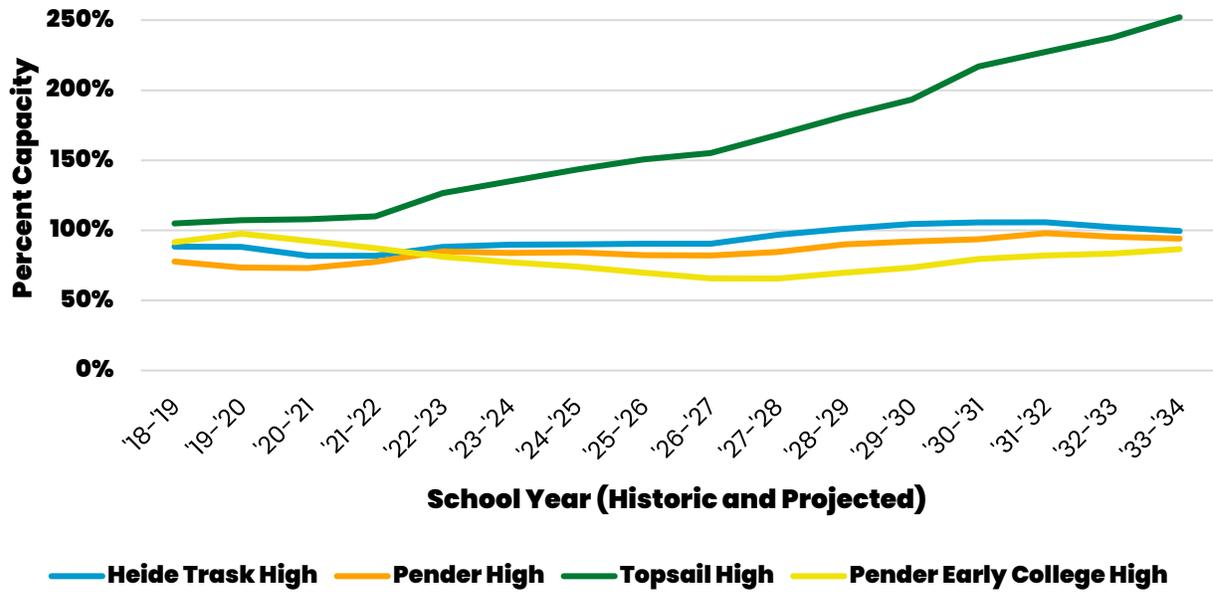


Figure 71: Pender County High School Capacity, Historic and Projected

Broadband Internet

Access to broadband internet is vital in Pender County because it allows for increased opportunities for education, public safety, healthcare, government services, and economic development. The benefits of increased broadband internet coverage include increased business opportunities, entrepreneurship, and better access to telehealth. Expanding coverage allows for increased opportunity and efficiency for businesses and citizens. Residents needing medical assistance are more easily connected to their physicians. Broadband internet allows employees to work from home and provides flexibility for businesses. Additionally, residents have more opportunities to connect with each other and be involved within the community. Broadband internet has become a necessary utility in the same way people view water, electricity, and television access.

Efforts to expand broadband coverage in Pender County accelerated in 2019 with an engineering study by FOCUS Broadband based on community request. In 2020, FOCUS Broadband was awarded a grant by the United States Department of Agriculture's ReConnect Broadband Grant program to connect over 17,000 people living in rural Pender County to broadband speeds of up to one Gigabit. According to the FOCUS Broadband website, a \$21.6 million grant was awarded by the United States Department of Agriculture (USDA) ReConnect Program in 2020 and a \$4 million grant was awarded in 2022 through the North Carolina Department of Information Technology (NCDIT) Growing Rural Economies with Access to Technology (GREAT) Grant Program. Many residents and businesses in rural areas near Atkinson, Burgaw, Currie, Hampstead, Maple Hill, Rocky Point, Watha, and Willard already have access. A key partnership between FOCUS Broadband and Four County EMC allowed service in underserved areas. Four County EMC has supported FOCUS Broadband's expansion in Pender County by granting access to their fiber optic network and power pole infrastructure to aid in broadband expansion efforts, helping to offset rising construction and material costs. Upon completion of FOCUS Broadband's federal and state-funded projects, estimates indicate that high-speed internet will be available to over 98% of Pender County households. In addition, Four County EMC completed a project to provide broadband service to all Pender County schools.

LAND USE

Introduction

This section allows the local elected officials, appointed boards, residents, and local planning staff to gather an overall picture of the existing land use patterns throughout Pender County. In Phase 4 of the Imagine Pender process, the Project Team will provide the Land Use and Development Recommendations Report, which will provide the methodology, analysis, and evaluation of land use alternatives to guide development of the plan framework.

The Existing Land Use Map (**Figure 72**) and tables were created by the Cape Fear Council of Governments using Pender County Tax Records updated in December 2016, full-color orthophotos (map quality aerial photos) taken in 2016, and Land-Based Classification Standards (LBCS) developed by the American Planning Association, reviewed in 2024.

Land Uses Identified in Unincorporated Pender County

The table below provides the Existing Land Use Classes and associated types of development, based on the currently adopted Future Land Use Map from Pender 2.0.

Rural agriculture land uses occupy the greatest percentage of land throughout unincorporated Pender County – more than 67% (366,212 acres). Conservation lands account for second largest percentage of land – 22% of the total acreage in the County (119,130 acres) – and can be attributed primarily to the large tracts of land within the Holly Shelter and Angola Bay Game Lands. Together, rural agriculture and conservation lands account for almost 90% of the land in the County. Single-family dwellings account for the most significant category of developed land in the unincorporated County, followed by manufactured dwellings. In total, there is nearly 12,000 acres of land used for Single Family Residential (not including the Rural Residential category, which is the majority of land use). Commercial, office, and industrial uses are scattered throughout the County, with the majority concentrated south of NC 210 and along the US 17 corridor. See the map of existing land uses in **Figure 72**. Vacant/Infill land, currently undeveloped, accounts for a little over 1% of the land in the Pender County.

Table 11: Existing Land Uses

Existing Land Use Class	Land Uses and Development Types	Acreage	Percent of Total
Rural Agriculture	Single-family dwellings on lots greater than one acre, Livestock/Poultry Production, Crop Cultivation, Silviculture, Horticulture, etc.	366,212	67.7%
Conservation	Schools, Churches/Cemeteries, Health Services, Emergency Services, Government/Community Centers, Fraternal Lodges, Game Lands, etc.	119,130	22.0%
Incorporated	Part of incorporated towns or villages	26,742	4.9%
Single Family Residential	Single-family detached dwelling unit (includes modular homes)	11,901	2.2%
Vacant/Infill	Undeveloped Land Less Than 2 Acres	6,132	1.1%
Manufactured Housing	Prefabricated dwelling units/Mobile homes	5,470	1.0%
Office and Institutional	Schools, Churches/Cemeteries, Health Services, Emergency Services, Government/Community Centers, Fraternal Lodges, etc.	2,237	0.4%
Commercial	Retail shops/stores (including grocery stores, pharmacies, etc.), Entertainment, Convenience stores, Restaurants (all food service), Hotel/motel, Repair Services, etc.	1,360	0.3%
Industrial	Water/Sewer Treatment Plants, Processed Food Production/Distribution, Manufacturing, Warehouse Distribution, Rock/Soil/Sand Quarries	1,131	0.2%
Recreational	Parks, Common Areas, Golf Courses, Clubhouses, etc.	811	0.1%
Multi-Family Residential	2 or more dwelling units attached	157	0.03%
Water ROW	Waterbodies Right of Way	9	0.002%
Total		541,290	

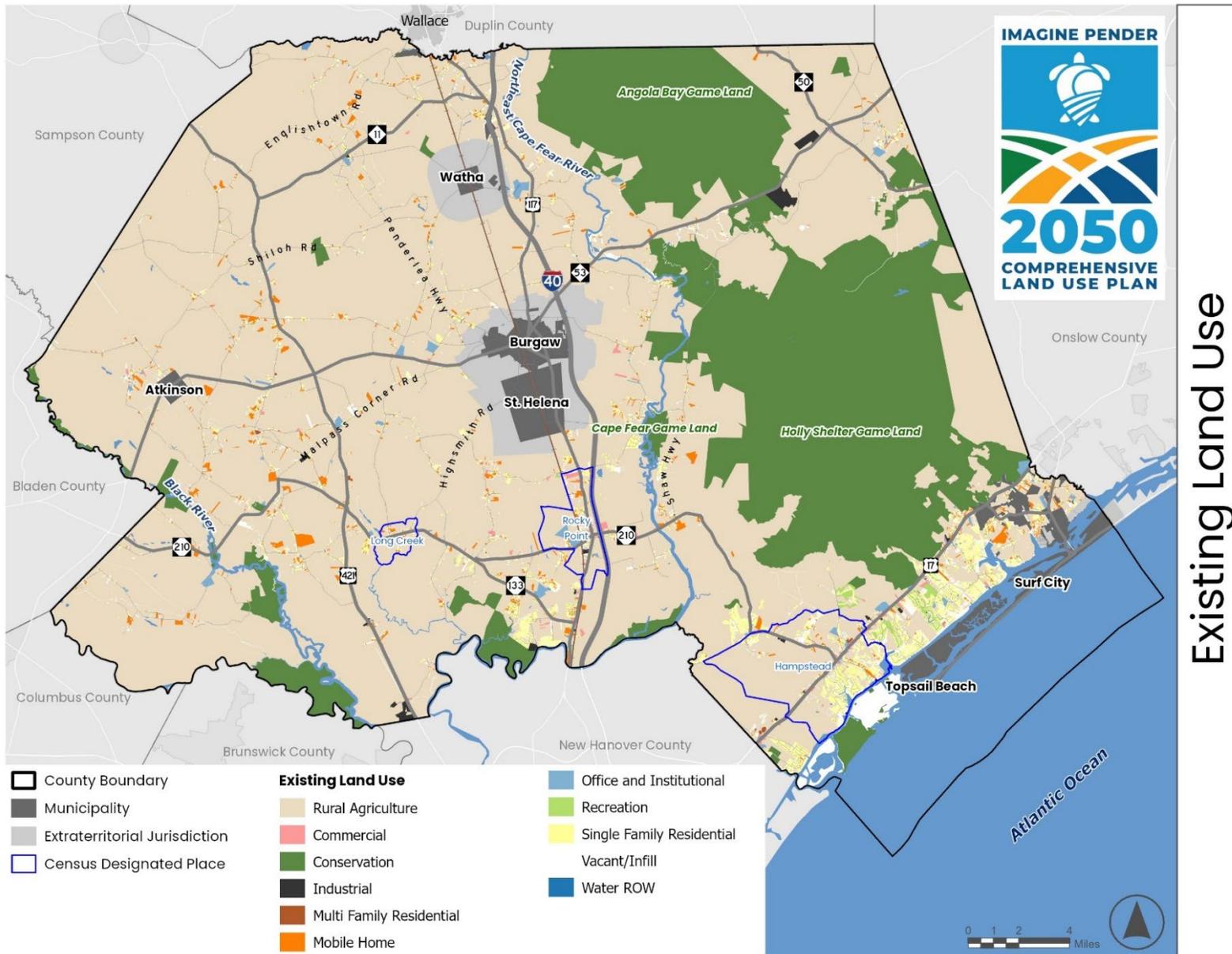


Figure 72: Existing Land Use

Zoning

Land use regulations in Pender County are determined by the Unified Development Ordinance (UDO). **Table 12** shares more information about the differences between a comprehensive plan and the UDO. See **Figure 73** for a map of the Pender County zoning districts.

Table 12: Characteristics of Comprehensive Plans and Unified Development Ordinances

Comprehensive Plan	Unified Development Ordinance
Considers all lands within the County and provides policy guidance for unincorporated areas	Only applies to property in unincorporated areas
Describes intended development character and land use	Defines land uses and development characteristics allowed on a property
Generally defines where land use uses should occur (recommendation)	Specifically outlines and describes what types of development are permitted on each parcel (requirement)
Policies need to be considered when reviewing development proposals, but not a legally binding document	Legal requirement for land development

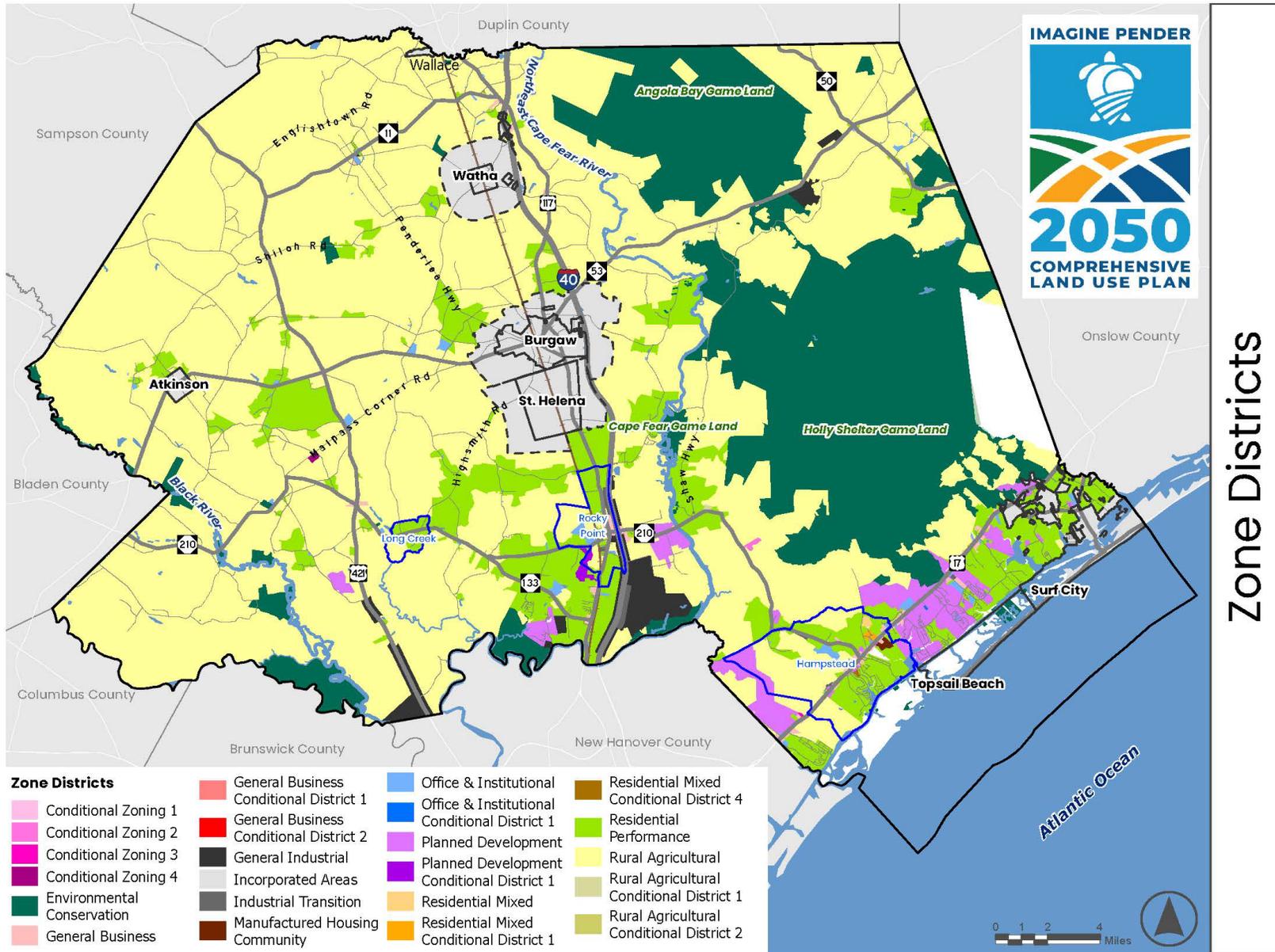


Figure 73: Zoning Districts

APPENDICES

- A. Seasonal Population Calculations
- B. Supplementary Figures: School Capacity by Area
- C. Planning Influences Appendices, Prepared by Rose & Associates

(A) Seasonal Population

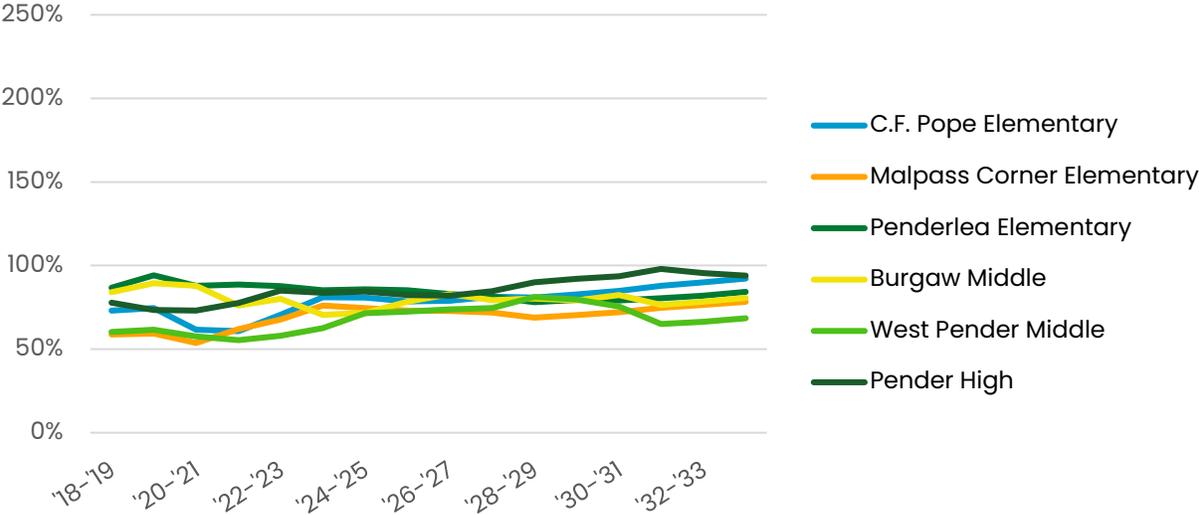
In order to estimate the seasonal population projections, the US Census estimates for occupancy rates, number of housing units, and renter-occupied units were compiled in the table below (ACS 2023, 5-year estimates). After averaging the low and high seasonal occupancy total potential capacity, this number (26,011) was used to create a ratio with the US Census total population for Pender County (43%). This ratio was applied to the average of the NC OSBM and Woods & Poole population projections through 2060.

Number of Bedrooms	Peak Occupancy Rate	Number of Housing Units (Total)	Number of Renter-Occupied Housing Units	Average Persons/Unit (Low)	Average Persons/Unit (High)	Low Occupancy Estimate	High Occupancy Estimate
Studio	90%	230	38	1	2	34	69
1 Bedroom	90%	654	109	2	3	196	294
2 bedrooms	90%	5,809	964	3	5	2,612	4,354
3 bedrooms	90%	16,934	2,811	4	6	10,153	15,230
4 bedrooms	90%	6,358	1,055	7	9	6,671	8,577
5 or more bedrooms	90%	1,022	170	10	15	1,532	2,298
Total Potential Capacity	--	31,007	5,147	--	--	21,200	30,822
					Average Seasonal Population	26,011	

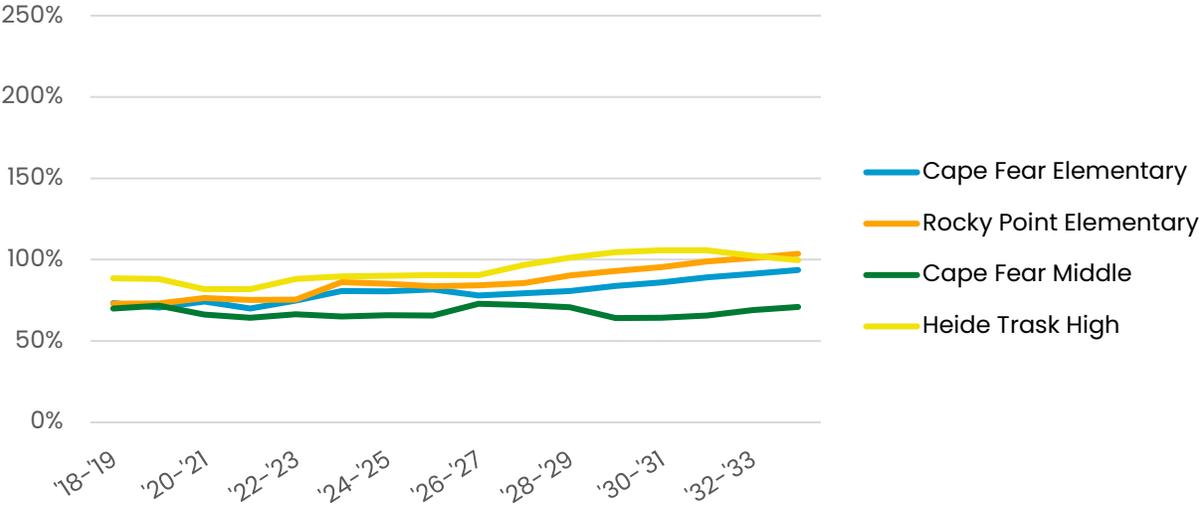
(B) Supplementary Figures: School Capacity by Area

(Source: Pender County Schools)

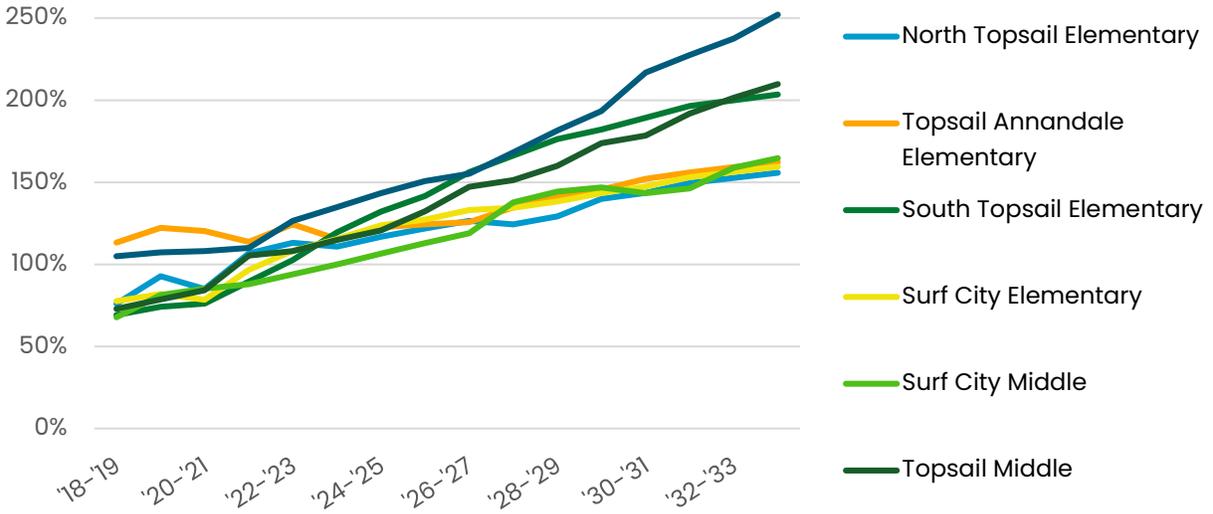
Pender High Area Schools, % Capacity



Heide Trask Area Schools, % Capacity



Topsail Area Schools, % Capacity



Pender County Schools Historic and Forecasted Student Population Capacity Percentages

	Percent of Capacity, Historic					Percent of Capacity, Forecasted										
	'18-'19	'19-'20	'20-'21	'21-'22	'22-'23	'23-'24	'24-'25	'25-'26	'26-'27	'27-'28	'28-'29	'29-'30	'30-'31	'31-'32	'32-'33	'33-'34
Heide Trask Zone	73.2%	70.6%	74.3%	70.0%	74.9%	80.6%	80.5%	81.6%	78.1%	79.3%	80.7%	83.7%	86.0%	89.2%	91.3%	93.6%
Cape Fear Elementary	72.9%	73.1%	76.4%	75.2%	75.4%	86.2%	85.2%	83.7%	84.3%	85.6%	90.3%	93.1%	95.4%	98.9%	101.1%	103.6%
Rocky Point Elementary	70.0%	71.8%	66.3%	64.3%	66.4%	65.0%	65.8%	65.7%	72.9%	72.0%	70.7%	64.1%	64.3%	65.6%	68.9%	71.0%
Cape Fear Middle	88.5%	88.1%	81.8%	81.8%	88.2%	89.7%	90.0%	90.5%	90.5%	96.8%	101.2%	104.5%	105.7%	105.8%	102.3%	99.6%
Heide Trask High	77.0%	76.7%	74.9%	73.1%	76.9%	80.3%	80.5%	80.6%	81.7%	83.9%	86.1%	86.7%	88.1%	89.9%	90.7%	91.4%
Pender Zone	73.1%	74.5%	61.6%	60.8%	70.6%	81.0%	80.8%	78.5%	79.0%	81.3%	80.8%	82.8%	84.9%	88.0%	90.0%	92.2%
C.F. Pope Elementary	58.8%	59.4%	53.7%	61.9%	67.6%	76.0%	74.5%	73.1%	72.9%	71.8%	68.8%	70.3%	72.1%	74.7%	76.4%	78.3%
Malpass Corner Elementary	86.7%	94.2%	88.0%	88.7%	87.6%	85.3%	85.7%	85.1%	82.9%	81.4%	78.1%	79.5%	79.1%	80.4%	82.0%	84.3%
Penderlea Elementary	84.2%	89.4%	87.9%	76.1%	80.1%	70.5%	71.6%	78.5%	83.0%	79.4%	80.2%	79.1%	82.3%	76.4%	78.3%	80.6%
Burgaw Middle	60.3%	61.6%	57.7%	55.4%	58.0%	62.5%	71.4%	72.4%	73.8%	74.5%	81.2%	79.7%	75.5%	65.0%	66.5%	68.4%
West Pender Middle	77.7%	73.3%	73.1%	77.6%	85.0%	83.8%	84.4%	82.3%	82.0%	84.6%	89.9%	92.1%	93.6%	98.0%	95.5%	94.0%
Pender High	73.5%	74.8%	69.4%	70.7%	76.1%	78.7%	79.5%	78.9%	79.0%	79.4%	80.1%	81.3%	82.3%	83.2%	83.9%	85.2%
Topsail Zone	75.9%	92.8%	84.9%	106.7%	113.1%	110.8%	116.8%	121.7%	126.5%	124.3%	129.2%	139.9%	143.6%	149.5%	152.6%	155.7%
North Topsail Elementary	113.2%	122.1%	120.4%	113.6%	124.3%	115.4%	122.6%	124.4%	125.8%	134.5%	141.3%	145.5%	152.1%	155.9%	159.2%	162.2%
Topsail Annandale Elementary	69.1%	74.2%	76.2%	89.5%	102.5%	119.5%	132.1%	141.6%	156.1%	166.2%	176.3%	182.1%	189.3%	196.3%	199.8%	203.4%
South Topsail Elementary	77.6%	81.9%	78.4%	96.5%	108.3%	115.3%	123.7%	127.2%	133.1%	134.4%	138.4%	143.2%	147.3%	153.1%	156.3%	159.5%
Surf City Elementary	67.7%	81.3%	85.2%	87.9%	93.9%	99.9%	106.4%	112.9%	119.0%	137.8%	144.3%	146.8%	143.3%	146.2%	158.7%	164.7%
Surf City Middle	72.9%	78.5%	84.2%	105.4%	108.1%	114.9%	120.6%	132.3%	147.2%	151.2%	160.0%	173.7%	178.4%	191.8%	201.4%	209.7%
Topsail Middle	104.9%	107.3%	108.0%	110.0%	126.5%	134.9%	143.4%	150.7%	155.1%	168.1%	181.5%	193.3%	216.8%	227.4%	237.5%	252.1%
Topsail High	85.4%	92.4%	92.8%	102.2%	112.6%	118.3%	126.1%	132.8%	140.0%	148.6%	157.1%	165.4%	174.3%	182.0%	189.3%	196.8%

(C) Planning Influences Appendices

Prepared by Rose & Associates



Community Profile

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	Pender County...
Population Summary	
2010 Total Population	52,214
2020 Total Population	60,203
2020 Group Quarters	1,160
2023 Total Population	64,750
2023 Group Quarters	1,160
2028 Total Population	68,968
2023-2028 Annual Rate	1.27%
2023 Total Daytime Population	50,340
Workers	16,148
Residents	34,192
Household Summary	
2010 Households	20,331
2010 Average Household Size	2.51
2020 Total Households	22,962
2020 Average Household Size	2.57
2023 Households	24,789
2023 Average Household Size	2.57
2028 Households	26,529
2028 Average Household Size	2.56
2023-2028 Annual Rate	1.37%
2010 Families	14,556
2010 Average Family Size	2.95
2023 Families	17,186
2023 Average Family Size	3.08
2028 Families	18,327
2028 Average Family Size	3.07
2023-2028 Annual Rate	1.29%
Housing Unit Summary	
2000 Housing Units	20,793
Owner Occupied Housing Units	63.8%
Renter Occupied Housing Units	13.4%
Vacant Housing Units	22.8%
2010 Housing Units	26,722
Owner Occupied Housing Units	58.8%
Renter Occupied Housing Units	17.3%
Vacant Housing Units	23.9%
2020 Housing Units	29,927
Owner Occupied Housing Units	62.3%
Renter Occupied Housing Units	14.4%
Vacant Housing Units	23.3%
2023 Housing Units	31,927
Owner Occupied Housing Units	63.1%
Renter Occupied Housing Units	14.6%
Vacant Housing Units	22.4%
2028 Housing Units	33,672
Owner Occupied Housing Units	64.9%
Renter Occupied Housing Units	13.9%
Vacant Housing Units	21.2%

Data Note: Household population includes persons not residing in group quarters. Average Household Size is the household population divided by total households. Persons in families include the householder and persons related to the householder by birth, marriage, or adoption. Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	Pender County...
2023 Households by Income	
Household Income Base	24,789
<\$15,000	10.6%
\$15,000 - \$24,999	6.3%
\$25,000 - \$34,999	8.7%
\$35,000 - \$49,999	10.5%
\$50,000 - \$74,999	18.9%
\$75,000 - \$99,999	12.0%
\$100,000 - \$149,999	19.5%
\$150,000 - \$199,999	6.3%
\$200,000+	7.1%
Average Household Income	\$93,947
2028 Households by Income	
Household Income Base	26,529
<\$15,000	9.0%
\$15,000 - \$24,999	5.1%
\$25,000 - \$34,999	7.2%
\$35,000 - \$49,999	9.1%
\$50,000 - \$74,999	17.9%
\$75,000 - \$99,999	12.3%
\$100,000 - \$149,999	22.4%
\$150,000 - \$199,999	8.4%
\$200,000+	8.7%
Average Household Income	\$108,905
2023 Owner Occupied Housing Units by Value	
Total	20,133
<\$50,000	5.1%
\$50,000 - \$99,999	10.0%
\$100,000 - \$149,999	12.5%
\$150,000 - \$199,999	11.9%
\$200,000 - \$249,999	13.2%
\$250,000 - \$299,999	10.9%
\$300,000 - \$399,999	16.9%
\$400,000 - \$499,999	9.5%
\$500,000 - \$749,999	6.6%
\$750,000 - \$999,999	2.4%
\$1,000,000 - \$1,499,999	0.3%
\$1,500,000 - \$1,999,999	0.1%
\$2,000,000 +	0.7%
Average Home Value	\$288,736
2028 Owner Occupied Housing Units by Value	
Total	21,840
<\$50,000	2.6%
\$50,000 - \$99,999	3.5%
\$100,000 - \$149,999	4.7%
\$150,000 - \$199,999	7.3%
\$200,000 - \$249,999	12.7%
\$250,000 - \$299,999	14.0%
\$300,000 - \$399,999	24.5%
\$400,000 - \$499,999	15.4%
\$500,000 - \$749,999	10.8%
\$750,000 - \$999,999	3.3%
\$1,000,000 - \$1,499,999	0.3%
\$1,500,000 - \$1,999,999	0.0%
\$2,000,000 +	0.8%
Average Home Value	\$362,398

Data Note: Income represents the preceding year, expressed in current dollars. Household income includes wage and salary earnings, interest dividends, net rents, pensions, SSI and welfare payments, child support, and alimony.

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
Pender County, NC (37141)
Geography: County

Prepared by Esri

	Pender County...
Median Household Income	
2023	\$66,321
2028	\$77,786
Median Home Value	
2023	\$239,791
2028	\$321,060
Per Capita Income	
2023	\$35,997
2028	\$41,920
Median Age	
2010	41.1
2020	42.9
2023	44.4
2028	45.9
2020 Population by Age	
Total	60,203
0 - 4	5.5%
5 - 9	6.2%
10 - 14	6.9%
15 - 24	10.7%
25 - 34	10.6%
35 - 44	12.7%
45 - 54	13.5%
55 - 64	14.5%
65 - 74	12.0%
75 - 84	5.5%
85 +	1.8%
18 +	77.4%
2023 Population by Age	
Total	64,750
0 - 4	4.9%
5 - 9	5.5%
10 - 14	5.8%
15 - 24	10.1%
25 - 34	12.1%
35 - 44	12.3%
45 - 54	12.8%
55 - 64	14.8%
65 - 74	13.6%
75 - 84	6.3%
85 +	1.7%
18 +	80.4%
2028 Population by Age	
Total	68,968
0 - 4	4.8%
5 - 9	5.3%
10 - 14	5.9%
15 - 24	9.9%
25 - 34	10.4%
35 - 44	12.6%
45 - 54	12.8%
55 - 64	13.9%
65 - 74	14.0%
75 - 84	8.4%
85 +	2.1%
18 +	80.6%
2020 Population by Sex	

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
Pender County, NC (37141)
Geography: County

Prepared by Esri

	Pender County...
Males	30,063
Females	30,140
2023 Population by Sex	
Males	32,518
Females	32,232
2028 Population by Sex	
Males	34,574
Females	34,394
2010 Population by Race/Ethnicity	
Total	52,214
White Alone	76.1%
Black Alone	17.8%
American Indian Alone	0.6%
Asian Alone	0.4%
Pacific Islander Alone	0.0%
Some Other Race Alone	3.3%
Two or More Races	1.8%
Hispanic Origin	6.1%
Diversity Index	45.8
2020 Population by Race/Ethnicity	
Total	60,203
White Alone	75.3%
Black Alone	12.7%
American Indian Alone	0.6%
Asian Alone	0.6%
Pacific Islander Alone	0.1%
Some Other Race Alone	4.7%
Two or More Races	6.2%
Hispanic Origin	8.3%
Diversity Index	50.1
2023 Population by Race/Ethnicity	
Total	64,750
White Alone	74.4%
Black Alone	12.7%
American Indian Alone	0.6%
Asian Alone	0.6%
Pacific Islander Alone	0.1%
Some Other Race Alone	5.0%
Two or More Races	6.6%
Hispanic Origin	8.8%
Diversity Index	51.6
2028 Population by Race/Ethnicity	
Total	68,968
White Alone	73.7%
Black Alone	12.5%
American Indian Alone	0.6%
Asian Alone	0.6%
Pacific Islander Alone	0.1%
Some Other Race Alone	5.5%
Two or More Races	7.1%
Hispanic Origin	9.6%
Diversity Index	53.1

Data Note: Persons of Hispanic Origin may be of any race. The Diversity Index measures the probability that two people from the same area will be from different race/ethnic groups.

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
Pender County, NC (37141)
Geography: County

Prepared by Esri

	Pender County...
2020 Population by Relationship and Household Type	
Total	60,203
In Households	98.1%
Householder	38.1%
Opposite-Sex Spouse	21.2%
Same-Sex Spouse	0.1%
Opposite-Sex Unmarried Partner	2.1%
Same-Sex Unmarried Partner	0.1%
Biological Child	26.2%
Adopted Child	0.7%
Stepchild	1.3%
Grandchild	2.9%
Brother or Sister	0.8%
Parent	0.9%
Parent-in-law	0.3%
Son-in-law or Daughter-in-law	0.4%
Other Relatives	0.9%
Foster Child	0.1%
Other Nonrelatives	1.9%
In Group Quarters	1.9%
Institutionalized	1.9%
Noninstitutionalized	0.1%
2023 Population 25+ by Educational Attainment	
Total	47,682
Less than 9th Grade	3.1%
9th - 12th Grade, No Diploma	6.9%
High School Graduate	20.6%
GED/Alternative Credential	5.6%
Some College, No Degree	21.8%
Associate Degree	11.3%
Bachelor's Degree	20.0%
Graduate/Professional Degree	10.9%
2023 Population 15+ by Marital Status	
Total	54,234
Never Married	26.3%
Married	56.1%
Widowed	6.5%
Divorced	11.1%
2023 Civilian Population 16+ in Labor Force	
Civilian Population 16+	31,511
Population 16+ Employed	95.5%
Population 16+ Unemployment rate	4.5%
Population 16-24 Employed	10.4%
Population 16-24 Unemployment rate	18.8%
Population 25-54 Employed	62.1%
Population 25-54 Unemployment rate	2.9%
Population 55-64 Employed	19.1%
Population 55-64 Unemployment rate	1.9%
Population 65+ Employed	8.4%
Population 65+ Unemployment rate	1.1%

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
Pender County, NC (37141)
Geography: County

Prepared by Esri

		Pender County...
2023 Employed Population 16+ by Industry		
Total		30,085
Agriculture/Mining		2.0%
Construction		10.4%
Manufacturing		8.2%
Wholesale Trade		1.2%
Retail Trade		11.5%
Transportation/Utilities		6.8%
Information		1.1%
Finance/Insurance/Real Estate		5.6%
Services		45.0%
Public Administration		8.2%
2023 Employed Population 16+ by Occupation		
Total		30,085
White Collar		58.7%
Management/Business/Financial		18.5%
Professional		21.7%
Sales		8.4%
Administrative Support		10.2%
Services		18.1%
Blue Collar		23.2%
Farming/Forestry/Fishing		1.0%
Construction/Extraction		6.4%
Installation/Maintenance/Repair		4.3%
Production		4.9%
Transportation/Material Moving		6.7%
2020 Households by Type		
Total		22,962
Married Couple Households		56.0%
With Own Children < 18		20.6%
Without Own Children < 18		35.4%
Cohabiting Couple Households		5.7%
With Own Children < 18		2.0%
Without Own Children < 18		3.7%
Male Householder, No Spouse/Partner		15.7%
Living Alone		11.1%
65 Years and over		4.3%
With Own Children < 18		1.4%
Without Own Children < 18, With Relatives		2.4%
No Relatives Present		0.7%
Female Householder, No Spouse/Partner		22.6%
Living Alone		12.1%
65 Years and over		7.2%
With Own Children < 18		3.7%
Without Own Children < 18, With Relatives		6.0%
No Relatives Present		0.7%
2020 Households by Size		
Total		22,962
1 Person Household		23.2%
2 Person Household		36.2%
3 Person Household		15.6%
4 Person Household		14.7%
5 Person Household		6.4%
6 Person Household		2.5%
7 + Person Household		1.4%

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
Pender County, NC (37141)
Geography: County

Prepared by Esri

	Pender County...
2020 Households by Tenure and Mortgage Status	
Total	22,962
Owner Occupied	81.2%
Owned with a Mortgage/Loan	53.0%
Owned Free and Clear	28.3%
Renter Occupied	18.8%
2023 Affordability, Mortgage and Wealth	
Housing Affordability Index	114
Percent of Income for Mortgage	21.7%
Wealth Index	91
2020 Housing Units By Urban/ Rural Status	
Total	29,927
Urban Housing Units	45.3%
Rural Housing Units	54.7%
2020 Population By Urban/ Rural Status	
Total	60,203
Urban Population	39.0%
Rural Population	61.0%

Data Note: Households with children include any households with people under age 18, related or not. Multigenerational households are families with 3 or more parent-child relationships. Unmarried partner households are usually classified as nonfamily households unless there is another member of the household related to the householder. Multigenerational and unmarried partner households are reported only to the tract level. Esri estimated block group data, which is used to estimate polygons or non-standard geography.

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



Community Profile

Pender County, NC
Pender County, NC (37141)
Geography: County

Prepared by Esri

		Pender County...
Top 3 Tapestry Segments		
1.		Southern Satellites (10A)
2.		Down the Road (10D)
3.		Rural Bypasses (10E)
2023 Consumer Spending		
Apparel & Services: Total \$		\$45,346,170
Average Spent		\$1,829.29
Spending Potential Index		83
Education: Total \$		\$33,308,486
Average Spent		\$1,343.68
Spending Potential Index		75
Entertainment/Recreation: Total \$		\$85,875,952
Average Spent		\$3,464.28
Spending Potential Index		92
Food at Home: Total \$		\$153,085,299
Average Spent		\$6,175.53
Spending Potential Index		91
Food Away from Home: Total \$		\$80,309,856
Average Spent		\$3,239.74
Spending Potential Index		87
Health Care: Total \$		\$180,527,358
Average Spent		\$7,282.56
Spending Potential Index		99
HH Furnishings & Equipment: Total \$		\$65,284,162
Average Spent		\$2,633.59
Spending Potential Index		89
Personal Care Products & Services: Total \$		\$20,133,670
Average Spent		\$812.20
Spending Potential Index		85
Shelter: Total \$		\$507,309,281
Average Spent		\$20,465.10
Spending Potential Index		83
Support Payments/Cash Contributions/Gifts in Kind: Total \$		\$75,021,909
Average Spent		\$3,026.42
Spending Potential Index		97
Travel: Total \$		\$48,667,608
Average Spent		\$1,963.27
Spending Potential Index		87
Vehicle Maintenance & Repairs: Total \$		\$30,435,219
Average Spent		\$1,227.77
Spending Potential Index		94

Data Note: Consumer spending shows the amount spent on a variety of goods and services by households that reside in the area. Expenditures are shown by broad budget categories that are not mutually exclusive. Consumer spending does not equal business revenue. Total and Average Amount Spent Per Household represent annual figures. The Spending Potential Index represents the amount spent in the area relative to a national average of 100.

Source: Consumer Spending data are derived from the 2019 and 2020 Consumer Expenditure Surveys, Bureau of Labor Statistics. Esri.

Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2000 and 2010 decennial Census data converted by Esri into 2020 geography.

January 31, 2024



ACS Housing Summary

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
TOTALS				
Total Population	59,964		0	■■■
Total Households	22,653		512	■■■
Total Housing Units	29,658		117	■■■
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS				
Total	18,216	100.0%	662	■■■
Housing units with a mortgage/contract to purchase/similar debt	10,989	60.3%	594	■■■
No Second Mortgage and No Home Equity Loan	9,792	53.8%	586	■■■
Multiple Mortgages	1,018	5.6%	224	■■■
Second mortgage and Home Equity Loan	22	0.1%	29	■
Only Home Equity Loan	880	4.8%	202	■■■
Only Second Mortgage	116	0.6%	66	■■■
Home Equity Loan without Primary Mortgage	179	1.0%	88	■■■
Housing units without a mortgage	7,227	39.7%	574	■■■
AVERAGE VALUE BY MORTGAGE STATUS				
Housing units with a mortgage	\$304,369		\$42,811	■■■
Housing units without a mortgage	\$214,246		\$44,548	■■■
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS & SELECTED MONTHLY OWNER COSTS				
Total	18,216	100.0%	662	■■■
With a mortgage: Monthly owner costs as a percentage of household income in past 12 months				
Less than 10.0 percent	785	4.3%	215	■■■
10.0 to 14.9 percent	1,659	9.1%	339	■■■
15.0 to 19.9 percent	2,608	14.3%	322	■■■
20.0 to 24.9 percent	1,892	10.4%	341	■■■
25.0 to 29.9 percent	891	4.9%	203	■■■
30.0 to 34.9 percent	895	4.9%	195	■■■
35.0 to 39.9 percent	483	2.7%	146	■■■
40.0 to 49.9 percent	513	2.8%	124	■■■
50.0 percent or more	1,237	6.8%	242	■■■
Not computed	26	0.1%	28	■
Without a mortgage: Monthly owner costs as a percentage of household income in past 12 months				
Less than 10.0 percent	3,337	18.3%	479	■■■
10.0 to 14.9 percent	1,031	5.7%	199	■■■
15.0 to 19.9 percent	837	4.6%	199	■■■
20.0 to 24.9 percent	529	2.9%	203	■■■
25.0 to 29.9 percent	527	2.9%	233	■■■
30.0 to 34.9 percent	186	1.0%	73	■■■
35.0 to 39.9 percent	118	0.6%	66	■■■
40.0 to 49.9 percent	160	0.9%	100	■■■
50.0 percent or more	398	2.2%	125	■■■
Not computed	104	0.6%	74	■

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: ■■■ high ■■■ medium ■ low

February 29, 2024



ACS Housing Summary

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY CONTRACT RENT				
Total	4,437	100.0%	539	High
With cash rent	3,912	88.2%	495	High
Less than \$100	0	0.0%	31	Low
\$100 to \$149	50	1.1%	45	Low
\$150 to \$199	198	4.5%	115	Medium
\$200 to \$249	86	1.9%	82	Low
\$250 to \$299	83	1.9%	72	Low
\$300 to \$349	150	3.4%	82	Medium
\$350 to \$399	87	2.0%	67	Low
\$400 to \$449	179	4.0%	119	Low
\$450 to \$499	67	1.5%	71	Low
\$500 to \$549	433	9.8%	211	Medium
\$550 to \$599	172	3.9%	93	Medium
\$600 to \$649	210	4.7%	106	Medium
\$650 to \$699	281	6.3%	163	Medium
\$700 to \$749	108	2.4%	80	Low
\$750 to \$799	67	1.5%	51	Low
\$800 to \$899	274	6.2%	132	Medium
\$900 to \$999	346	7.8%	188	Medium
\$1,000 to \$1,249	335	7.6%	142	Medium
\$1,250 to \$1,499	201	4.5%	91	Medium
\$1,500 to \$1,999	296	6.7%	121	Medium
\$2,000 to \$2,499	97	2.2%	66	Low
\$2,500 to \$2,999	192	4.3%	209	Low
\$3,000 to \$3,499	0	0.0%	31	Low
\$3,500 or more	0	0.0%	31	Low
No cash rent	525	11.8%	153	Medium
Median Contract Rent	\$693		\$80	High
Average Contract Rent	\$892		\$205	Medium
RENTER-OCCUPIED HOUSING UNITS BY INCLUSION OF UTILITIES IN RENT				
Total	4,437	100.0%	539	High
Pay extra for one or more utilities	4,171	94.0%	529	High
No extra payment for any utilities	266	6.0%	150	Medium

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: High Medium Low

February 29, 2024



ACS Housing Summary

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY GROSS RENT				
Total:	4,437	100.0%	539	High
With cash rent:	3,912	88.2%	495	High
Less than \$100	0	0.0%	31	
\$100 to \$149	0	0.0%	31	
\$150 to \$199	35	0.8%	41	Low
\$200 to \$249	11	0.2%	17	Low
\$250 to \$299	33	0.7%	47	Low
\$300 to \$349	144	3.2%	107	Medium
\$350 to \$399	91	2.1%	75	Low
\$400 to \$449	10	0.2%	20	Low
\$450 to \$499	142	3.2%	97	Low
\$500 to \$549	116	2.6%	90	Low
\$550 to \$599	56	1.3%	60	Low
\$600 to \$649	186	4.2%	102	Medium
\$650 to \$699	347	7.8%	194	Medium
\$700 to \$749	142	3.2%	147	Low
\$750 to \$799	105	2.4%	77	Low
\$800 to \$899	351	7.9%	182	Medium
\$900 to \$999	478	10.8%	157	Medium
\$1,000 to \$1,249	685	15.4%	224	Medium
\$1,250 to \$1,499	256	5.8%	137	Medium
\$1,500 to \$1,999	288	6.5%	110	Medium
\$2,000 to \$2,499	198	4.5%	100	Medium
\$2,500 to \$2,999	228	5.1%	211	Low
\$3,000 to \$3,499	10	0.2%	18	Low
\$3,500 or more	0	0.0%	31	
No cash rent	525	11.8%	153	Medium
Median Gross Rent	\$939		\$54	High
Average Gross Rent	\$1,104		\$242	Medium

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: High Medium Low

February 29, 2024



ACS Housing Summary

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
HOUSING UNITS BY UNITS IN STRUCTURE				
Total	29,658	100.0%	117	High
1, detached	20,161	68.0%	601	High
1, attached	596	2.0%	174	Medium
2	259	0.9%	103	Medium
3 or 4	178	0.6%	94	Medium
5 to 9	453	1.5%	155	Medium
10 to 19	409	1.4%	142	Medium
20 to 49	308	1.0%	161	Medium
50 or more	169	0.6%	116	Low
Mobile home	7,083	23.9%	554	High
Boat, RV, van, etc.	42	0.1%	34	Low
HOUSING UNITS BY YEAR STRUCTURE BUILT				
Total	29,658	100.0%	117	High
Built 2020 or later	10	0.0%	16	Low
Built 2010 to 2019	4,343	14.6%	427	High
Built 2000 to 2009	7,331	24.7%	486	High
Built 1990 to 1999	6,732	22.7%	547	High
Built 1980 to 1989	4,290	14.5%	390	High
Built 1970 to 1979	2,950	9.9%	418	High
Built 1960 to 1969	1,325	4.5%	250	High
Built 1950 to 1959	1,011	3.4%	195	High
Built 1940 to 1949	356	1.2%	126	Medium
Built 1939 or earlier	1,310	4.4%	280	Medium
Median Year Structure Built	1995		2	High
OCCUPIED HOUSING UNITS BY YEAR HOUSEHOLDER MOVED INTO UNIT				
Total	22,653	100.0%	512	High
Owner occupied				
Moved in 2019 or later	965	4.3%	238	Medium
Moved in 2015 to 2018	4,435	19.6%	458	High
Moved in 2010 to 2014	3,360	14.8%	382	High
Moved in 2000 to 2009	5,058	22.3%	494	High
Moved in 1990 to 1999	2,343	10.3%	321	High
Moved in 1989 or earlier	2,055	9.1%	340	High
Renter occupied				
Moved in 2019 or later	1,027	4.5%	312	Medium
Moved in 2015 to 2018	1,993	8.8%	345	High
Moved in 2010 to 2014	609	2.7%	178	Medium
Moved in 2000 to 2009	625	2.8%	200	Medium
Moved in 1990 to 1999	86	0.4%	48	Medium
Moved in 1989 or earlier	97	0.4%	69	Low
Median Year Householder Moved Into Unit	2011		2	High

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: High Medium Low

February 29, 2024



ACS Housing Summary

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
OCCUPIED HOUSING UNITS BY HOUSE HEATING FUEL				
Total	22,653	100.0%	512	High
Utility gas	419	1.8%	154	Medium
Bottled, tank, or LP gas	1,591	7.0%	234	High
Electricity	19,818	87.5%	529	High
Fuel oil, kerosene, etc.	391	1.7%	158	Medium
Coal or coke	28	0.1%	31	Low
Wood	159	0.7%	73	Medium
Solar energy	31	0.1%	30	Low
Other fuel	21	0.1%	21	Low
No fuel used	195	0.9%	127	Medium
OCCUPIED HOUSING UNITS BY VEHICLES AVAILABLE				
Total	22,653	100.0%	512	High
Owner occupied				
No vehicle available	385	1.7%	135	Medium
1 vehicle available	4,180	18.5%	475	High
2 vehicles available	7,397	32.7%	610	High
3 vehicles available	4,158	18.4%	460	High
4 vehicles available	1,595	7.0%	316	Medium
5 or more vehicles available	501	2.2%	157	Medium
Renter occupied				
No vehicle available	440	1.9%	150	Medium
1 vehicle available	1,996	8.8%	351	High
2 vehicles available	1,268	5.6%	313	Medium
3 vehicles available	626	2.8%	255	Medium
4 vehicles available	85	0.4%	74	Low
5 or more vehicles available	22	0.1%	25	Low
Average Number of Vehicles Available	2.1		0.1	High
VACANT HOUSING UNITS				
Total vacant housing units	7,005	100.0%	489	High
For rent	458	6.5%	105	Medium
Rented, not occupied	33	0.5%	31	Low
For sale only	271	3.9%	118	Medium
Sold, not occupied	134	1.9%	100	Low
Seasonal/occasional	3,718	53.1%	307	High
For migrant workers	18	0.3%	29	Low
Other	2,373	33.9%	418	High

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: High Medium Low

February 29, 2024



ACS Housing Summary

Pender County, NC
 Pender County, NC (37141)
 Geography: County

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
OWNER-OCCUPIED HOUSING UNITS BY VALUE				
Total	18,216	100%	662	High
Less than \$10,000	250	1.4%	138	Medium
\$10,000 to \$14,999	123	0.7%	85	Low
\$15,000 to \$19,999	62	0.3%	39	Medium
\$20,000 to \$24,999	92	0.5%	63	Low
\$25,000 to \$29,999	100	0.5%	63	Medium
\$30,000 to \$34,999	155	0.9%	95	Medium
\$35,000 to \$39,999	162	0.9%	82	Medium
\$40,000 to \$49,999	280	1.5%	107	Medium
\$50,000 to \$59,999	388	2.1%	139	Medium
\$60,000 to \$69,999	434	2.4%	178	Medium
\$70,000 to \$79,999	727	4.0%	282	Medium
\$80,000 to \$89,999	511	2.8%	157	Medium
\$90,000 to \$99,999	365	2.0%	145	Medium
\$100,000 to \$124,999	1,297	7.1%	292	Medium
\$125,000 to \$149,999	1,363	7.5%	334	Medium
\$150,000 to \$174,999	1,162	6.4%	213	High
\$175,000 to \$199,999	1,141	6.3%	216	High
\$200,000 to \$249,999	2,329	12.8%	359	High
\$250,000 to \$299,999	1,813	10.0%	302	High
\$300,000 to \$399,999	2,635	14.5%	288	High
\$400,000 to \$499,999	1,315	7.2%	244	High
\$500,000 to \$749,999	984	5.4%	201	Medium
\$750,000 to \$999,999	336	1.8%	125	Medium
\$1,000,000 to \$1,499,999	56	0.3%	43	Low
\$1,500,000 to \$1,999,999	11	0.1%	19	Low
\$2,000,000 or more	125	0.7%	104	Low
Median Home Value	\$210,600		\$9,823	High
Average Home Value	\$268,614		\$30,361	High

Data Note: N/A means not available.

2017-2021 ACS Estimate: The American Community Survey (ACS) replaces census sample data. Esri is releasing the 2017-2021 ACS estimates, five-year period data collected monthly from January 1, 2017 through December 31, 2021. Although the ACS includes many of the subjects previously covered by the decennial census sample, there are significant differences between the two surveys including fundamental differences in survey design and residency rules.

Margin of error (MOE): The MOE is a measure of the variability of the estimate due to sampling error. MOEs enable the data user to measure the range of uncertainty for each estimate with 90 percent confidence. The range of uncertainty is called the confidence interval, and it is calculated by taking the estimate +/- the MOE. For example, if the ACS reports an estimate of 100 with an MOE of +/- 20, then you can be 90 percent certain the value for the whole population falls between 80 and 120.

Reliability: These symbols represent threshold values that Esri has established from the Coefficients of Variation (CV) to designate the usability of the estimates. The CV measures the amount of sampling error relative to the size of the estimate, expressed as a percentage.

- High Reliability: Small CVs (less than or equal to 12 percent) are flagged green to indicate that the sampling error is small relative to the estimate and the estimate is reasonably reliable.
- Medium Reliability: Estimates with CVs between 12 and 40 are flagged yellow-use with caution.
- Low Reliability: Large CVs (over 40 percent) are flagged red to indicate that the sampling error is large relative to the estimate. The estimate is considered very unreliable.

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: ■ high ■ medium ■ low

February 29, 2024



LifeMode Group: Cozy Country Living

The Great Outdoors



Households: 1,908,600

Average Household Size: 2.44

Median Age: 47.4

Median Household Income: \$56,400

WHO ARE WE?

These neighborhoods are found in pastoral settings throughout the United States. Consumers are educated empty nesters living an active but modest lifestyle. Their focus is land. They are more likely to invest in real estate or a vacation home than stocks. They are active gardeners and partial to homegrown and home-cooked meals. Although retirement beckons, most of these residents still work, with incomes slightly above the US level.

OUR NEIGHBORHOOD

- Over 55% of households are married-couple families; 36% are couples with no children living at home.
- Average household size is slightly smaller at 2.44.
- Typical of areas with rustic appeal, the housing inventory features single-family homes (77%) and mobile homes (15%); a significant inventory of seasonal housing is available (Index 397).
- Residents live in small towns and rural communities throughout the West, South, and Northeast regions of the country.
- More than half of all homes were constructed between 1970 and 2000.
- Most households have one or two vehicles; average travel time to work is slightly higher (28 minutes) despite a disproportionate number that work from home (Index 149).

SOCIOECONOMIC TRAITS

- 60% have attended college or hold a degree.
- Labor force participation is low at 60%.
- Typical of neighborhoods with older residents, income from retirement and Social Security is common, but residents also derive income from self-employment and investments.
- Residents are very do-it-yourself oriented and cost conscious.
- Many service their own autos, work on home improvement and remodeling projects, and maintain their own yards.
- They prefer domestic travel to trips abroad.



Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by Millennial.



LifeMode Group: Cozy Country Living
The Great Outdoors

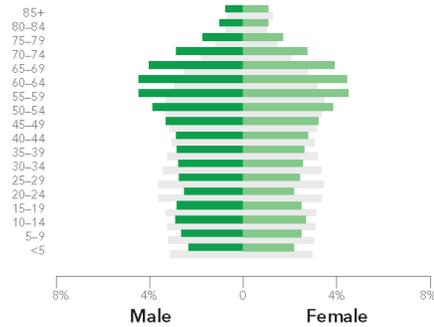


TAPESTRY
 SEGMENTATION
 esri.com/tapestry

AGE BY SEX (Esri data)

Median Age: **47.4** US: 38.2

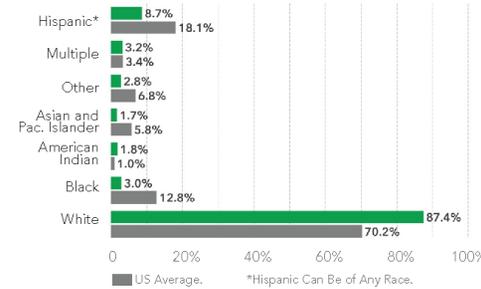
■ Indicates US



RACE AND ETHNICITY (Esri data)

The Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Diversity Index: **35.6** US: 64.0



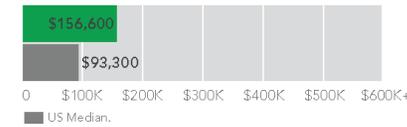
INCOME AND NET WORTH

Net worth measures total household assets (homes, vehicles, investments, etc.) less any debts, secured (e.g., mortgages) or unsecured (credit cards). Household income and net worth are estimated by Esri.

Median Household Income

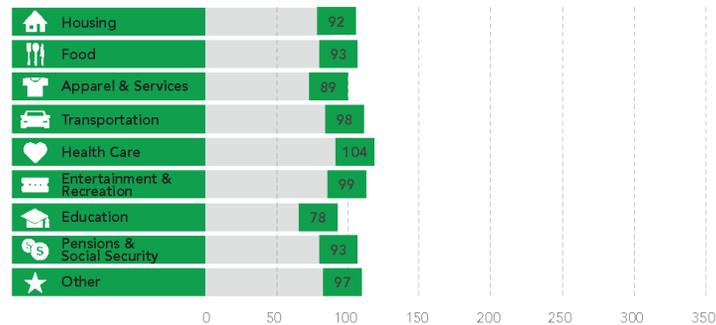


Median Net Worth



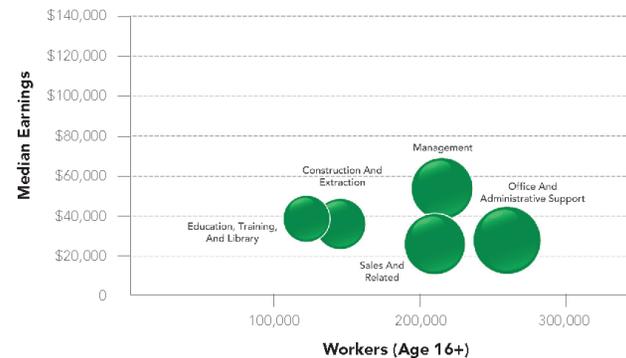
AVERAGE HOUSEHOLD BUDGET INDEX

The index compares the average amount spent in this market's household budgets for housing, food, apparel, etc., to the average amount spent by all US households. An index of 100 is average. An index of 120 shows that average spending by consumers in this market is 20 percent above the national average. Consumer expenditures are estimated by Esri.



OCCUPATION BY EARNINGS

The five occupations with the highest number of workers in the market are displayed by median earnings. Data from the Census Bureau's American Community Survey.





LifeMode Group: Cozy Country Living
The Great Outdoors



TAPESTRY SEGMENTATION
esri.com/tapestry

MARKET PROFILE (Consumer preferences are estimated from data by MRI-Simmons.)

- Satellite dishes and riding lawn mowers are familiar sights in these rural settings, along with multiple vehicles; four-wheel drive trucks are popular, too.
- Residents are members of AARP and veterans’ clubs and support various civic causes.
- Technology is not central in their lives: light use of internet connectivity for shopping to entertainment.
- Most households have pets—dogs or cats.
- Television channels such as CMT, History, and Fox News are popular.
- They enjoy outdoor activities such as hiking, hunting, fishing, and boating.

HOUSING

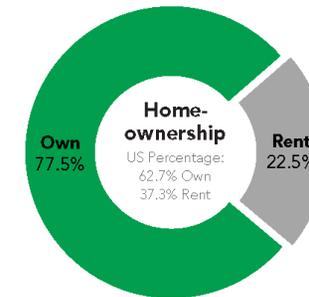
Median home value is displayed for markets that are primarily owner occupied; average rent is shown for renter-occupied markets. Tenure and home value are estimated by Esri. Housing type and average rent are from the Census Bureau’s American Community Survey.



Typical Housing:
Single Family

Median Value:
\$239,500

US Median: \$207,300



POPULATION CHARACTERISTICS

Total population, average annual population change since Census 2010, and average density (population per square mile) are displayed for the market relative to the size and change among all Tapestry markets. Data estimated by Esri.



ESRI INDEXES

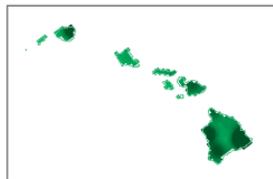
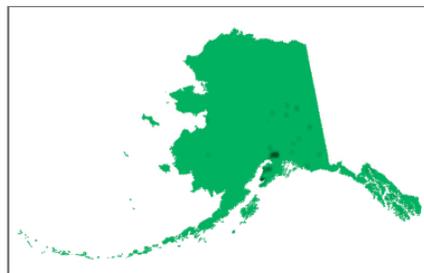
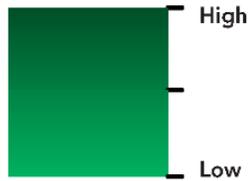
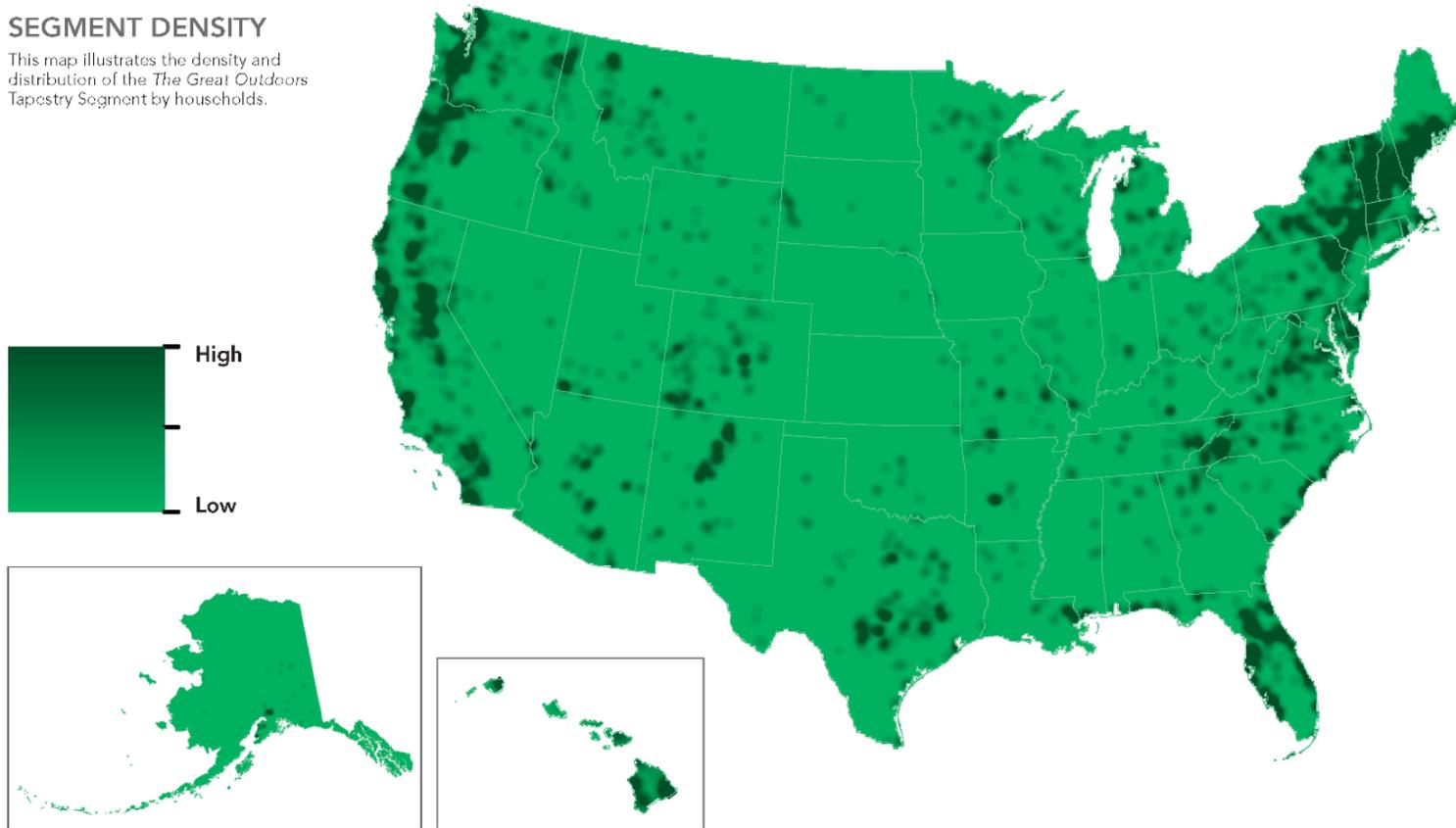
Esri developed three indexes to display average household wealth, socioeconomic status, and housing affordability for the market relative to US standards.





SEGMENT DENSITY

This map illustrates the density and distribution of the *The Great Outdoors* Tapestry Segment by households.



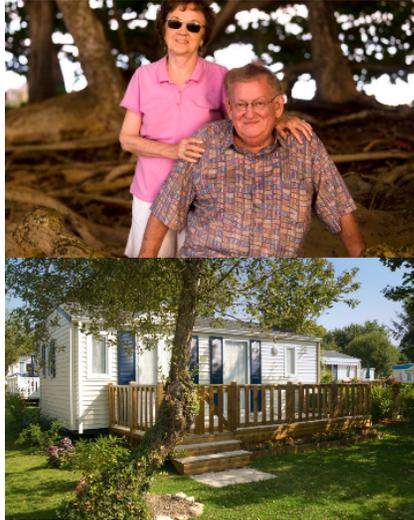
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**THE
 SCIENCE
 OF
 WHERE**



LifeMode Group: Rustic Outposts
Southern Satellites

10A

Households: 3,856,800
Average Household Size: 2.67
Median Age: 40.3
Median Household Income: \$47,800

WHO ARE WE?

Southern Satellites is the second largest market found in rural settlements but within metropolitan areas located primarily in the South. This market is typically slightly older, settled married-couple families, who own their homes. Two-thirds of the homes are single-family structures; almost a third are mobile homes. Median household income and home value are below average. Workers are employed in a variety of industries, such as manufacturing, health care, retail trade, and construction, with higher proportions in mining and agriculture than the US. Residents enjoy country living, preferring outdoor activities and DIY home projects.

OUR NEIGHBORHOOD

- About 78% of households are owned.
- Married couples with no children are the dominant household type, with a number of multigenerational households (Index 112).
- Most are single-family homes (67%), with a number of mobile homes (Index 509).
- Most housing units were built in 1970 or later.
- Most households own one or two vehicles, but owning more than three vehicles is common (Index 144).

SOCIOECONOMIC TRAITS

- Education: almost 40% have a high school diploma only (Index 140); 45% have college education (Index 73).
- Labor force participation rate is 59.1%, slightly lower than the US.
- These consumers are more concerned about cost rather than quality or brand loyalty.
- They tend to be somewhat late in adapting to technology.
- They obtain a disproportionate amount of their information from TV, compared to other media.



Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by Mill-Simmons.



LifeMode Group: Rustic Outposts
Southern Satellites



TAPESTRY
 SEGMENTATION
 esri.com/tapestry

MARKET PROFILE (Consumer preferences are estimated from data by MRI-Simmons.)

- Usually own a truck; likely to service it themselves.
- Frequent the convenience store, usually to fill up a vehicle with gas.
- Typical household has a satellite dish.
- Work on home improvement and remodeling projects.
- Own a pet, commonly a dog.
- Participate in fishing and hunting.
- Prefer to listen to country music and watch CMT.
- Read fishing and hunting and home service magazines.
- Partial to eating at low-cost family restaurants and drive-ins.
- Use Walmart for all their shopping needs (groceries, clothing, pharmacy, etc.).

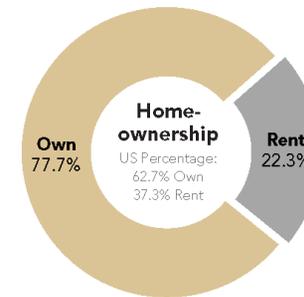
HOUSING

Median home value is displayed for markets that are primarily owner occupied; average rent is shown for renter-occupied markets. Tenure and home value are estimated by Esri. Housing type and average rent are from the Census Bureau's American Community Survey.



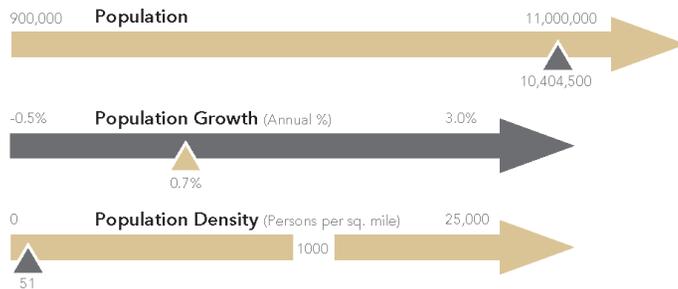
Typical Housing:
 Single Family;
 Mobile Homes

Median Value:
 \$128,500
 US Median: \$207,300



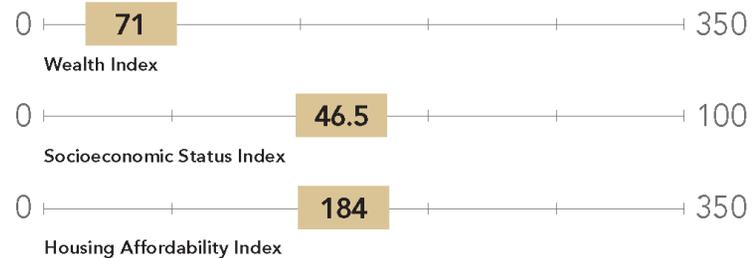
POPULATION CHARACTERISTICS

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ESRI INDEXES

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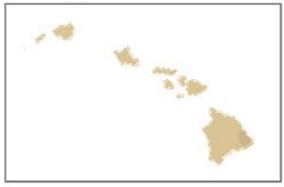
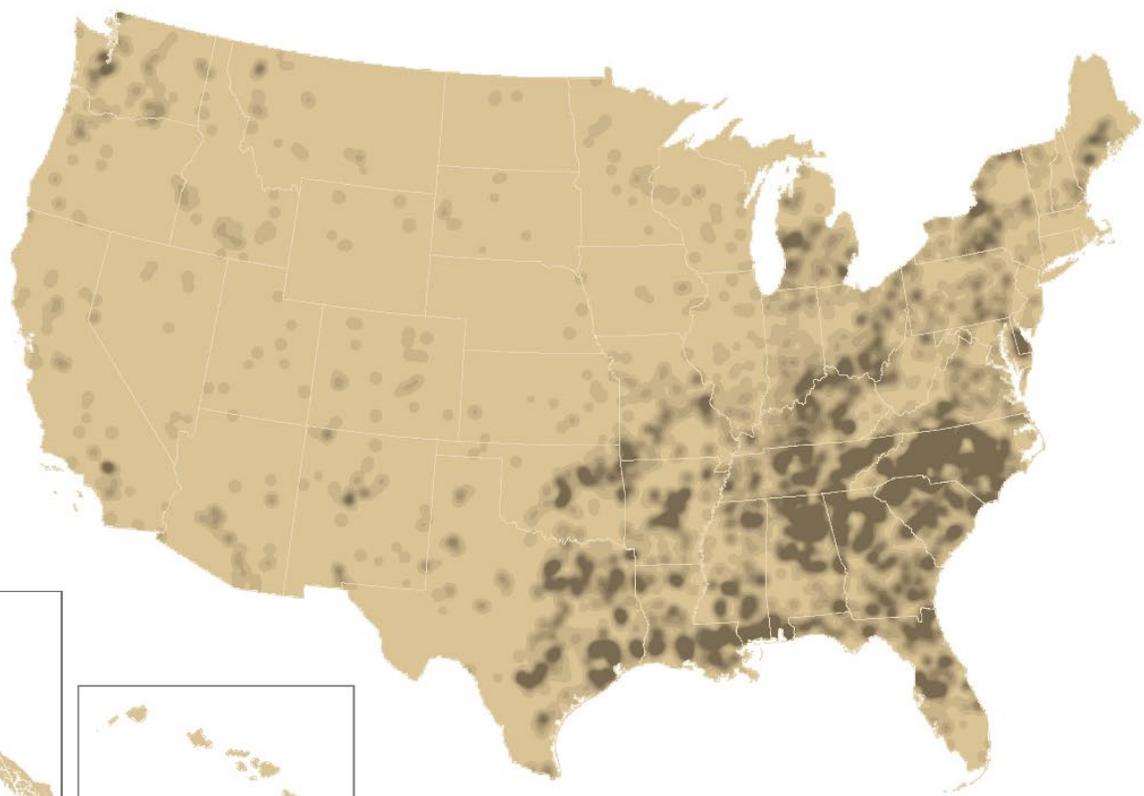
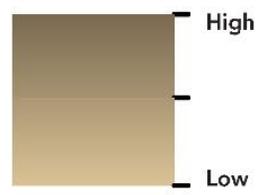


10A

LifeMode Group: Rustic Outposts Southern Satellites



SEGMENT DENSITY
This map illustrates the density and distribution of the *Southern Satellites* Tapestry Segment by households.



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LifeMode Group: Senior Styles
Silver and Gold

9A

Households: 942,900

Average Household Size: 2.03

Median Age: 63.2

Median Household Income: \$72,100

WHO ARE WE?

Almost the oldest senior market, *Silver and Gold* is the most affluent. The affluence of *Silver and Gold* has afforded the opportunity to retire to sunnier climates that feature exclusive communities and vacation homes. These consumers have the free time, stamina, and resources to do what they enjoy. This market is smaller but growing.

OUR NEIGHBORHOOD

- Residents of *Silver and Gold* prefer a more bucolic setting, but close to metropolitan cities.
- Predominantly single-family, owner-occupied homes that have a median value of \$385,700 (Index 186).
- Neighborhoods include seasonal or vacation homes, reflected in the high vacancy rate of 43%.
- Mostly older married couples with no children, average household size is 2.03.

SOCIOECONOMIC TRAITS

- 47% have college degree(s).
- Primarily retired, but many still active in the labor force, participation rate of 41%.
- Self-employment is the highest across all Tapestry markets (Index 218).
- More than half of the households receive income from wages/salaries, Social Security, or investments, many drawing retirement income (Index 213).
- Connected, but primarily to get news and track investments, more likely to own an e-reader or tablet than a smartphone.



Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by MRI-BrandSense.



LifeMode Group: Senior Styles Silver and Gold

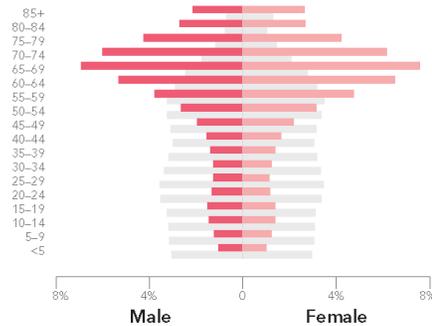


TAPESTRY SEGMENTATION
esri.com/tapestry

AGE BY SEX (Esri data)

Median Age: **63.2** US: 38.2

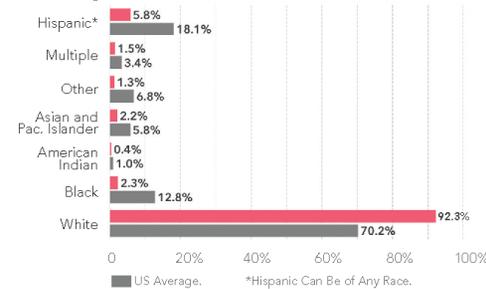
■ Indicates US



RACE AND ETHNICITY (Esri data)

The Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Diversity Index: **24.1** US: 64.0



INCOME AND NET WORTH

Net worth measures total household assets (homes, vehicles, investments, etc.) less any debts, secured (e.g., mortgages) or unsecured (credit cards). Household income and net worth are estimated by Esri.

Median Household Income

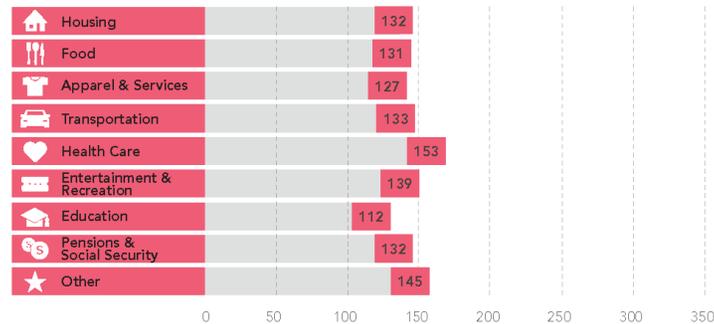


Median Net Worth



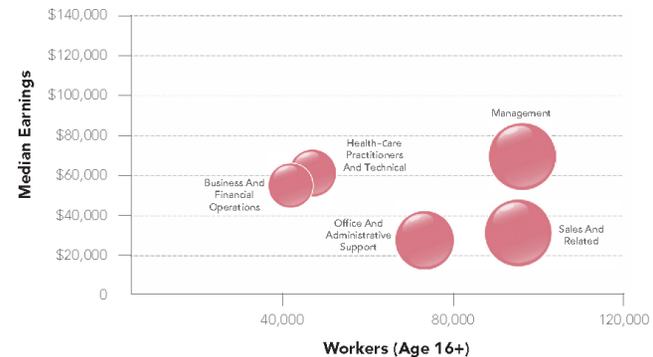
AVERAGE HOUSEHOLD BUDGET INDEX

The index compares the average amount spent in this market's household budgets for housing, food, apparel, etc., to the average amount spent by all US households. An index of 100 is average. An index of 120 shows that average spending by consumers in this market is 20 percent above the national average. Consumer expenditures are estimated by Esri.



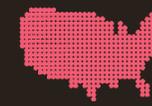
OCCUPATION BY EARNINGS

The five occupations with the highest number of workers in the market are displayed by median earnings. Data from the Census Bureau's American Community Survey.





LifeMode Group: Senior Styles
Silver and Gold



TAPESTRY SEGMENTATION
esri.com/tapestry

MARKET PROFILE (Consumer preferences are estimated from data by MRI-Simmons.)

- Partial to luxury cars or SUVs; highest demand market for convertibles.
- Active seniors that maintain a regular exercise regimen and pay attention to healthier eating habits.
- Pursue the luxuries that well-funded retirement affords: an active social life, travel, hobbies, and sports (especially golf and boating) and liberal use of home maintenance services to minimize chores.
- Avid readers of newspapers, magazines (sports and travel), and books (audio, e-readers, or tablets).
- Generous supporters of charitable organizations.

HOUSING

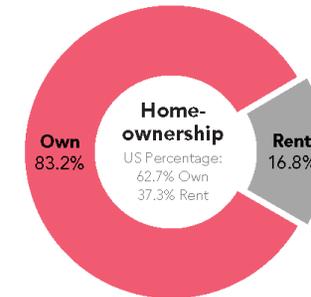
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Typical Housing:
Single Family/Seasonal

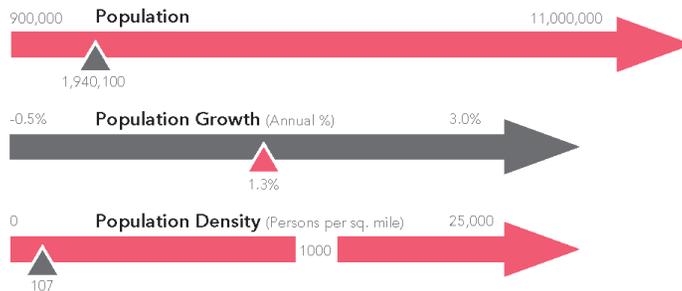
Median Value:
\$385,700

US Median: \$207,300



POPULATION CHARACTERISTICS

Total population, average annual population change since Census 2010, and average density (population per square mile) are displayed for the market relative to the size and change among all Tapestry markets. Data estimated by Esri.



ESRI INDEXES

Esri developed three indexes to display average household wealth, socioeconomic status, and housing affordability for the market relative to US standards.





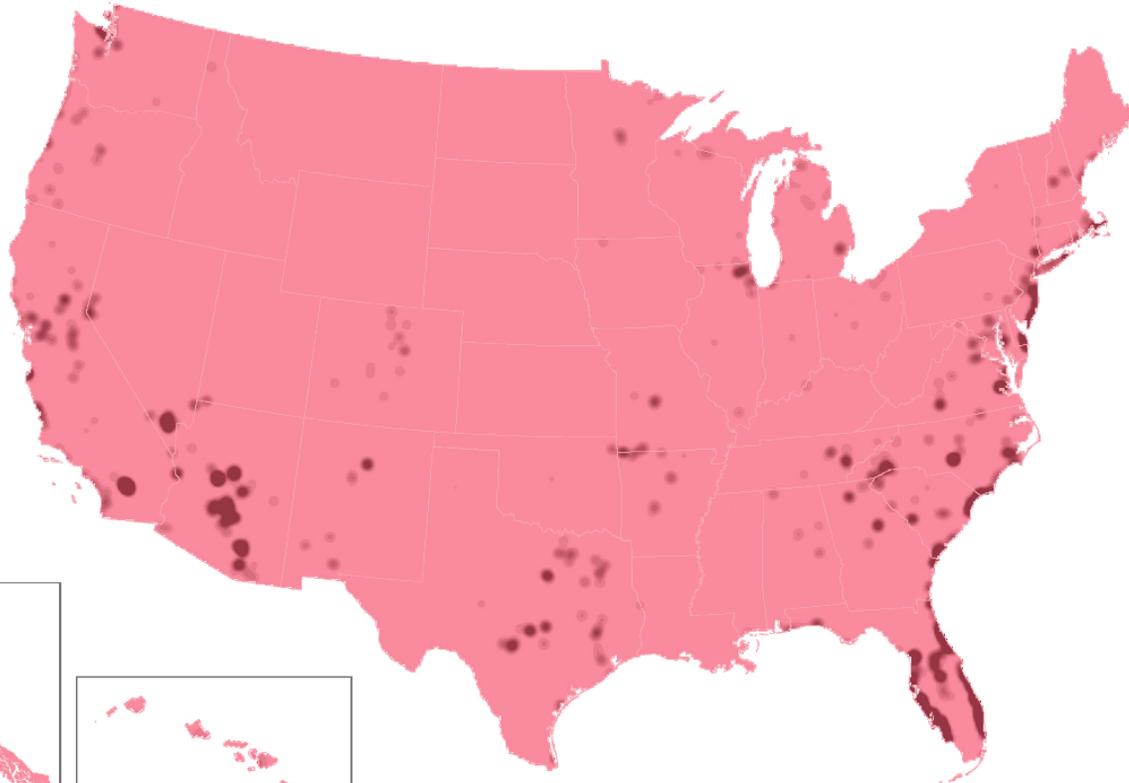
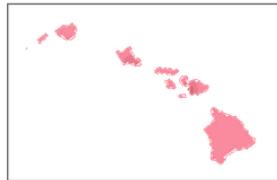
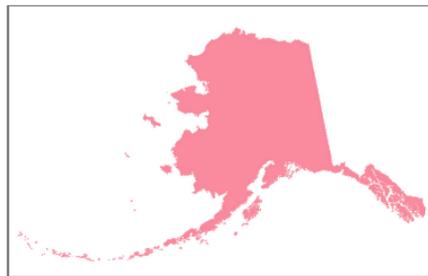
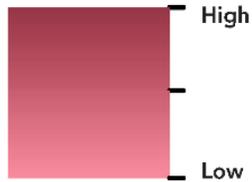
LifeMode Group: Senior Styles Silver and Gold



**TAPESTRY
SEGMENTATION**
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SEGMENT DENSITY

This map illustrates the density and distribution of the *Silver and Gold* Tapestry Segment by households.



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**THE
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LifeMode Group: Cozy Country Living

Rural Resort Dwellers

6E

Households: 1,227,200

Average Household Size: 2.22

Median Age: 54.1

Median Household Income: \$50,400

WHO ARE WE?

Although the Great Recession forced many owners of second homes to sell, *Rural Resort Dwellers* residents remain an active market, just a bit smaller. These communities are centered in resort areas, many in the Midwest, where the change in seasons supports a variety of outdoor activities. Retirement looms for many of these blue collar, older householders, but workers are postponing retirement or returning to work to maintain their current lifestyles. Workers are traveling further to maintain employment. They are passionate about their hobbies, like freshwater fishing and hunting.

OUR NEIGHBORHOOD

- Housing is owner-occupied, single-family homes, with some mobile homes. A strong market for second homes, these rural areas contain homes valued near the US median. Over half of the housing units are vacant due to a high seasonal vacancy rate.
- In this older market, 42% of households consist of married couples with no children at home, while another 28% are single person. Married couples with children at home have older school-age children.
- Set in scenic rural locations with proximity to outdoor activities, two vehicles are essential to get around.

SOCIOECONOMIC TRAITS

- *Rural Resort Dwellers* residents are close to retirement. They've accumulated wealth and begun to shift their portfolios to low-risk assets. These active residents continue to work in skilled occupations.
- Simple tastes and modesty characterize these blue-collar residents. They shop for timeless, comfortable clothing but only when something must be replaced. They pay little attention to advertising and usually stick to the brands they know.
- They spend time with their spouses and also maintain a social calendar.



Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by M4-Simmons.



LifeMode Group: Cozy Country Living
Rural Resort Dwellers



TAPESTRY
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AGE BY SEX (Esri data)

Median Age: **54.1** US: 38.2

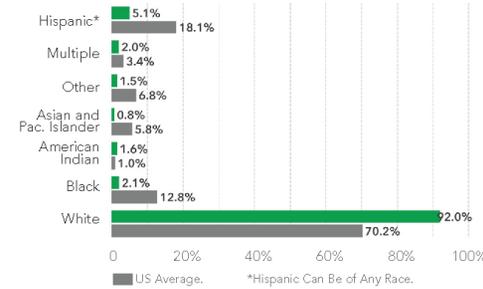
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Diversity Index: **23.4** US: 64.0



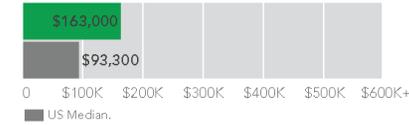
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Median Household Income

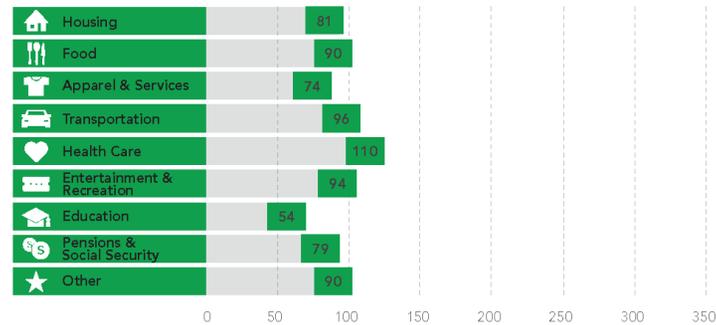


Median Net Worth



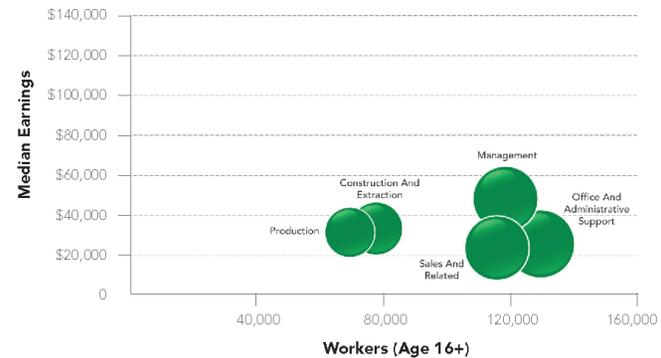
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OCCUPATION BY EARNINGS

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LifeMode Group: Cozy Country Living
Rural Resort Dwellers



TAPESTRY
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MARKET PROFILE (Consumer preferences are estimated from data by MRI-Simmons.)

- Residents drive older domestic vehicles and prefer to spend their disposable income on gear to support their hobbies, which include freshwater fishing, hunting, and motorcycling.
- At home, *Rural Resort Dwellers* residents spend any free time working on their vehicles and maintaining their gear. They make frequent trips to their local hardware store for parts and tools. These hands-on consumers are also passionate about vegetable gardening.
- Due to their remote locations, these neighborhoods have satellite dishes. A few residents still rely on dial-up modems to stay connected. They don't access the internet often but will make online purchases for items difficult to find in nearby stores.
- Their taste in TV shows reflects their hobbies—National Geographic, Discovery Channel, and the Weather Channel.

HOUSING

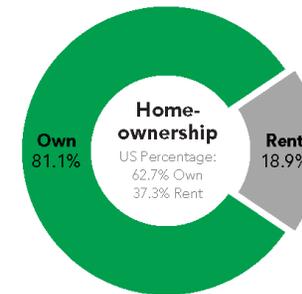
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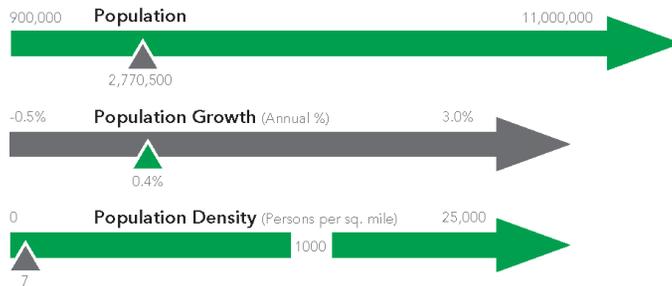
Median Value:
 \$209,200

US Median: \$207,300



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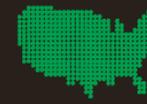
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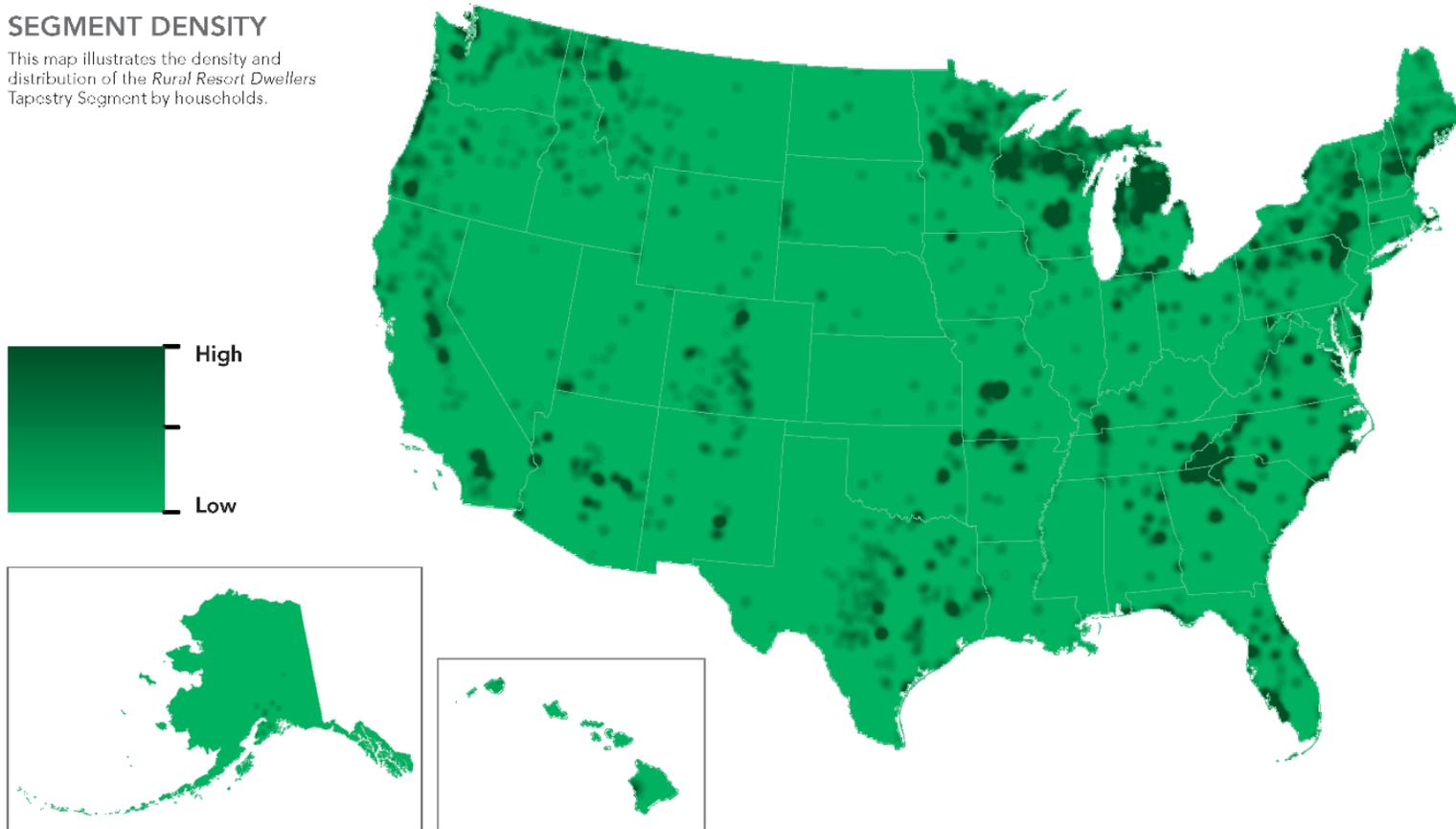
LifeMode Group: Cozy Country Living
Rural Resort Dwellers



TAPESTRY
 SEGMENTATION
esri.com/tapestry

SEGMENT DENSITY

This map illustrates the density and distribution of the *Rural Resort Dwellers* Tapestry Segment by households.



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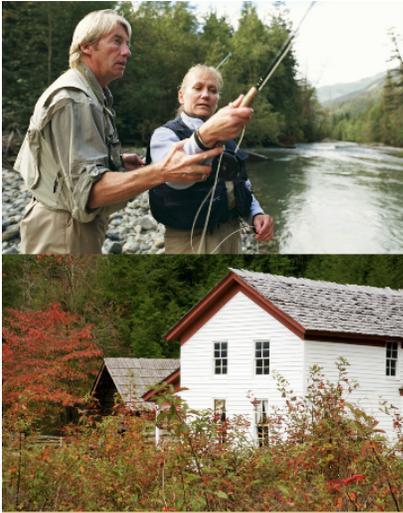
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LifeMode Group: Rustic Outposts
Rural Bypasses

10E

Households: 1,646,400
Average Household Size: 2.55
Median Age: 40.4
Median Household Income: \$33,000

WHO ARE WE?

Open space, undeveloped land, and farmland characterize *Rural Bypasses*. These families live within small towns along country back roads and enjoy the open air in these sparsely populated neighborhoods. Their country lifestyle focuses on the outdoors, gardening, hunting, and fishing. They are more likely to own a satellite dish than a home computer. Although most households do have a connection to the internet, use is very limited. Those who are not yet retired work in blue-collar jobs in the agriculture or manufacturing industries.

OUR NEIGHBORHOOD

- An older market, with more married couples without children and single households, the average household size is slightly lower at 2.55.
- Most residents own single-family homes or mobile homes (Index 504).
- Most housing was built from 1970 to 1989; vacancy rates are higher due to seasonal housing.
- Residents live in very rural areas, almost entirely in the South.

SOCIOECONOMIC TRAITS

- Almost 25% have not finished high school; 11% have a bachelor's degree or higher.
- Labor force participation is low at 47% (Index 76).
- Income is primarily derived from wages and supplemented with Social Security and Supplemental Security Incomes.
- Religion and faith are central in their lives.
- They rely on television to stay informed.



Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by MillSimmons.



LifeMode Group: Rustic Outposts
Rural Bypasses

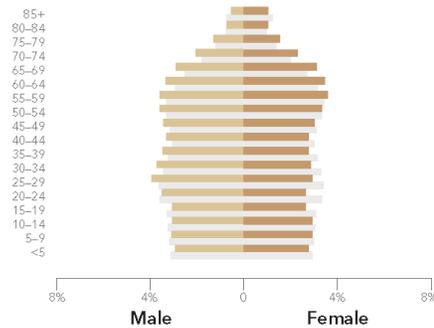


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AGE BY SEX (Esri data)

Median Age: **40.4** US: 38.2

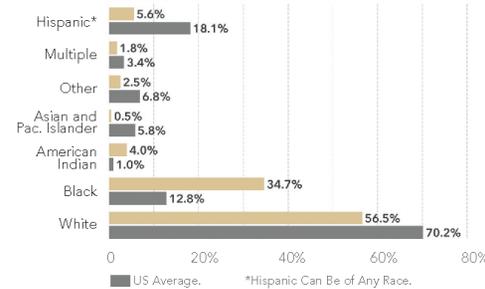
■ Indicates US



RACE AND ETHNICITY (Esri data)

The Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Diversity Index: **60.5** US: 64.0



INCOME AND NET WORTH

Net worth measures total household assets (homes, vehicles, investments, etc.) less any debts, secured (e.g., mortgages) or unsecured (credit cards). Household income and net worth are estimated by Esri.

Median Household Income

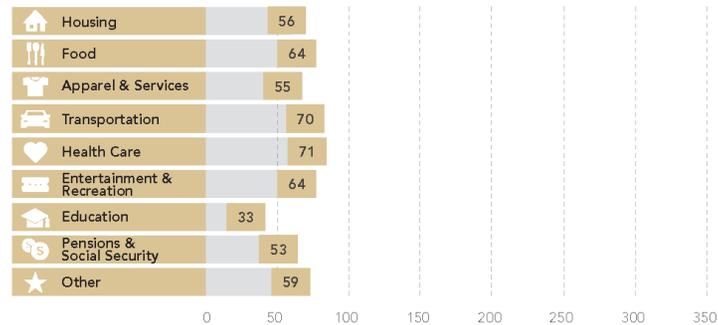


Median Net Worth



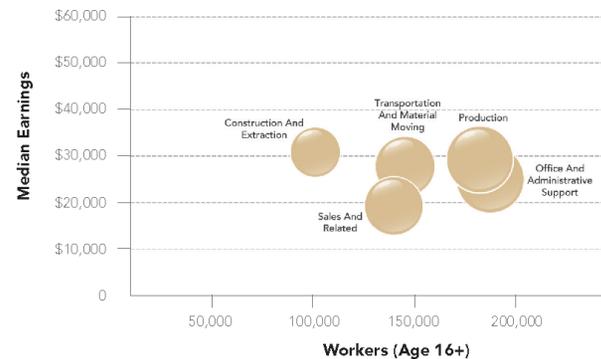
AVERAGE HOUSEHOLD BUDGET INDEX

The index compares the average amount spent in this market's household budgets for housing, food, apparel, etc., to the average amount spent by all US households. An index of 100 is average. An index of 120 shows that average spending by consumers in this market is 20 percent above the national average. Consumer expenditures are estimated by Esri.



OCCUPATION BY EARNINGS

The five occupations with the highest number of workers in the market are displayed by median earnings. Data from the Census Bureau's American Community Survey.





LifeMode Group: Rustic Outposts Rural Bypasses



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MARKET PROFILE (Consumer preferences are estimated from data by MRI-Simmons.)

- Typical of their country lifestyle, *Rural Bypasses* residents prefer trucks over sedans.
- To save money, households shop at discount department stores, such as Walmart, and warehouse clubs like Sam’s Club.
- Magazines are a popular source of news and entertainment, particularly fishing, hunting, and automotive types.
- As satellite TV subscribers, they regularly watch sports programming as well as their favorite shows on CMT, Freeform, USA Network, and TV Land.

HOUSING

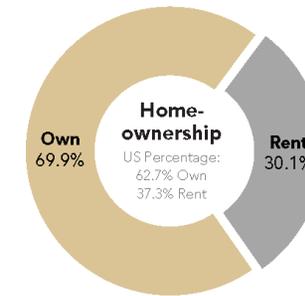
Median home value is displayed for markets that are primarily owner occupied; average rent is shown for renter-occupied markets. Tenure and home value are estimated by Esri. Housing type and average rent are from the Census Bureau’s American Community Survey.



Typical Housing:
Single Family;
Mobile Homes

Median Value:
\$83,200

US Median: \$207,300



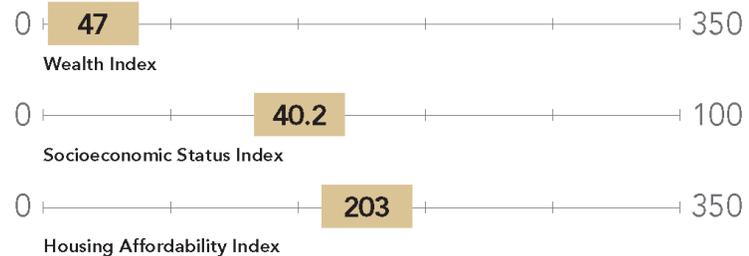
POPULATION CHARACTERISTICS

Total population, average annual population change since Census 2010, and average density (population per square mile) are displayed for the market relative to the size and change among all Tapestry markets. Data estimated by Esri.



ESRI INDEXES

Esri developed three indexes to display average household wealth, socioeconomic status, and housing affordability for the market relative to US standards.



10E

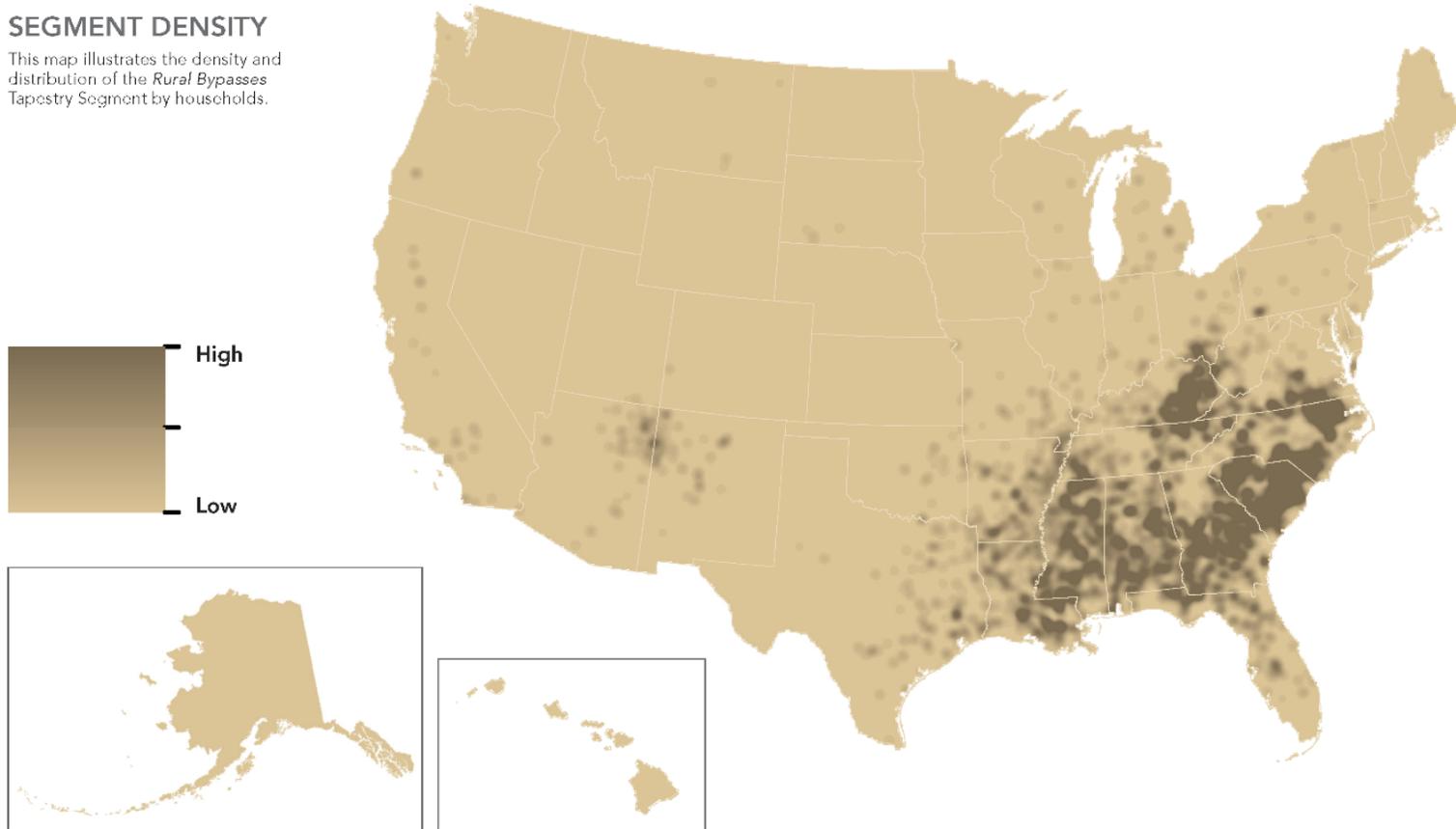
LifeMode Group: Rustic Outposts Rural Bypasses



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SEGMENT DENSITY

This map illustrates the density and distribution of the *Rural Bypasses* Tapestry Segment by households.



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LifeMode Group: GenXurban
In Style

5B

Households: 2,764,500

Average Household Size: 2.35

Median Age: 42.0

Median Household Income: \$73,000

WHO ARE WE?

In Style denizens embrace an urbane lifestyle that includes support of the arts, travel, and extensive reading. They are connected and make full use of the advantages of mobile devices. Professional couples or single households without children, they have the time to focus on their homes and their interests. The population is slightly older and already planning for their retirement.

OUR NEIGHBORHOOD

- City dwellers of large metropolitan areas.
- Married couples, primarily with no children (Index 112) or single households (Index 109); average household size at 2.35.
- Homeownership average at 68% (Index 108); nearly half, 47%, mortgaged (Index 114).
- Primarily single-family homes, in older neighborhoods (built before 1980), with a mix of townhomes (Index 132) and smaller (5–19 units) apartment buildings (Index 110).
- Median home value at \$243,900.
- Vacant housing units at 8.6%.

SOCIOECONOMIC TRAITS

- College educated: 48% are graduates (Index 155); 77% with some college education.
- Higher labor force participation rate is at 67% (Index 108) with proportionately more two-worker households (Index 110).
- Median household income of \$73,000 reveals an affluent market with income supplemented by investments (Index 142) and a substantial net worth (Index 178).
- Connected and knowledgeable, they carry smartphones and use many of the features.
- Attentive to price, they use coupons, especially mobile coupons.



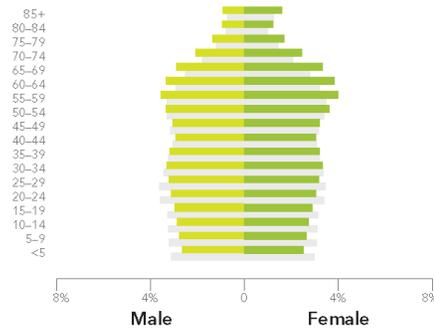
Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by Mill-Simmons.



AGE BY SEX (Esri data)

Median Age: **42.0** US: 38.2

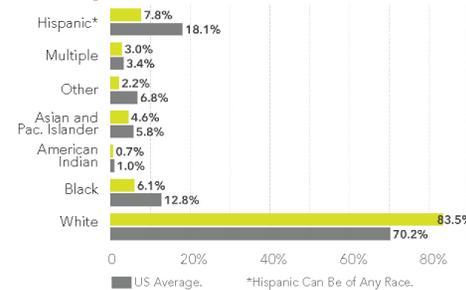
■ Indicates US



RACE AND ETHNICITY (Esri data)

The Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Diversity Index: **39.8** US: 64.0



INCOME AND NET WORTH

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Median Household Income

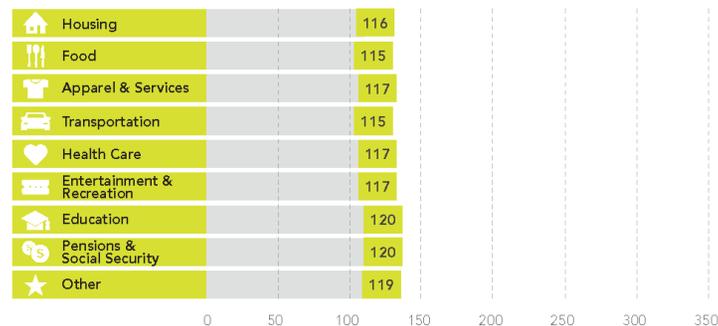


Median Net Worth



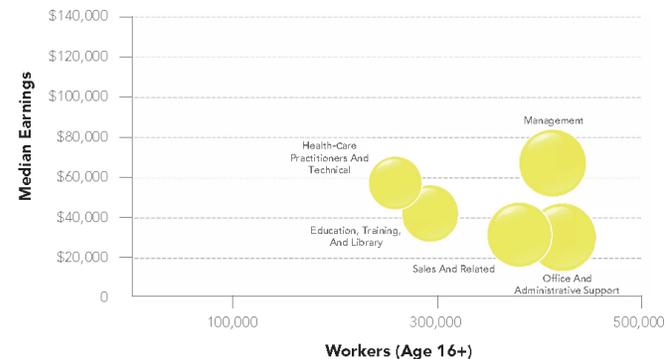
AVERAGE HOUSEHOLD BUDGET INDEX

The index compares the average amount spent in this market's household budgets for housing, food, apparel, etc., to the average amount spent by all US households. An index of 100 is average. An index of 120 shows that average spending by consumers in this market is 20 percent above the national average. Consumer expenditures are estimated by Esri.



OCCUPATION BY EARNINGS

The five occupations with the highest number of workers in the market are displayed by median earnings. Data from the Census Bureau's American Community Survey.





LifeMode Group: GenXurban

In Style



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MARKET PROFILE

(Consumer preferences are estimated from data by MRI-Simmons.)

- Partial to late model SUVs: compact SUVs are gaining popularity.
- Homes integral part of their style; invest in home remodeling/maintenance, DIY or contractors; housekeeping hired.
- Prefer organic foods, including growing their own vegetables.
- Financially active, own a variety of investments often managed by a financial planner.
- Meticulous planners, both well insured and well invested in retirement savings.
- Generous with support of various charities and causes.
- Actively support the arts, theater, concerts, and museums.

HOUSING

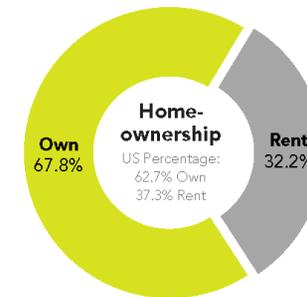
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Typical Housing:
Single Family

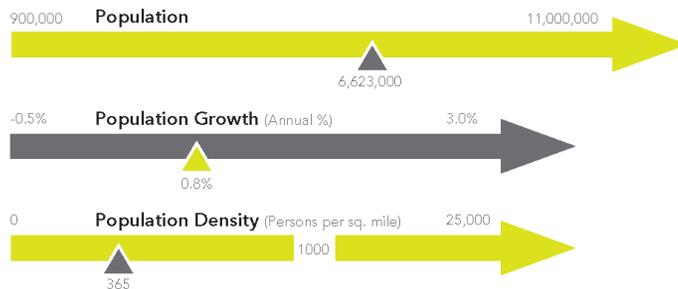
Median Value:
\$243,900

US Median: \$207,300



POPULATION CHARACTERISTICS

Total population, average annual population change since Census 2010, and average density (population per square mile) are displayed for the market relative to the size and change among all Tapestry markets. Data estimated by Esri.



ESRI INDEXES

Esri developed three indexes to display average household wealth, socioeconomic status, and housing affordability for the market relative to US standards.





LifeMode Group: GenXurban

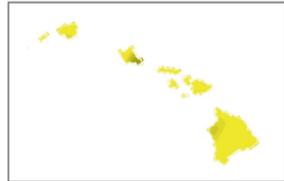
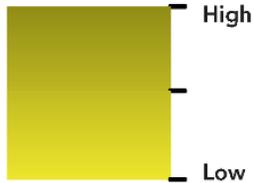
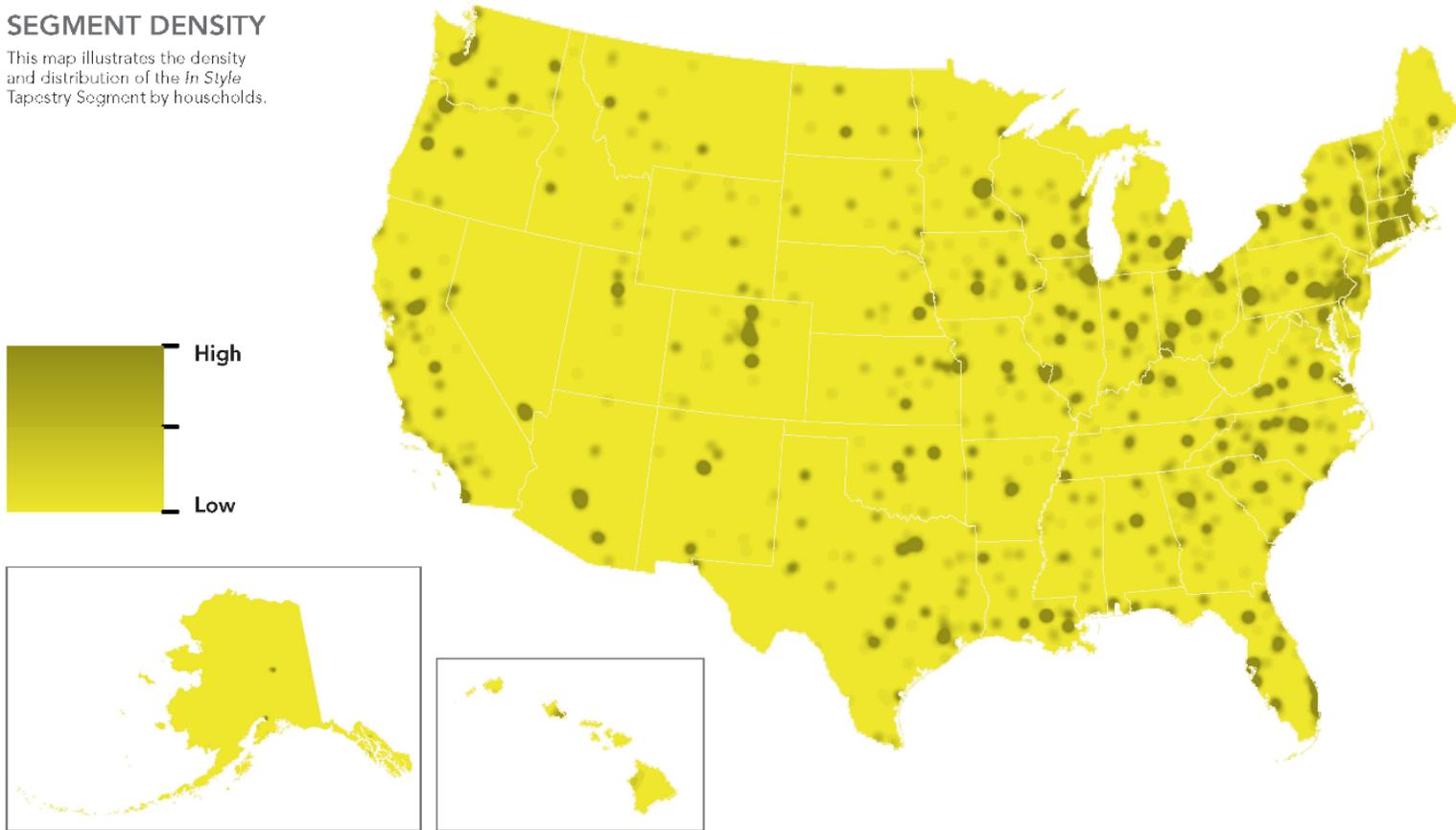
In Style



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SEGMENT DENSITY

This map illustrates the density and distribution of the *In Style* Tapestry Segment by households.



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LifeMode Group: Rustic Outposts
Down the Road

10D

Households: 1,406,700

Average Household Size: 2.76

Median Age: 35.0

Median Household Income: \$38,700

WHO ARE WE?

Down the Road is a mix of low-density, semirural neighborhoods in large metropolitan areas; half are located in the South, with the rest primarily in the West and Midwest. Almost half of householders live in mobile homes; more than two-fifths live in single-family homes. These are young, family-oriented consumers who value their traditions. Workers are in service, retail trade, manufacturing, and construction industries, with higher proportions in agriculture and mining, compared to the US.

OUR NEIGHBORHOOD

- Nearly two-thirds of households are owned.
- Family market, primarily married couples or single-parent households (Index 145).
- Close to half of all households live in mobile homes (Index 780).
- Four-fifths of households were built in 1970 or later.
- About 32% of homes are valued under \$50,000.

SOCIOECONOMIC TRAITS

- Education completed: 36% with a high school diploma only, 41% with some college education or a degree.
- Labor force participation rate is 59.0%, slightly lower than the US.
- Family-oriented, outgoing consumers; they place importance on preserving time-honored customs.



Note: The Index represents the ratio of the segment rate to the US rate, multiplied by 100. Consumer preferences are estimated from data by Milliman.



LifeMode Group: Rustic Outposts Down the Road

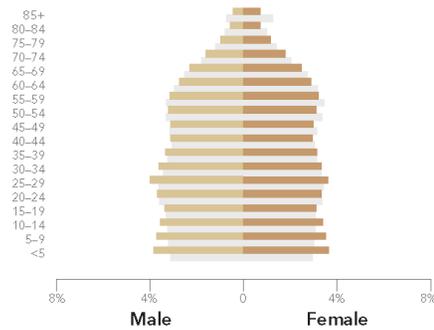


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AGE BY SEX (Esri data)

Median Age: **35.0** US: 38.2

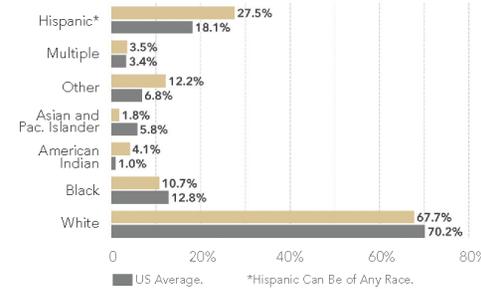
■ Indicates US



RACE AND ETHNICITY (Esri data)

The Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Diversity Index: **71.7** US: 64.0



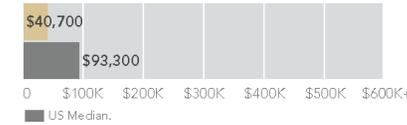
INCOME AND NET WORTH

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Median Household Income

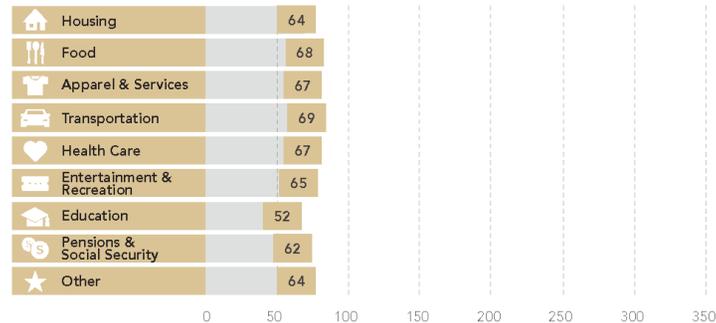


Median Net Worth



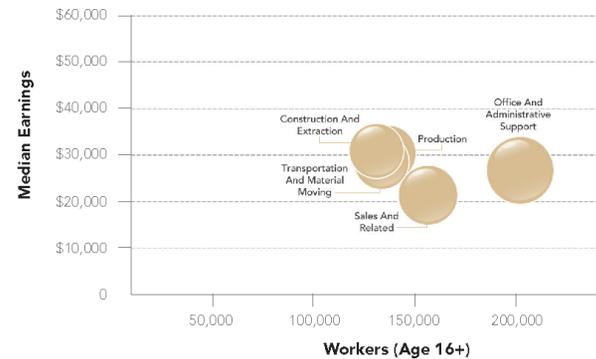
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OCCUPATION BY EARNINGS

The five occupations with the highest number of workers in the market are displayed by median earnings. Data from the Census Bureau's American Community Survey.





LifeMode Group: Rustic Outposts Down the Road



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MARKET PROFILE (Consumer preferences are estimated from data by MRI-Simmons.)

- Purchased a used vehicle in the past year, likely maintaining the vehicle themselves.
- Routinely stop by the convenience store to purchase gas, groceries, and snacks.
- Participate in fishing and hunting.
- Use the internet to stay connected with friends and play online video games.
- Listen to the radio, especially at work, with a preference for rap, R&B, and country music.
- Enjoy programs on Investigation Discovery, CMT, and Hallmark, typically watching via satellite dish.
- Often prepare quick meals, using packaged or frozen dinner entrees.
- Favorite fast food: burgers and pizza.
- Frequent Walmart Supercenters, Walgreens, dollar stores, Kmart, and Big Lots for all their shopping needs (groceries, clothing, pharmacy, etc.).

HOUSING

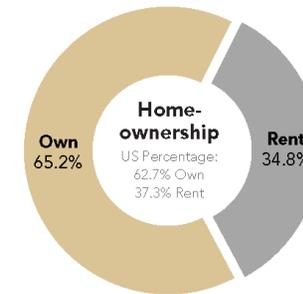
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Typical Housing:
Mobile Homes;
Single Family

Median Value:
\$89,800

US Median: \$207,300



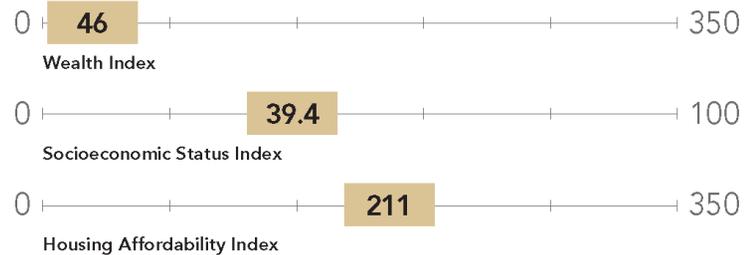
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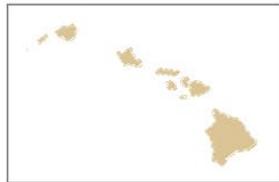
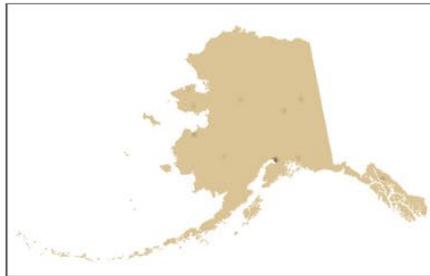
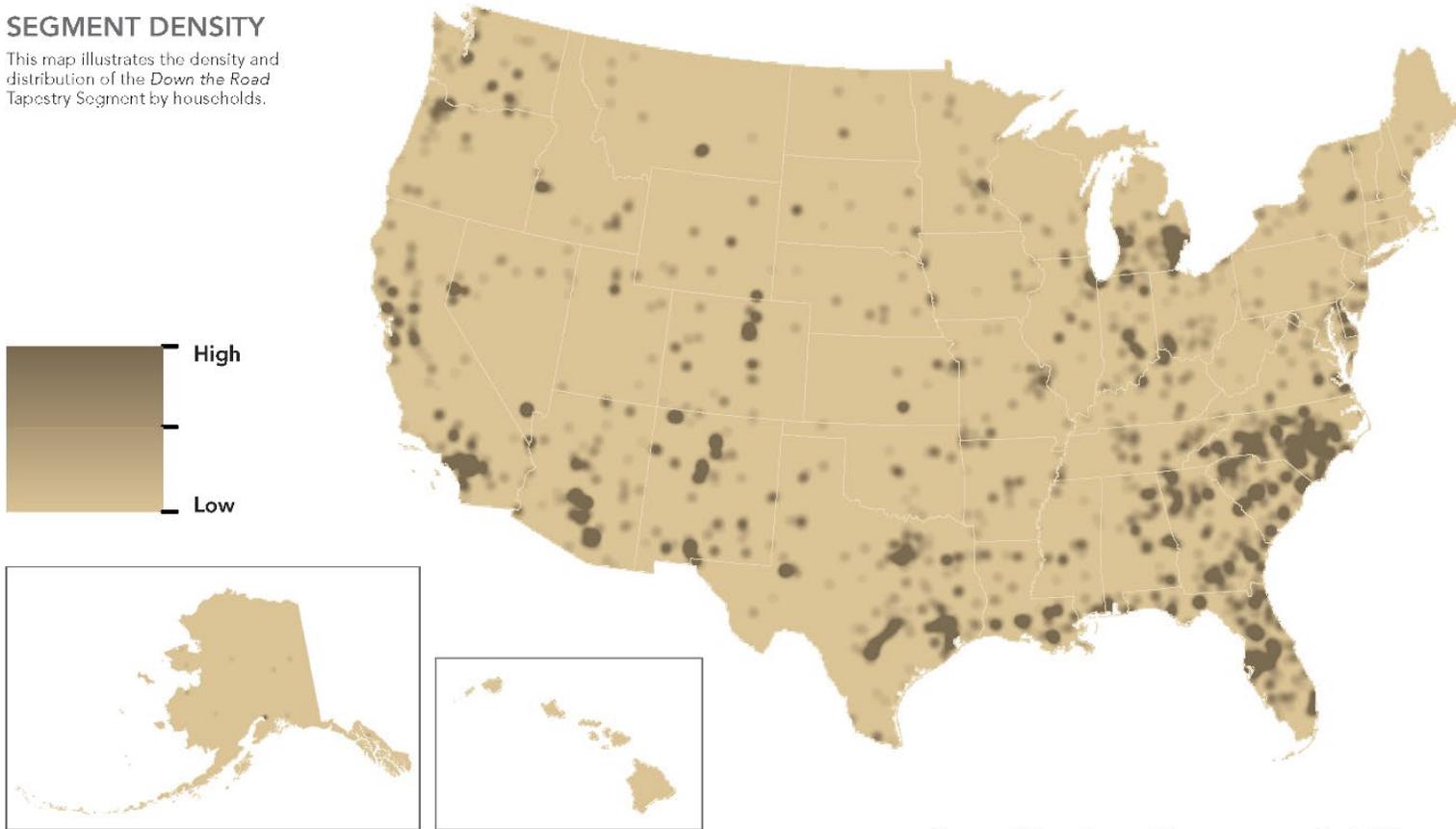
LifeMode Group: Rustic Outposts Down the Road



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SEGMENT DENSITY

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LifeMode Group: GenXurban

Comfortable Empty Nesters

5A

Households: 3,024,200

Average Household Size: 2.52

Median Age: 48.0

Median Household Income: \$75,000

WHO ARE WE?

Residents in this large, growing segment are older, with nearly half of all householders aged 55 or older; many still live in the suburbs where they grew up. Most are professionals working in government, health care, or manufacturing. These Baby Boomers are earning a comfortable living and benefitting from years of prudent investing and saving. Their net worth is well above average (Index 314). Many are enjoying the transition from child rearing to retirement. They value their health and financial well-being.

OUR NEIGHBORHOOD

- Married couples, some with children, but most without (Index 149).
- Average household size slightly higher at 2.52.
- Found throughout the suburbs and small towns of metropolitan areas, where most residents own and live in single-family detached homes (Index 142).
- Most homes built between 1950 and 1990 (Index 131).
- Households generally have one or two vehicles.

SOCIOECONOMIC TRAITS

- Education: 36% college graduates; nearly 68% with some college education.
- Average labor force participation at 61%.
- Most households' income from wages or salaries, but a third also draw income from investments (Index 150) and retirement (Index 159).
- *Comfortable Empty Nesters* residents physically and financially active.
- Prefer eating at home instead of dining out.
- Home maintenance a priority among these homeowners.



Note: The Index represents the ratio of the segment rate to the US rate multiplied by 100. Consumer preferences are estimated from data by Milliman.



LifeMode Group: GenXurban

Comfortable Empty Nesters



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AGE BY SEX (Esri data)

Median Age: **48.0** US: 38.2

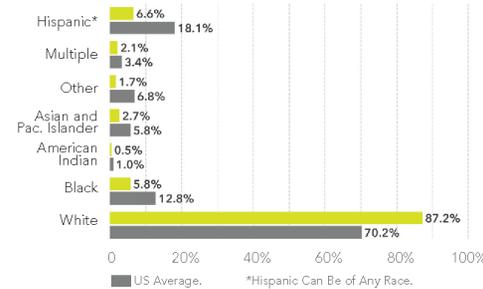
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Median Household Income

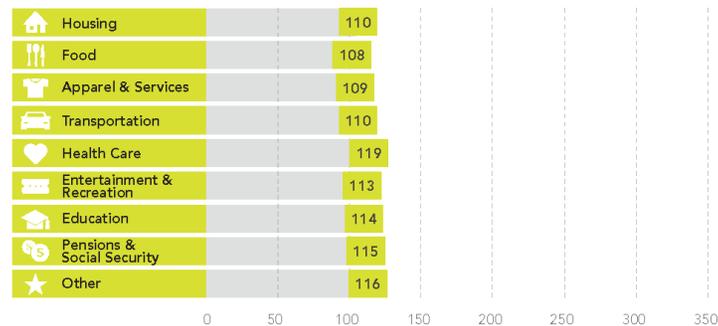


Median Net Worth



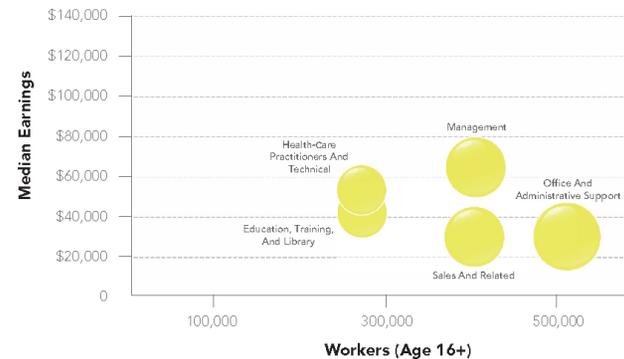
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LifeMode Group: GenXurban

Comfortable Empty Nesters



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MARKET PROFILE

(Consumer preferences are estimated from data by MRI-Simmons.)

- Residents enjoy listening to sports radio or watching sports on television.
- Physically active, they play golf, ski, ride bicycles, and work out regularly.
- Spending a lot of time online isn't a priority, so most own older home computers.
- Financial portfolio includes stocks, certificates of deposit, mutual funds, and real estate.

HOUSING

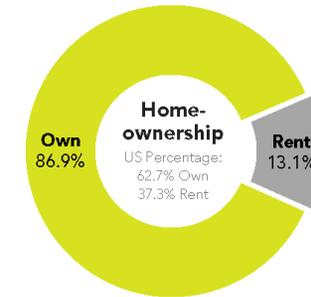
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Typical Housing:
Single Family

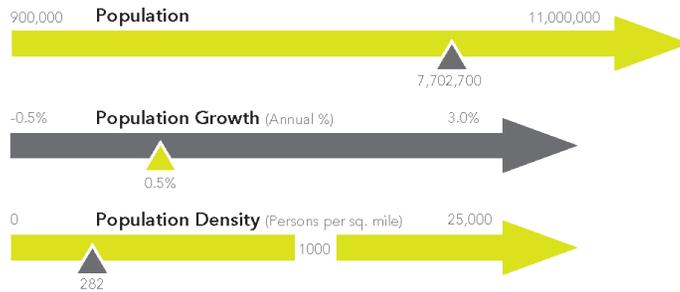
Median Value:
\$203,400

US Median: \$207,300



POPULATION CHARACTERISTICS

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Esri developed three indexes to display average household wealth, socioeconomic status, and housing affordability for the market relative to US standards.





LifeMode Group: GenXurban

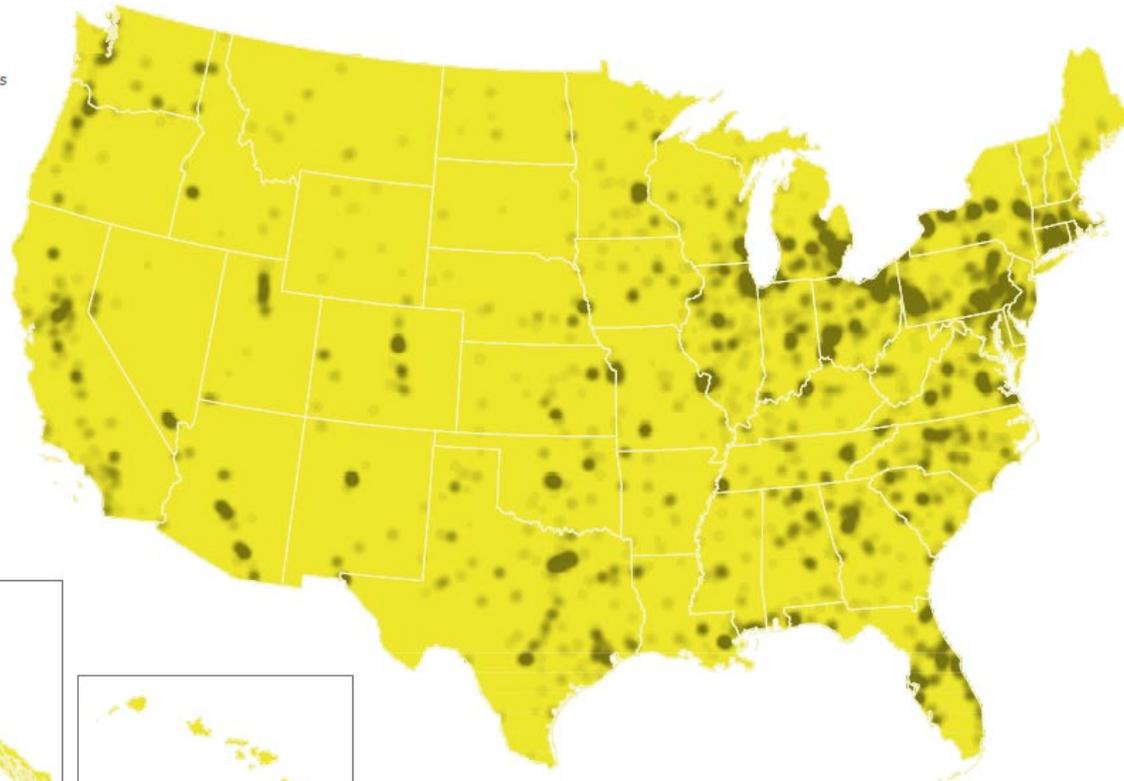
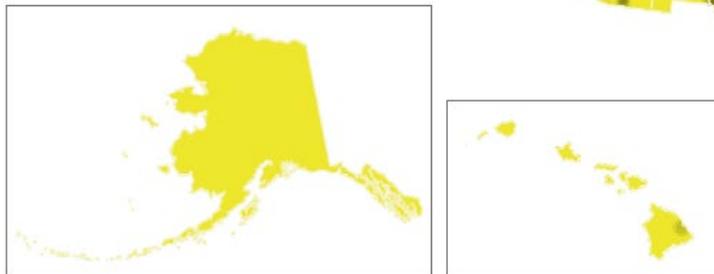
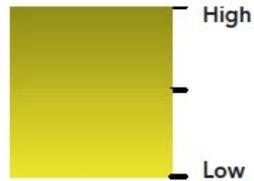
Comfortable Empty Nesters



TAPESTRY
SEGMENTATION
esri.com/tapestry

SEGMENT DENSITY

This map illustrates the density and distribution of the *Comfortable Empty Nesters* Tapestry Segment by households.



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