RENAISSANCE PLANNING GROUP

CAPE FEAR
ALTERNATIVE
FUTURES

YOUR IDEAS. YOUR REGION. YOUR FUTURE.

FOCUS

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SECTION ONE
INTRODUCTION

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INTRODUCTION
PURPOSE

Need for Visualizing the Future

The Lower Cape Fear Region is evolving, and doing so at a rapid pace. Over the last decade the region has grown to nearly 400,000 residents, and future population projections show that trend of fast-paced growth continuing.

Much of this change has been good for the region. Population growth is being driven, in part, by a changing economy. The region's strong rural and coastal heritage is now joined by major pharmaceutical companies, aircraft engine manufacturers, and fiber-optic developers, as well as a thriving tourism and film industry. Additionally, people are moving to the region for a wealth of quality of life attributes that can be found almost nowhere else. The coast, climate, culture, and lifestyle of the region all attract people and businesses, and will continue to do so over the long term.

These positive changes have brought new challenges, however. Rapid growth has had noticeable effects on the region's infrastructure and natural systems, leading to impacts on the quality of life of its residents, and creating financial burdens through increased need for infrastructure improvements. Change has brought congestion to the region's streets, impacts to the region's coastline, and pressures on native habitats, species and critical resources.

As the region continues to evolve, it is imperative that we find ways to encourage the positive changes while mitigating the negative changes that come with them. The scenario planning analysis for the Lower Cape Fear Region, called Alternative Futures, was designed to do just that. Alternative Futures sheds light on the long-term effects of physical change and helps guide the vision for the region's future that not only builds on existing strengths and future opportunities, but is also fiscally and environmentally sustainable over the long term.
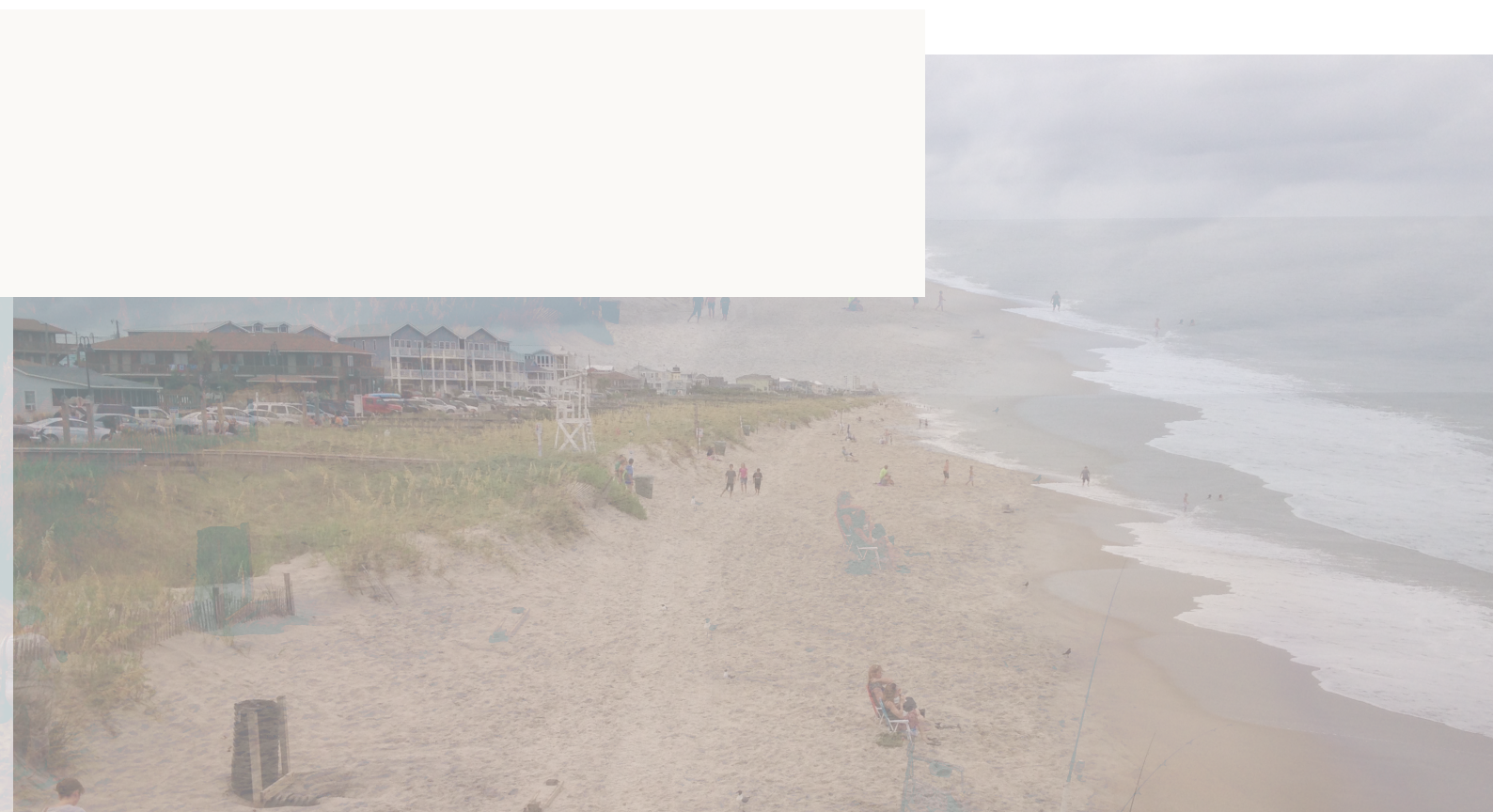
GOALS

The goals of the effort are to:

1. Investigate the intersection of future growth and development patterns, economic development potential, stewardship and enhancement of the region's quality of life, and environmental stewardship;

2. Reflect and operationalize stakeholder values by integrating project-related feedback into the assumptions of the future scenarios and the development of strategies moving forward;

3. Demonstrate potential benefits of shaping development patterns to create more efficient neighborhoods and community centers and optimize regional accessibility to employment and other vital assets;

4. Provide market-based outcomes that can be used to develop land use policies that provide capacity and flexibility while encouraging context-sensitive development in areas that are appropriate; and

5. Visualize and understand outcomes through indicators, maps and regional place types that reflect the results of promoting Complete Communities.

APPROACH

The approach to Alternative Futures initiative employed a data-rich and performance-driven process. The approach was a market-based effort, focusing on past performance and emerging trends to understand the business-as-usual future. Alternative Futures includes divergent patterns from business-as-usual that are possible by virtue of shifts in the market demand for new types of development and different combinations of policy initiatives.

The steps to creating the future scenarios were:

1. Establish baseline conditions and create an "existing conditions" model of where housing and employment are currently located;

2. Create a long term forecast of population and employment for the region by specific sub-areas;

3. Categorize land as either developed, available for development, or land that will be held in conservation;

4. Establish a number of suitability and attractiveness factors that are used to model where development is likely to occur in the future;

5. Create the allocation model logic that captures market-based and policy-based factors; and

6. Generate Alternative Futures development patterns based on those factors.

SECTION TWO

ECONOMIC ASSESSMENT & FORECAST

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ECONOMIC ASSESSMENT & FORECAST
PROCESS

STEP 1
LONG TERM FORECASTS

Long term forecasts were developed to test a medium and high rate of growth for the region. Control totals for counties and regional subareas were established and a balance of jobs and population within the region was maintained.

STEP 2
ECONOMIC ASSESSMENT

A number of economic data sources were used to shed light on recent trends and the dynamics affecting the future of the region. The nature of the regional economy and economic development opportunities were clarified in the findings.

STEP 3
DEMAND FOR GROWTH

Combining the long term forecasts and the economic assessment, the demand for types of residential and commercial growth was estimated. This included jobs by sector and an estimation of the demand for different types of housing.

ECONOMIC ASSESSMENT & FORECAST

LONG TERM PROJECTIONS

Two Potential Forecasts Used to Anticipate Growth
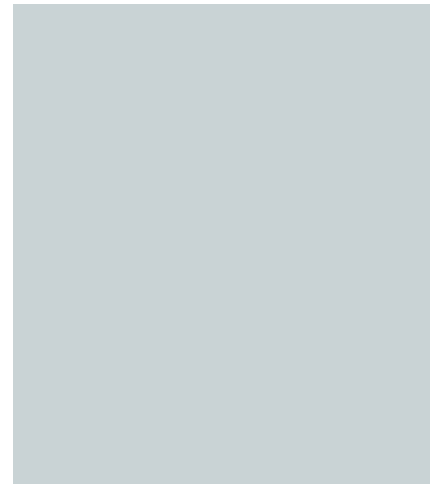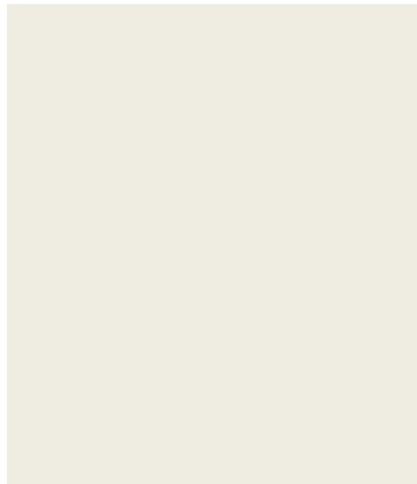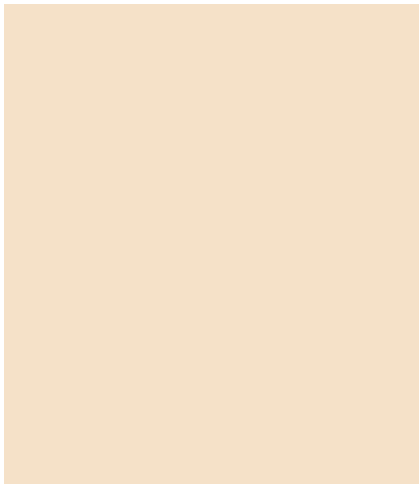
362,315

TOTAL POPULATION OF THE 3-COUNTY REGION IN 2010

551,642

**ESTIMATED 2040 POPULATION UNDER
MODERATE-GROWTH ASSUMPTIONS**

687,629

**ESTIMATED 2040 POPULATION UNDER
HIGH-GROWTH ASSUMPTIONS**

ASSUMPTIONS AND SOURCES

Forecast 1 (F1) *was based on Wilmington MPO population and employment forecasts, which are based on the NC Statewide Travel Model.*

Forecast 2 (F2) *was based on population and employment forecasts from Moody's Analytics.*

The scenario planning element of FOCUS was designed to demonstrate alternative future patterns of regional development relative to a baseline condition. Since each county and major jurisdiction in the region had its own perspective toward regional growth patterns and their implications, it was important to create forecasts that effectively shed light on both regional and local issues. This included testing different rates of growth for the region with county level control totals established in the adopted forecasts for the effort.

In order to accomplish that for this project, the scenario planning effort used two alternative 2040 forecasts. One was based on a business as usual approach to growth that assumes a continuation of recent and current development patterns. This Forecast 1 (F1) was based on the Wilmington Metropolitan Planning Organization (WMPO) population and employment forecasts, which are

based on the NC Statewide Travel Model. The second, Forecast 2 (F2), was based on population and employment forecasts from Moody's Analytics, a globally recognized economics research organization. Moody's produces forecasts at a variety of geographies, including for each county in the United States. F2 showed relatively high rates of both population and employment growth in the existing urbanized area of the region, which led the land use model to assume higher densification and redevelopment of existing developed land.

The baseline year for the project was 2010. This was used because of the amount, reliability and detail of data available, in particular the 2010 US Census and Longitudinal Employer-Household Dynamics (LEHD) information at the block and block group level. The baseline was used to compare existing conditions to the future scenarios.

The following tables show the population and employment forecasts by county. The "difference" columns in each table show the population change from 2010 to 2040 for each forecast.

POPULATION

	2010	2040			
	BASE	F1	DIFFERENCE	F2	DIFFERENCE
New Hanover	202,667	249,026	46,359	337,054	134,387
Brunswick	107,431	212,355	104,929	234,833	127,402
Pender	52,217	90,261	38,0447	115,742	63,525
3-County Region	**362,315**	**551,642**	**189,327**	**687,629**	**325,314**

	2010	2040	
	BASE	F1	F2
New Hanover County	**202,667**	**249,026**	**337,054**
Unincorporated	85,973	105,639	152,157
Wilmington	106,476	130,832	167,904
Other Jurisdictions	10,218	12,555	16,993
Brunswick County	**107,431**	**212,355**	**234,833**
Leland	13,672	27,025	44,886
Other Brunswick	93,759	185,330	189,947
Pender County	**52,217**	**90,261**	**115,742**
Southeast Pender	21,190	42,423	60,186
Other Pender	31,027	47,838	55,556
3-County Region	**362,315**	**551,642**	**687,629**

SUB-REGIONAL CONTROL TOTALS

After establishing the county level control totals, sub-regional control totals were created for select areas of the region. The control totals were developed in consultation with planning staff from local governments in the region. Assumptions and adjustments were also made based on the initial existing conditions analysis completed as a part of the scenario planning effort. In general, the control totals represent high and low growth scenarios across F1 and F2 for the sub-regional areas.

For employment control totals at the sub-regional level, the 2010 LEHD data was used to establish a base-line for the future forecast.

EMPLOYMENT

	2010	2040			
	BASE	F1	DIFFERENCE	F2	DIFFERENCE
New Hanover	93,274	111,291	18,017	172,939	79,665
Brunswick	24,594	66,495	41,901	58,657	34,063
Pender	8,704	22,811	14,107	18,451	9,747
3-County Region	**126,572**	**200,597**	**74,025**	**250,047**	**123,475**

	2010	2040	
	BASE	F1	F2
New Hanover County	**93,274**	**111,291**	**172,939**
Unincorporated	18,830	27,823	51,882
Wilmington	71,086	77,904	112,410
Other Jurisdictions	3,358	5,565	8,647
Brunswick County	**24,594**	**66,495**	**58,657**
Leland	4,050	10,950	11,159
Other Brunswick	20,540	55,534	47,488
Pender County	**8,704**	**22,811**	**18,451**
Southeast Pender	2,789	9,124	9,041
Other Pender	5,915	13,687	9,410
3-County Region	**126,572**	**200,597**	**250,047**

ECONOMIC ASSESSMENT & FORECAST

DEMAND FOR DEVELOPMENT
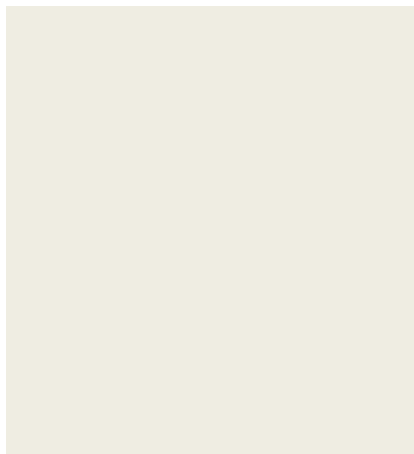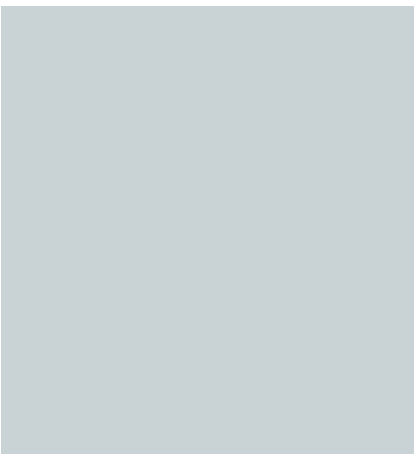
INTRODUCTION

The scenario planning element of FOCUS is being designed to demonstrate alternative future patterns of regional development relative to a baseline condition. Each county in the region will have its own perspective toward regional growth patterns and their implications, and it is important to create forecasts that will effectively shed light on regional and local issues. This includes testing different rates of growth for the region and demonstrating the relationships between market dynamics, land availability, land use policy and infrastructure systems.

Two alternative forecasts for 2040 were used in the scenario planning effort. Forecast 1 (F1) was based on WMPO's forecast for 2040, and is a business as usual approach to growth that assumes a continuation of recent and current development patterns. Forecast 2 (F2) is based on Moody's forecast, which shows high rates of both population and employment growth in the existing urbanized area of the region. F2 allocated growth in already urbanized areas, assuming higher densification and redevelopment of existing developed land.

IMPORTANT NOTES

The forecasts represent quantities that would be demanded, not necessarily that will be delivered. Appropriate sites and favorable economic conditions must be available.

Forecasts by county are presented, but demand can shift over jurisdictional lines in search of appropriate sites.

These 30-year forecasts should be considered as guides for the maximum scenario allocations – future market trends and economic forces can influence them in unknown way.

HOUSING DEMAND

Demand for new housing mirrors population growth. Regional housing demand forecasts range from 3,400-4,800 new homes per year. In the F1 projection, Brunswick County receives the largest number of new housing units. In contrast, the F2 forecast allocates more dwelling units to New Hanover County. In both scenarios, Pender County witnesses the smallest growth.

|	F1				F2			
	New Hanover	Brun-swick	Pender	Region	New Hanover	Brun-swick	Pender	Region
Total	42,190	45,560	15,220	102,950	68,890	52,670	22,470	144,040
Annual Average	1,406	1,519	507	3,432	2,296	1,756	749	4,801

EMPLOYMENT

Forecasted employment growth expands faster than forecasted population growth. As in the population forecasts, employment is expected to be distributed more evenly throughout the region than it is currently, when nearly 75% of all regional jobs are in New Hanover County. However, all counties are forecasted to see significant employment growth.

Employment Forecasts
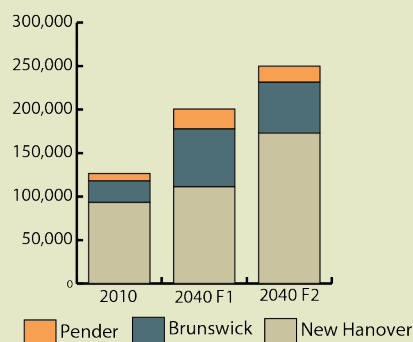
Employment Share
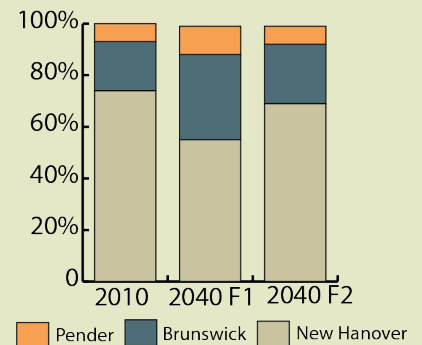
RETAIL SPENDING DEMAND

Total retail sales in the region are forecasted to roughly double from 2010 to 2040. F1 forecasts a $4.7 billion increase, amounting to a 91% change. F2 forecasts a $7.2 billion increase, a 140% change. Much of this is being driven by population growth, but it is also prompted by a 27% increase in retail spending per capita.
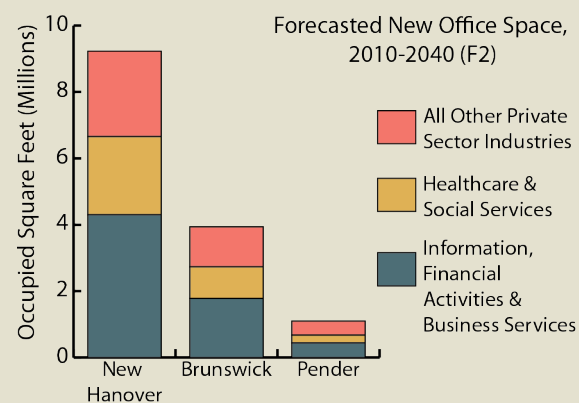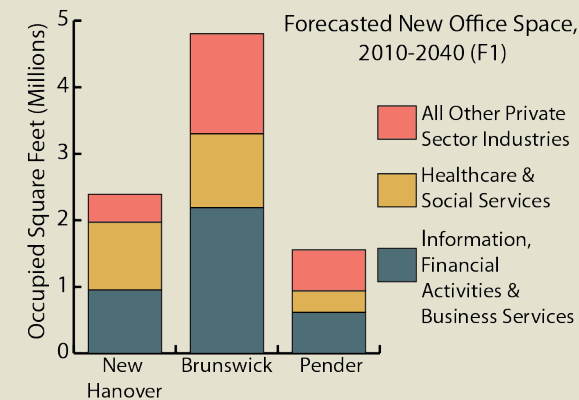
	NEW HANOVER	BRUNSWICK	PENDER	3-COUNTY REGION
F1	5,154,088	4,142,009	802,650	10,028,536
F2	9,869,037	4,832,423	1,197,575	15,883,771

OFFICE DEMAND

Health care, hospitality, and business services will be a larger share of future employment. Healthcare is a major part of office demand in both scenarios, but the F2 forecast shows much stronger growth across the board, suggesting health care is a necessary growth industry, but not one that necessarily grows proportionately to population growth.

Additionally, office space occupied by information, financial, and business services companies will tend to concentrate in major employment centers like downtown to take advantage of clustering benefits.

Forecasted New Office Space, 2010-2040 (F1)

Occupied Square Feet (Millions)

Legend:
- All Other Private Sector Industries
- Healthcare & Social Services
- Information, Financial Activities & Business Services

(New Hanover, Brunswick, Pender)

Forecasted New Office Space, 2010-2040 (F2)

Occupied Square Feet (Millions)

Legend:
- All Other Private Sector Industries
- Healthcare & Social Services
- Information, Financial Activities & Business Services

(New Hanover, Brunswick, Pender)

INDUSTRIAL DEMAND

Industrial space demand is forecast to occur entirely within Pender and Brunswick Counties in the F1 forecast, while the F2 forecast has nearly identical demand for Pender and Brunswick but adds over 4,000,000 square feet in New Hanover. This suggests that the available industrial land in Pender and Brunswick Counties will need to be nearly exhausted before new industrial uses open in New Hanover County, but that New Hanover can accomodate major industrial growth..

Forecasted New Industrial Space, 2010-2040

Occupied Sq. Ft.

Legend:
- Pender
- Brunswick
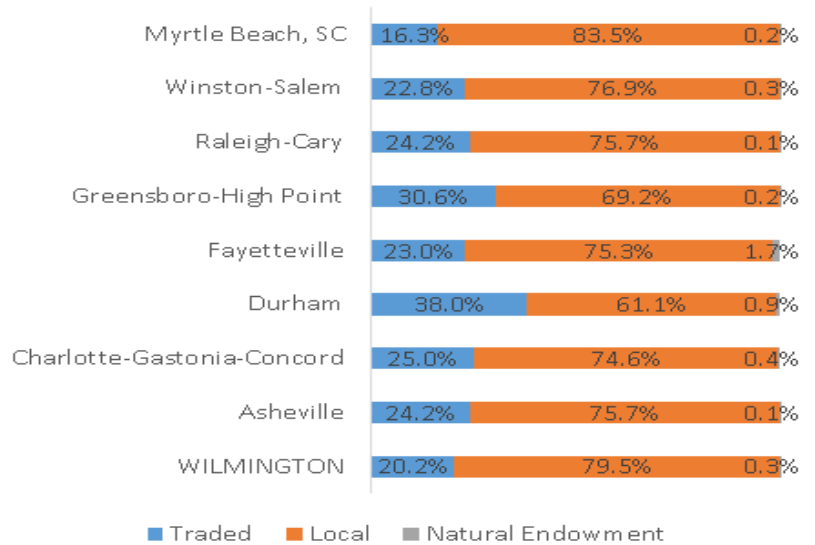- New Hanover

(F1 Forecast, F2 Forecast)
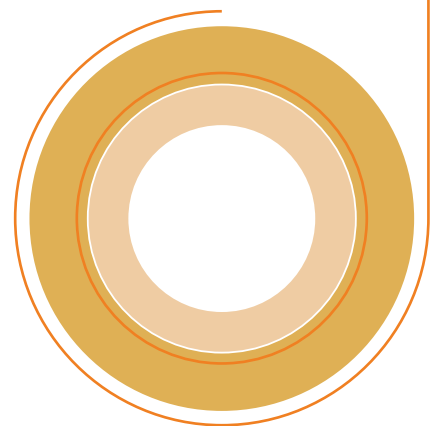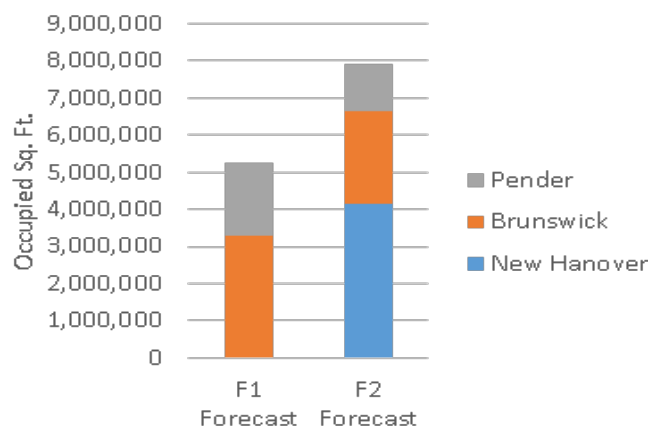
EMPLOYMENT COMPOSITION

Traded clusters are typically the preferred targets of economic development efforts, as they expand the local economy by bringing in money from outside and tend to pay more than local-serving clusters.

Compared to other North Carolina metro areas, the region is below-average in the traded clusters share of employment.

This suggests that while there are available jobs in the region, and an increasing proportion of jobs to residents in the coming years, the quality of job may not be ideal.

Composition of MSA Employment by Cluster Type

MSA	Traded	Local	Natural Endowment
Myrtle Beach, SC	16.3%	83.5%	0.2%
Winston-Salem	22.8%	76.9%	0.3%
Raleigh-Cary	24.2%	75.7%	0.1%
Greensboro-High Point	30.6%	69.2%	0.2%
Fayetteville	23.0%	75.3%	1.7%
Durham	38.0%	61.1%	0.9%
Charlotte-Gastonia-Concord	25.0%	74.6%	0.4%
Asheville	24.2%	75.7%	0.1%
WILMINGTON	20.2%	79.5%	0.3%

■ Traded ■ Local ■ Natural Endowment

SUMMARY

The implications for these findings are as follows:

There are many indicators suggesting potential for market acceptance of "Complete Communities" elements:
- Relatively high, and increasing affluence and educational attainment
- Increasing seniors population (desire for/less need for driving)
- Greater prevalence of households without children

However, there are other Indicators suggesting challenges to smart growth acceptance:
- Stable population age structure forecasted – no spike in Millennial age group
- Minimal presence of higher density housing development, other than apartment complexes near the university

The regional market needs more examples of attractive, successful places and real estate products that demonstrate "Complete Community" principles.

Significant demand will likely evolve and emerge over time, not come suddenly. This is a slow, steady process that will require patience.

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SECTION THREE
LAND USE ASSESSMENT

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LAND USE ASSESSMENT
PROCESS

STEP 1
EXISTING CONDITIONS

The Existing Conditions model provides a physical snapshot of on the ground conditions in the base year for the project. Future growth and development was modeled relative to this current land use. The Existing Conditions information was used to establish a baseline for comparison among scenarios using indicators across a number of topics.

STEP 2
LAND AVAILABILITY

The assessment of land availability included determining areas that were already fully developed and areas that have some type of conservation status. The result was isolating the land in the region that was available to be developed at some point in the future. The scenarios of the future only included change in areas that were appropriate for development.

STEP 3
LAND SUITABILITY

After determining whether an area was available for development, the overall suitability for development was evaluated. A number of market-based and policy-based factors were weighted and combined to generate and overall suitability score for each area of the region. The scores created a relative attractiveness that differentiated areas as desirable for residential and commercial development.

LAND USE ASSESSMENT

EXISTING CONDITIONS

The model of existing conditions shows the current state of the region's development. It identifies locations of population and employment for the study's base year (2010) using data from the US Census and the Longitudinal Employer-Household Dynamics (LEHD) information at the block and block group level.
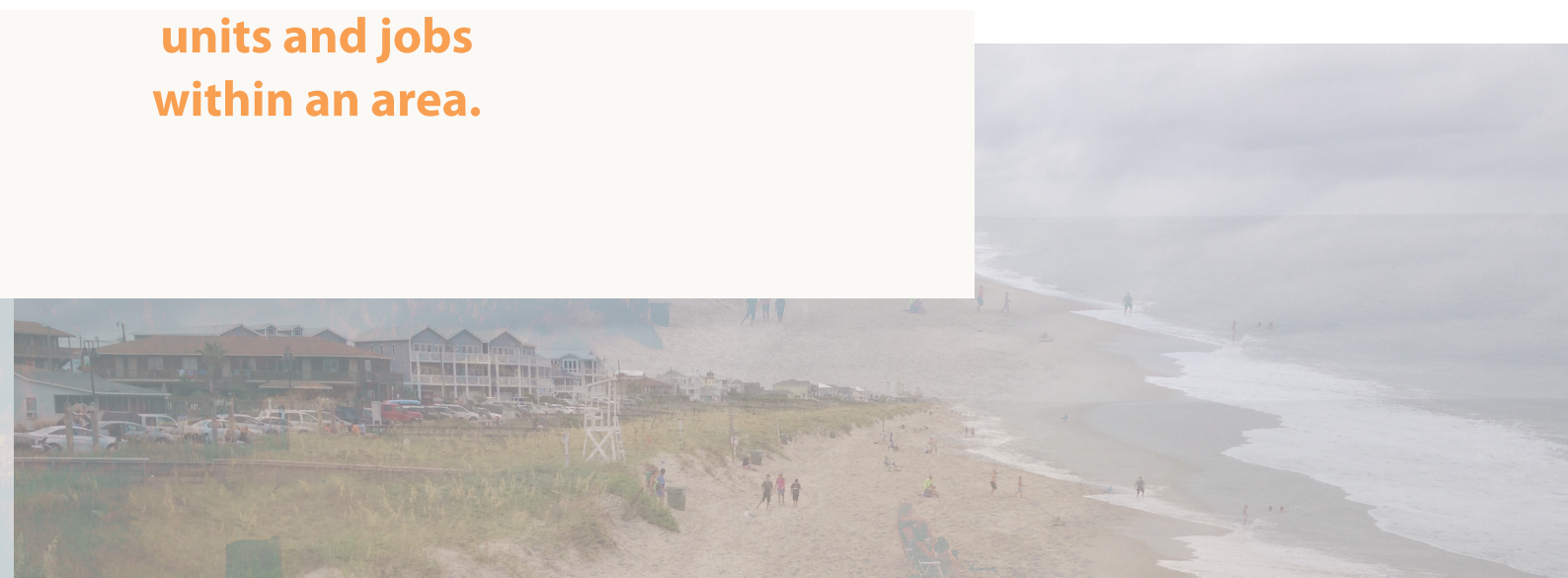
Developing the existing conditions model was the first part of a three-step process. Following the second two steps, described in further detail on the following pages, the total amount of development potential on a site, minus existing conditions, gave an accurate representation of the remaining growth capacity for each location.

Activity Units measure the sum of all housing units and jobs within an area.

The map to the right, which shows activity unit density, indicates that the region is comprised of four distinct spatial patterns:

- Relatively compact, intense, urban development, focused primarily in downtown Wilmington, surrounding the primary arterial intersections in the center of New Hanover County, in the small downtowns of Carolina Beach, Burgaw, and Southport, and at major employment destinations like UNC Wilmington and New Hanover Medical Center.
- Diffuse, widespread, low-density suburban development. This pattern has enveloped much of New Hanover County, as well as along the entire developable portion of the Atlantic coastline. Some smaller communities, such as Leland and Rocky Point are also built at this lower intensity of development.
- Small nodes of very low-density rural development, almost exclusively located along the region's arterial and collector road network. The majority of these areas are found in Pender and Brunswick Counties, but all three counties have at least some of these areas.
- Undeveloped or very sparsely developed land. Some of this land is reserved for conservation, but much is developable. This includes the northern portions of New Hanover County, the western and northern portions of Brunswick County (excluding Leland), and nearly all of Pender County outside of Burgaw, Rocky Point, and the beaches. This pattern is the region's largest.

The proximity of this undeveloped land to the region's popular cities, coasts, and inland corridors is perhaps the most striking component of the region, creating a spatial pattern wherein these undeveloped areas are likely to be a target for future development.

Activity Units per Acre

☐	0 - 1/10
■	1/10 - 1/3
■	1/3 - 1
■	1 - 4
■	4 - 6
■	6 - 15
■	15 - 23

0   3.75   7.5   15 Miles

N

Duplin

Onslow

Sampson

Pender

Bladen

New Hanover

Columbus

Brunswick

FOCUS Alternative Futures Summary Report
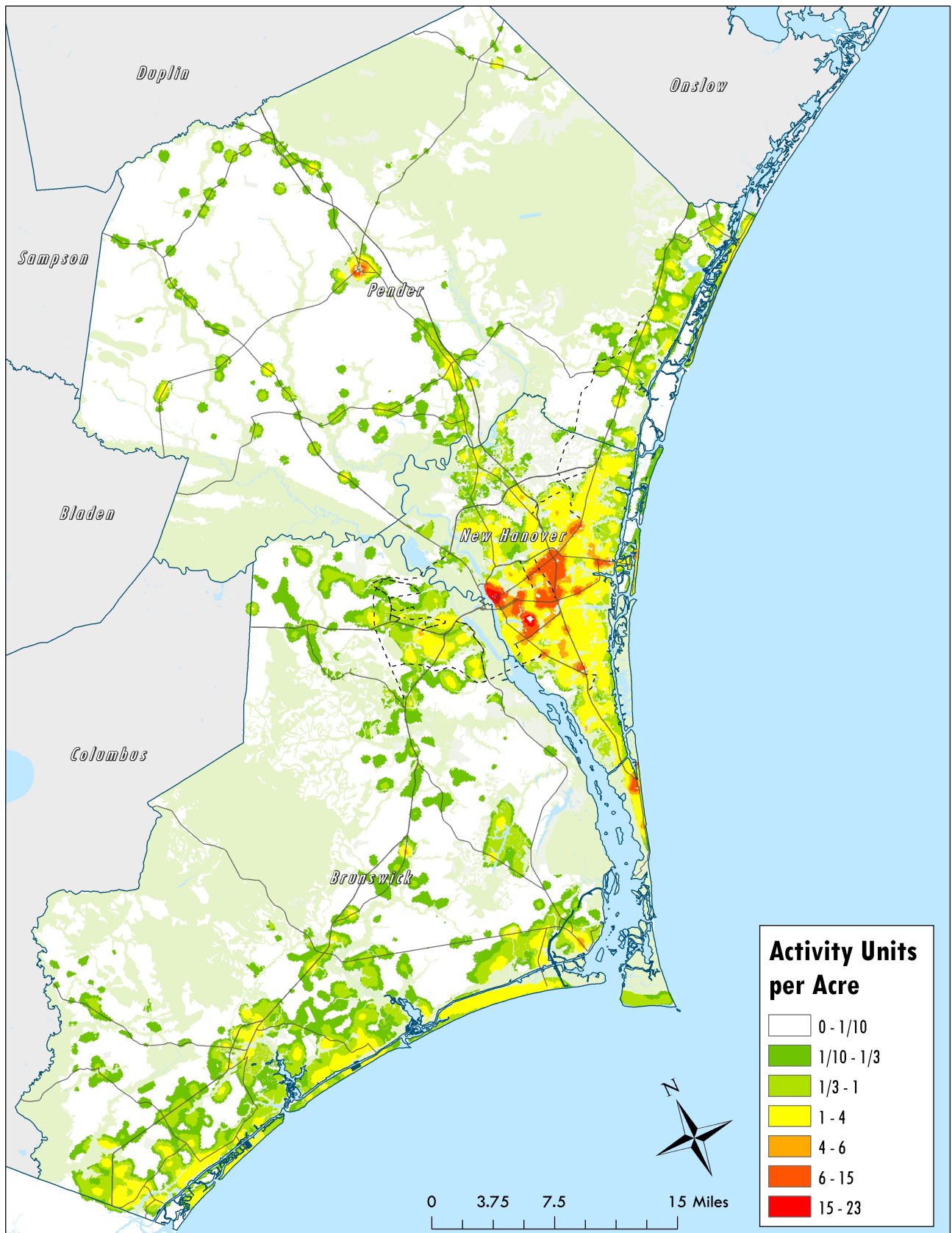
LAND USE ASSESSMENT

LAND AVAILABILITY

Identification of Location and Type of Available Land in the Region
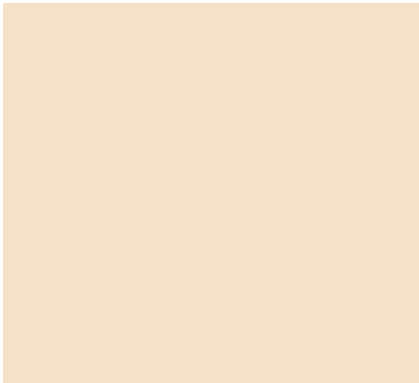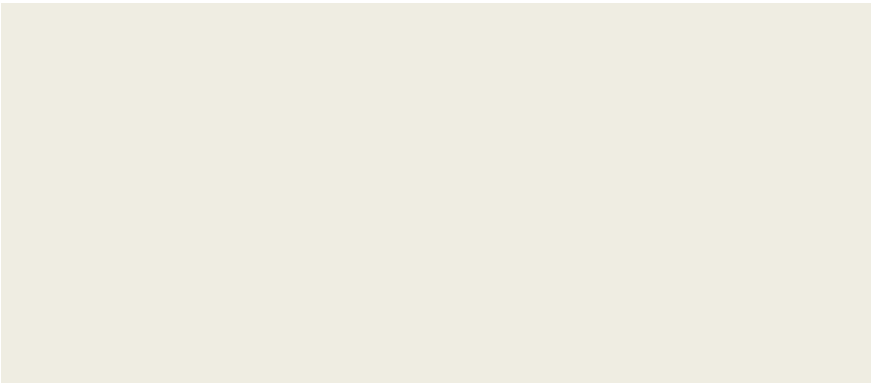
The second step in the modeling process was the identification of land available for potential future development. The allocation of future activities needs to account for existing development and applicable protections that prohibit further development. These considerations are assessed through land availability and development capacity analyses.

Two constructs of land availability were developed. The first ("C1") accounted for areas having significant prohibitions against development, such as state parks and game lands, public land trusts, county parks, dedicated natural preserves, significant heritage ar-

eas, water bodies and others. All other areas were considered available for development. The second land availability construct ("C2") assumed additional protections for areas that may be desirable to protect, such as prime farmland.

This methodology yielded the map shown on the adjoining page. It shows that infill areas are found in New Hanover County from Wilmington south, the coastal communities of the three counties, and small inland communities in Pender and Brunswick Counties. The remaining land is split between greenfield and conservation areas, with large areas of land adjacent to existing infill available for development.

Duplin

Onslow

Sampson

Pender

Bladen

New Hanover

Columbus

Brunswick

| | Infill Areas |
| | Greenfield Areas |

0   3.75   7.5   15 Miles

N
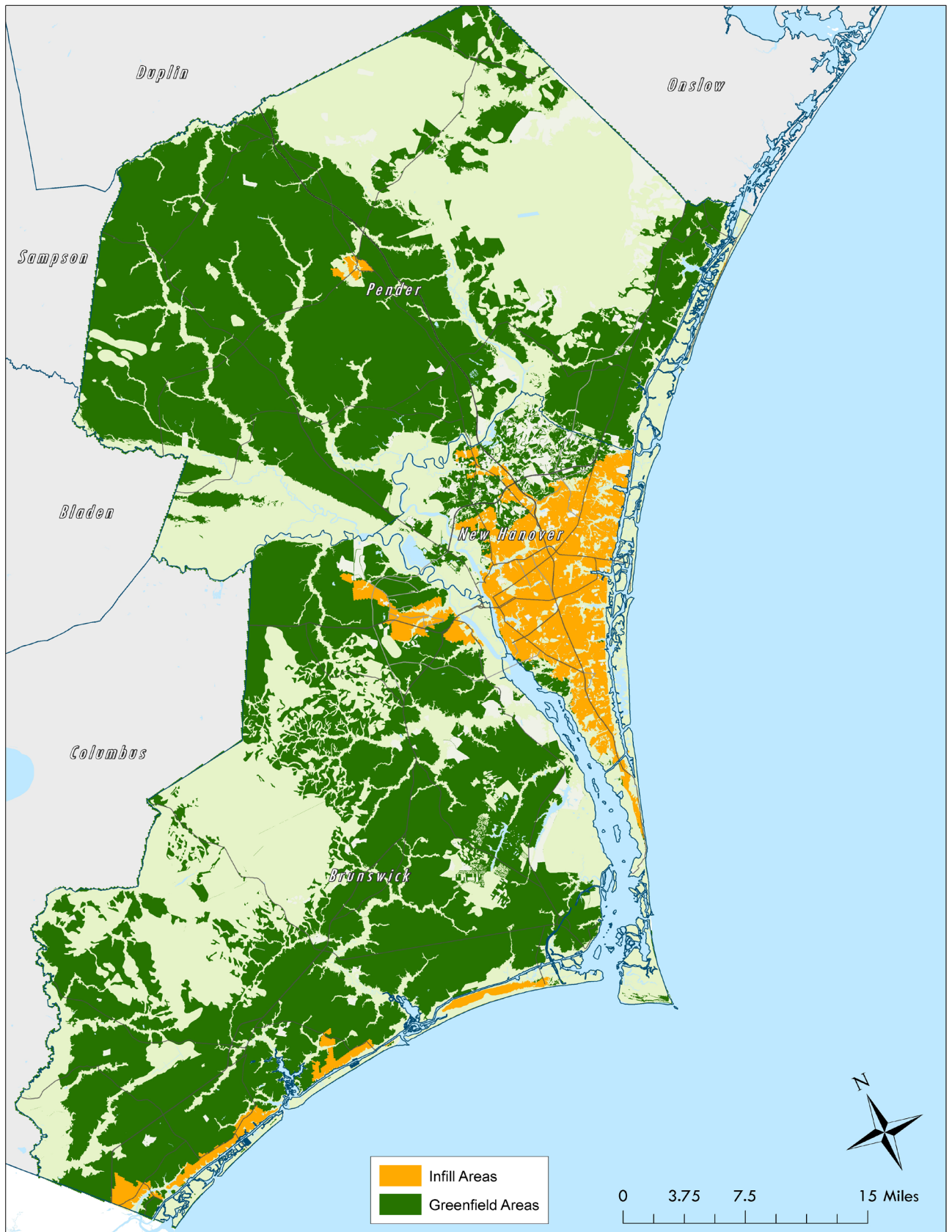
LAND USE ASSESSMENT

LAND SUITABILITY

Identification the Attractiveness of Land for Hosting New Development

The final step in the modeling process was a land suitability analysis, which identifies: 1) how "attractive" a location is to new development (such as basic sector jobs, single-family housing, multifamily housing, and non-basic sector jobs); and 2) how densely that "attractive" land would be developed.

To determine attractiveness, the market and policy variables that influence development decisions had to be modeled. The analysis considered six key dimensions of a location's suitability for new development:

• Access and Centrality
• Economics and Land Value
• Infrastructure
• Natural Features and Environment
• Planning and Policy
• Services and Amenities

These dimensions are comprised of a mix of market and policy variables. For example, accessibility to the land, land value, and nearby highway infrastructure are important market forces; land use policies and investment in multi-modal transportation improvements are important policy variables.

The land suitability map on the adjoining page looks at the Infrastructure and Access and Centrality dimensions to determine the degree of access to jobs for all locations in the region. It serves to highlight two important findings. First, while the areas with the highest access to jobs are already developed, the intensity of that development is not consistent; some of these areas are fairly low-density, and may be ripe for infill development. Second, many of the areas with average or above-average job access are sparsely developed, suggesting that they too may be future development areas.

Similar analyses on the rest of the six dimensions that influence land development led to the creation of two general land suitability scenarios:

• A 'Market-Based' scenario in which the market forces such as accessibility, land value and highway infrastructure featured prominently
• A 'Compact Development' scenario in which planning and policy variables and multimodal transportation improvements take on greater significance
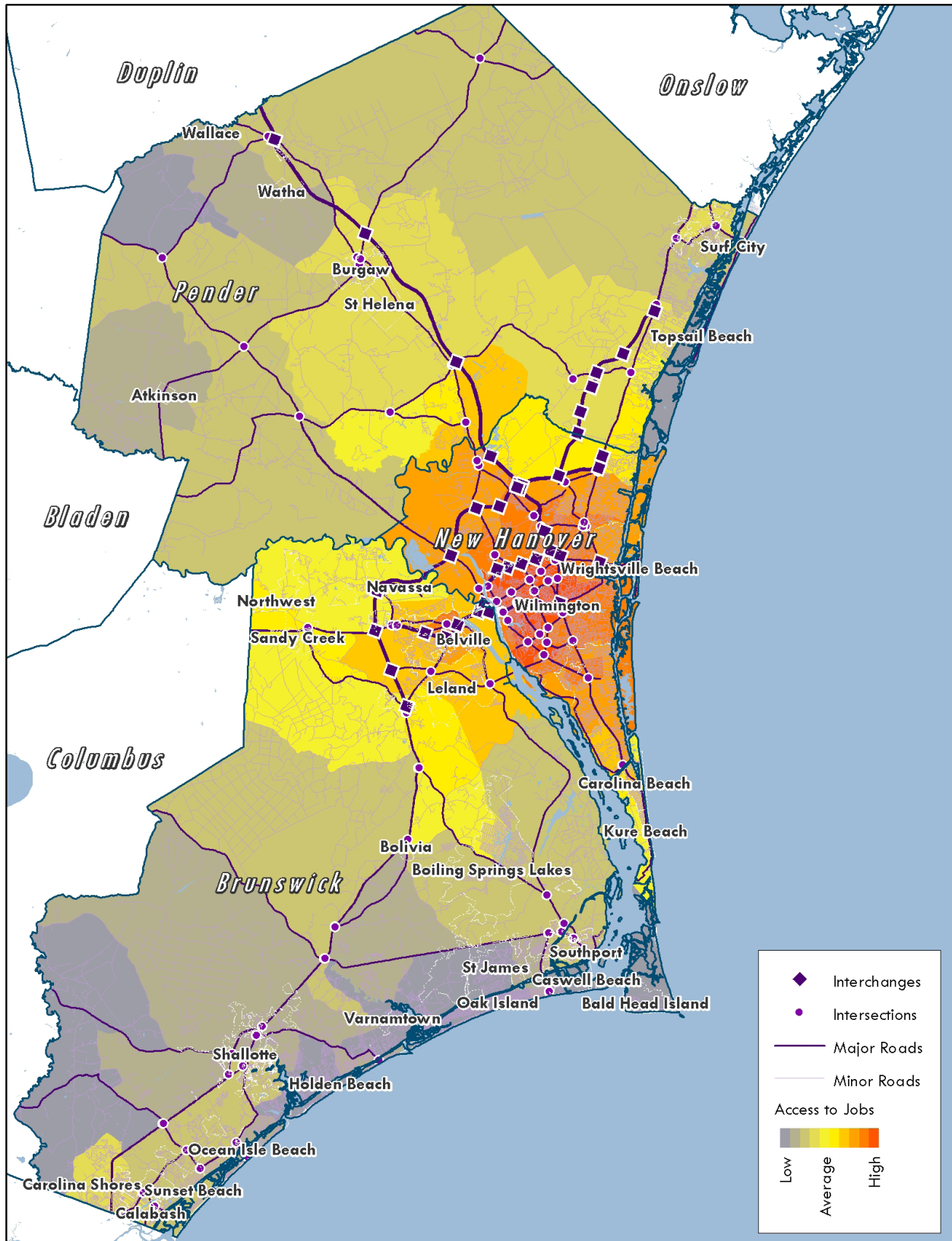
These steps all help determine attractiveness, the first of the two stated components of suitability. To determine the other - density - two different sets of assumptions were developed:

• A 'Lower Density' pattern where new development mirrors today's lower density development
• A 'Higher Density' pattern where greater infill potential was assumed.

The attractiveness scenarios and density scenarios were then brought together, creating four distinct Alternative Futures scenarios:

1) Market-based, lower density scenario (called '**Business As Usual**')

2) Market-based, higher density scenario (**Mixed Use Development**)

3) Compact development, lower density scenario (**Redevelopment & Infill**)

4) Compact development, higher density scenario (**High Growth Nodes**)

The findings of these 4 scenarios are discussed in the next chapter.

Duplin

Onslow

Wallace

Watha

Surf City

Burgaw

Pender

St Helena

Topsail Beach

Atkinson

Bladen

New Hanover

Wrightsville Beach

Navassa

Northwest

Wilmington

Sandy Creek

Belville

Leland

Columbus

Carolina Beach

Kure Beach

Bolivia

Boiling Springs Lakes

Brunswick

Southport

St James

Caswell Beach

Oak Island

Bald Head Island

Varnamtown

Shallotte

Holden Beach

Ocean Isle Beach

Carolina Shores Sunset Beach

Calabash

◆ Interchanges

• Intersections

— Major Roads

— Minor Roads

Access to Jobs

Low   Average   High

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SECTION FOUR

ALTERNATIVE FUTURES SCENARIOS

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ALTERNATIVE FUTURES SCENARIOS
PROCESS

STEP 1
SET ASSUMPTIONS

Scenarios were designed to reflect the outcomes of a realistic range market conditions and policy initiatives in the region. The assumptions range from a business as usual approach to Future where there is a moderate to high level of market shift to mixed use, higher density development patterns.

STEP 2
MODEL FUTURE

Four scenarios were generated using land use modeling techniques that account for land availability and land suitability/attractiveness for residential and non-residential development. The model allocated an increment of change in jobs and housing units on top of the existing conditions.

STEP 3
REPORT RESULTS

The scenario results were documented in maps and other presentation materials. The performance of the scenarios was measured and compared using a number of indicators across a range of topics. The findings were used to generate policy initiatives at the regional and local levels.

ALTERNATIVE FUTURES SCENARIOS

BUSINESS AS USUAL

Continuation of most recent development patterns

OVERVIEW
- Fairly distinct growth areas
- Rural areas start to urbanize
- Rural to urban shift
- Development types similar to present day

WHAT IS ASSUMED?
- Demand for housing types and location similar to recent trends
- Job growth matches existing mix of employment
- Jobs locate in existing centers, emerging commercial areas and along major roads
- Continuation of trends in transportation choices and travel behavior

SCENARIO COMPARISON
- Development footprint similar to other scenarios, but densities and impervious surfaces are lower.
- VMT is highest among the four scenarios
- Access to transit is lowest among scenarios
- Lowest access to jobs, parks

AREAS OF CHANGE
- Coastal Brunswick continues to build out
- Eastern Brunswick and Leland area continue to grow
- Wilmington continues to see slow and steady infill development
- Urban footprint continues to move north and northeast in New Hanover County
- Coastal Pender sees new large subdivisions along US 17

WHAT IS NEEDED TO REALIZE THIS FUTURE?
- Re-emergence of market dynamics that drive suburban development
- Steady increase in job growth, with a mix of office, industrial and services
- Increasing numbers of retirees and "lifestyle" residents
- Continuation of land use policies and land development practices
- Extensive expansion of public infrastructure to serve new development
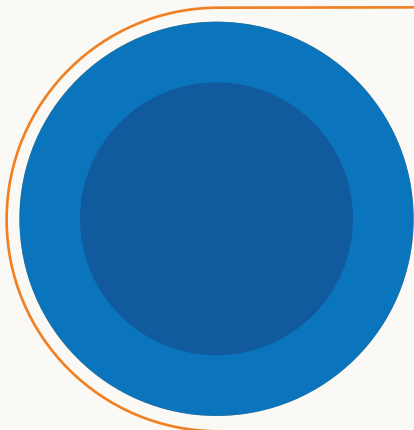
GROWTH PATTERN
- Moderate growth dispersed throughout the region
- Continuation of most recent development patterns

NOTE: Circles indicate areas of change for this scenario.

Activity Units per Acre

- 0 - 1/10
- 1/10 - 1/3
- 1/3 - 1
- 1 - 4
- 4 - 6
- 6 - 15
- 15 - 23

0   3.75   7.5   15 Miles

FOCUS Alternative Futures Summary Report
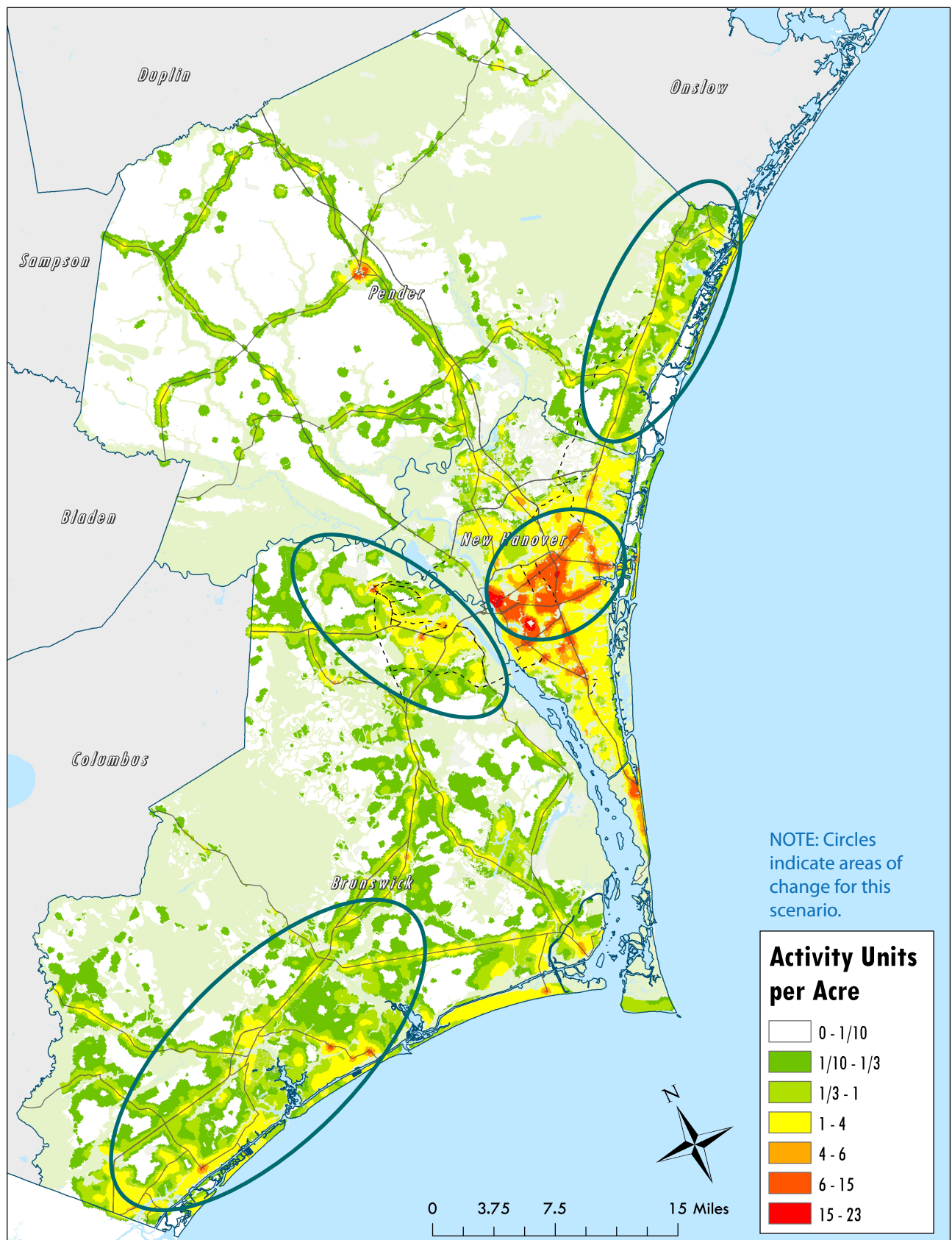
MIXED USE DEVELOPMENT

Compact development in existing and new centers

OVERVIEW
- Not fundamentally altered regional growth pattern
- Concentrated housing and employment in centers
- New, higher density development patterns emerge

WHAT IS ASSUMED?
- Demand for housing shifts slightly to more condos, townhomes and apartments
- Housing, services and jobs are drawn to established community and commercial centers in addition to major roads
- New jobs are similar to existing mix of employment, with a slightly lower percentage of industrial

- Continuation of trends in transportation choices and travel behavior, with more opportunity for walking, cycling and vehicle trip efficiency

SCENARIO COMPARISON
- Urban densities similar to High Growth Node scenario, but sparser elsewhere
- Transit access lower than high-growth options
- Vehicle miles traveled (VMT) second-highest among the four scenarios
- Good access to employment centers and parks, but poor access to growing suburban areas

WHAT IS NEEDED TO REALIZE THIS FUTURE?
- Re-emergence of market dynamics that drive suburban development
- Fast job development in the short run with a focus on wages that drive household formation
- Slight shift in housing preferences away from single family homes to other types
- New land use policies and land development practices accommodating and promoting mixed use, compact development
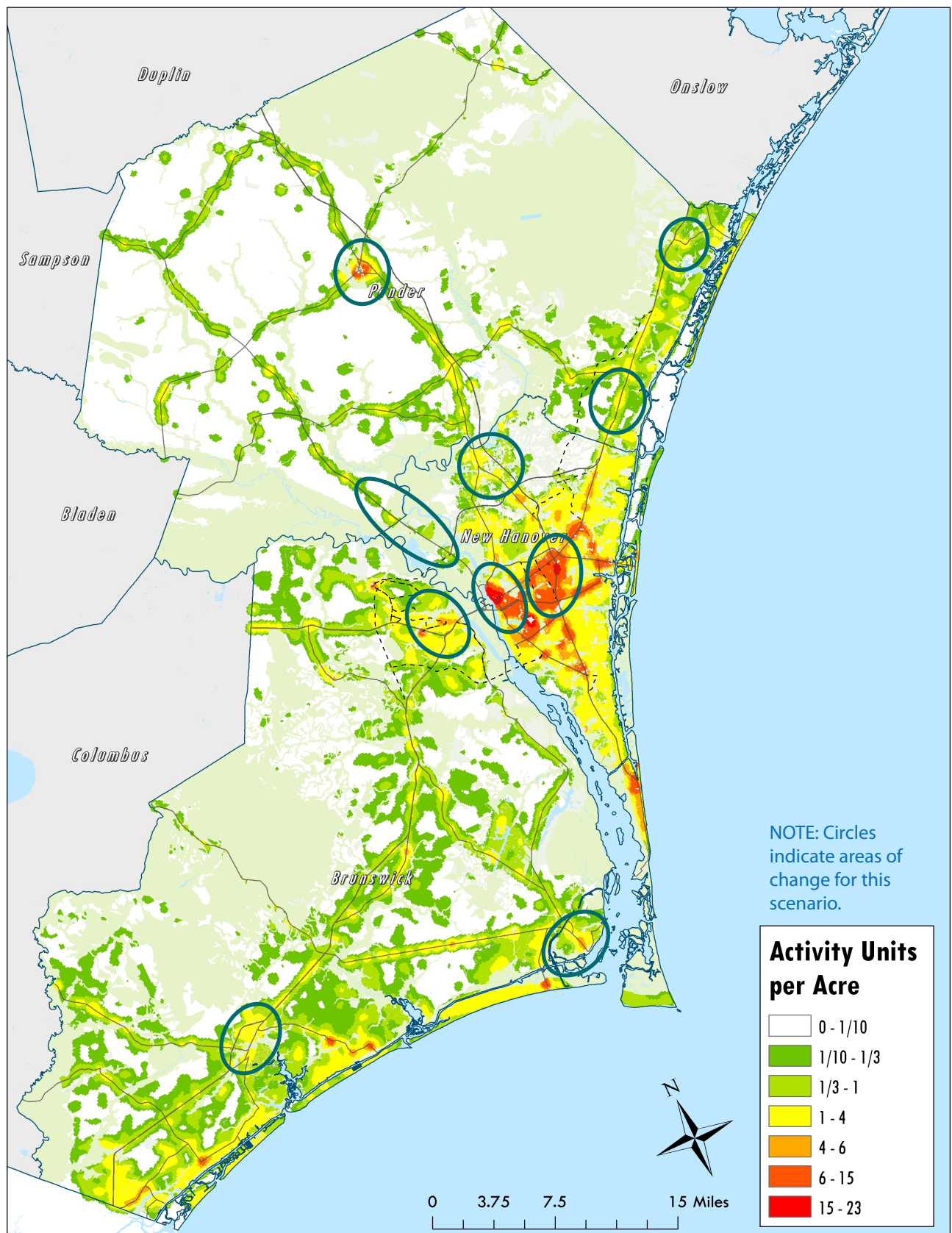- Moderate expansion of public infrastructure to serve new development

AREAS OF CHANGE
- Coastal Brunswick grows significantly, with clustering of development in areas such as Southport and Shallotte
- Mixed use development occurs in established areas such as Burgaw, Leland, Castle Hayne, dowtown Wilmington and the Market Street/New Center area.
- Some of the greenfield development in coastal Pender occurs in mixed use districts along US 17.
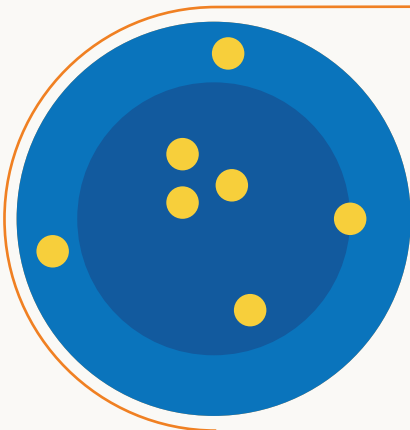
GROWTH PATTERN
- Moderate growth dispersed throughout the region
- Compact development in existing and new centers

NOTE: Circles indicate areas of change for this scenario.

Activity Units per Acre

- 0 - 1/10
- 1/10 - 1/3
- 1/3 - 1
- 1 - 4
- 4 - 6
- 6 - 15
- 15 - 23

0   3.75   7.5   15 Miles

Duplin

Onslow

Sampson

Pender

Bladen

New Hanover

Columbus

Brunswick

ALTERNATIVE FUTURES SCENARIOS

REDEVELOPMENT AND INFILL

High level of growth in the central part of the region

OVERVIEW
- Maximizes capacity of existing urbanized areas
- Assumes high level of infill and redevelopment
- New, higher density development types emerge

WHAT IS ASSUMED?
- High percentage of new housing and jobs going in existing developed areas
- Demand for housing types and location similar to recent trends with densities increasing for each type
- Jobs concentrate in existing centers, emerging commercial areas and along major roads
- Greater reliance on transit and a shift in travel behavior with more walking, cycling and vehicle trip efficiency

SCENARIO COMPARISON
- Highest density, largest development footprint
- Less transit access and higher VMT than High Growth Nodes
- Access to amenities generally lower than High Growth Nodes, but higher than others

WHAT IS NEEDED TO REALIZE THIS FUTURE?
- Shift in market dynamics that drive development into existing centers and corridors
- Fast job development in the short and long run with a focus on office and commercial jobs, built at higher densities
- Significant increase in wages that drive household formation
- New land use policies and land development practices accommodating higher densities in commercial corridors
- Increase in residential development in established centers and commercial corridors
- Expansion of public infrastructure in undeveloped areas; Infrastructure capacity improvements to serve new infill development

AREAS OF CHANGE
- Infill development in established beach communities in Brunswick, New Hanover and Pender
- High level of development throughout the existing urbanized area of Wilmington, New Hanover County and eastern Brunswick County with a focus on redevelopment of existing commercial corridors
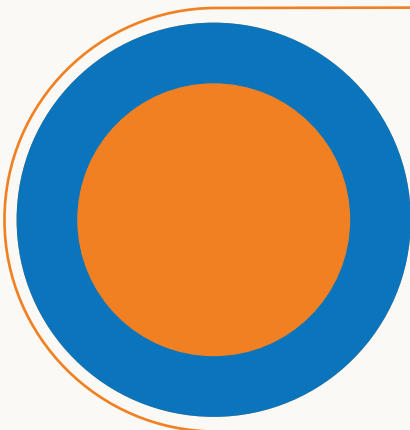
GROWTH PATTERN
- High regional growth with large share in existing urban areas
- Building out urban areas
- Revitalizing centers and corridors

NOTE: Circles indicate areas of change for this scenario.

Activity Units per Acre

	0 - 1/10
	1/10 - 1/3
	1/3 - 1
	1 - 4
	4 - 6
	6 - 15
	15 - 23

0   3.75   7.5   15 Miles

N

Duplin

Onslow

Sampson

Pender

Bladen

New Hanover

Columbus

Brunswick
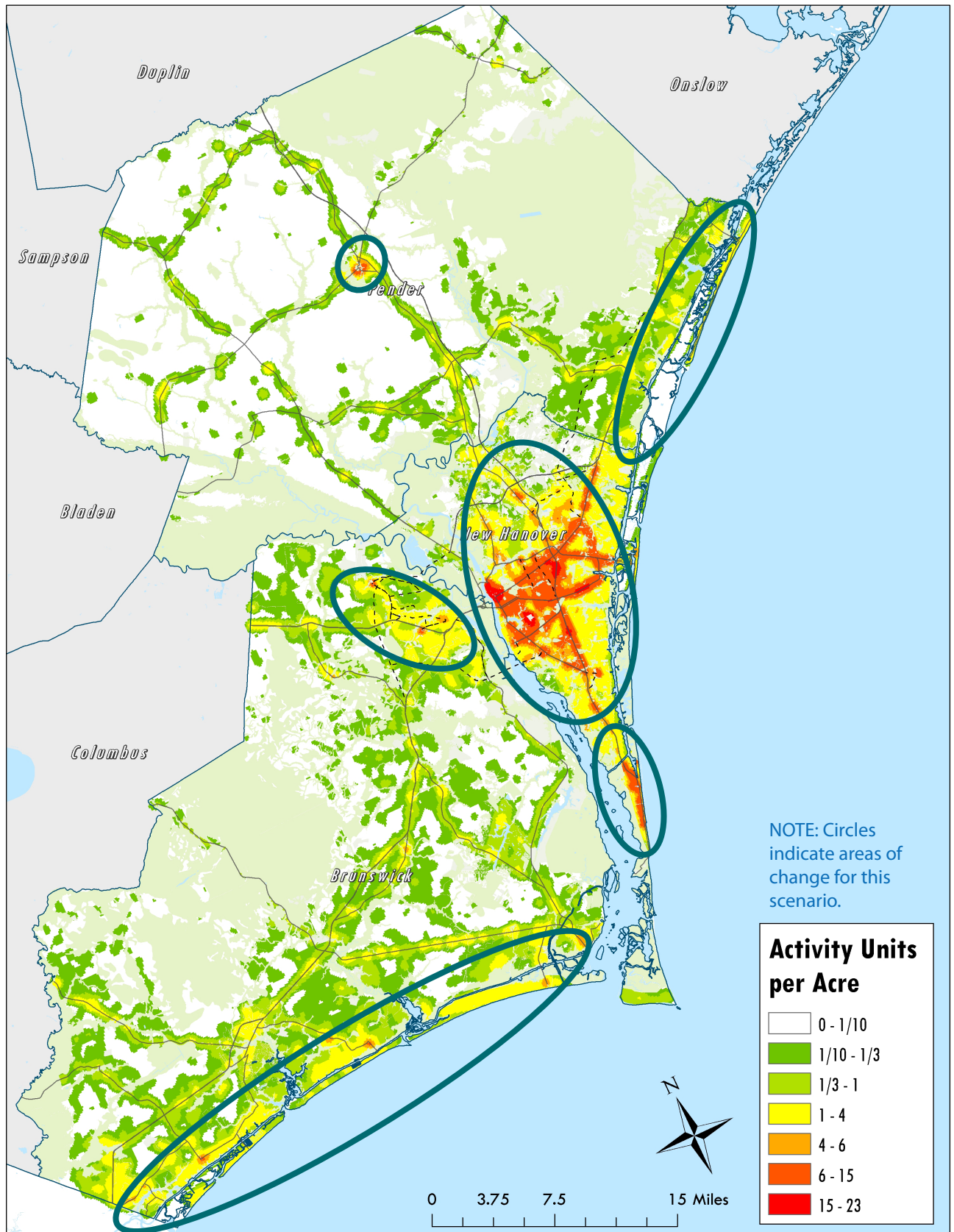
ALTERNATIVE FUTURES SCENARIOS

HIGH GROWTH NODES

High central growth with select high density areas

SUMMARY
- Higher density development types
- Growth nodes throughout the regions
- Optimize development diversity in centers and efficiency in existing and new infrastructure

WHAT IS ASSUMED?
- High percentage of new housing and jobs going in existing developed areas
- Shift in demand for housing types away from single family houses with densities increasing for each type of housing
- Jobs highly concentrated in existing centers and established commercial areas

- Significantly higher opportunity for transit and a large shift in travel behavior with more walking, cycling and vehicle trip efficiency

SCENARIO COMPARISON
- Most infill development among the scenarios, but lower density than Redevelopment & Infill scenario.
- Best transit access and biggest VMT reduction
- Access to jobs highest among scenarios

WHAT IS NEEDED TO REALIZE THIS FUTURE?
- Large shift in market dynamics that drive development into existing centers and corridors
- Fast job development in both the short run and long run with a focus on office and commercial jobs that build at higher densities
- Significant increase in wages that drive household formation
- New land use policies and land development practices requiring much higher densities in commercial corridors and policies that limit density in other areas
- Large increase in the number of residential development in established centers and commercial corridors

AREAS OF CHANGE

- Urban development transforms select area of Wilmington including downtown, the New Center area, South College and Oleander
- Infill development in New Hanover on North College Road, US 17 and Castle Hayne
- Pender County focuses on mixed used and mixed intensity development in the Hampstead area
- Leland and Bellville focus development in previously developed areas north and south of US 17
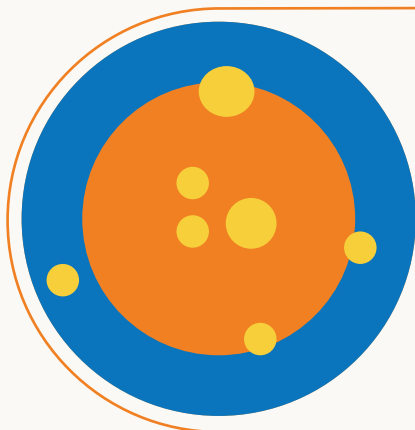
GROWTH PATTERN

- High regional growth with large share in existing urban areas
- Building out urban areas
- Focused growth in central urban and other centers in region

Duplin

Onslow

Sampson

Pender

Bladen

New Hanover

Columbus

Brunswick

NOTE: Circles indicate areas of change for this scenario.

Activity Units per Acre

	0 - 1/10
	1/10 - 1/3
	1/3 - 1
	1 - 4
	4 - 6
	6 - 15
	15 - 23

N

0   3.75   7.5   15 Miles

FOCUS Alternative Futures Summary Report
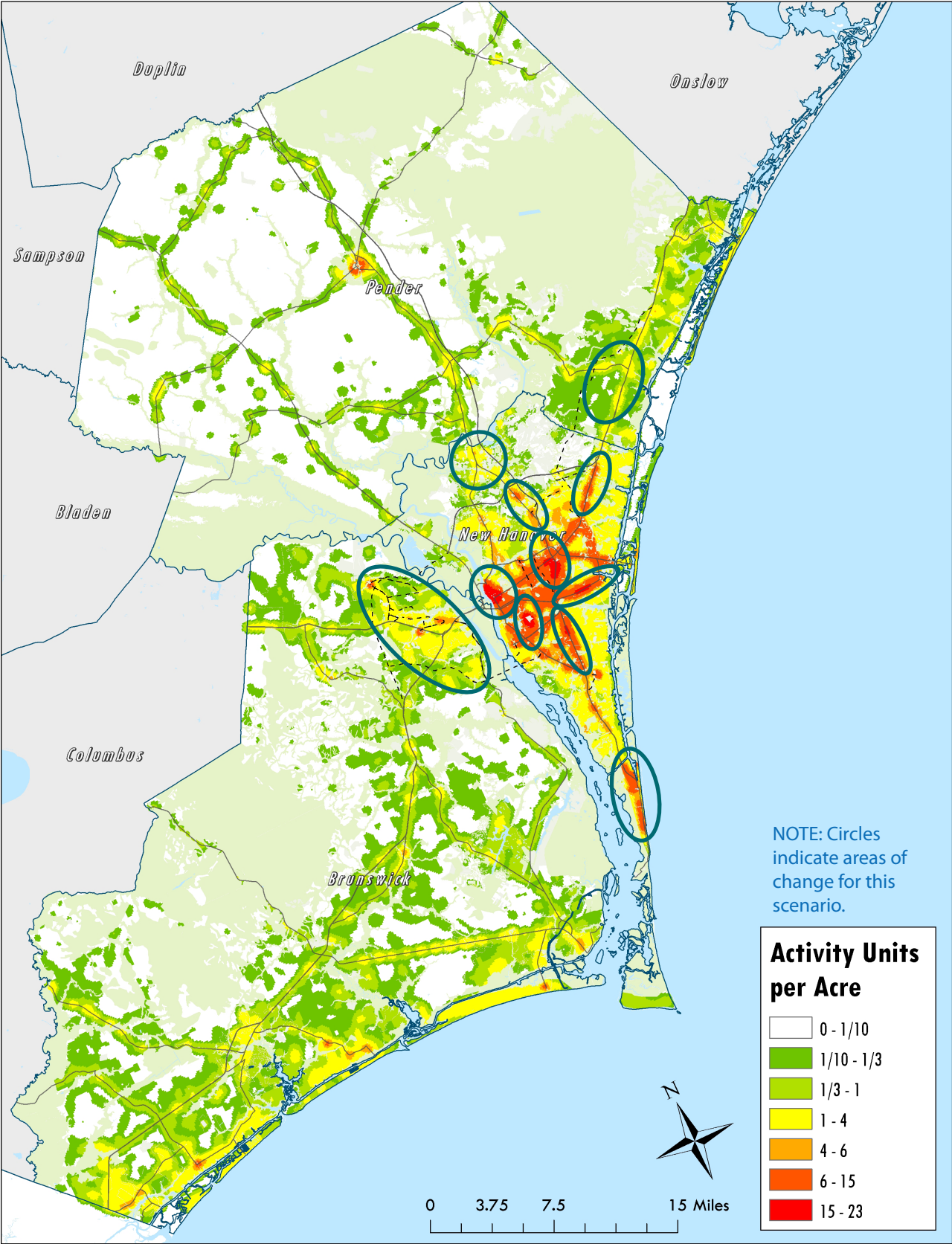
INDICA-TORS

Indicators are used in this analysis to help quantitatively measure and compare the performance of various scenarios. The indicators used here were designed to evaluate three key categories:

- Development Patterns - the breadth and intensity of land use development
- Transportation Effectiveness - the degree to which travelers use, and are able to use, various forms of transportation
- Opportunity and Access - the extent to which people are able to reach important destinations

General findings for each of the indicator categories is as follows.

DEVELOPMENT PATTERNS

Urban area population density is forecast to increase in all scenarios, with Redevelopment & Infill a full half-percent higher than other scenarios. Impervious surface is forecast to increase in all scenarios as well, with an expected higher degree of impervious surface in the high growth scenarios.

This pattern is mirrored by the percentage of new development on infill sites, with a greater than five percentage point difference between the High Growth Node and Business as Usual scenarios.

However, because the demand for development is so much higher in the high-growth scenarios, the footprint of developed land is nearly identical in all scenarios, suggesting that the intensity of development is much more susceptible to policy intervention than is development extent.

Percent Impervious Surface
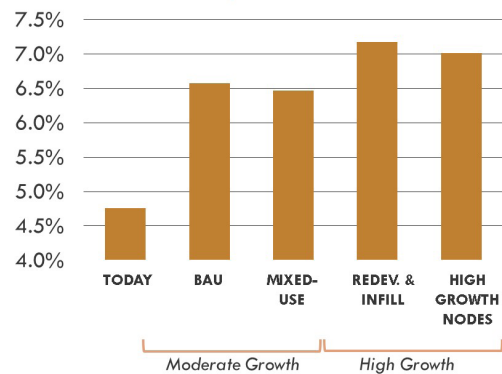
Footprint of developed land
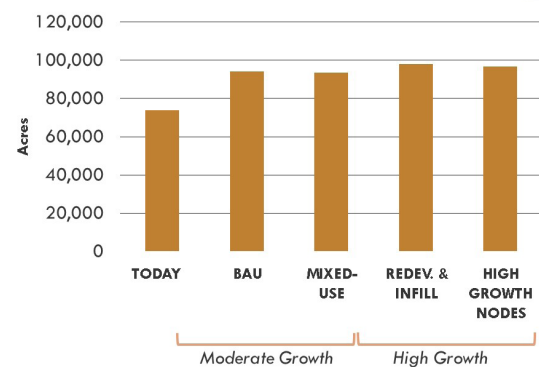
Percentage of development on infill sites
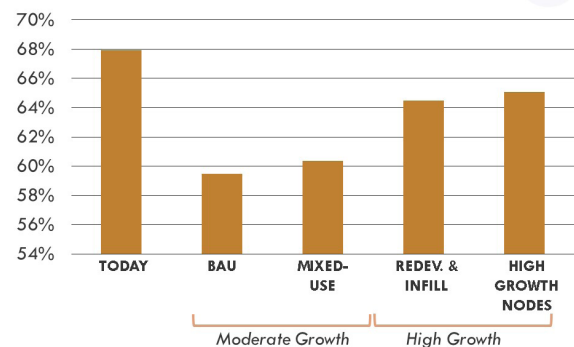


Population density in existing urban area
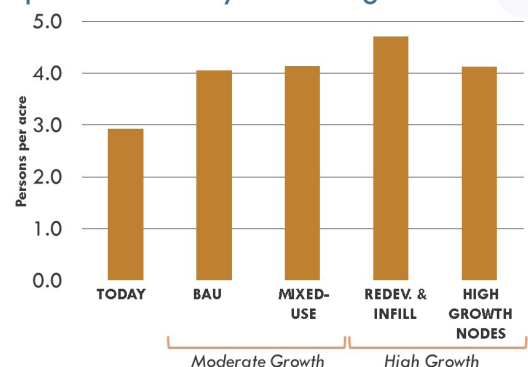
TRANSPORTATION

Alternative Futures scenarios all point to the likelihood that VMT and congestion will increase significantly in the absence of outside intervention. This is in part due to an increasing disconnect between current transit provision and future employment locations, as new businesses locate outside of the urban core. While the number of people with access to transit increases by a minimum of 20,000 in all scenarios, the percent of jobs near transit drops precipitously, from nearly 60% currently to barely half in even the high-growth scenarios. As a result, existing transit lines will need to be expanded to serve the same share of the population.

Total population with access to transit
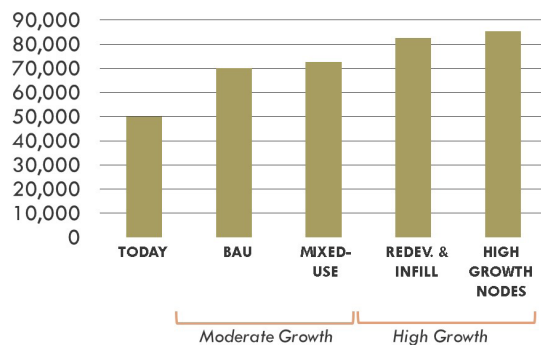
Percent of jobs located within close proximity to transit
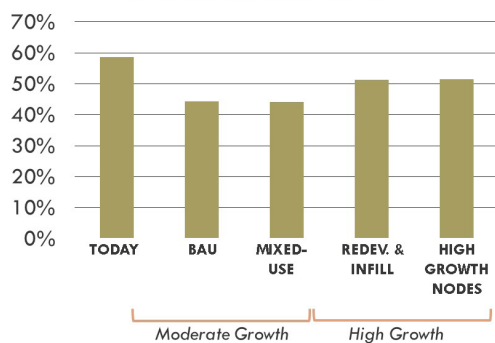
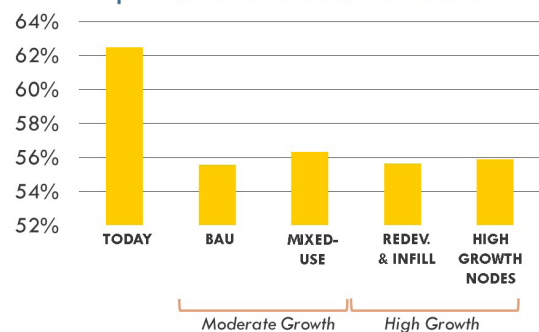### Percent change in VMT per capita
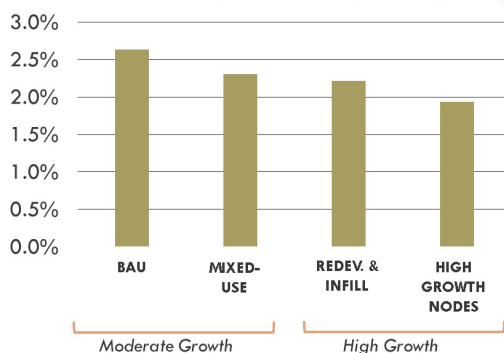
Percentage of population with access to employment centers
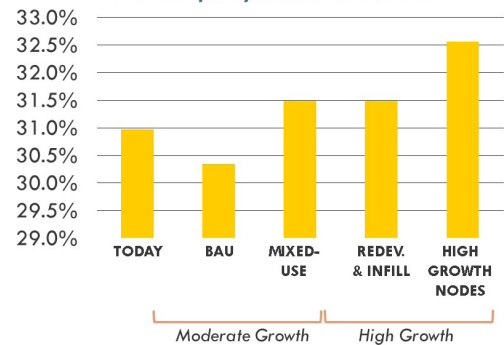
Access to jobs for total population
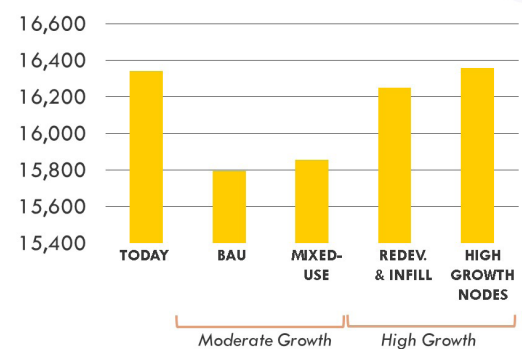
### Percentage of population in proximity to parks and recreation areas

OPPORTUNITY AND ACCESS

The focused infill development of the high-growth scenarios creates benefits and efficiencies, but in all scenarios, continued population sprawl also negatively impacts access to current public facilities, suggesting that location decisions about new public (and private) assets play a vital role in determining future opportunity and access.

For example, in all but Business As Usual, the percent of the population with access to employment centers increases. Conversely, access to current recreation facilities drops across the board, while average accessible jobs per person falls for all scenarios but High Growth Nodes.

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ALTERNATIVE FUTURES SCENARIOS
PUBLIC FEEDBACK
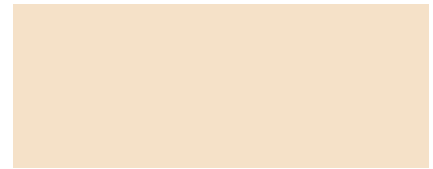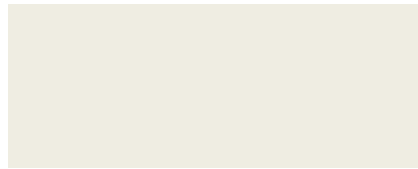
Public feedback is a vital input in determining a preferred development alternative. Feedback was acquired in-person and on-line. In-person comment was provided through keypad responses of over 170 participants at the May 22nd Alternative Futures Breakfast and Forum. Attendees were also able to provide written comments during and after the forum. On-line feedback was provided through two interactive public engagement tools: comments on the Alternative Futures scenarios in the 'Explore the Quest' portion of the FOCUS website, and through the FOCUS forum.

The key messages relayed by the public were loud and clear: the issues facing this region, and the vision for a better future, are about access. Access to jobs, access to alternative forms of transportation, access to more robust living and working environments for all stages of life. Good access requires both proximity and availability, and for the key issues on the minds of the public, good access is not being achieved.

Issues of access dominated discussion of current conditions, as exemplified by responses to the question below.

WHAT ARE THE GREATEST CHALLENGES FACING THE REGION?
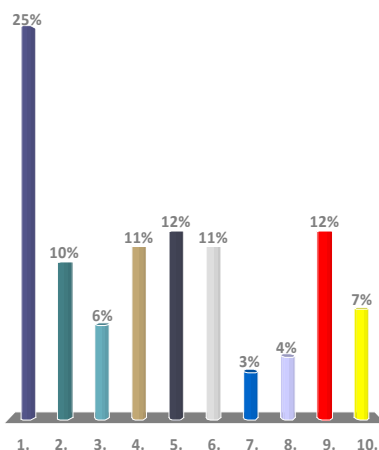
1. Slow rate of job growth
2. Match jobs with worker skills
3. Lack of housing choices
4. Traffic congestion
5. Lack of transportation choices
6. Infrastructure deterioration
7. Lack of tools to manage growth
8. High taxes and regulations
9. Weak regional coordination
10. Environmental degradation

Clearly, the availability of jobs is the critical factor, with concerns about transportation and regional coordination highlighting the next tier of challenges.
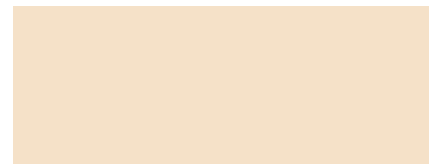
WHICH OF THE FOLLOWING OUTCOMES ARE MOST IMPORTANT TO YOU IN THE CAPE FEAR REGION IN 2040?

These same issues of access are the cornerstones of the community's vision for future success, where vibrant town centers, access to jobs, and manageable congestion were all highly ranked by attendees.

Similar responses were noted by online participants as well. Issues of job access and development (particularly for recent college graduates), housing and neighborhood diversity, and the need for improved regionalism were all noted.
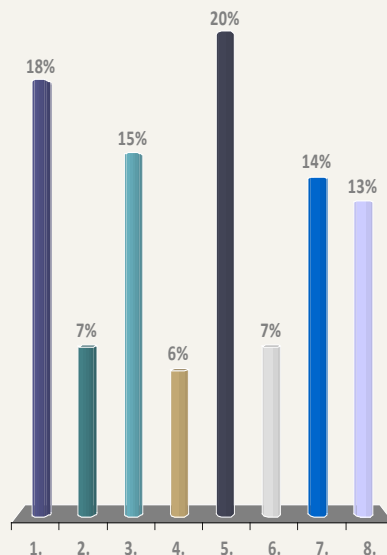
1. Jobs are easy to access
2. Short commutes
3. Manageable congestion
4. More housing options
5. Vibrant mixed use town centers
6. Better access to parks
7. Conserved natural lands
8. Better air and water quality

"Need to attract more young professionals; It feels like the Wilmington area is all college-aged and retirees. Where are the professional jobs? Where are the young families?"

Response to the various Alternative Futures themselves reflected these same tenets. The Business As Usual scenario was the lowest rated by those giving ratings through the website and was also the one that received the fewest page views. While the High Growth Nodes Scenario was the most commonly viewed scenario, no comments were provided by viewers. The Redevelopment and Infill scenario and Mixed Use Centers scenario were reviewed more positively than Business as Usual, and were lauded for their empha-
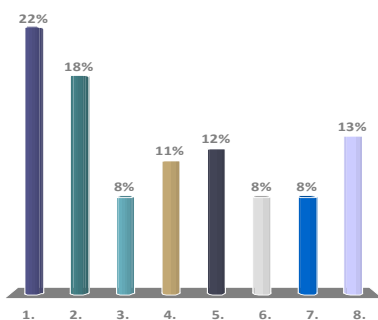
sis on building out existing urban areas and providing opportunities for new "town centers" in the urban core.

To make these dreams a reality, Complete Communities were viewed as an important tool. As shown below, a mix of uses, walkability, and easy access to jobs were the three most important characteristics of the complete community concept.

There are many potential strategies available for pursuing this

goal, but the public responses gravitated to a few in particular: balance housing and jobs within communities; plan for senior housing and affordable housing; make it easier to walk and bike; and create more efficient travel patterns.

**Increased access - to jobs, housing, and daily needs - is the key message from the public.**

Providing increased access will require, above all, complete community strategies, multimodal transportation investments, and regional cooperation.

WHAT CHARACTERISTICS ARE MOST IMPORTANT IN A "COMPLETE COMMUNITY?"

1. Mix of uses
2. Walkability
3. Transit options
4. Housing options
5. High quality schools
6. Different types of people and families
7. Easy access to nature
8. Easy access to jobs

FOC**US** Alternative Futures Summary Report

ALTERNATIVE FUTURES SCENARIOS
CONCLUSIONS

The findings of the Alternative Futures scenarios discussed in this report point to a region that is facing continued growth, and the positives and negatives that come with that growth. Urban areas are clearly attractors for residents and businesses, but pressure for expansion and sprawl, even when its urban areas facilitate increased density, is a certainty. This is made most clear by the four scenario projections showing very similar amounts of developed land, even though the scenarios capture very different amounts of population and employment. In effect, the scenarios suggest that without public intervention, the region will expand into suburban and rural areas under any market conditions. While more and more people and jobs will be in urban areas, there will always be pressure to expand suburban land.
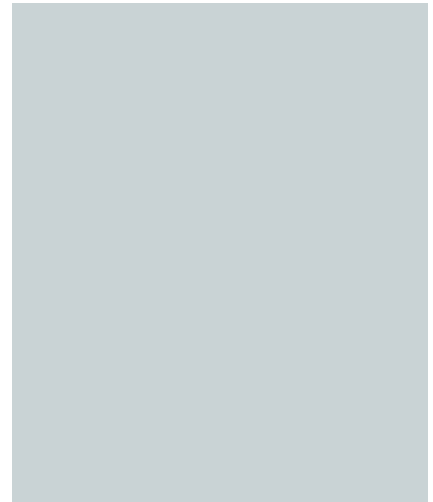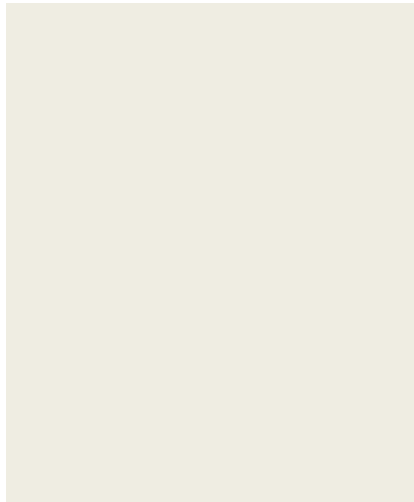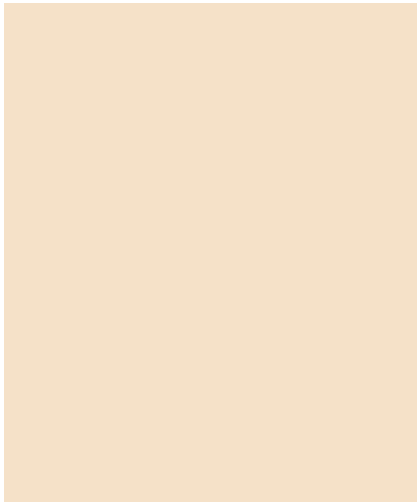
Expansion of development has both positive and negative impacts. New residents and new jobs can increase a tax base and improve a community's diversity. However, sprawling expansion can also overburden already strained public resources and degrade quality of life. The indicators point to this as a serious concern. VMT is expected to rise, not just in total, but per capita as well. Current public transit provision begins to serve a smaller and smaller percentage of the population, and increased interest in urban living can price out people currently living in transit-friendly urban areas who rely on transit for daily transportation needs. Without additional capital and operational investments, parks and other regional amenities project to serve a smaller percentage of the population. This places a heavy burden on public investment, either requiring more funds, or gaining less and less benefit from the money currently being spent. Given the role that tourism and quality of life plays in attracting and retaining new residents and businesses, degrading the return on investment that public expenditures provide can reduce the quality of life that the economy relies upon.

Findings from this report support the need for regional collaboration aimed at creating Complete Communities

Findings from this report all suggest a **real, pressing need for thoughtful policy intervention**, through growth management that facilitates both market demand and public return on investment. Such a growth management framework will need to be regional in scale, provide a diversity of living and working environments, and have the support of public officials and the citizenry at large.

Intervention of this type can be difficult, particularly in cases where there is not regional buy-in. However, the public feedback received during the Alternative Futures analysis and FOCUS in general points to strong support for thoughtful regional growth management. Preferences for improved access to jobs, walkable environments, and regional collaboration were all nearly uniform, and the principles of "Complete Communities" were met with resounding support.

The findings of Alternative Futures and the support for regional collaboration and Complete Communities are clear signs pointing the way for the Regional Framework Plan, and are a strong foundation for a better Cape Fear region in the future.

FOCUS Alternative Futures Summary Report