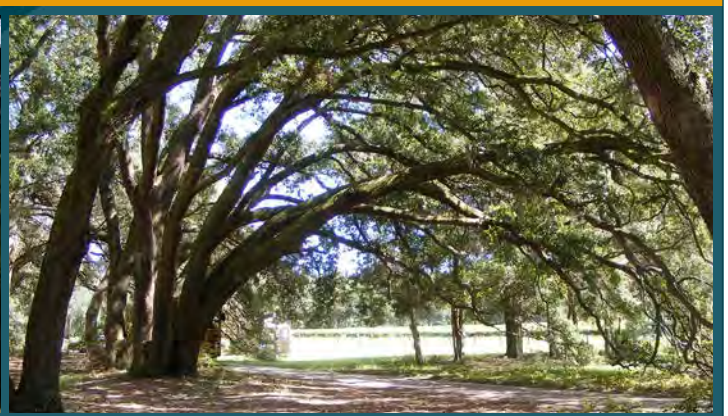
CHARLESTON COUNTY
SOUTH CAROLINA

Comprehensive Plan

Guiding the future for a lasting Lowcountry.



ADOPTED BY CHARLESTON COUNTY COUNCIL
November 18, 2008
Ordinance No. 1567 as amended

Acknowledgements

The ***Charleston County Comprehensive Plan*** reflects a year long effort of citizens, County Officials, and professional consulting team to update and refine the future vision for the County. Special thanks to the citizens of Charleston County for their dedicated participation in the Comprehensive Plan Process.

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2008 PLAN UPDATE

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Facilities Management
Consoiidated 9-1-1 Center
Economic Development
Public Works
Environmental Management
Community Development
Building Services
Transportation Development

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Other Agencies

Charleston County Park and Recreation Commission
Charleston County Aviation Authority
Charleston County School District
South Carolina State Ports Authority
Berkeley-Charleston-Dorchester Council of Governments
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Town of Mount Pleasant
City of North Charleston
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Part 1: Introduction and Background

"If there is a time for you to understand and appreciate the necessity of your involvement—the time is now. It is critically important for the citizens of Charleston County to have an opportunity to have input into this plan. This plan will be the guide that we use between now and 2020. Many changes will happen and without your involvement we will not have done our jobs as good as they could have been done."

– U.S. Rep. Tim Scott
Former Charleston County Council Chairman

Chapter 1.1 Introduction

OVERVIEW

The Charleston County *Comprehensive Plan* (the Plan) is the future vision for preservation and development in Charleston County (the County) for the next five to ten years. The Plan establishes strategies for the County to pursue to maintain and enhance its high quality, unique landscapes with a focus on strategies that the County government can directly influence and achieve.

The comprehensive planning process identified a series of over arching themes that serve as the primary guidance for the recommended strategies and implementation initiatives. These themes are:

1. The major policies and direction of the *1999 Comprehensive Plan*, the subsequent *2003/2004 Comprehensive Plan Review, 2008 Comprehensive Plan Update, and 2013-2014 Comprehensive Plan Review* are still largely valid and accurate. All future Plan updates and reviews should **stay the course** and build on the past success of the Plan.

2. **Rural preservation** is very important. The Plan needs to place emphasis on the protection of the unique Lowcountry character. The Urban Growth Boundary needs to be institutionalized though intergovernmental agreements and/or working relationships in order to direct higher intensity growth to the Urban/Suburban Area where adequate infrastructure and services are in place, allowing for preservation of the rural character of the majority of the County.

3. **Fiscal responsibility** is essential to success for the County. New development needs to generate revenue equal to the cost of providing new services and infrastructure so that existing residents and businesses do not pay a disproportionate share of the cost of growth.

4. The broad nature of comprehensive planning is important for a successful future, however, there are areas in the County where more **detailed land use study and planning** will be necessary.

5. The County is but one of many players in the region that can influence the preservation of resources, form of development, and provision of services and infrastructure. It is vitally important that the County recognize its ability to manage its destiny and **establish working relationships and/or formal agreements with other jurisdictions and agencies** that contribute to the quality of life.

6. The Plan places an emphasis for **growth to occur within the Urban Growth Boundary (UGB) where public infrastructure and services exist**. Additionally, the Plan recognizes the need for mixed-use development and a diversity of housing types that are affordable to County residents and located near existing infrastructure while preserving and protecting the Rural Area for future generations. A commitment to balance social, economic and environmental considerations is required to achieve the objectives set forth in the Plan. The integration of these three basic areas of concern into all development processes with broad public participation in decision making is important for achieving sustainable development in Charleston County.

The following purpose and intent statement defines the broad role of the Comprehensive Plan.

Purpose and Intent

The County of Charleston Comprehensive Plan will guide public decision-making affecting the quality of life in Charleston County through the year 2020. The Plan identifies the community's Vision for the future. The Vision articulates the essential components of the

quality of life in Charleston County, as identified by the community, and serves as the touchstone for the Comprehensive Plan. The various elements of the Plan are designed to accomplish this Vision by articulating goals for the future regarding the pattern, quality, and intensity of land uses, the provision of public facilities and services, economic development, availability of housing, and preservation of natural and cultural resources. The Plan also establishes strategies or actions and implementation tools to enable the County to achieve the Vision set out in this Plan. The components of the Plan focus on real actions the County can achieve given the appropriate time and resources. The strategies of the Plan elements are tied together in a comprehensive manner and are executed through both the land use and priority investment strategies.

The following section provides guidance on the structure of the Plan and the various elements.

GUIDE TO THE COMPREHENSIVE PLAN

Using the Plan

As stated in the Purpose and Intent, the Plan is a guide for public decision-making. Specifically, the County's elected and appointed officials should use the Plan to evaluate future proposals or policy changes to ensure consistent decisions are made. Furthermore, the Plan should provide guidance to land owners and developers on what is appropriate in the County.

This Plan contains a few terms that will be used to describe the various policy recommendations:

- ***Vision:*** the comprehensive, over arching statement of the desired future of the County. The ultimate set of ideals to which the County should aspire.
- ***Goal:*** a statement of desired end-state or target. Tied very closely to the vision statement and focused on a specific element of the Plan. Provides particular guidance for where the County should be in the future, and sets the tone for the individual strategies for each element.
- ***Strategy:*** a recommended course of action or task the County or its designated agency could undertake in pursuit of a Goal and the Vision. Provides focused and achievable guidance on specific topics under the Plan element headings. Ties the implementation of the Plan to the Goals and Vision.
- ***Initiative:*** a specific set of tasks or a coordinated effort to be undertaken in the pursuit of implementation of the Plan.

While all of the various recommendations of the Plan are intentionally interwoven, it is possible to glean information from a particular section or set of recommendations within the individual elements of the Plan. The Plan is provided as a comprehensive guide for the County but specific recommendations may apply more in one circumstance than another. The elements of the Plan are listed below. The Plan dedicates a chapter section to each element that includes background and strategies/recommendations for that element of the Plan.

The scenic views along many of the County's roads are a key component to the vision and character of the County.

Plan Structure

Following these introductory chapters, the Plan is divided into the Vision (Part 2), Comprehensive Plan Elements (Part 3), and Additional Resources & References (Part 4). The following lists the various sections of each chapter and provides a brief overview of the contents.

Part 2: Vision

- ***Chapter 2.1 Vision Statement*** is the articulation of the components of the quality of life in Charleston County, as identified by the community. This is the

Coordination with both the large and small municipalities in the County is important in the long-term success of this Plan.

over arching statement of what is important and what the County desires now and in the future.

- ***Chapter 2.2 Goals*** is the ten specific targets for the elements of the Plan, which tie the specific strategies for each element to the Vision Statement.

Part 3: Comprehensive Plan Elements

- ***Chapter 3.1 Land Use Element*** is the history of land use development and strategies to shape the future of the Charleston County landscape and geographic distribution of preservation and development. This element includes strategies for location, quality, and quantity of land uses.
- ***Chapter 3.2 Economic Development Element*** is the overview of the economic environment and strategies to influence employment and business growth in the County to support the population.
- ***Chapter 3.3 Natural Resources Element*** is the recognition of the diverse natural assets in the County and additional strategies beyond those in the Land Use Element to protect and preserve these features. This Element includes, through reference, the strategies and information in the *Charleston County Comprehensive Greenbelt Plan*.
- ***Chapter 3.4 Cultural Resources Element*** is the recognition of the diverse historical and cultural assets in the County and additional strategies beyond those in the Land Use Element to protect and preserve these features.
- ***Chapter 3.5 Population Element*** is the assessment and inventory of population and demographic data to establish existing conditions, forecasts for planning purposes, and strategies to stay apprised of the continually changing needs and preferences of the population.
- ***Chapter 3.6 Housing Element*** is the assessment of housing conditions and needs in the County and strategies to ensure adequate and affordable housing supply is available in the future.
- ***Chapter 3.7 Transportation Element*** is the overview of transportation data and efforts in the County and region as well as a list of necessary and bonded improvements to the road network. This Element includes, through reference, the strategies and information in the *Charleston County Comprehensive Transportation Plan*.
- ***Chapter 3.8 Community Facilities Element*** is the inventory and status of the various facilities serving the population of Charleston County, and strategies to ensure continued quality service provision in the future.
- ***Chapter 3.9 Priority Investment, Implementation and Coordination Element*** is the element that prioritizes the investment of County resources into the various strategies of the Plan and lists the major initiatives the County should undertake in pursuit of the Plan strategies/recommendations.
- ***Chapter 3.10 Energy Element*** identifies steps that need to be taken to prepare for a changing style of living through conservation and renewable energy.

Part 4: Additional Resources & References

- ***Chapter 4.1 Definitions*** is the glossary of specific terminology used in the Plan.
- ***Chapter 4.2 Index of References*** is the index of data sources, and documents influencing the creation of this Plan which are not included as part of the Plan and a listing of the Appendix Documents included through reference as part of this Plan.

Charleston County has established communities, areas where development will take place, and areas that will remain in a natural state.

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Chapter 1.2 Planning Background

AUTHORITY FOR THE COMPREHENSIVE PLAN

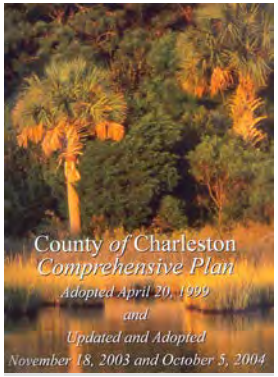
In 1994, the County was granted the authority to prepare and maintain a comprehensive plan through the *South Carolina Government Comprehensive Planning Enabling Act* (S.C. Code Title 6, Chapter 29). The Act consolidated formerly separate legislative acts regarding the local authority to create comprehensive plans. Chapter 29 has since been updated to include additional sections regarding educational requirements for local planning officials, vested rights, and the *Federal Defense Facilities Utilization Integrity Protection Act.* In 2007, The General Assembly enacted the *The South Carolina Priority Investment Act* thereby amending sections of the *Comprehensive Planning Enabling Act* to require local jurisdictions to include discrete transportation and priority investment elements in their plans and enhancing the requirements for the housing element of plans and zoning codes.

PLANNING IN CHARLESTON COUNTY

The *Comprehensive Plan* is adopted by County Council as an ordinance. Before adoption, the Planning Commission must make a recommendation and County Council must hold a public hearing, giving the public a minimum of thirty days public notice of the hearing. The Plan must be reviewed once at least every five years to determine if changes are needed which require additions or amendments. The Plan must be updated at least every ten years.

History of Planning in the County

Charleston County adopted its first *Comprehensive Plan* in 1999 after a two year long planning process. The 1999 plan was the first prepared under the *1994 Comprehensive Plan Enabling Act*. The Plan was subsequently reviewed in 2003, updated in 2008, and reviewed again in 2013-2014. The 1999 Comprehensive Plan process was overseen by the Planning Commission and the Council-appointed Joint Planning Policy Committee composed of 25 individuals. Prior to the 1999 *Comprehensive Plan*, planning in the County had been done based on geographic subareas of the County.



The adopted *1999 County of Charleston Comprehensive Plan* superseded the area plans and replaced them as the effective planning document for the unincorporated portions of Charleston County. Although no longer in effect, the legacy of these area plans is carried forward through the vision and direction of this updated Plan. The area plans included:

- ***61 Corridor Growth Management Plan*** (City of Charleston and Charleston County 1986);
- ***James Island Land Use Policy Recommendations*** (James Island Study Committee 1988);
- ***Johns Island Plan 1995 Land Use Update*** (Charleston County 1995);
- ***Edisto Island Land Use Plan*** (Edisto Island Land Use Committee 1993); and
- ***Wadmalaw Island Land Use Plan/Planned Development Guidelines*** (Wadmalaw Island Planning Committee 1988).

Updating the Plan

This *Comprehensive Plan* is the result of the state mandated five year review and ten year update cycle, the need for the County to conform to the new state statutes (*The Priority Investment Act)* requiring additional elements in the *Comprehensive Plan*, and a response to changing economic and growth trends. The County took a very comprehensive approach to updating, amending, and reviewing the Plan including extensive public participation, full Planning Commission involvement, and a team of consultants who assisted in evaluation of trends, and creation of the *2008 Plan Update*.

The County's Role & Other Players

On the surface it may appear that the County should be able to manage growth and provide services as an independent and wholly functioning entity. However, the truth is that Charleston County is but one major player in a dynamic regional context. The County is responsible for several functions and services delivered through the County such as Emergency Medical Services (EMS), the Consolidated 9-1-1 Center, Public Safety (Sheriff's Office and Detention Center) and Environmental Management. Services that Charleston County Government does not directly manage include:

- Schools – Charleston County School District;
- Parks – Charleston County Park and Recreation Commission (CCPRC);
- Bus system – Charleston Area Regional Transportation Authority (CARTA);
- Water resource management and water access permitting – Office of Ocean & Coastal Resource Management (OCRM);
- Municipal garbage and trash pickup;
- Sanitary sewer services; and
- Water services.

The division of responsibility requires the Charleston County Government to work in coordination with agencies to provide services. It also compounds the importance of inter-jurisdictional and inter-agency cooperation to achieve the growth management intent of this Plan.

The County has the primary role in the preparation of the Plan. The implementation of this Plan lies with County Council, the Planning Commission, the Planning Department, the *Zoning and Land Development Regulations Ordinance*, the Half Cent Sales Tax Programs including the *Greenbelt Plan* and the *Transportation Comprehensive Plan*, the Public Works Department, the Office of Economic Development and other County departments. The Priority Investment and Land Use Elements are the pivotal components for the Plan, tying together the various recommendations into a form that the County can and should implement.

The County must focus on coordination and agreements with other agencies to implement the Plan. Because the County does not have the ultimate policy-making authority or management abilities of such services as sanitary sewer, water, and water resource management, the County must defer to the respective agency. While this Plan outlines a vision for the future, it is necessary to also recognize the importance of the other agencies outside the direct control of the County. The County can not autonomously manage growth without the cooperation of these other agencies which provide vital services to the community.

INFLUENCING TRENDS

The *2008 Comprehensive Plan Update* planning process started with a set of technical research documents that focused on the historic and anticipated future trends in population, housing, and non-residential growth. The analyses were split into: 1) a demand based analysis (*The Demand Analysis*) which looks at the potential growth of the population and the demand for new housing and businesses that would be generated by that growth; and 2) a supply side analysis (*The Capacity Analysis*) which reviews the available land in the County and the potential buildout capacity of that land under current zoning and land use policies[1]. Together these analyses provide a guide for where the County is headed under current policy and trends the discussion of what may need to be adjusted in the *2008 Plan Update*.

The following sections describe the findings of the *Demand and Capacity Analyses* performed as part of

1 Both documents are available in their entirety at the Charleston County Planning Department.

the *2008 Plan Update*; however, more up to date demographic trend data from the 2010 U.S. Census, 2007 - 2011 American Community Survey, and other sources, is included in Part 3, Comprehensive Plan Elements, as part of the *2013 - 2014 Comprehensive Plan Five-Year Review*.

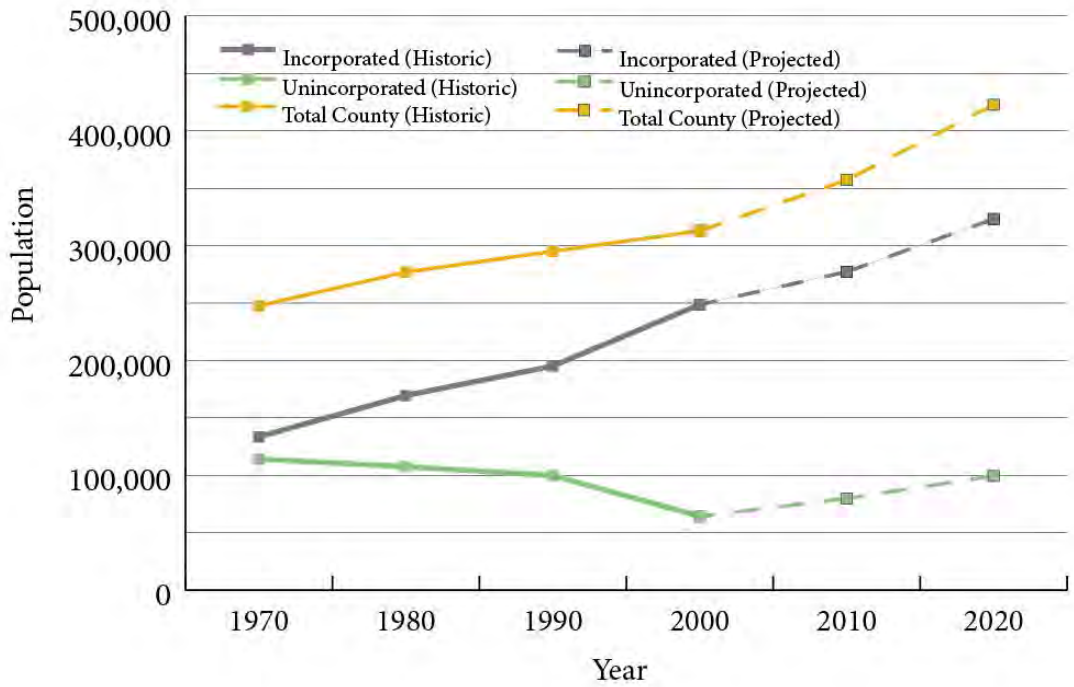
The Demand Analysis

The *Demand Analysis* conducted as part of the *2008 Plan Update* looks at local, regional, and national trends to attempt and calibrate a local projection that is truly reflective of the economic climate in which the County is operating. The *Capacity Analysis* conducted as part of the *2008 Plan Update* looks at the natural constraints to development and the development regulations and policies that protect or permit development to create an estimate of just how much growth can be accommodated.

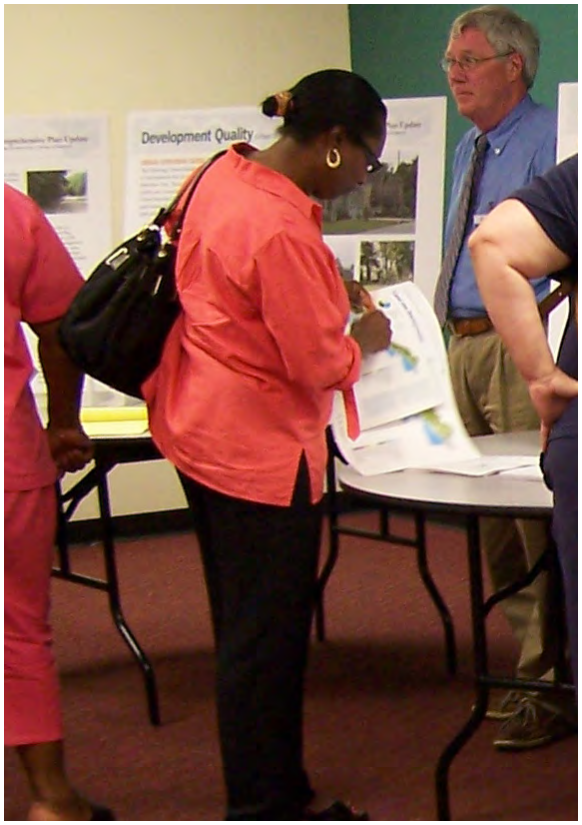
Figure 1.1.1. shows the historic and projected population growth for the County from the *2008 Plan Update Demand and Capacity Analyses*. The data is split between the unincorporated portion of the County, and the areas within municipal boundaries. These projections were based on the assumption that annexation trends would continue in a similar manner to the historic pattern. The assumption is that municipalities would continue to annex to a certain degree thereby increasing the land area of municipalities and decreasing that which is in the unincorporated County. The summary findings of the *2008 Plan Update Demand Analysis* include:

- Assuming an annual growth rate of 1.7 percent, Charleston County can reasonably expect 85,000 new residents during the projection period resulting in a 2020

Figure 1.1.1: Charleston County, Historic and Projected Population Growth



Note: 2007 population estimated based on analysis of available recent population estimates. 2010 and 2020 population forecasts are based on 1.7 percent annual growth rate. Sources: U.S. Census Bureau, 1970-2000; Miley, Gallo, & Associates, LLC, 2007.



Public participation was key in the 2008 update for the Comprehensive Plan.

population of 425,000.

- Based on the municipal population capture analysis, 70 percent, or 60,000 people, will live in the incorporated areas of the County, and 30 percent, or 25,000, will live in the unincorporated areas.
- Population growth of 1.54 percent a year is expected for the municipalities and a relatively higher rate of 2.24 percent a year is projected for the unincorporated areas. However, if annexation activity increased significantly, these estimates will shift accordingly.
- Population growth will stimulate housing demand in Charleston County. In total, the County will need approximately 42,000 new housing units by 2020. Growth in the municipalities will drive housing demand for 30,000 units. In the unincorporated areas, 12,000 new housing units are anticipated through 2020.
- Assuming product-type preferences are consistent with recent County trends, the majority of the new units, 30,000 or 70 percent, will be single-family residences. Within the municipalities approximately 21,000, or 69 percent, are expected to be single-family units. However, in the unincorporated areas, approximately 9,000, or 77 percent, are expected to be single-family homes, with five percent multi-family, and 18 percent mobile homes.
- Although Charleston County's annual employment growth rate is projected to be 1.9 percent, our research indicated that the majority of the demand for new commercial space is likely to occur within the municipalities. However, special land assemblages along with targeted economic development efforts could directly affect employment estimates for the unincorporated areas.

Capacity Analysis

The companion, supply-side analysis (*The 2008 Plan Update Capacity Analysis*) looks at the capacity of the unincorporated land area to support new development under current policies. The unincorporated areas were targeted because these are the areas in which the County is responsible for planning. This analysis started with a current update of existing land use. The land identified as vacant, large residential lots, and agricultural land was assumed to have some potential development capacity. Any land with environmental constraints or protections was removed from the pool of land. The development densities from *1999 Future Land Use Plan* and the subsequent *2003/2004 Review* and existing zoning were applied to the available acreage to yield the number of potential homes that could be built on the land. The summary findings of the *2008 Plan Update Capacity Analysis* included:

- Zoning provided for a mid-range buildout closer to the high density recommendations of the *1999 Future Land Use Plan* which was reviewed in 2003/2004. At these densities there is capacity for 50,000-58,000 new homes in the unincorporated parts of the County.
- The estimated buildout of 50,000-58,000 new homes does not account for any future annexations or changes to existing zoning designations. The way cities annex land will alter the capacity for growth and the unincorporated capture rate. If land were rezoned to a higher density the capacity would also increase.
- In addition to the capacity in large parcels of land there is that capacity in currently approved Planned Developments, which is approximately 3,360 acres.
- Between 30 and 50 percent of the residential capacity is located within the Urban/Suburban Area, based

on municipal boundaries existing at the time of the study and depending on the density scenario used.

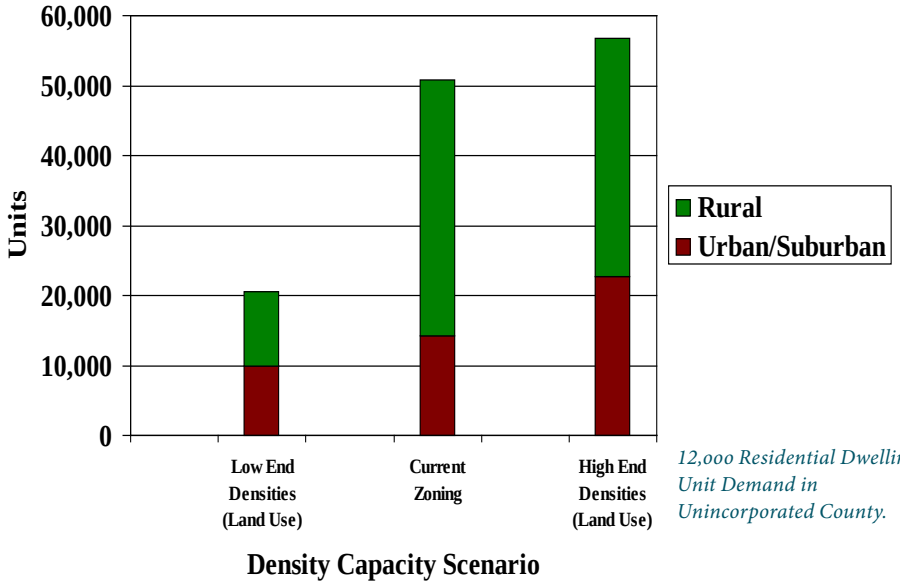
- The unincorporated County has adequate capacity under current zoning regulations to accommodate anticipated growth through 2020 and beyond, even while maintaining a density of 1 home per 25 acres in large portions of the County. ***Figure 1.1.2*** shows the relationship between the demand for 12,000 units and the capacity under the three density scenarios examined.
- The unincorporated County has adequate capacity under existing zoning to absorb projected non-residential economic development. However, with a special sites/land assemblages and proper marketing, additional demand and capacity could open up.

The findings of these two reports, in addition to the public comments on the Plan, support the theme that the existing policies are on track and the County should stay the course during the *2008 Update*. The planning process and public outreach are outlined in the following section.

Demand for housing in the unincorporated County is mostly for single-family homes. However, accessory units like the one shown here offer affordable options in the more Rural Areas of the County.

The County has adequate capacity to accommodate growth while still preserving much of the rural character. Current regulations go a long way to set appropriate development densities.

Figure 1.1.2: Residential Capacity Compared to Demand (Unincorporated County)



12,000 Residential Dwelling Unit Demand in Unincorporated County.

THE PLANNING PROCESS

Overview of the Planning Process

The County and consultant team completed the *2008 Update* to the *Comprehensive Plan* over a period of one year starting in September of 2007. The process included four key phases with a public participation element between each phase: 1) Data Collection and Analysis; 2) Policy Development; 3) Draft Plan Document; and 4) Adoption.

Phase one included data gathering and technical research. The planning team collected extensive data, prepared the demand and capacity analyses, and conducted interviews with various agencies, departments, and stakeholders to evaluate the planning climate and assess key data. The first round of public workshops was held in October 2007. An additional workshop was held with the Charleston County Citizens Academy in November 2007. This first set of workshops was structured as a fact finding effort. Four separate workshops were held in different locations throughout the county to introduce the public to the planning process and solicit opinions and concerns regarding strengths, weaknesses, and opportunities in the County that should be addressed in the Plan update. The information gathered at these workshops was evaluated by the Planning Commission and the consultants and influenced the early development of policies in phase two. The documentation on both the technical analysis and public input is included in appendices to the Plan.

In Phase two, the planning team combined input from Planning Commission, the public, and the technical analysis to begin shaping the goals for the Plan. These goals along with the existing land use objectives and a draft land use plan were presented to the public in a second round of public workshops held on February 25-26, 2008 for comment and discussion. The comments from Planning Commission and the public led to a reworking of the land use approach, the goal statements and the existing land use strategies included in this Plan. Following the approval of the goals by Planning Commission and additional work on the Land Use Element, the planning team began drafting the other elements of the Plan. The materials presented at these workshops and the public input gathered are available in the appendices to the Plan.

In Phase three, the draft of the updated Plan stays the course of the *1999 Plan* and *2003/2004 Plan Review* by carrying forward many of the original plan objectives and policies. The intent of the updated Plan is to strengthen those recommendations by focusing on the quality of growth in the County, increasing interjurisdictional coordination, and ensuring that future development contributes its fair share to the costs associated with growth and does not negatively impact current residents. The elements of the Plan were drafted using input from the various departments and agencies engaged in the provision of facilities and services. Following the review of the strategies of the various elements by Planning Commission, the Draft Plan was presented to the public on July 14-15, 2008. This series of workshops was intended to present a relatively complete version of the Plan to the public and solicit another round of comments before the final review by Planning Commission and before the Planning Commission recommended the Plan to County Council. The comments from the public at these workshops are included as an appendix to the Plan.

In Phase four, following the recommendation by Planning Commission, through a resolution, the Plan was forwarded to County Council, which held a public hearing. County Council considered public comments on the Plan and then adopted the updated *Charleston County Comprehensive Plan* by ordinance.

2008 Comprehensive Plan Update Process

Phase 1
Data Collection & Analysis

Public Input Round 1

Phase 2
Policy Development

Public Input Round 2

Phase 3
Draft Plan Document

Public Input Round 3

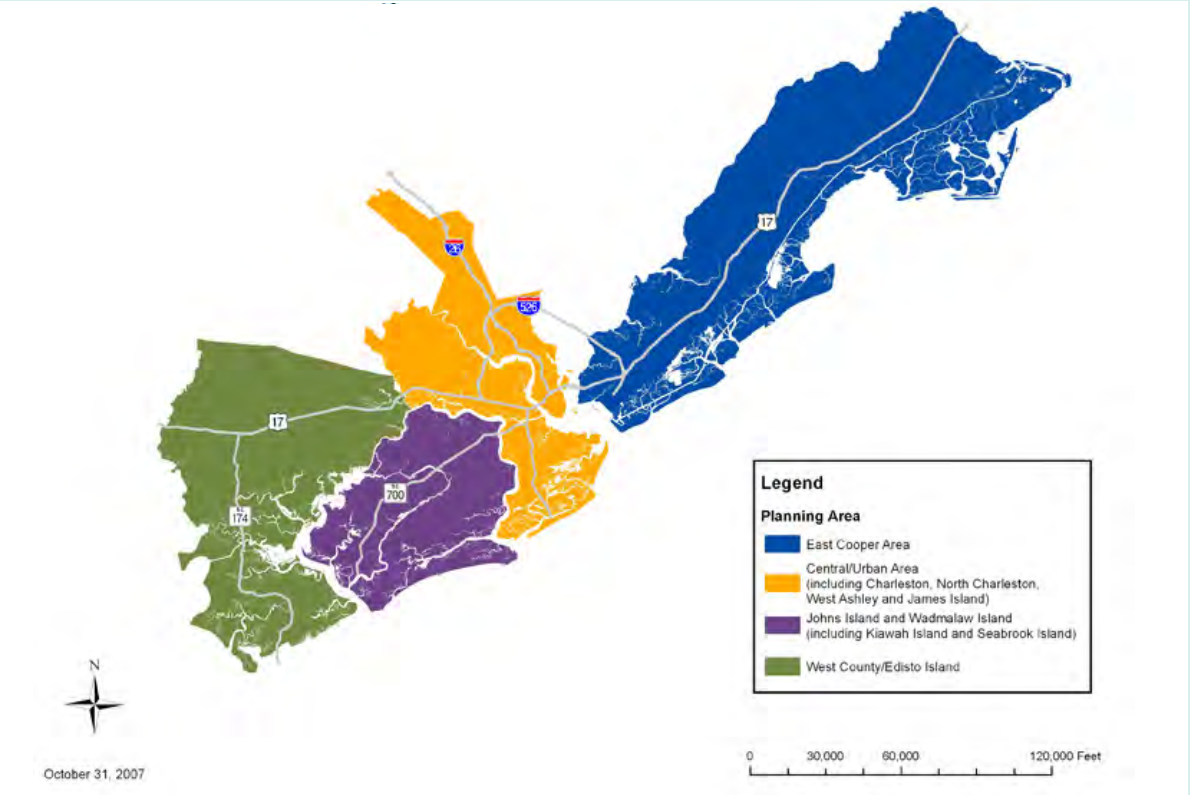
Phase 4
Adoption

Plan Amendments, Reviews, and Updates

In accordance with the provisions of the *South Carolina Local Government Comprehensive Planning Enabling Act*, the Planning Commission must review the *Comprehensive Plan* at least every five years, and update the Plan when appropriate, or at least every ten years. The Planning Commission adopted a resolution on October 14, 2013 completing the *Five-Year Review* of the *Charleston County Comprehensive Plan* pursuant to the Planning Act. The resolution stated that the Planing Commission would implement the findings of the *Five-Year Review* through amendments to the *Comprehensive Plan* and *Zoning and Land Development Regulations Ordinance* to be completed as part of the annual work program. The findings of the *2013/2014 Five-Year Review*, which are incorporated into this document, were subsequently vetted by the public, recommended for adoption by the Planning Commission on October 13, 2014, and adopted by County Council. This process included five public workshops held in different areas of the County to gather public input. The information presented at the workshops was also posted on the County's web site for citizens to view and provide feedback. All public comments were provided to the Planning Commission and Council and were considered in the adoption process.

As this document is intended to be a proactive policy document for the future development of the County based on sound technical merit and extensive public participation, amendments to the Plan should not be viewed lightly. Any amendment to the Plan, even those recommended in the future work plans for specific areas, should be held to the same high standard and comprehensiveness as the creation of the *2008 Update* and *2013/2014 Five-Year Review.* Because of the coordinated intent of the elements of the Plan, deviation from one element in an amendment should be weighed against potential impacts on the achievement of other goals, strategies, and implementation measures. Each amendment should be evaluated comprehensively to ensure that proposed changes are consistent with

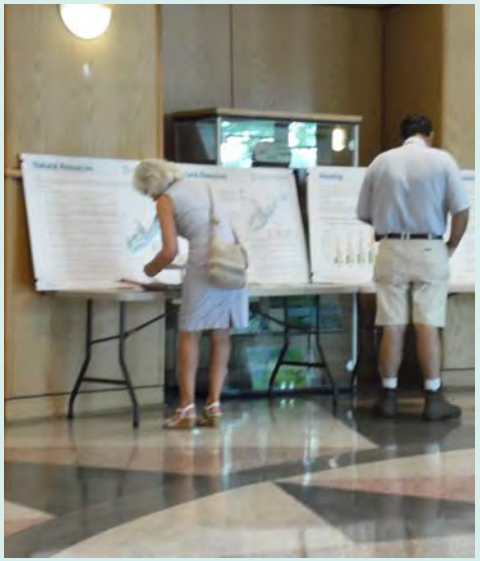
The public work sessions included as part of the 2008 Plan Update and 2013/2014 Five-Year Review were designed to provide locations for participation that were convenient to the various planning areas of the County. In each round of public input, meetings were held in four location over two nights. The map to the right shows the planning areas of the County. A meeting location was chosen in each area. The turn-out for the meetings was consistent and the input from the participants contributed strongly to the resulting Plan.



Public workshops were set up to provide locations within each of the planning areas for each round of meetings.

the spirit of this Plan, can be supported by public facilities and services, and are supported by all elements of the Plan; amendments should not be considered solely as an amendment to the Future Land Use Map. The overarching Vision and Goals for the Plan are presented in Part 2 and should be interpreted as the "Spirit" of the Plan.

As part of the 2013/2014 Five-Year Review, five public workshops were held in five different areas of the county. Over 160 citizens attended the workshops.



Part 2: Vision

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Chapter 2.1 Vision Statement

Our vision for the future of Charleston County is tempered by its history. Charleston County is characterized by its natural scenic beauty, active waterways and port, extensive history, truly diverse culture, and vibrant business climate. However, our greatest asset is our people. All of these attributes contribute to its accelerating growth and development. As this growth continues, it is essential that the people embrace a true vision for the County which respects the natural environment and traditional lifestyles, allows for responsible growth and quality development with an emphasis on regional cooperation. While striving to enhance our quality of life, a balance must be maintained between fostering growth and development and preserving our natural and cultural resources always respecting the rights of the individual, including private property rights.

Historically an agrarian community, vast expanses of land remain in some form of agricultural use. We should make every effort to support these activities for cultural economic and scenic reasons. This is in keeping with the vision of Thomas Heyward, Jr., a Charleston signer of the Declaration of Independence who said ". . .Agriculture is the parent of commerce; and both together form the great sources from which the wants of individuals are supplied. . ."

Today many of our recreation activities, quality of life, and tourist attractions are derived from our beaches, waterways, scenic beauty, historic preservation, and abundant natural resources. These should be preserved and protected for future generations. Additionally, any visionary transition into the 21st Century mandates quality education.

The economic base of the County is shifting; as a community we should encourage this diversification and growth while providing for a variety of opportunities without compromising traditional values and settlement patterns. Regionally, major employers are the port, tourism, the medical industry, the government and military, agriculture, and increasingly manufacturing, specifically high-tech sophisticated manufacturing. As we support these economic activities and quality growth, coordination and cooperation among the various governmental entities must occur resulting in improved service delivery, high quality development, and unity. This health vibrant community must look to the past, consider the present, and plan for the future in order to remain a superior place to live, work, and play.

The Angel Oak on Johns Island.

Chapter 2.2 Goals

The following statements have been carefully crafted to reflect the Vision and establish specific goals for the various elements of the Plan. These goals are reiterated later in the Plan as part of the policies and as capstones for each element.

2.2.1: Land Use Element Goal
Accommodate quality growth in a way that respects the unique character of different parts of the County, promotes economic opportunity where appropriate, respects private property rights, is coordinated with the provision of community and public facilities, and protects cultural and natural resources.

2.2.2: Economic Development Element Goal
Charleston County will be an integral part of a strong, diverse, and growing regional economy, providing economic opportunities for its citizens and fostering fiscal health for county government services and facilities.

2.2.3: Natural Resources Element Goal
Unique Lowcountry natural resources, such as rivers, creeks, wetlands, aquatic and wildlife habitat, beaches and dunes, groundwater, forests, farmland soils, and air quality will be preserved, and actions will be taken to mitigate any potential negative impacts of growth and development, and enhanced, where appropriate.

2.2.4: Cultural Resources Element Goal
Cultural, historic and archaeological resources, unique settlement patterns of traditional Lowcountry communities (such as historically African-American communities and family settlements), and traditional activities (such as Sweetgrass Basket Making) should be preserved and protected from potential negative impacts of growth and development.

2.2.5: Population Element Goal
A socioeconomically diverse and growing population will be accommodated by Charleston County in an environmentally and fiscally sustainable manner with particular attention to low to moderate income residents.

2.2.6: Housing Element Goal
Quality housing that is affordable will be encouraged for people of all ages, incomes, and physical abilities.

2.2.7: Transportation Element Goal
A transportation system that is coordinated with land use patterns, community character, and promotes alternative ways to move people and goods with an acceptable level of service that supports economic development and maintains a high quality of life.

2.2.8: Community Facilities Element Goal
Community facilities and services will be provided in a fiscally responsible manner with adequate levels of service and will be coordinated with surrounding jurisdictions and will be linked to land use planning and development decisions so that community facilities and services have capacity for expected growth and are in place when needed.

2.2.9: Priority Investment, Implementation, and Coordination Element Goal
Public infrastructure projects will be prioritized through coordination with adjacent and relevant jurisdictions and agencies.

2.2.10: Energy Element Goal
Promote use of alternative energy sources and energy conservation measures that benefit our communities.

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Part 3: Comprehensive Plan Elements

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Chapter 3.1 Land Use Element

3.1.1: OVERVIEW

The Land Use Element tells the history of land development in the County and presents recommendations and strategies to shape the future of the County. This element provides direction for both the intensity and quality of development and specifically addresses aspects of growth management intended to protect the valued rural character of the Lowcountry. Charleston County is a unique coastal county in South Carolina with a vast array of high quality natural resources, a wide range of communities and neighborhoods, and a variety of land uses ranging from untouched natural habitats to highly developed urban centers. In some parts of the County, these divergent land uses are located in close proximity to one another, while in other areas more of a gradual change in the landscape exists as one moves outward from the urban centers of the Cities of Charleston and North Charleston, and the Town of Mount Pleasant.

Updating and reviewing the County's *Comprehensive Plan* provides an opportunity to not only address the intensity of future development, but to truly focus on maintaining the features of the unique Lowcountry landscape that make Charleston County a cherished place to live, work, and play. The land use pattern and the quality of the built and natural environments define the character that makes Charleston County different from other places in South Carolina and the country.

The Land Use Element is designed to tell the story of where the County is and where it desires to be in regard to the utilization of its land resources. This is accomplished through a detailed existing land use inventory and establishment of over arching goals supported by a series of strategies and recommendations to promote implementation and action.

The Land Use Element strives to provide a balance between protection of natural landscapes and logical and sustainable development patterns that support economic development and job growth.

Purpose and Intent

The following land use information, recommendations, and strategies reinforce the Urban Growth Boundary, help manage growth, and strengthen the rural and urban/suburban character of areas of the County. The recommendations and strategies, particularly those contained in the Future Land Use portion of the Plan, are intended to provide guidance for the location and intensity of land uses to support the County in its review and update of the Zoning and Land Development Regulations Ordinance. The Growth Management portion of the Plan provides qualitative strategies to shape the character of preserved and developed land areas in the County and further distinguish the Rural and Urban/Suburban Areas. Combined, the associated aspects of the Land Use Element establish a flexible yet predictable method for determining the appropriateness of proposed development to shape the future of the County.

Land Use Background

The history of land use planning in Charleston County has evolved over the last few decades. Prior to the adoption of the *1999 Comprehensive Plan*, various entities in the County prepared individual land use plans to reflect their visions for their portion of the County. Starting in 1997, the County undertook their first comprehensive planning effort to bring these community level plans together into a consolidated vision for the County. One of the key themes that was relevant then and which carries forward today is the distinction between the characteristics of the rural landscape and the more urban character of the developed portions of the County.

Urban Growth Boundary

In the 1999 Plan, a Suburban/Rural Area Edge was established as a tool to delineate the Rural Area from the Urban/Suburban Area. During the *Five-Year Review* of the Plan in 2003, the Suburban/Rural Area Edge was moved from Brownswood Road to Main Road on Johns Island, placing more of the County in the Urban/Suburban Area. An application to move the Suburban/Rural Area Edge back to its original location was approved in 2004. Over the years, the Suburban/Rural Area Edge came to be thought of as an Urban Growth Boundary (UGB), recognized by the public, the municipalities in the County, and other service providers. The *2008 Plan Update* reflected this change in thinking, identifying the delineating line as the Urban Growth Boundary. *Section 3.1.5, Growth Management,* discusses the Urban Growth Boundary in more detail.

The Urban/Suburban Area is located within the Urban Growth Boundary and is characterized by a diverse mix of residential neighborhoods, business/industrial uses, road frontage development, and undeveloped areas. High levels of infrastructure and services and medium to high intensity development exist within the Urban/Suburban Area.

The Rural Area is located outside of the Urban Growth Boundary and is identified by agricultural uses, forests, tidal marshes and freshwater wetlands, which dominate the landscape. It is traversed by scenic rural roads, and dotted with historic buildings and archaeological sites indigenous to the Lowcountry. Low levels of infrastructure and services and low intensity development exist within the Rural Area.

The challenge the County faces with the Urban Growth Boundary is that it requires cooperation from jurisdictions such as the Cities of Charleston and North Charleston and the Town of Mount Pleasant and other service providers for it to be implemented effectively. Some jurisdictions do recognize the boundary; however, there is no inter-jurisdictional agreement regarding the location of the Urban Growth Boundary or the criteria to change its location. The municipalities in the County have the power to establish their own boundary and to adopt amendments to it by approving annexations and development which may be in conflict with the County established Urban Growth Boundary. The only municipalities in the County that have adopted Urban Growth Boundaries are the City of Charleston and the Town of Mount Pleasant.

One of the main focuses of the *Five-Year Review* was to review and revise the location of the County's Urban Growth Boundary (as appropriate) for consistency with the Urban Growth Boundaries adopted by the City of Charleston and Town of Mount Pleasant and to better follow parcel boundaries and geographic features. County staff coordinated with staff from the City of Charleston and Town of Mount Pleasant when reviewing the location of the Urban Growth Boundaries adopted by each jurisdiction. In some instances where differences between the Urban Growth Boundaries existed, the County found it appropriate to revise its Urban Growth Boundary to match those adopted by the other jurisdictions, as described in more detailed below. In other instances, the County found the location of its Urban Growth Boundary to be appropriate even when differences with the Urban Growth Boundaries adopted by other jurisdictions existed. In such cases, the County requested that those jurisdictions examine their Urban Growth Boundaries for consistency with the County's Urban Growth Boundary during the five-year reviews of their respective comprehensive plans.

The County's Urban Growth Boundary was revised to match the City of Charleston's Urban Growth Boundary in several locations in the St. Andrews and Johns Island areas; however, a few differences still remain between the locations of the two Urban Growth Boundaries. The main difference is that the City of Charleston's Urban Growth Boundary places the Sol Legare Community on James Island in the Rural Area while the County's Urban Growth Boundary places that community in the Urban/Suburban Area. This difference has existed since 2003, when the County moved its Urban Growth Boundary in order to place all of James Island in the Urban/Suburban Area. This change was made because high levels of infrastructure and public services that define the Urban/Suburban area existed across the entire island, including within the Sol Legare Community.

Slight differences between the Urban Growth Boundaries adopted by the County and Town of Mount Pleasant exist in the East Cooper Area. The County reviewed these differences and found the location of its Urban Growth Boundary to be appropriate and requested the Town examine their Urban Growth Boundary location for consistency with the County's during the five-year review of their comprehensive plan.

The changes in the Urban Growth Boundary proposed as part of the *Five-Year Review* can be seen on *Map 3.1.2.A*. The Urban Growth Boundary changes resulted in the movement of approximately 1,759 acres from the Urban/Suburban Area to the Rural Area. Of this total, approximately 510 acres were in the City of Charleston and approximately 1,249 acres were unincorporated. The changes also resulted in the movement of approximately 1,212 acres from the Rural Area to the Urban/Suburban Area. Of this total, approximately 1,209 acres were located in the City of Charleston and just under three acres were unincorporated. This data is based on Charleston County Assessor's Office data available on May 29, 2014.

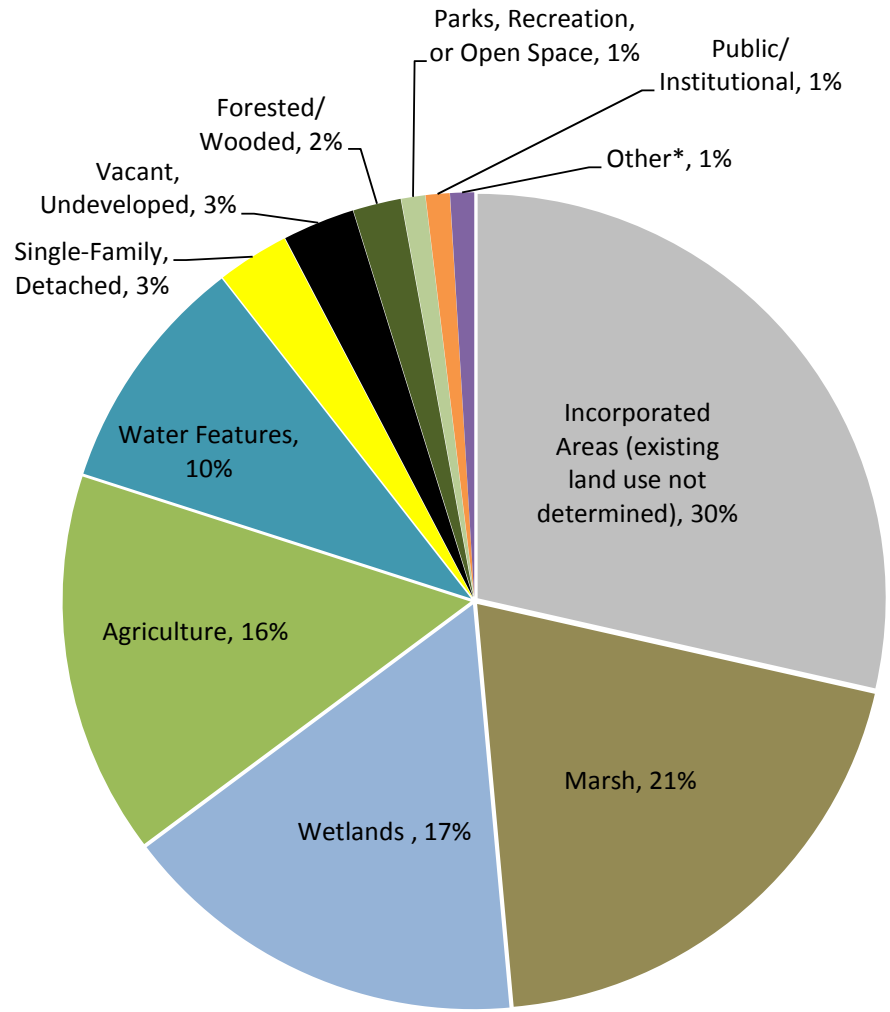
3.1.2: EXISTING LAND USE

Inventory of Existing Conditions

The County completed its first comprehensive inventory of the existing land uses in the unincorporated portions of the County in 2007. A second existing land use inventory was conducted in 2013 utilizing Geographic Information Systems (GIS) technology, current County records, and 2012 oblique aerial images (Pictometry). The existing land use categories, statistics, and map are illustrated in *Figure 3.1.1: Existing Land Use Pie Chart* and on the following pages.

It is important to note that approximately 30 percent of the land area of the County is incorporated and that the majority of the incorporated area is located in the Urban/Suburban Area. Almost 50 percent of the land area in the unincorporated County contains wetlands, marsh, and other water features, and an additional 18 percent is forestland or in agricultural or silvicultural use.

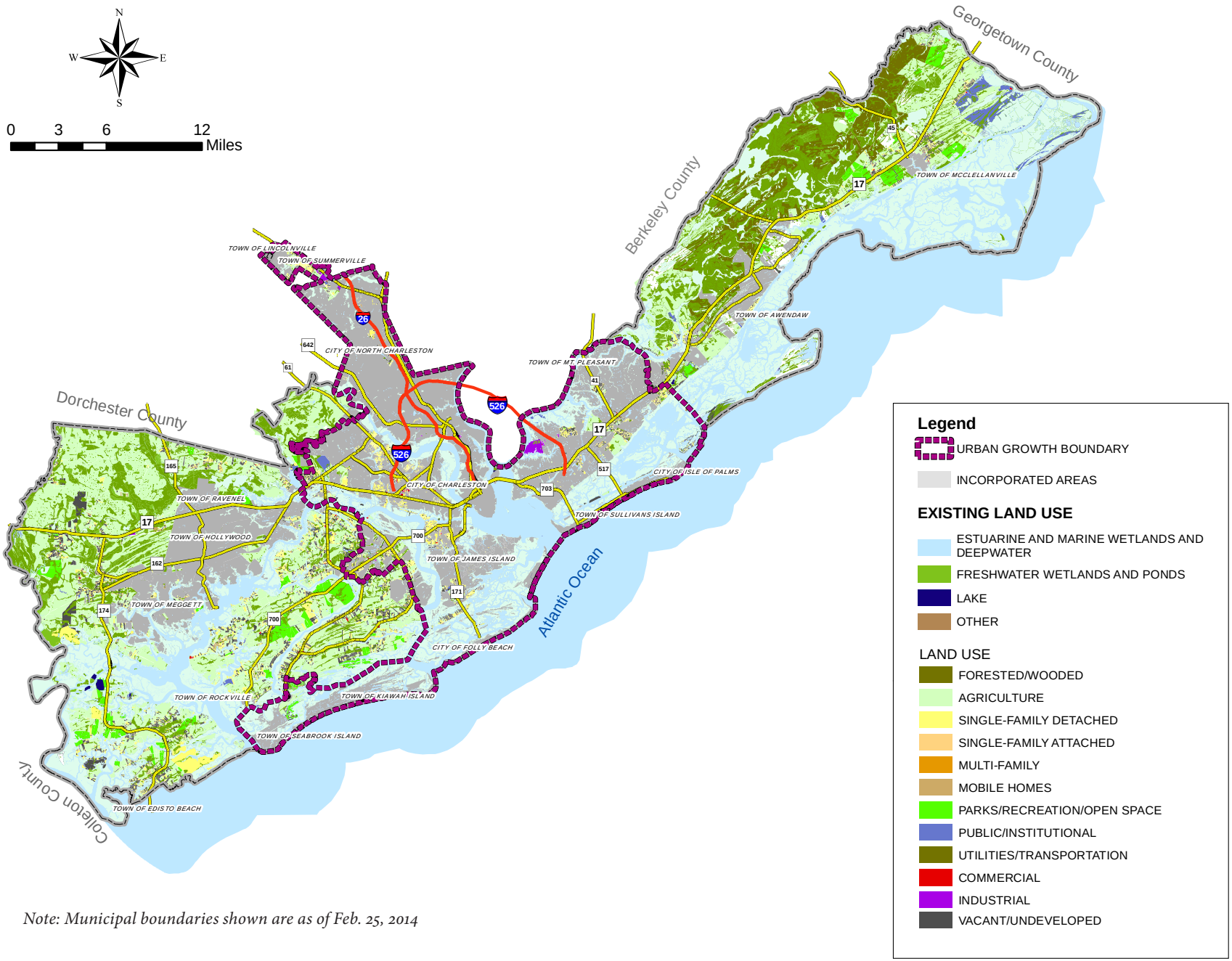
Figure 3.1.1: Existing Land Use Pie Chart



*Other includes single-family attached, mobile homes, commercial, industrial, and utilities/transportation.

Sources: Charleston County Tax Assessor data, GIS data, and oblique aerial images (Pictometry, 2012).

Map 3.1.1: Existing Land Use Map



Note: Municipal boundaries shown are as of Feb. 25, 2014

3.1.3: GENERAL LAND USE POLICIES

Overview

The Land Use Element Goal and Strategies provide direction regarding the overall approach to land use planning in the County. They address the long-term vision for land use and establish strategic actions that County Council can take to carry out the recommendations contained in the Future Land Use and Growth Management sections that follow.

Land Use Element Goal

Accommodate quality growth in a way that respects the unique character of different parts of the County, promotes economic opportunity where appropriate, respects private property rights, is coordinated with the provision of community and public facilities, and protects cultural and natural resources.

Land Use Element Needs

Land Use Element needs include, but are not limited to, the following:

- Reinforcing the significance of the Urban Growth Boundary through interjurisdictional coordination;
- Preserving the rural character of the County;
- Encouraging compact growth where infrastructure already exists;
- Providing guidance for the location, character, and intensity of land uses in the County; and
- Authorizing innovative planning strategies that respond to emerging land use policy needs, with focus on the form and mix of land uses in land use plans.

Land Use Element Strategies and Time Frames

The following strategic actions should be undertaken by the County in support of the purpose and intent of the Land Use Element. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

LU 1. Protect and enhance the environmental quality of: freshwater and saltwater wetlands and recharge areas; creek, marsh and river front lands; beaches; and access to beaches and waterways.

LU 2. Implement design character that enhances the quality of development along commercial corridors and establish scenic corridors and areas of environmental and cultural significance.

LU 3. Foster the rural character of land outside the Urban Growth Boundary, encouraging lower density development.

LU 4. Coordinate land use patterns with transportation, housing, employment and retail development to provide communities and neighborhoods where people can live and work.

LU 5. Reinforce the location of the Urban Growth Boundary and the criteria to change its location through coordination with the Cities of Charleston and North Charleston, the Town of Mount Pleasant, and service providers.

LU 6. Encourage compact growth in already developed areas, redevelopment, and infill of existing vacant sites inside the Urban Growth Boundary over development in low growth areas, giving high priority to areas of greatest employment and residential density.

LU 7. Continue the *Comprehensive Plan* implementation initiatives adopted by County Council.

LU 8. Establish programs and policies which ensure new growth contributes its fair share to the costs associated with growth.

LU 9. Require that any application affecting County resources be reviewed by the County for consistency with the adopted Future Land Use Plan.

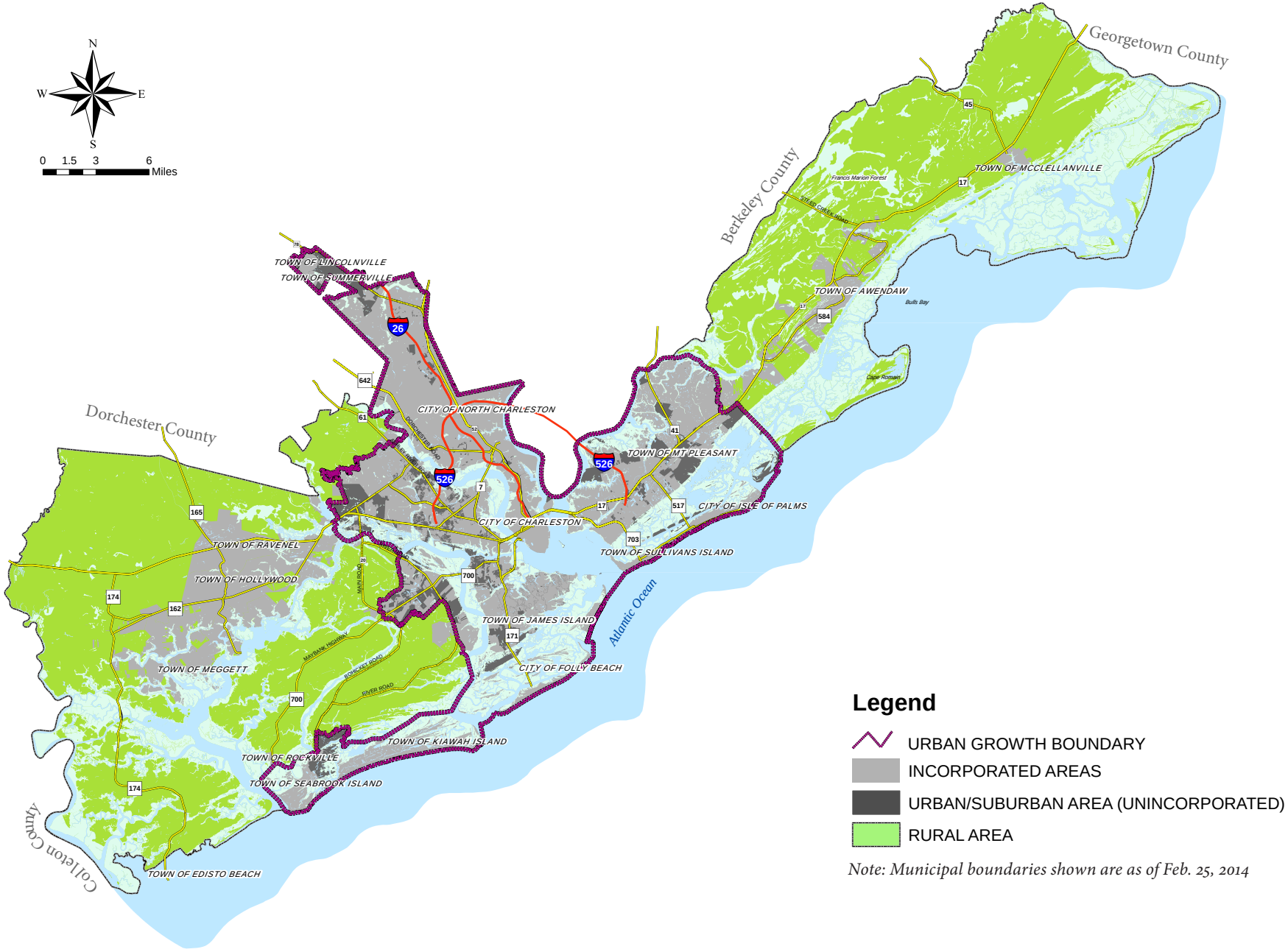
LU 10. Adopt innovative planning and zoning techniques such as: (1) Clustering or Conservation Design and (2) Form-based Zoning District regulations to authorize a combination of land uses within communities, including residential, service, and employment land uses.

LU 11. Density bonuses beyond the maximum density of the recommended future land use designation may be approved when affordable and/or workforce housing units are included in proposed developments in the Urban/Suburban Area, provided there is no negative effect on the existing community.

LU 12. Continue to work with the City of Charleston, residents, and stakeholders in the DuPont | Wappoo Community to execute the DuPont | Wappoo Memorandum of Understanding to implement the DuPont | Wappoo Community Plan, which is adopted as part of this Plan by reference.

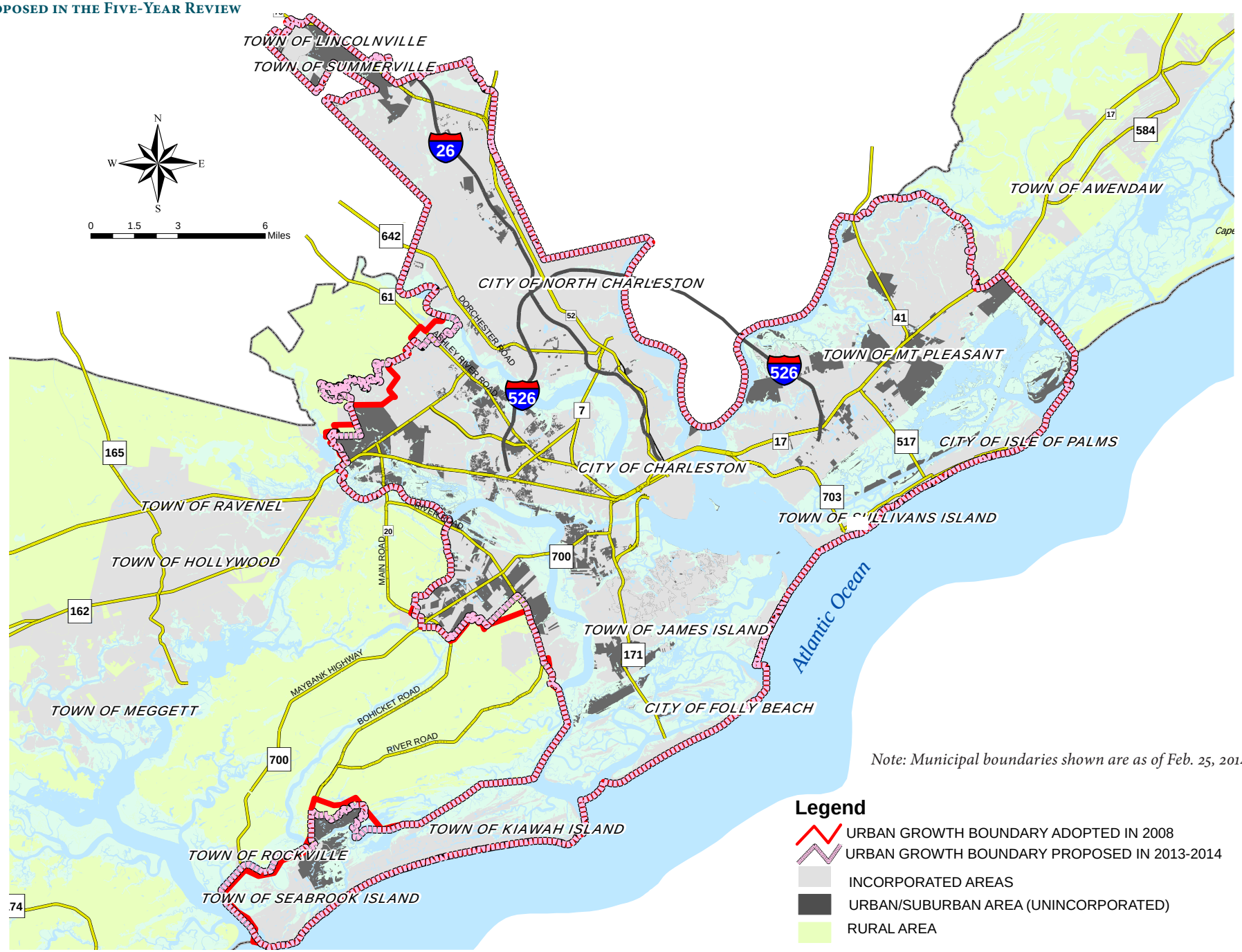
LU 13. Continue to work with the residents and stakeholders in the Parkers Ferry community to implement the Parkers Ferry Community Plan, which is adopted as part of this Plan by reference.

Map 3.1.2: Growth Management Areas



Note: Municipal boundaries shown are as of Feb. 25, 2014

Map 3.1.2.a: Urban Growth Boundary Changes Proposed in the Five-Year Review



Note: Municipal boundaries shown are as of Feb. 25, 2014

3.1.4: FUTURE LAND USE PLAN APPROACH

The approach to future land use includes a multi-tiered effort that incorporates recommendations for growth management, treatment of major planning efforts, specific land uses and densities within the Future Land Use Plan, and development quality and character through a series of guidelines for the Rural and Urban/Suburban Areas of the County. Combined, these recommendations and the other elements of the Plan are the criteria against which all development proposals should be evaluated for conformance with the *Comprehensive Plan*.

3.1.5: GROWTH MANAGEMENT

One of the growth management tools implemented in this plan is the Urban Growth Boundary, which clearly defines two distinct Growth Management Areas - the Rural Area and the Urban/Suburban Area. The Urban Growth Boundary implements the desired County policy to promote higher intensity growth in the Urban/Suburban Area where adequate infrastructure and services are in place, at the same time allowing for preservation of the rural character of the majority of the County. *Map 3.1.2: Growth Management Areas* shows the geographic boundaries of these two Growth Management Areas. All future land use and development quality recommendations are tied to these areas. *Map 3.1.2.A* illustrates the changes in the Urban Growth Boundary proposed as part of the *Five-Year Review*, which are described in detail in Section 3.1.1.

The City of Charleston and the Town of Mount Pleasant have both adopted Urban Growth Boundaries, as well; however, the locations of those Urban Growth Boundaries vary slightly from the location of the Urban Growth Boundary adopted by Charleston County. To be implemented effectively, cooperation with jurisdictions such as the Cities of Charleston and North Charleston, the Town of Mount Pleasant, and other service providers is needed. Cooperation regarding the location of the Urban Growth Boundary and criteria to change its location should be pursued. More information regarding institutionalizing the Urban Growth Boundary is described in detail in *Chapter 3.9 Priority Investment, Implementation, and Coordination Element*.

3.1.6: SPECIAL PLANNING AREAS

A. Major Planning Efforts

Major Planning Efforts include specialized initiatives in both the Rural and Urban/Suburban Areas of the County where multi-jurisdictional planning is required to ensure that the goals and strategies of this Plan are met. The Major Planning Efforts adopted as part of the *2008 Plan Update*, which included addressing the southern portion of Johns Island and the Highway 17 North corridor, as well as implementing Developments of County Significance, were accomplished in 2009, 2011 and 2012, respectively.

The Major Planning Efforts identified during the *2013/2014 Five-Year Review* of the Plan include reinforcing the Urban Growth Boundary through interjurisdictional coordination and addressing the proposed Spring Grove development, which encompasses approximately 14,500 acres in western Charleston County, as identified on *Map 3.1.3: Special Planning Areas. Chapter 3.9 Priority Investment, Implementation, and Coordination Element* describes each Major Planning Effort and the recommended implementation strategies.

B. Urban/Suburban Area Review

Map 3.1.3: Special Planning Areas identifies areas in the Urban/Suburban Area of Charleston County that require further study regarding land use, zoning, and site design consistency with adjacent jurisdictions. These areas are located in Johns Island, James Island, West Ashley, East Cooper, and the North Area. In some instances, the future land use recommendations in these areas are inconsistent with the zoning and/or existing land uses. In other cases, existing land uses and/or future land use recommendations are not consistent and/or are not compatible with land uses and form of development on adjacent parcels located both within the unincorporated County and within other jurisdictions.

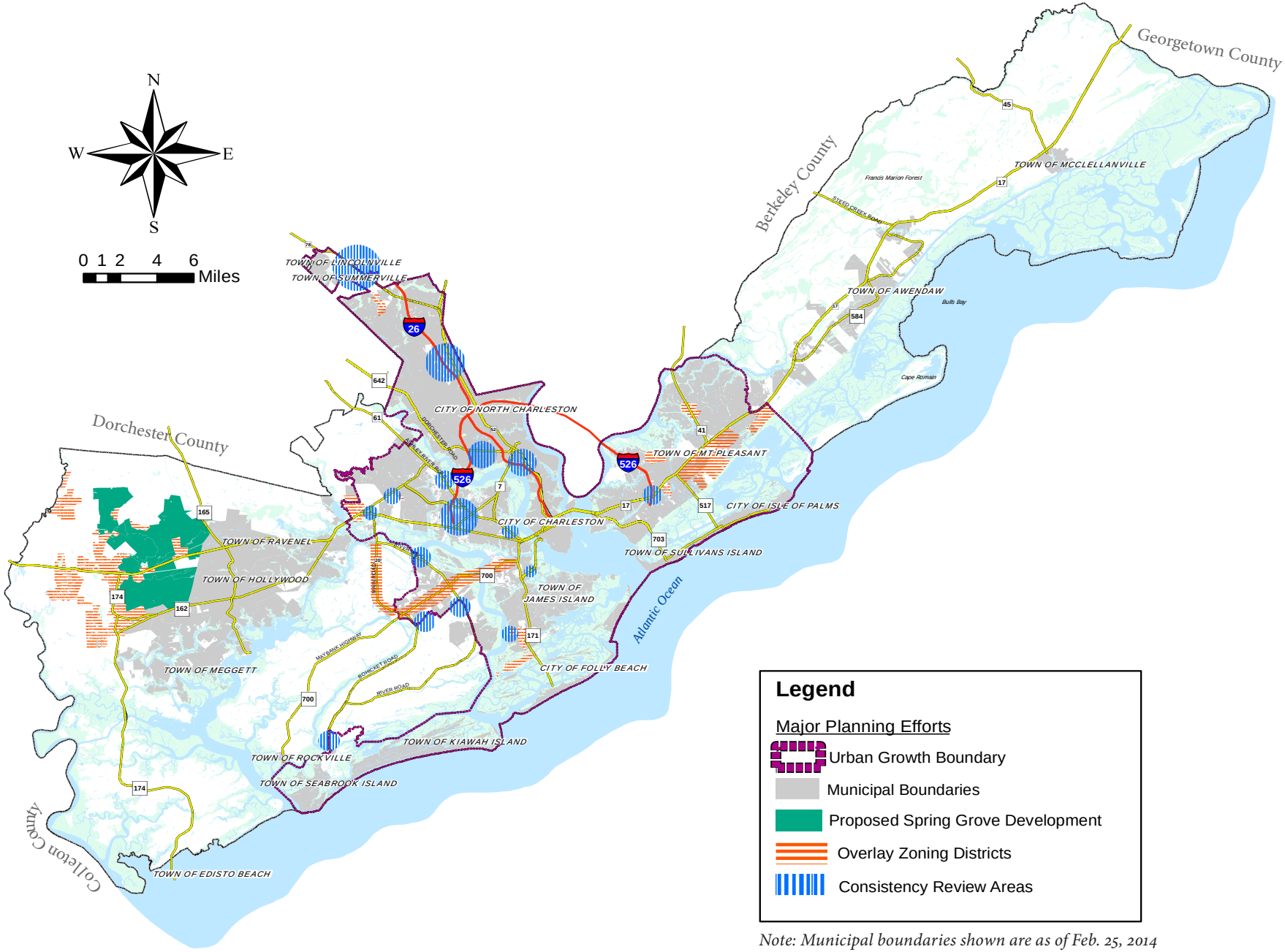
Chapter 3.9 Priority Investment, Implementation, and Coordination Element describes the recommended implementation strategies to address these issues.

Chapter 3.9 Priority Investment, Implementation, and Coordination Element also describes the process for reviewing the Urban/Suburban Area zoning districts for consistency with Comprehensive Plan policies regarding uses, densities, intensities, dimensional standards, and provision of housing types that are desired and can be afforded by new and future County residents.

C. Rural Area Review

Map 3.1.3: Special Planning Areas identifies areas in the Rural Area of Charleston County where there are inconsistencies between the future land use designations, zoning, and/or existing land uses. *Chapter 3.9 Priority Investment, Implementation, and Coordination Element* describes the recommended implementation strategies to address these issues and also describes the process for reviewing the Rural Residential (RR-3) zoning district to allow development to occur at a maximum density of one dwelling per acre, consistent with the density recommendation of this Plan.

Map 3.1.3: Special Planning Areas



Note: Municipal boundaries shown are as of Feb. 25, 2014

D. Overlay Zoning Districts

Map 3.1.3: Special Planning Areas identifies both currently adopted overlay zoning districts that need to be reviewed and areas of the County where new overlay zoning districts should be created including:

- Maybank Highway Corridor including James Island;
- Main Road Corridor;
- Sweetgrass Basket Stand Special Consideration Area;
- Customized overlay zoning districts for the areas in the Urban/Suburban Cultural Community Protection future land use category;
- Customized overlay zoning districts for the areas in the Rural Cultural Community Protection future land use category; and
- Aircraft Accident Potential Zones and high noise zones surrounding Joint Base Charleston.

The purpose of these overlay zoning districts is to ensure that land use and design standards implement the desires of the community and are coordinated among relevant jurisdictions. Descriptions of each overlay zoning district, along with the recommended strategies and processes, can be found in *Chapter 3.9 Priority Investment, Implementation, and Coordination Element.*

3.1.7: FUTURE LAND USE RECOMMENDATIONS

The following are the descriptions and density recommendations for the future land use categories identified on the *Future Land Use Map (Map 3.1.4). Map 3.1.5* provides a detail of the Urban/Suburban Area, followed by a series of maps showing the existing overlay zoning districts with their respective land use recommendations.

A. Rural Area Future Land Use Categories

The following future land use categories apply in the Rural Area of the County.

Conservation Management

These are areas consisting of various natural resources located in the County. They typically include highland areas surrounded by marsh or water, small islands, fragile natural land, or other areas as determined by their changing nature. Residential development in these areas should be very low intensity and may be in the form of Planned Development Zoning Districts. Densities will be based upon criteria such as FEMA designations, historical erosion patterns, nature of plants and wildlife, soils, ability to provide services, and other pertinent information.

Resource Management

Resource Management areas generally encompass undeveloped lands within the Rural Area that are used principally for timber production, wildlife habitat, recreational and commercial fishing, and limited agriculture. These areas encompass significant acreage of fresh, brackish, and saltwater tidal marshes, as well as important habitat for non-game and endangered species.

Designation of Resource Management areas recognizes the importance of a coordinated effort to protect and conserve natural resources while allowing for the continued economic use of private property and public lands. The type and intensity of development in Resource Management areas should support the needs of timber production, wildlife habitat management, recreation, agriculture, and areas of environmental sensitivity.

Developed uses should not constitute a threat to the resource base through either physical encroachment or indirect impacts. Development should also be compatible with the land management requirements essential to maintenance of the resource base. Accordingly, residential development should be limited to very low density, with a maximum density of one dwelling unit per 25 acres. Clustering and other techniques may be used to ensure compatibility with Best Management Practices.

Wadmalaw Agricultural Preservation

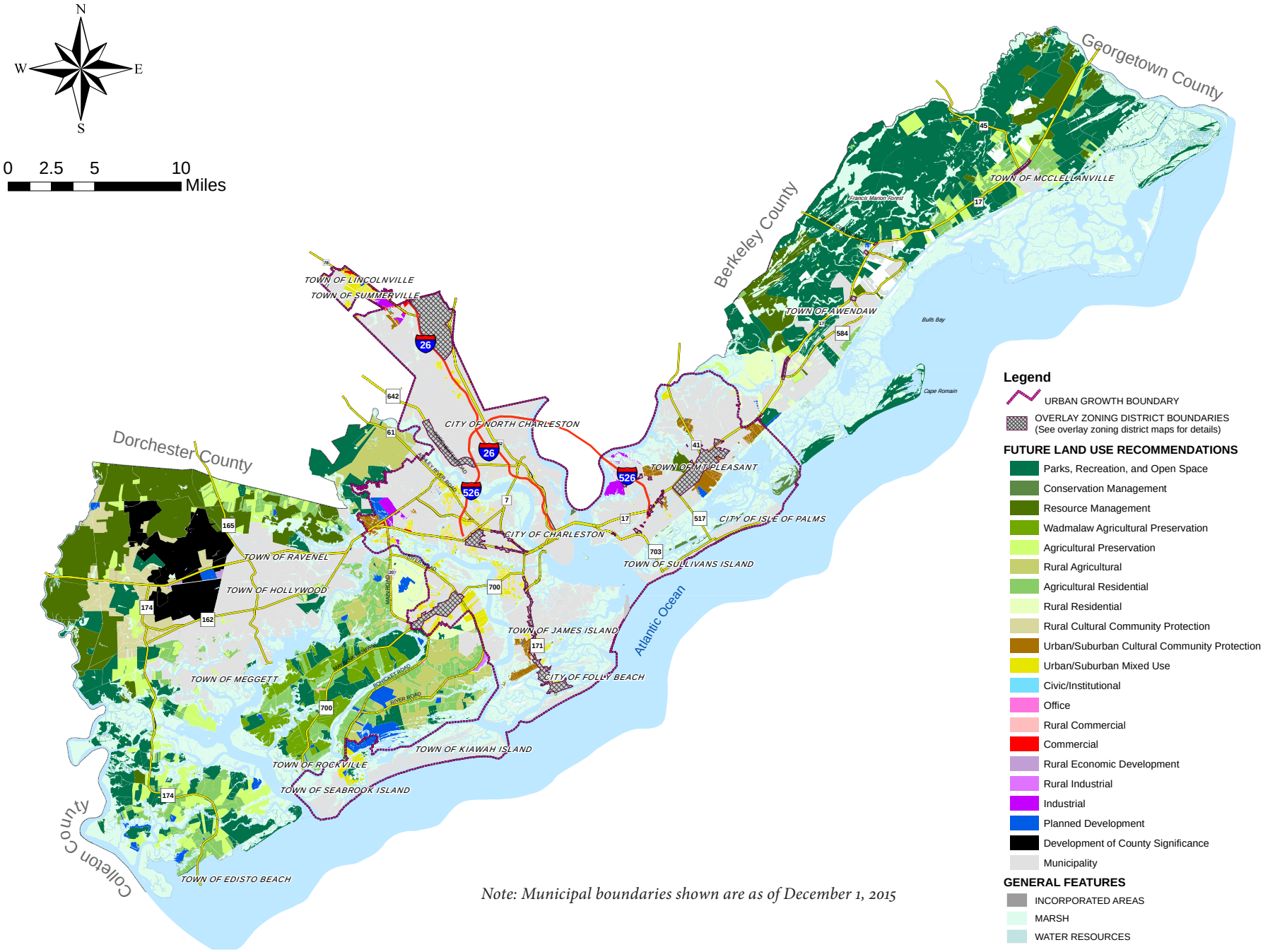
The uses recommended for this future land use category are similar to those recommended for the Agricultural Preservation use category; however, the recommended density is lower and this designation applies specifically to Wadmalaw Island. The incorporation of this designation is also consistent with the *Wadmalaw Island Planned Development Guidelines* adopted by the County in 1988.

Agricultural Preservation

The majority of land within the Rural Area contains soil types recognized by the U.S. Department of Agriculture as the best farmland for agricultural production. These include areas characterized by soils classified as prime farmland, unique soils, and soils of statewide importance. Designation of farmland preservation areas recognizes the importance of preserving Charleston County's farming resources, including individual farms and areas of productive soils, as well as a way of life valued by the community. Changes brought on by higher energy costs should result in more demand for agricultural products that are locally grown and harvested for local markets.

The types and intensities of development in the Agricultural Preservation Area should primarily support the needs of the farming industry, secondarily allowing for compatible residential development. Residential density of one dwelling per five acres to one dwelling per ten acres applies, except on Edisto Island which has a residential density of one dwelling per ten

Map 3.1.4: Future Land Use



Note: Municipal boundaries shown are as of December 1, 2015

acres. The residential density is coupled with development guidelines and incentives to retain significant acreage available for farming. Specific regulatory techniques may include flexible site planning guidelines, minimum lot sizes, or conservation or clustered design with retention of open space. Such provisions will maintain the agricultural land base, while enhancing development values particularly along waterfront properties.

Agricultural Residential

This land use category consists of rural residential Settlement Areas that have been subdivided into small properties. Proposed densities generally range from one dwelling per acre to one dwelling per five acres. "By-right" uses include residential development, agriculture, and other uses necessary to support the viability of agriculture.

Agricultural Residential includes Settlement Areas, which are small older crossroads communities, family lands, typical suburban-style subdivisions, frontage lots along local roads, waterfront developments, and vacant land that has been subdivided for residential use that may or may not yet be built upon. The criteria for additional parcels to qualify for inclusion into a "Settlement Area" are as follows:

1. Parcel size of 30 acres or less (including highland areas and freshwater wetlands) on parcels existing prior to April 21, 1999; and
2. Parcel must be located in an AG-8, AG-10, or RM Zoning District or adjacent to lands currently zoned AGR; and
3. Parcel must be either within 1,000 feet of an existing AGR Zoning District or show the same obvious spatial characteristics of other existing AGR Zoning Districts in the agricultural area; and
4. Parcels are not located on Wadmalaw Island or Edisto Island.

Rural Agriculture

The intent for this area is to retain the viability of agriculture while accommodating low levels of population growth. Densities range from one dwelling per four acres to one dwelling per eight acres. Incentive provisions should be made to encourage conservation design to retain acreage suitable for maintaining agriculture, protection of natural, historic, and cultural resources, and provision of open space. Specific regulatory techniques may include flexible site planning guidelines, minimum lot sizes, or conservation or clustered design with retention of open space. Such provisions will maintain the agricultural land base, while enhancing development values particularly along waterfront properties.

Rural Residential

In this designation, densities range from one dwelling per acre to one dwelling per three acres. Where appropriate, provisions should be made for clustered development to retain open space and preserve natural features. The intent of this area is to accommodate modest population growth to reduce demand for public services and facilities while retaining rural community character.

Rural Cultural Community Protection

This future land use designation is intended to protect and promote the culture and unique development patterns of existing communities and sustain their strong sense of community. The communities in this category are located in the Rural Area and are typically less developed than other areas due to the lack of off-site water and sewer utilities. Much of the development is single-

family residential with many churches. Historically, many small neighborhood businesses existed in these communities; however, there are very few neighborhood businesses existing today. The communities have a strong tie to the natural resources in the area and have many earthen roads that connect to state roads.

Future development should be compatible with the existing community and the residential density should not exceed one dwelling per acre. Residences, agriculture, forestry, churches, cemeteries, cultural and historic buildings, schools, post offices, etc. should be allowed. Compatible businesses and offices should be allowed to offer services and employment opportunities for local residents, provided the building scale and coverage fits with existing structures. This designation should not be located on Wadmalaw Island or Edisto Island, or within Planned Development or Form-Based Zoning Districts. Zoning and land development regulations in these areas should be customized to meet the needs of the individual communities.

Parks, Recreation, and Open Space

This category provides for lands intended to remain in a predominantly natural state; lands that have been protected through permanent conservation easements or are publicly owned that significantly restrict development; and open spaces, green spaces, and parks and recreation, as defined in this Plan.

Civic/Institutional

Civic and institutional uses such as churches, schools, and community centers make up a large portion of the "sense of community" that is Charleston County. Appropriate locations for these uses include prominent locations within communities, such as key intersections, within Settlement Areas, or within nodes that have safe access and visibility from major roads.

Rural Commercial

Commercial development in the Rural Area is limited to retail and service uses that serve the residential population and agricultural activities, provide employment opportunities, and do not negatively impact the surrounding community.

Rural Industrial

The Rural Industrial areas are designated to accommodate low impact industrial uses. Activities that are noxious are prohibited. High-tech industrial uses are encouraged over traditional smokestack or manufacturing industries. Industries that support the rural economy and provide employment opportunities for rural residents, such as warehousing, agricultural processing, agricultural manufacturing, farm equipment sales, repair and rental services, welding services and other services to support the rural population, are encouraged.

Rural Economic Development Area

Rural Economic Development areas are designated to accommodate regional business parks that contain professional office, wholesale, warehousing and high technology industrial uses that support the local rural economy and provide employment opportunities for residents in the Rural Area.

B. Urban/Suburban Area Future Land Use Categories

The following future land use categories apply in the Urban/Suburban Area of the County.

Urban/Suburban Cultural Community Protection

This future land use designation is intended to protect

and promote the culture and unique development patterns of existing communities and sustain their strong sense of community. The communities in this designation are located in the Urban/Suburban Area and are characterized by low density single-family residential development, limited commercial activity, and some agricultural uses. Many of the roads are paved with connections to county or state maintained roads; however, earthen roads still exist.

Future development should be compatible with the existing land uses and development patterns and the residential density should be a maximum of four dwellings per acre. Compatible institutional, office, and low intensity commercial uses should be allowed to offer services and employment opportunities for local residents, provided the building scale and coverage fits with existing structures. Sweetgrass Basket making, including sales, should be recognized and promoted. Zoning and land development regulations in these areas should be customized to meet the needs of the individual communities.

Urban/Suburban Mixed Use

This designation encourages compatible mixed use development and a general land use pattern that includes a variety of housing types, retail, service, employment, civic and compatible industrial uses, as well as public and open spaces and linkages to public transit in a walkable environment. This category is intended to allow for growth to occur within the Urban Growth Boundary by allowing urban mixed uses and affordable housing in the Urban/Suburban Area while preserving and protecting the Rural Area for future generations. Densities of four or more dwellings per acre should be allowed. Urban agriculture should also be permitted.

Parks, Recreation, and Open Space

This category provides for lands intended to remain in a predominantly natural state; lands that have been protected through permanent conservation easements or are publicly owned that significantly restrict development; and open spaces, green spaces, and parks and recreation, as defined in this Plan.

Civic/Institutional

Civic and institutional uses such as churches, schools, and community centers make up a large portion of the "sense of community" that is Charleston County. Appropriate locations for these uses include prominent locations in communities, such as key intersections or within neighborhoods that have safe access and visibility from major roads.

Office

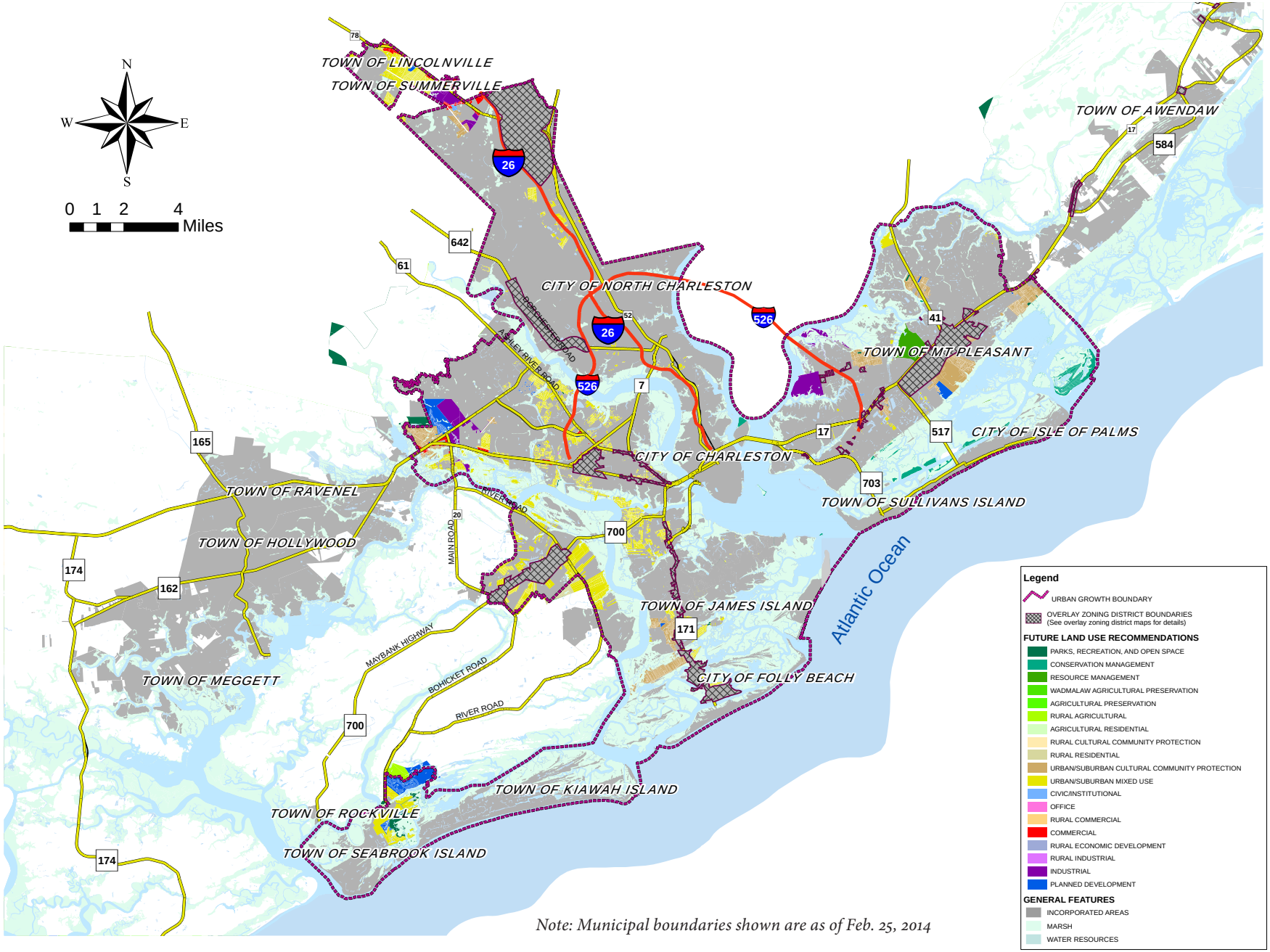
This land use category provides for a range of professional and other office uses including: administrative, professional, business, government, and medical. The scale and intensity of office development should complement the surrounding area and provide employment opportunities for the residents of Charleston County. This designation encourages compatible mixed use development and a general land use pattern that includes a variety of housing types, retail, service, employment, and civic uses, as well as public and open spaces and linkages to public transit in a walkable environment. Residential densities of four or more dwellings per acre should be allowed. Urban agriculture should also be permitted.

TABLE 3.1.1: FUTURE LAND USE RESIDENTIAL DENSITIES

	Future Land Use Categories	Residential Density Guidelines
The Rural Area	Conservation Management	Consistent with the Natural Resource Management (NRM) District contained in the *Zoning and Land Development Regulations Ordinance*
	Resource Management	1 dwelling per 25 acres
	Wadmalaw Island Agricultural Preservation	1 dwelling per 15 acres to 1 dwelling per 7 acres*
	Agricultural Preservation	1 dwelling per 10 acres to 1 dwelling per 5 acres 1 dwelling per 10 acres on Edisto Island
	Rural Agriculture	1 dwelling per 8 acres to 1 dwelling per 4 acres
	Rural Residential	1 dwelling per 3 acres to 1 dwelling per acre
	Agricultural Residential	1 dwelling per 5 acres to 1 dwelling per acre
	Rural Cultural Community Protection	1 dwelling per 25 acres to 1 dwelling per acre Not permitted on Wadmalaw or Edisto Islands
Planned Development Zoning Districts	All Future Land Use Categories	See Chapter 3.1.7.C, Planned Developments, of this Plan
Form-Based Zoning Districts	All Future Land Use Categories	See Chapter 3.1.7.D, Form-Based Zoning District
Urban/Suburban Area	Urban/Suburban Cultural Community Protection	1 to 4 dwellings per acre
	Urban/Suburban Mixed Use	4 or more dwellings per acre

** The area of a parcel in the Wadmalaw Agricultural Preservation designation within 1,000 feet of the OCRM Critical Line has a maximum density of 1 dwelling unit per 3 acres.*

Map 3.1.5: Urban/Suburban Future Land Use Detail



Note: Municipal boundaries shown are as of Feb. 25, 2014

Commercial

This designation encourages compatible mixed use development and a general land use pattern that includes a variety of housing types, retail, service, employment, civic and compatible industrial uses, as well as public and open spaces and linkages to public transit in a walkable environment. Residential densities of four or more dwellings per acre should be allowed. Urban agriculture should also be permitted.

Industrial

Major industrial uses and industrial parks are included within this land use designation. High-tech industrial uses are encouraged. Industries that support economic development goals and strategies should be given priority. Appropriate uses include manufacturing, distribution facilities, flex space, industrial support activities, ports and transportation related facilities. This designation also encourages compatible mixed use development and a general land use pattern that includes a variety of housing types, retail, service, employment, civic and compatible industrial uses, as well as public and open spaces and linkages to public transit in a walkable environment. Residential densities of four or more dwellings per acre should be allowed. Urban agriculture should also be permitted.

C. Planned Developments Zoning Districts

Planned Development Zoning Districts (Planned Developments) are a type of zoning district and planning tool intended to promote innovative site planning, mixing of uses, conservation of natural and cultural resources, and efficient use and provision of public facilities and services in order to accomplish the Purpose and Intent of the *Comprehensive Plan*. Planned Developments ensure the orderly development of projects that do not fit the typical future land use or zoning prototypes by allowing flexibility in future land use recommendations and zoning restrictions as trade-offs for improved design amenities, infrastructure provision, and mixed use.

While Planned Developments may permit flexibility in future land use recommendations and zoning restrictions, they still must comply with the overall Purpose and Intent of this Plan. Additionally, Conservation Design may be used in Planned Developments to offset the provision of significant amounts of permanently protected open spaces or agricultural land. (See *Conservation Design Toolbox* in *Appendix A*).

This Plan places a strong emphasis on balancing social, economic, and environmental considerations and recognizes the need for incentives to promote mixed -use development, conservation of open space and agricultural lands, and the provision of affordable housing. Some of the incentives include, but are not limited to:

- Density bonuses, as described in sub-sections "a" and "b" below, may be allowed for Planned Developments that include at least fifty percent (50%) permanently protected Common Open Space and comply with all other requirements of this Plan and the *Zoning and Land Development Regulations Ordinance*. These density bonuses shall not be applicable to areas in (1) the Conservation Management and Resource Management Future Land Use designations, as identified in this Plan; and (2) the Agricultural Preservation Future Land Use designation on Edisto Island, as identified in this Plan.
    a. An increase of up to 20 percent more than the number of dwelling units permitted under the maximum density identified in this Plan for the Rural Residential and Agricultural Residential Future Land Use designations (example calculation: number of dwelling units permitted under the maximum density multiplied by 1.2).

Table 3.1.2: Example of an Increase of Up To 20% Density Bonus

Parcel Size	10 acres
Future Land Use Designation	Agricultural Residential
Maximum Density of the Future Land Use Designation	1 dwelling unit per acre
Number of Dwelling Units Permitted (Maximum Density)	10 dwelling units
Number of Dwelling Units Permitted with 50% Permanently Protected Common Open Space: [# of Dwelling Units Permitted Under Maximum Density X 120%]	[10 dwelling units X 1.2] = 12 dwelling units

Table 3.1.3: Example of an Increase of Up To 120% Density Bonus

Parcel Size	80 acres
Future Land Use Designation	Rural Agriculture
Base Density of Future Land Use Designation	1 dwelling unit per 8 acres
Number of Dwelling Units Permitted (Base Density)	[80 acres / 8] = 10 dwelling units
Number of Dwelling Units Permitted (PD Maximum Density)	[80 acres / 4] = 20 dwelling units
Number of Dwelling Units Permitted with 50% Permanently Protected Common Open Space: [# of Dwelling Units Permitted Under Base Density X 220%]	[10 dwelling units X 2.2] = 22 dwelling units

Table 3.1.2 illustrates a detailed example of this calculation.

b. An increase of up to 120 percent more than the number of dwelling units permitted under the base density of the Future Land Use designation identified in this Plan for all other applicable Comprehensive Plan Future Land Use designations in the Rural Area (excludes (1) "a" above; (2) the Conservation Management and Resource Management Future Land Use designations; ~~and~~ (3) the Agricultural Preservation Future Land Use designation on Edisto Island) (example calculation: number of dwelling units permitted under the base density multiplied by 2.2). *Table 3.1.3* illustrates a detailed example of this calculation.

- Density bonuses beyond the maximum density of the recommended future land use designation may be approved when affordable housing units are included.
- Planned Developments that include a parcel or parcels of land that have varying future land use designations and/or varying zoning classifications may be deemed consistent with the *Comprehensive Plan* if the total density proposed does not exceed the maximum combined density permitted in the future land use designations and/or zoning districts.

D. Form-Based Zoning Districts

A Form-Based Zoning District is a zoning district category and a planning tool that guides the form and character of the built environment to create development patterns that coordinate the location of a variety of land uses with a connected transportation network in a manner that accommodates pedestrian mobility and controls sprawl.

These development patterns further the Land Use, Economic Development, Population, Housing, Transportation, Community Facilities, Natural Resources, Cultural Resources, Priority Investment, Implementation, and Coordination, and Energy Element strategies contained in this Plan by addressing the County's emerging land use policy concerns with innovative planning concepts. Increased residential and commercial sprawl and automobile-dominated transportation networks have created demand for innovative planning and zoning techniques such as Form-Based Zoning District regulations that enable the combination of land uses at densities that are sufficient to support walkability and land use diversity, and that facilitate coordinated and integrated infrastructure planning strategies.

Form-Based Zoning District regulations create predictability in the community planning process by directing the intended form and character of the specific Form-Based Zoning District, while allowing such District to naturally grow over time in response to market conditions. The *Comprehensive Plan* recognizes that the projected build-out time frame of any specific Form-Based Zoning District may far exceed the time frame of the current Comprehensive Plan update, and that the goal of predictability in the long-term community planning process may require the consideration of land use planning strategies not envisioned in the current Plan. Therefore, the Form-Based Zoning District provisions of the *Comprehensive Plan* are intended to complement the future land use recommendations incorporated in Sections 3.1.4 and 3.1.7, the growth management provisions of Section 3.1.5, and the guidelines set forth in Section 3.1.8.

E. Developments of County Significance

Developments of County Significance are defined as proposed developments that (1) have a gross acreage equal to or exceeding 1,000 acres, (2) are located in the Rural Area of the County, and (3) may be considered consistent with the recommendations of the Comprehensive Plan if they comply with the criteria and requirements of the Developments of County Significance provisions contained in the *Comprehensive Plan* and *Zoning and Land Development Regulations Ordinance*. The Plan recognizes that there are Rural Areas throughout the County which may at some time meet this definition and that they should be addressed through appropriate procedural requirements. The *Zoning and Land Development Regulations Ordinance* should be amended to establish protocol for submission requirements and review of Developments of County Significance. The following outlines an application, process, and criteria which shall be addressed in the *Zoning and Land Development Regulations Ordinance*.

Application

All applications for Developments of County Significance shall include a Comprehensive Plan amendment request(s) and Development Agreement request(s). Additionally, a Rezoning application may be submitted as part of the application for Developments of County Significance. An application to amend the *Comprehensive Plan* pursuant to the Developments of County Significance process may be approved by the County Council if it determines that the proposed amendment is consistent with the overall purpose and intent of the *Comprehensive Plan* and the requirements of the Developments of County Significance provisions contained in the *Comprehensive Plan* and *Zoning and Land Development Regulations Ordinance*.

Process

The process shall follow the procedure required by the Charleston County *Zoning and Land Development*

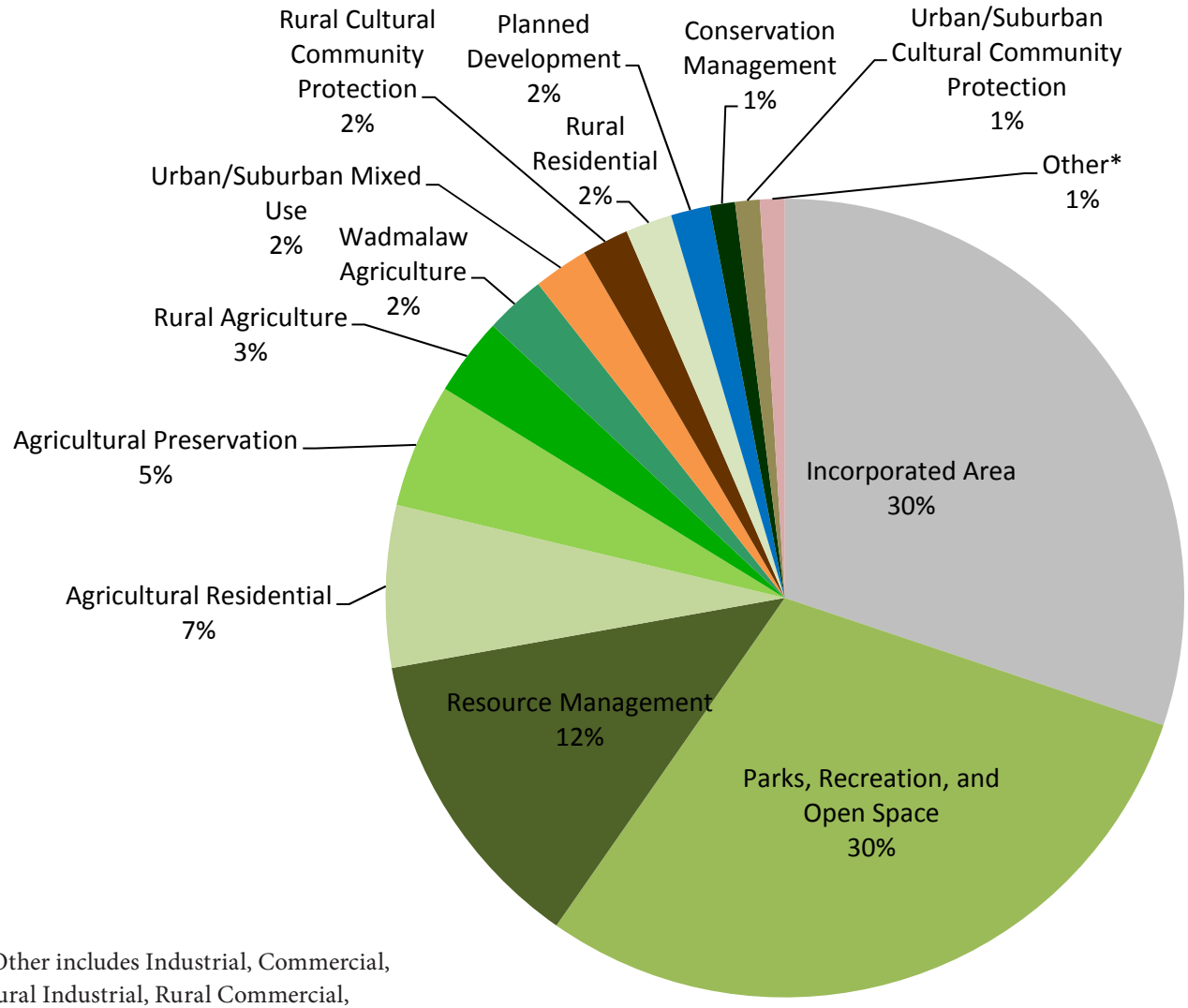
Regulations Ordinance and South Carolina State Law in terms of public hearings, notifications, time-limits, and final determinations for *Comprehensive Plan* amendment requests, Development Agreement requests, Rezoning requests, and for any change on the Zoning Map. Extensive public outreach should be required prior to the submission of an application for a Development of County Significance.

Criteria

All applications shall include documentation addressing each element of the Charleston County *Comprehensive Plan* and shall at a minimum include the following:

- Seventy-five percent (75%) of the land included in the application shall be either private land permanently restricted by deed restriction or conservation easement to clustered or unclustered rural densities, or other areas proposed for private and/or public ownership (e.g., parks, lakes, greenways, parkways, buffer zones, agricultural and silvicultural areas, recreational areas, preserved historic and/or cultural areas, preserved areas of biological significance), or areas to be purchased by the County's Green Belt Bank or other open space preservation organizations. The application shall identify the amount of acreage available for clustered rural density; said acreage shall be excluded from the seventy-five percent (75%) calculation.
- A historic and archaeological resource study;
- Preservation, mitigation and/or management of significant cultural, historic and archaeological sites, resources and landscapes;
- Information regarding the location, density and intensity of proposed land uses for the first five years of the proposed project and projections for each subsequent five year time period until buildout;

Figure 3.1.2: Future Land Use Pie Chart



*Other includes Industrial, Commercial, Rural Industrial, Rural Commercial, Rural Economic Development, Civic, and Office. These Future Land Use categories equate to less than 1% of the total unincorporated acreage.

- An analysis of how the proposed form and character of development is compatible with the intent of the Rural Area guidelines;
- An analysis of how proposed residential land use patterns are coordinated with employment and service opportunities in the area of the proposed development and adjacent areas of the County or other jurisdictions;
- Inclusion of a variety of housing ownership types and affordability;
- Economic development information such as economic feasibility analysis (e.g., estimates of average annual ad valorem tax yields, economic development analysis) of the impact on the local economy and employment market;
- Fiscal impact analysis of the public infrastructure needs;
- List needed and/or required public improvements including but not limited to transportation improvements, educational facilities, public safety services, and government facilities;
- Traffic impact study;
- Interconnected and complete transportation network;
- Analysis of public transit alternatives;
- Provision of transportation alternatives; and
- Emergency evacuation plans.

3.1.8: DEVELOPMENT QUALITY

The following guidelines for the Rural and Urban/Suburban Areas are included to help manage growth in a manner that is consistent with the desired character and quality unique to the communities within Charleston County. The guidelines provide a set of expectations that should be used to evaluate the conformance of applicable development applications with this *Comprehensive Plan*.

A. Rural Area

Purpose and Intent

The Rural Area is located outside of the Urban Growth Boundary and is identified by forests, tidal marshes and freshwater wetlands, which dominate the landscape. They are traversed by scenic rural roads, and dotted with historic buildings and archaeological sites indigenous to the Lowcountry.

Agricultural and forestry activities and geographically dispersed Settlement Areas with homes are secondary to the natural and historic landscapes in the Rural Area. A small number of service and agriculturally oriented businesses are sited along major highways.

The Rural Area is not targeted for public wastewater treatment except when approved by County Council for the general health, safety, and welfare of the community. A significant amount of land is in public ownership, open space easements, agricultural use, timber management, and wildlife habitat uses, contributing to the rural character of Charleston County.

The purpose of establishing the following guidelines for preservation and development in the Rural Area of the County is to:

1. Protect and maintain the natural environment;
2. Promote agri-business and agri-tourism;
3. Designate prominent locations with good access and visibility from major roads for civic or community oriented uses such as churches or schools;
4. Establish and maintain a rural network of roads that

enhances the rural character and does not encourage rural growth;

5. Promote infill of undeveloped portions of existing Settlement Areas to continue to define the edge between the Settlement Areas and the surrounding rural landscape; and
6. Maintain the rural low-density qualities of large portions of the County to preserve the character and culture of the Lowcountry.

Rural Guidelines

The following Rural Guidelines describe the features of preservation or development that are important to maintain the rural qualities of the County. These statements provide guidance for the location, quality and character of future development which are appropriate in the Rural Area and should be considered in the composition of development applications in the Rural Area.

Rural Guideline 1.

Prioritize the protection of agricultural activities, natural landscapes, and cultural resources balanced with low-intensity residential, agricultural, and supportive commercial uses.

Rural Guideline 2.

Develop very low density residential uses to maintain the rural character.

Rural Guideline 3.

Develop gross densities at the higher range of the recommended future land use when Clustering or Conservation Design is used, as exhibited in *Figure 3.1.3*, to offset the provision of significant amounts of preserved land, especially in the Rural Residential and Rural Agriculture Future Land Use categories. (See *Conservation Design Toolbox* in *Appendix A*).

Rural Guideline 4.

Develop gross densities at or above the maximum densities recommended in the future land use categories when Planned Development Zoning Districts, Form-Based Zoning Districts, and/or Developments of County Significance are found to be consistent with the Elements contained in this Plan and the requirements of the *Zoning and Land Development Regulations Ordinance*.

Rural Guideline 5.

Establish a pattern of roads and buildings which portrays a traditional rural quality of life with large areas dedicated to agriculture or silviculture, or protected in a natural state to provide habitat for native species.

Rural Guideline 6.

Preserve cultural and historic sites.

Rural Guideline 7.

Designate prominent locations with good access and visibility from major roads for civic or community oriented uses such as churches or schools.

Rural Guideline 8.

Maintain or enhance the visual identity of existing scenic roads.

Rural Guideline 9.

Provide vegetated buffers of fifty feet or more between roads and structures where development occurs along or near designated scenic roads.

Rural Guideline 10.

Maintain rural and agriculturally oriented commercial uses in a dispersed pattern or in low concentrations in nodes at major intersections to support and contribute to the rural quality of life.

Rural Guideline 11.

Locate new rural and agriculturally oriented commercial uses at nodes with access to major roads and buffer from any adjacent residential or agricultural uses.

Rural Guideline 12.

Maintain the overall pattern of very low levels of human influence.

Rural Guideline 13.

Preserve and protect natural areas such as marshes, forests, and vegetative or wildlife habitats.

Rural Guideline 14.

Preserve areas with soils recognized by the U.S. Department of Agriculture as the best land for agricultural production or agricultural activities.

Rural Guideline 15.

Preserve and protect agriculture and timber land.

Rural Guideline 16.

Comply with the Settlement Area criteria in the *Zoning and Land Development Regulations Ordinance* for the establishment of all new Settlement Areas. No new Settlement Areas shall be established on Wadmalaw Island or Edisto Island.

Rural Guideline 17.

Respect the scale, configuration, building orientation, density, pattern, materials, building relationship to street, and general character of existing settlements and the surrounding Rural Area.

Rural Guideline 18.

Provide pedestrian and bicycle trail linkages as well as access to public transportation routes in Settlement Area developments.

Rural Guideline 19.
Protect water quality, wildlife habitat, and scenic vistas by meeting or exceeding the minimum lot widths, buffers and setbacks required for developments along the OCRM Critical Line, as contained in the *Zoning and Land Development Regulations Ordinance*.

Rural Guideline 20.
Ensure adequate soil conditions and land area is present to support on-site wastewater disposal systems and potable water/well systems.

Rural Guideline 21.
Obtain approval of a *Comprehensive Plan* amendment for the purposes of amending the Community Facilities Element and the County's 208 Wastewater Service Areas Map and a *208 Water Quality Management Plan* amendment to allow any wastewater treatment systems other than individual on-site systems prior to submitting applications for development approval. Wastewater treatment systems that are approved as part of Planned Development Zoning Districts, Form-Based Zoning Districts, and/or Development Agreements do not require amendments to the *Comprehensive Plan*; however, they may require amendments to the Charleston County and *BCDCOG 208 Water Quality Management Plans* (Charleston County became a Designated Management Agency in 2010).

Rural Guideline 22.
Design new publicly owned and maintained roadways to be in character with the Rural Area and ensure that they will not promote additional growth out of character with the rural landscape.

Rural Guideline 23.
Where appropriate, meet the requirements for Developments of County Significance, as contained in *Chapter 3.9 Priority Investment, Implementation, and Coordination Element*.

Figure 3.1.3: Clustering or Conservation Design

The illustrations show how a rural site can be creatively developed with the by-right number of units while permanently protecting cultural and natural resources. By building homes on smaller lots clustered in the buildable or highland areas, the wooded areas, wetlands, marshes and historic structures can be preserved for generations to come.

This concept is an innovative way to develop land in the Rural Area that applies many of the Rural Guidelines in this Element.

B. Urban/Suburban Area

Purpose and Intent

The Urban/Suburban Area is located within the Urban Growth Boundary and is characterized by a diverse mix of residential neighborhoods, business/industrial uses, road frontage development, and undeveloped areas. High levels of infrastructure and services and medium to high intensity development exist within the Urban/Suburban Area.

The land development pattern in the Urban/Suburban Area ranges from older traditional neighborhood patterns with a grid street systems to suburban style subdivisions which draw on the natural landscape of marshes and waterways to help delineate neighborhoods, but which only allow for limited pedestrian ways and street connectivity. The purpose of the Urban/Suburban Guidelines is to:

1. Provide locations for concentrated mixed use growth patterns on land environmentally suitable for development where services can be provided in an efficient and cost effective manner;
2. Focus development activities on infill, redevelopment, and intensification of existing and surrounding uses;
3. Promote mixed use developments and a general land use pattern that includes a variety of housing types, retail, service, employment, civic, and compatible industrial uses, as well as open space and includes linkages to public transit in a walkable environment;
4. Promote alternative forms of transportation;
5. Establish a transitional area between the Rural Area and the Urban/Suburban Area consisting of lower intensity uses at the outer edge of the Urban Growth Boundary;
6. Designate prominent locations with safe access and visibility from major roads for civic or community oriented uses such as churches or schools; and
7. Protect natural resources.

Urban/Suburban Guidelines

The following Urban/Suburban Guidelines describe the features of preservation or development that are important to maintain the character within the Urban/Suburban Area. These statements provide guidance for the appropriate location, quality and character of future development in the Urban/Suburban Area and should be considered in the composition of development applications for the Urban/Suburban Area.

Urban/Suburban Guideline 1.
Provide compatible mixed use development and a general land use pattern that includes a variety of housing types, retail, service, employment, civic and compatible industrial uses, as well as public and open spaces and linkages to public transit in a walkable environment. Urban agriculture should also be permitted.

Urban/Suburban Guideline 2.
Provide an interconnected network of sidewalks, pedestrian ways, bike ways, and streetscaping in all new residential and nonresidential developments to establish linkages to parks, open space, schools, and public transportation as well as retail and service uses.

Urban/Suburban Guideline 3.
Respect the scale and site placement of adjacent existing development to maintain established community characteristics where appropriate.

Urban/Suburban Guideline 4.
Provide a variety of type, size, affordability and creativity in housing design.

Urban/Suburban Guideline 5.
Minimize the visual impact of garages and parking structures, as shown in *Figure 3.1.4: Minimizing the Visual Impact of Garages*.

Urban/Suburban Guideline 6.
Utilize locations in close proximity to existing neighborhoods for mixed use infill development.

Urban/Suburban Guideline 7.
Minimize the effect of industrial/commercial uses on local street systems and land use patterns through quality site design, provision of public transit access, and the design of local road connections.

Urban/Suburban Guideline 8.
Provide transitional areas from residential uses to non-residential uses through similar scale of building, architectural styles, and orientation of buildings and parking lots.

Urban/Suburban Guideline 9.
Provide a transitional area in developments near the outer edge of the Urban Growth Boundary consisting of lower intensity uses to step down to the adjacent rural intensities.

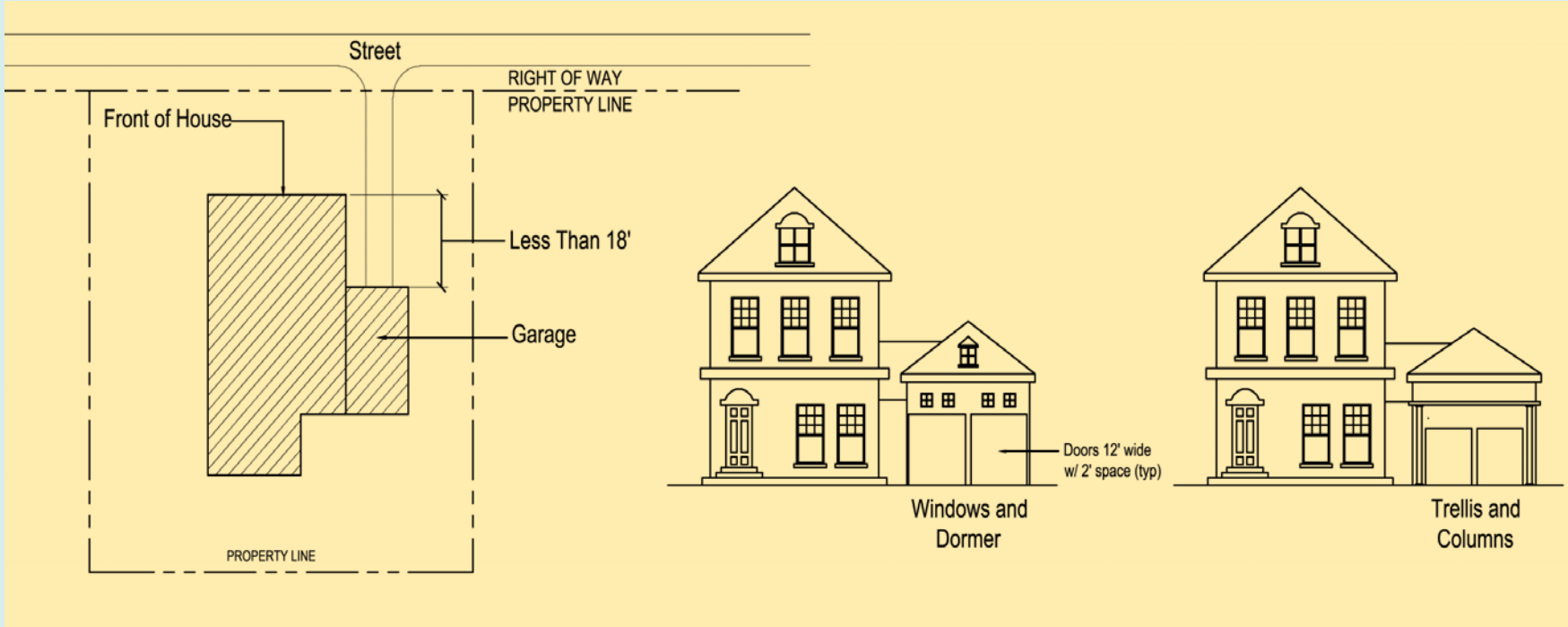
Urban/Suburban Guideline 10.
Preserve cultural and historic sites.

Urban/Suburban Guideline 11.
Include parks, recreational uses, greenspace, and water access in urban/suburban neighborhood design.

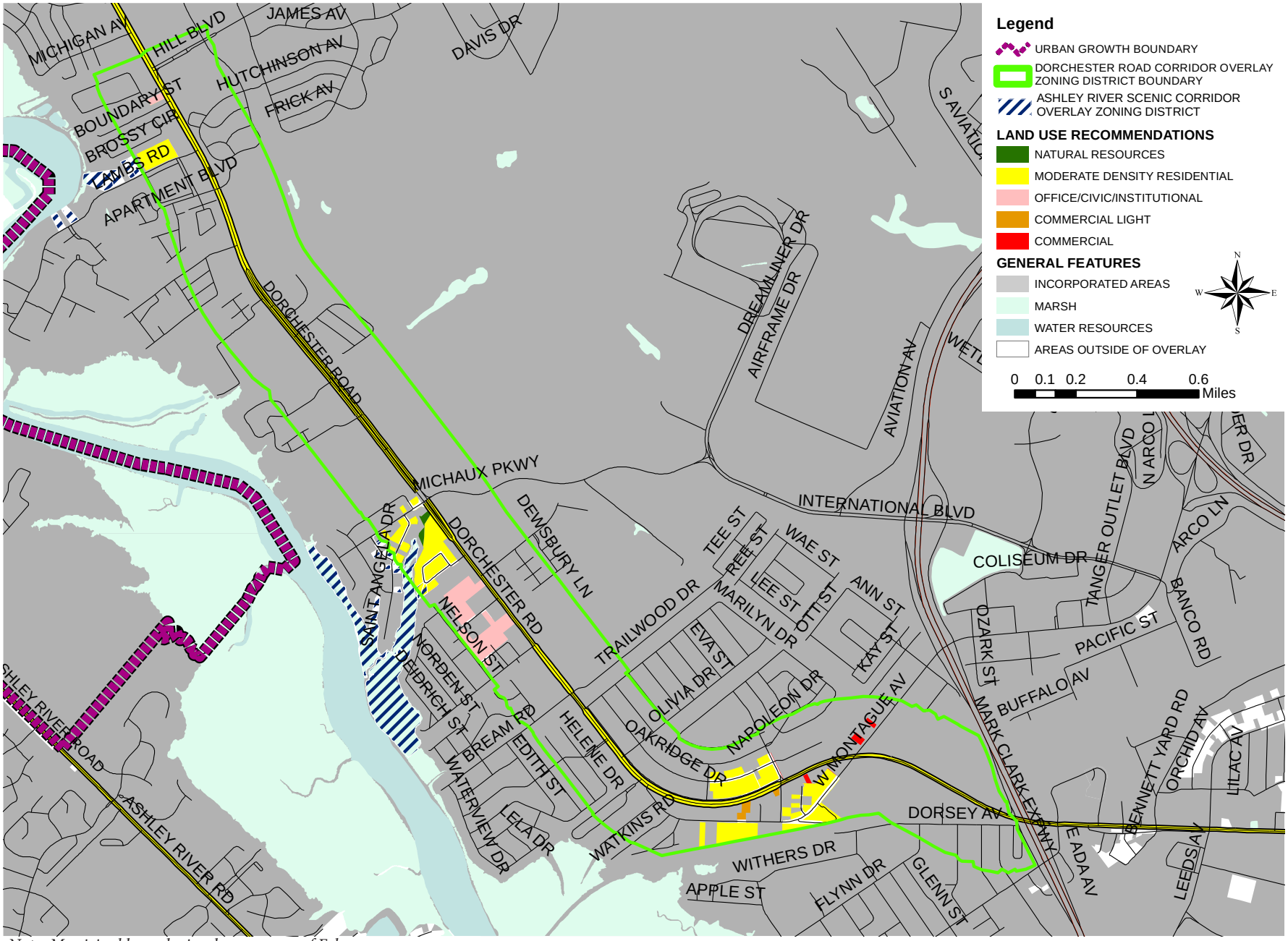
Urban/Suburban Guideline 12.
Maintain areas occupied by marshes and unique vegetative and wildlife habitats.

Urban/Suburban Guideline 13.
Protect water quality, wildlife habitat, and scenic vistas by meeting or exceeding the minimum lot widths, buffers, and setbacks required for developments along the OCRM Critical Line, as contained in the *Zoning and Land Development Regulations Ordinance.*

Figure 3.1.4: Minimizing the Visual Impact of Garages
Setting garages back from the front facade of a home de-emphasizes the elements of the home related to the car and increases the focus on the human-scale elements of the house.

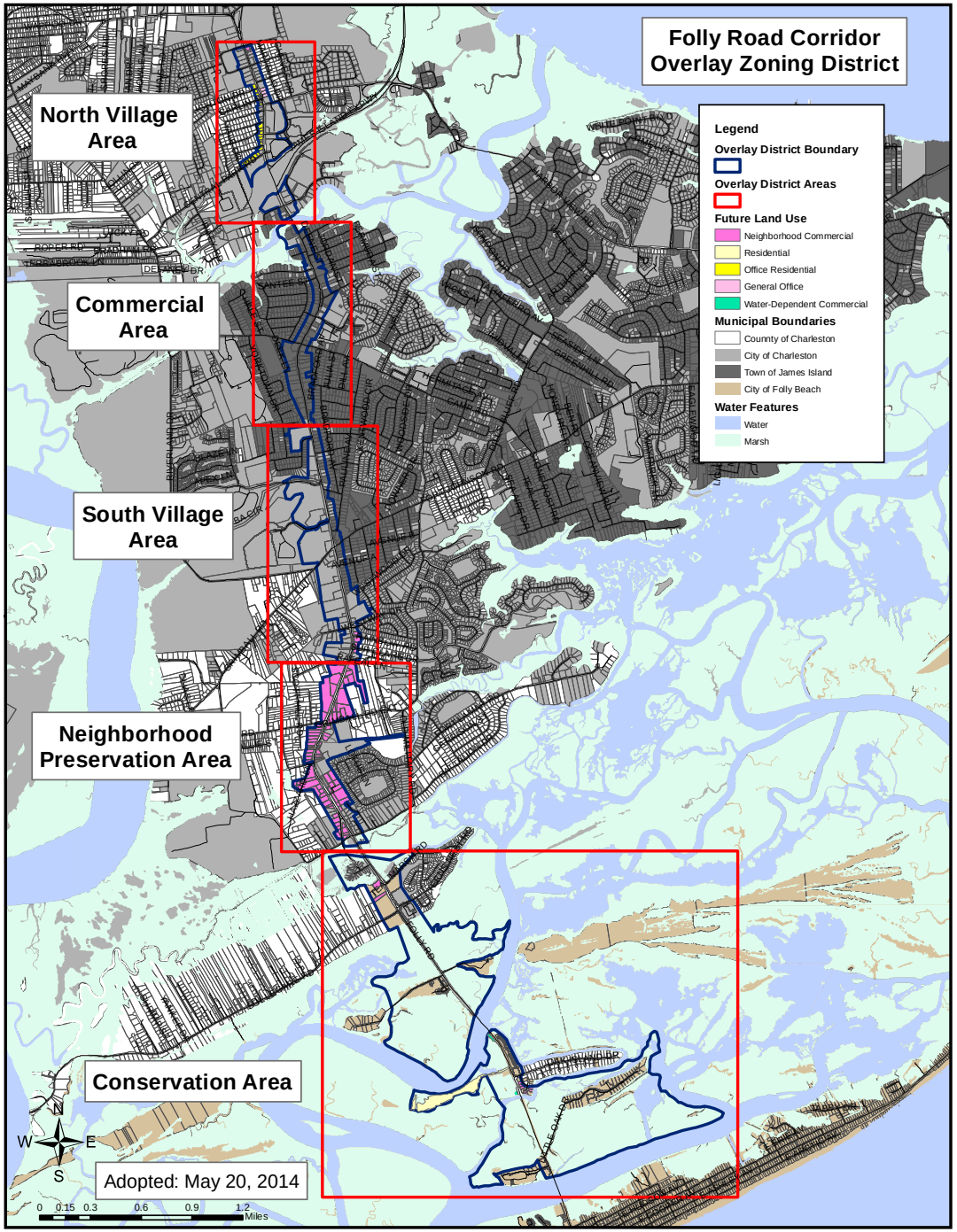


Map 3.1.6: Dorchester Road Corridor and Ashley River Scenic Corridor Overlay Zoning District



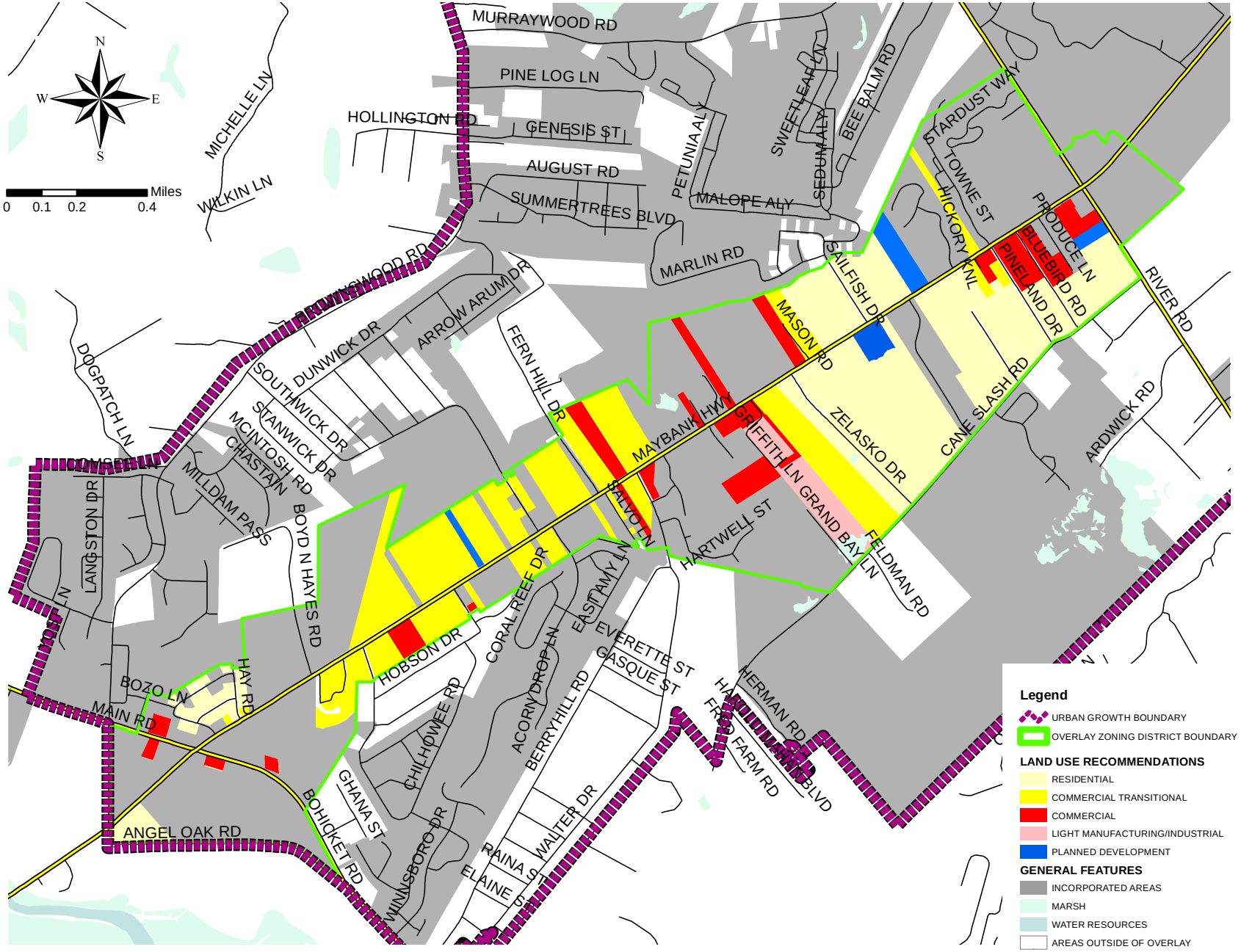
Note: Municipal boundaries shown are as of Feb. 25, 2014

Map: 3.1.7: Folly Road Corridor Overlay Zoning District



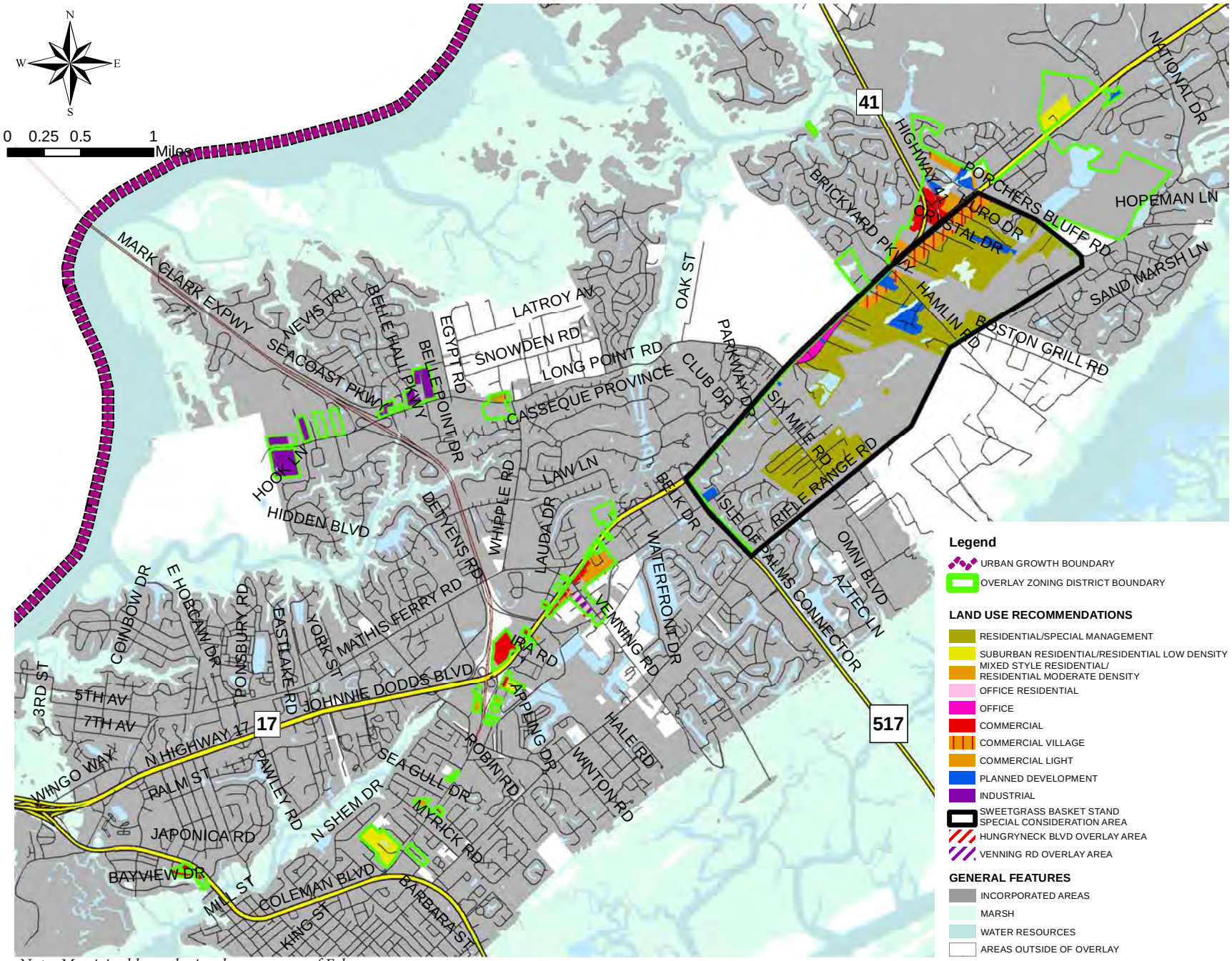
Note: Municipal boundaries shown are as of Feb. 25, 2014

Map: 3.1.8: Maybank Highway Corridor Overlay Zoning District



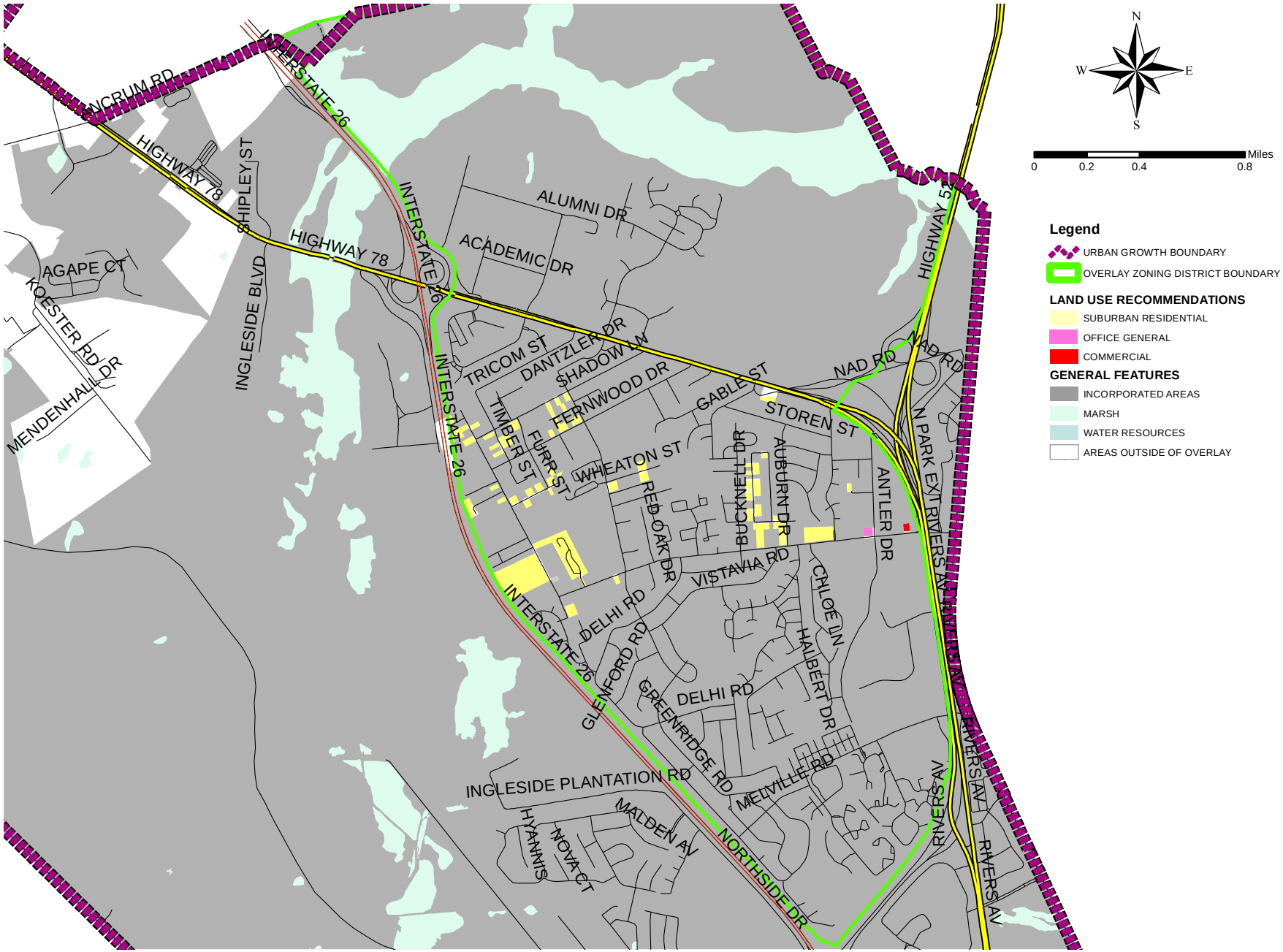
Note: Municipal boundaries shown are as of April 29, 2016.

Map: 3.1.9: Mount Pleasant Overlay Zoning District



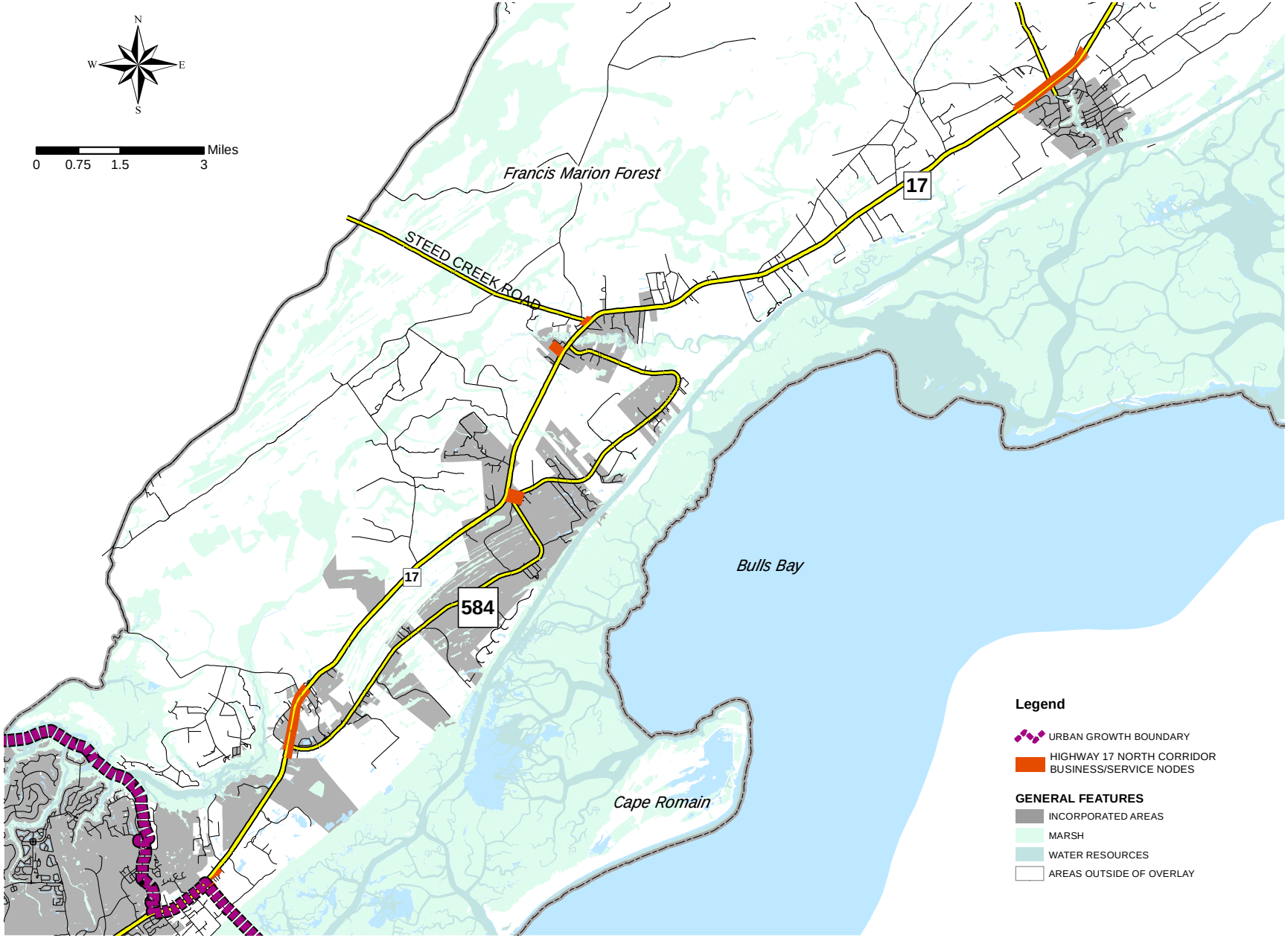
Note: Municipal boundaries shown are as of Feb. 25, 2014

Map: 3.1.10: University Boulevard Overlay Zoning District



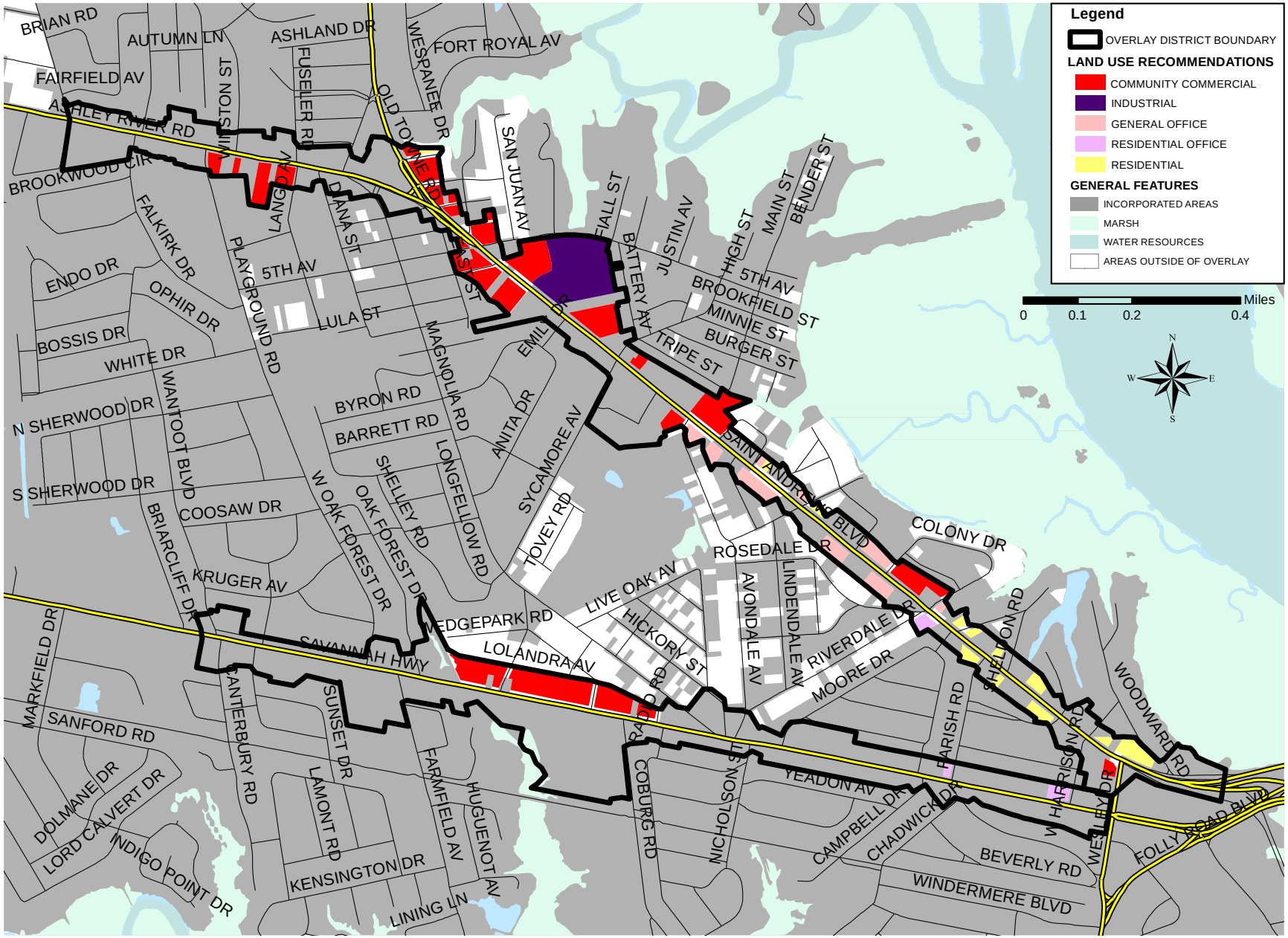
Note: Municipal boundaries shown are as of Feb. 25, 2014

Map: 3.1.11: Highway 17 North Corridor Overlay Zoning District



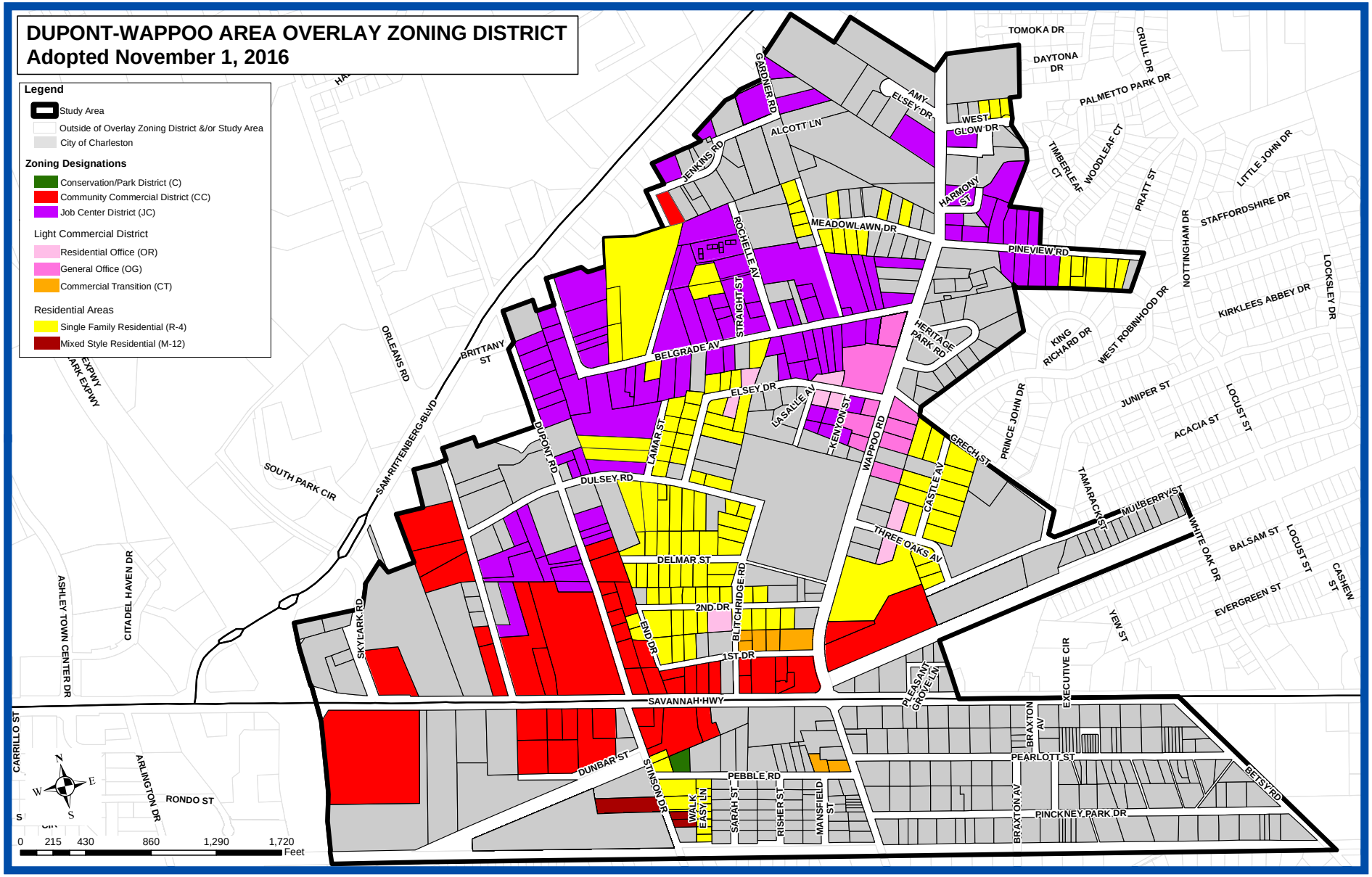
Note: Municipal boundaries shown are as of Feb. 25, 2014

Map: 3.1.12: St. Andrews Area Overlay Zoning District



Note: Municipal boundaries shown are as of Feb. 25, 2014

Map: 3.1.13: DuPont-Wappoo Area Overlay Zoning District



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Chapter 3.2 Economic Development Element

3.2.1: OVERVIEW

The County includes Economic Development as an Element to help balance business and employment growth with that of population, housing, transportation, and land use. A balance is necessary to ensure the community continues to thrive. The County should act and has acted to correct imbalances as they occur or are anticipated. The County has an active Economic Development Department which liaise with the State, surrounding counties, and numerous other entities. It has played a large role in attracting industries and commerce to the County.

Purpose and Intent

Economic development is an important component of the Comprehensive Plan to tie recommendations for business and employment growth with the land use, transportation, and housing recommendations. The purpose and intent of this chapter is to provide strategies that allow Charleston County to be a key player in the support of a unified economic development vision for the Charleston Region. The strategies for economic development should foster a stable and competitive business climate to draw business to the region and should support and strengthen the economic viability of existing industries. The strategies contained in this Element are also intended to encourage business start-ups, including small business enterprises, minority owned businesses, and high-technology and knowledge-based businesses and attract new targeted industry sectors to Charleston County. The Economic Development Department should continue to promote the development of a trained quality workforce, evaluate new economic development opportunities as they arise, and support the other recommendations of this Plan as part of the comprehensive strategy for the future of the County.

3.2.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Introduction

In 2013, the Charleston regional economy can aptly be described as 'transcendent.' Following the recent recession, all local economic indicators indicate a rebound, but more importantly, developments over the past five years have elevated Charleston to international prominence.

The new-found global stature of Charleston is the culmination of two decades of focused effort, as well as a sound pro-business environment, and plenty of good fortune. Beginning with the closure of the Naval Complex in Charleston by the 1993 Base Realignment and Closure (BRAC) Commission, tri-county government and business leaders have mounted a robust campaign of economic recruitment, tourism promotion, and growth of the federal government presence.

Several major milestones over the past five years have included:

- Establishment of the second Boeing Final Assembly site for the 787, its subsequent expansion, and the 787-related Interiors Responsibility Center. Most recently, the company announced that significant IT and Engineering Centers would be established here, as well as a 737 Max Inlet production facility;
- Growth of the Space and Air Warfare Systems (SPAWAR) presence, along with various other Navy and Air Force commands attached to Joint Base Charleston;
- Port-related growth;
- Growth of the medical sector;
- Growth of the information technology / software sector;
- Additional air service from Southwest and Jet Blue;

- Addition of the Clemson University Drive Train Test Facility, an anchor for the wind energy and power systems sector; and
- Growth of the Charleston tourism sector, anchored by a burgeoning culinary scene, year-round arts and cultural festivals such as Spoleto Festival USA, outdoor recreation, and signature athletic events like the 2012 PGA Championship at Kiawah Island and the Family Circle Cup.

The unprecedented economic diversity now evident in the Charleston economy has proven a hedge against the recession, with the region's unemployment rate remaining favorable in comparison with state and national trends, as depicted in *Figure 3.2.1*. International and domestic companies eyeing the eastern United States continue to find the Port of Charleston, the competitive business cost structure, a highly productive workforce, the state's 'right-to-work' environment, the ease of attracting talent, the unrivaled quality of life, and pro-business state and local government partnership as alluring calling cards.

Charleston County Economic Development Mission

The Charleston County Economic Development Department was created in 1994 and crafted a strategic plan in that inaugural year. The three-pronged mission includes:

- Recruitment of 'primary' employers;
- Retention and expansion of 'primary' employers; and
- The safeguarding and improvement of the local business climate.

'Primary' employers include manufacturers, research and development operations, corporate headquarters, large distribution facilities, defense contractors, biotechnology firms, and information technology companies. The basic premise is that when recruiting or facilitating an expansion by these types of operations, more payroll is introduced into the community, creating a multiplier effect as dollars are re-spent in retail, service, and other smaller businesses. Among the other advantages offered by this strategy is the attraction of large levels of capital investment, which translate into an enhanced level of public revenues available to provide public services. Lastly, the creation of large numbers of new jobs reduces unemployment and bolsters the standard of living for area residents.

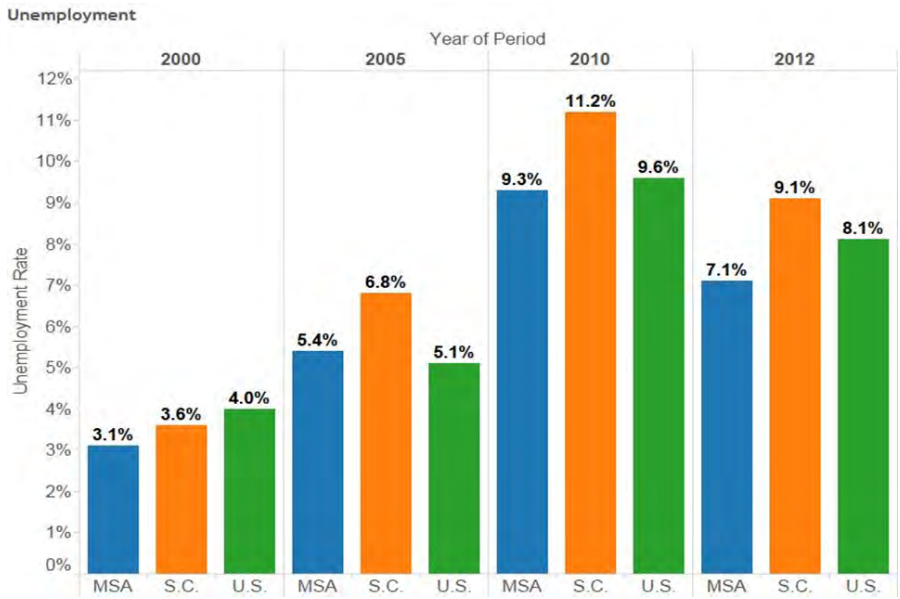
The Charleston County Economic Development Department pursues its three-pronged mission with a relatively small staff of five, but Charleston County supports many other aspects of economic development through its other direct County functions, as well as its financial partnerships with several key non-profit entities.

Business in Charleston County

Doing business in Charleston County is a value proposition, because excellent public services enhance "the bottom line." The County is a recognized leader in many areas and enjoys a stellar reputation for financial stability and integrity. Amidst the turbulence of the recent recession, at a time when so many state and local governments were in distress, Charleston County retained its AAA credit rating with all three of the major rating agencies.

In addition to the Economic Development Department mission, Charleston County influences the economy on several other fronts:

Figure 3.2.1: Regional (MSA), State, and National Unemployment Rates (2000 - 2012)



Source: S.C. Department of Employment and Workforce.

- Tourism Promotion – as a major funder of the Charleston Area Convention and Visitors Bureau, and through funding (with its accommodations fee) the North Charleston Convention Center, Joseph P. Riley Park, Mt. Pleasant Soccer Complex, Family Circle Stadium, and beach re-nourishment at the Isle of Palms. These efforts have paid big dividends in the attraction of convention business, festivals and attractions in a city which was recently named "The #1 U.S. destination" by *Conde Nast* magazine.
- Transportation Infrastructure and Workforce Mobility – as a major funder and manager of local road improvements, utilizing the locally enacted "Half Cent Sales Tax," major funding for the public transportation system operated by the Charleston Area Regional Transit Authority (CARTA), and as a major funder of regional transportation planning undertaken by the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG). Roads constructed by the County continue to relieve traffic congestion, and create more efficient access and connectivity between residential and business centers.
- Education and Workforce Training – as a major funder of BCDCOG, which administers the Workforce Investment Act-affiliated workforce initiatives, the Metro Chamber of Commerce and its Education Foundation initiative, as well as financial support for major training facilities for aerospace and nursing at Trident Technical College.
- Public Safety – as a provider of EMS, Enhanced 9-1-1, law enforcement, fire protection, hazardous materials management, and Emergency Preparedness services, which protect residents, employees, and business and residential property, and result in lower insurance rates. Award-winning public safety programs such as the state-of-the-art Consolidated Dispatch Center, create the quickest possible emergency response, and the well-developed Charleston County Emergency Management Plan offers a solid foundation for business continuity planning.
- Environmental Stewardship – as a careful planner of sustainability, a provider of solid waste and recycling services, and a preserver of "green belts." The Charleston quality of life, a major magnet for business growth, hinges on a careful balance between progress and preservation, and these renowned County programs help sustain that balance.

Key Economic Development Allies

Beyond the Economic Development Department mission and the activities of various sister county departments, several local and state agencies and nonprofit entities round out the overall regional service offering to businesses. These include:

- The S.C. Department of Commerce – serving the State of South Carolina, this agency joins forces with the County throughout the corporate recruitment process, as well as in initiatives designed to retain and expand manufacturing, corporate headquarters, research and development, and other significant business operations. The state offers financial incentives which can include offsets to the state corporate income tax, grants and cash rebates to underwrite some business project costs, and workforce training programs designed to deliver a "turnkey" workforce at little to no cost to the employer.
- Area municipalities – business sites often exist within the major municipalities of Charleston County – namely, Charleston, North Charleston, and Mt. Pleasant. These cities are valuable allies to Charleston County in the recruitment, retention, and expansion of businesses as their mayors set the pro-business tone with their assistance in expeditious plan reviews and permitting.
- The Charleston Regional Development Alliance – this 501-c organization was founded in 1995 by Berkeley, Charleston, and Dorchester counties, along with the three area chambers of commerce, to market and recruit industry on behalf of the tri-county region. The three counties work hand-in-hand on a daily basis with the Alliance as it attracts business prospects to the area for visits, which in many cases lead to the establishment of new business enterprises here.
- The Berkeley, Charleston, Dorchester Council of Governments – this tri-county organization by law exists to act as a regional facilitator on all federally funded transportation, water, and sewer projects. It is also administers the Workforce Investment Act (WIA) programs designed to strategically funnel federal dollars into workforce training in relevant in-demand occupations. Beyond these roles, the BCDCOG also acts as the clearinghouse on a variety of federal statistics, including the U.S. Census and transportation data.
- The Metro Chamber of Commerce – the oldest municipal chamber in the United States exists in Charleston, and this organization pursues numerous initiatives designed to advocate for good public policy which will safeguard and improve the area's business climate. The Chamber is active in areas such as public education, higher education, highway infrastructure, and air travel. The Chamber also offers programs to assist entrepreneurs and small business owners (SCORE) and maintains a full-service business data center (the Center for Business Research).

- Area utilities – The County enjoys productive working relationships with the electric, natural gas, water, sewer, and telecommunications utilities, with whom it works hand-in-hand to recruit, retain, and expand businesses. The utilities also play a valuable role in extending, upgrading or relocating needed infrastructure for business facilities, as well as in their provision of grants to offset some of the costs associated with the establishment or expansion of a facility.

Economic Diversification

Growth of the Charleston Area

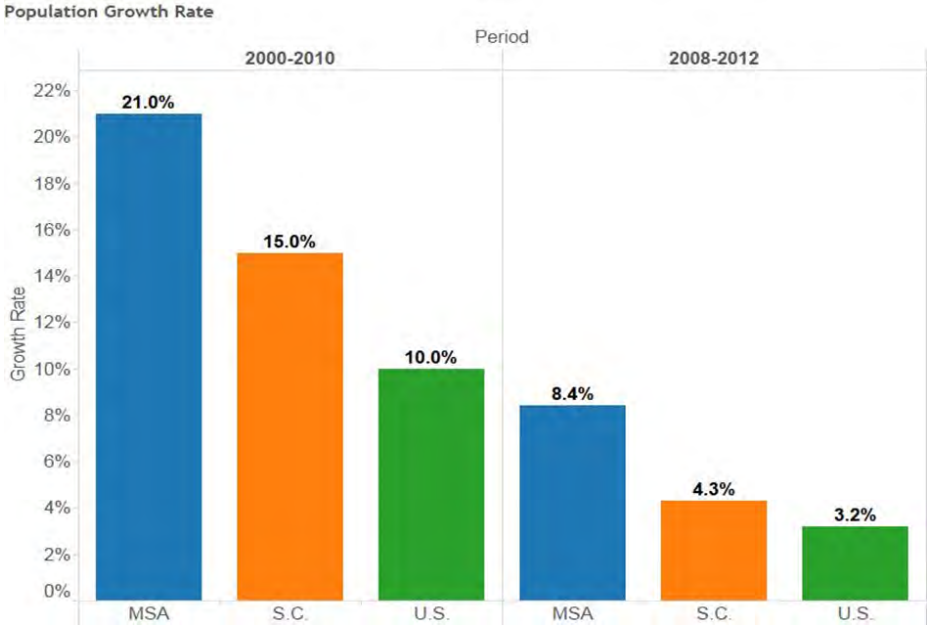
In the decade from 2000-2010, the population within the Charleston region increased from 549,033 to 664,607 persons, according to the U.S. Census Bureau. The addition of 115,574 new residents represented a 21 percent increase, which outpaced both the U.S. (10 percent), and S.C. (15 percent) averages, as shown in *Figure 3.2.2*. Similar to the general population growth, the area workforce grew at a 20 percent rate, outpacing the S.C. (nine percent) and U.S. (six percent) rates. (see *Figure 3.2.3*).

Overall Economic Performance

Since the inception of its economic development mission in 1993, business recruitment, retention, and expansion results within Charleston County have been phenomenal. Many of its largest feats have occurred within the past five years, which marked the arrival and early expansion by The Boeing Company.

According to the S.C. Department of Commerce, from 1993 through the close of

Figure 3.2.2: Regional (MSA), State, and National Population Increases (2000 - 2012)



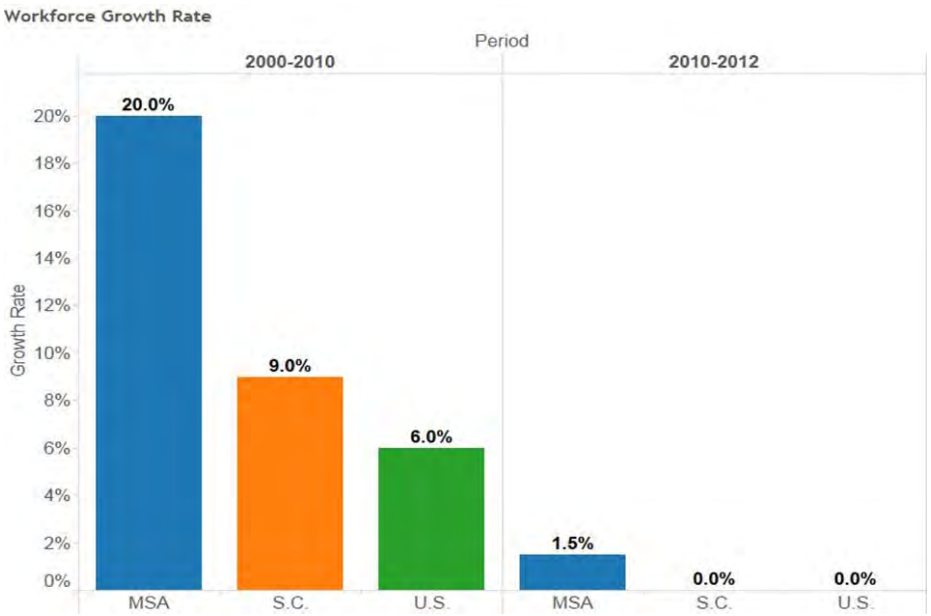
Source: U.S.Census Bureau.

The Port of Charleston

Boeing

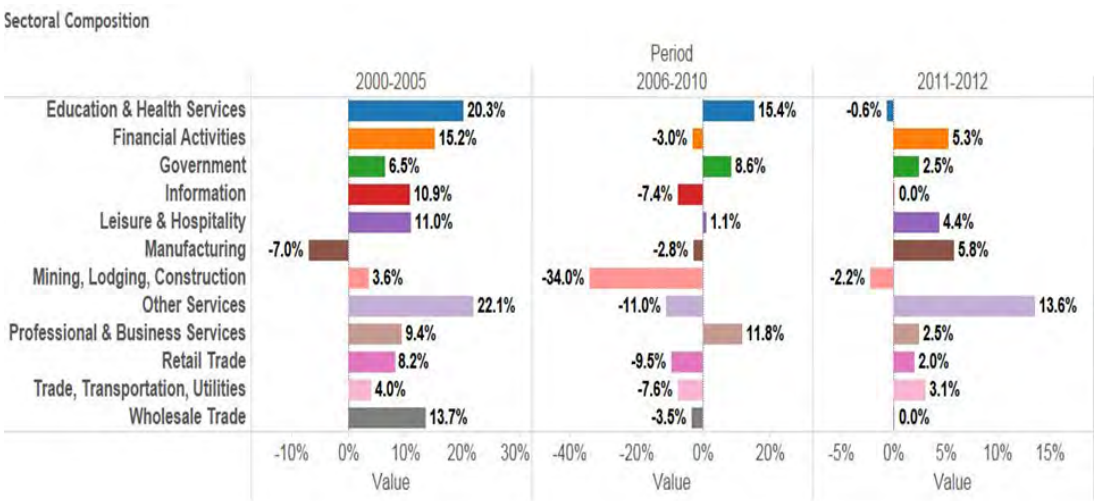
The Market, Downtown Charleston

Figure 3.2.3: Regional (MSA), State, and NationalWorkforce Growth Rates (2000 - 2012)



Source: U.S. Department of Labor - Bureau of Labor Statistics.

Figure 3.2.4: Growth in Charleston's Economic Sectors (2000 - 2012)



Source: S.C. Department of Employment and Workforce.

2012, businesses in Charleston County had invested some $4.2 billion and created over 24,000 new jobs within its boundaries. In 2012 Charleston County placed among the 'Top Ten' counties in South Carolina for capital investment and job creation for the 16th time in 18 years. Those figures have climbed yet higher in 2013, with the record-breaking $1 billion expansion by Boeing which will create an additional 2,000 new jobs.

The past decade (2000-2010) was a roller-coaster ride for those employed in most of Charleston's economic sectors, particularly construction, manufacturing, and retail. From 2000 through 2005, all sectors expanded, with the exception of manufacturing, as shown in *Figure 3.2.4*. Once the Great Recession set in, contraction occurred in financial activities, information, manufacturing, retail trade, wholesale trade, and trade, transportation, and utilities. The most spectacular contraction (34 percent) occurred in construction, due to the nationwide collapse of the housing bubble, and the near collapse of the nation's banking and financial sector. Within the region, only education and health services, government, leisure and hospitality, and professional and business services registered employment growth during that period. During 2011 and 2012, with the recovery struggling to find its legs, most sectors had regained ground and had begun rehiring. Contraction continued to plague the construction sector, which registered another 2.2 percent loss in jobs. Amidst new multi-family and single-family housing starts and increased commercial demand in 2012-2013, however, many economists believe that the sector has stabilized and will begin to grow modestly.

Unemployment Rates, Average Wages, and Per Capita Income

From 1995, shortly after the inception of the county economic development mission, through 2010, the average wage in the Charleston region rose 76 percent - from $22,568 to $39,661. By 2005 the Charleston regional average wage had surpassed that of South Carolina, and by 2010 it had further grown the gap to be about six percent higher. Regional wages continue to trail average U.S. wages, but have narrowed the gap - having represented 79 percent of U.S. wages in 2000, and growing to represent 85 percent in 2010, as shown in *Figure 3.2.5*.

Per capita income is a different and more inclusive measure than average wages; it includes not only wages, but also revenues derived from sources as diverse as investment portfolios, rent, unemployment compensation, and transfer payments. Per capita income in Charleston County ranked sixth among the state's 46 counties in 1995, at $21,118. By

2003, it had improved to second in the state, growing to $31,333. Charleston County remained in second place in 2011, but improved to $41,656, narrowly behind Beaufort County (see *Figure 3.2.6*). Recent growth trends suggest that Charleston County will soon rise to number one.

In the year 2000, unemployment in the Charleston region averaged 3.1 percent, which is widely defined as full employment. In 2005, immediately prior to the Great Recession, unemployment ticked up to 5.4 percent - similar to the national trend, but much lower than the S.C. rate of 6.8 percent. At the height of the recession in 2010, the Charleston region spiked to 9.3 percent - again similar to the national trend (9.6 percent), but much lower than S.C. (11.2 percent). In 2012, amidst a still tepid recovery, the Charleston region had improved to 7.1 percent, while the U.S. (8.1 percent) and S.C. (9.1 percent) rates were slower to improve. During 2013, the Charleston region averaged 6.4 percent. *Figure 3.2.7* shows the exact unemployment rates for Charleston County and comparative cities. During its 2013 annual event, the forecast by the Metro Chamber of Commerce Outlook Advisory Board was for unemployment to drop to 5.8 percent by the end of 2014.

Economic Sector Composition

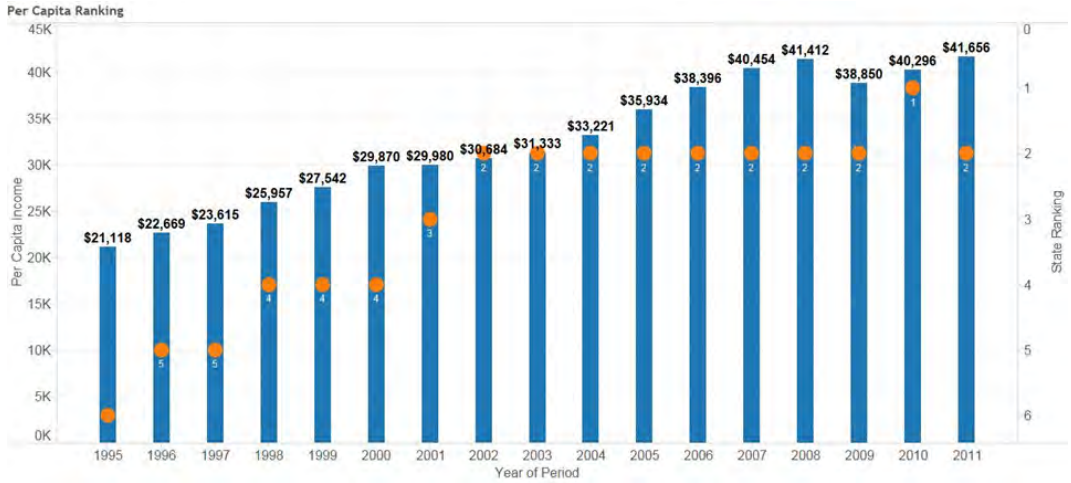
As the economy began its gradual rebound over the past several years, several new trends began to emerge:

- The Services sector accounted for 59 percent of new jobs created – mainly in the Professional and Business Services and Education and Health Services categories. Many of these new jobs reflect the growth of the Medical University of South Carolina (MUSC) and the many hospital systems within the Charleston region, in addition to growth at the local universities. They also reflect the growth of the Space and Air Warfare Systems (SPAWAR) center, along with its numerous defense contractors. Some of these jobs are also accounted for by the dramatic growth of the creative knowledge-based tech companies within the region.
- The Leisure and Hospitality sector grew by 13.1 percent from 2010 to 2013, a marked improvement over the 4.6 percent increase that occurred between 2004 and 2009. This is a testament to the economic significance of some 4 million annual visitors to the Charleston area. Charleston was recently ranked as the number one destination in the world by *Conde Nast* magazine and played host to the 2012 PGA National Championship at Kiawah Island's Ocean Course.

Figure 3.2.5: Wage Growth in the Region, State, and Nation (2000 - 2010)

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Figure 3.2.6: Per Capita Income Ranking of Charleston County compared to Other SC Counties (2000 - 2011)

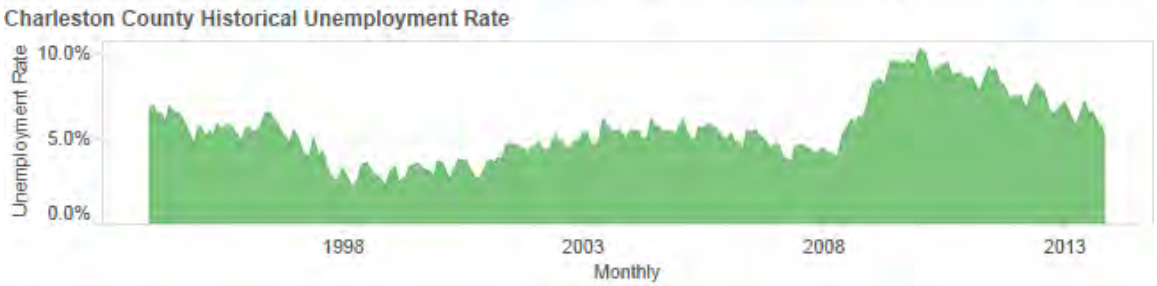


Source:s S.C. Department of Commerce and US Department of Labor, Bureau of Labor Statistics.

Note: The orange circles on the chart illustrate Charleston County's per capita income for each indicated year; the number below each orange cirle indicates Charleston County's per capita income ranking among SC Counties for that year.

Figure 3.2.7: Unemployment Rates in Charleston County and Comparative Cities (2013)

City	Labor Force	Employment	Unemployment	Rate
Seattle	379,797	361,906	17,891	4.7%
Raleigh	222,067	211,478	10,589	4.8%
Durham	124,170	118,081	6,099	4.9%
Huntsville	89,250	84,885	4,365	4.9%
Charleston*	176,010	166,750	9,260	5.3%
Orlando	138,477	130,996	7,481	5.4%
Wichita	181,865	171,593	10,272	5.6%
Charlotte	395,673	371,488	24,185	6.1%
Boston	323,718	303,329	20,389	6.3%
San Diego	716,801	667,821	48,980	6.8%
Washington	363,733	337,306	26,427	7.3%
New York	4,068,703	3,741,563	327,140	8.0%
Savannah	64,336	59,127	5,209	8.1%
Atlanta	193,382	175,744	17,638	9.1%



Source: U.S. Bureau of Labor Statistics, October 2013. Not seasonally adjusted.

- Several large new hotels are under way in downtown Charleston, as well as a growing convention trade at the Convention Center in North Charleston.

Recent Economic Indicators

The recent economic indicators for the Charleston region shine light on some economic engines that continue to struggle post-recession, and others that have barely missed a beat. The Port of Charleston continues to trend in a positive direction, increasing its annual tonnage during 2012 to 1.5 million twenty-foot equivalent units (TEUs). The progress is welcome, considering that it has a way to go yet to regain its pre-recession volume (1.9 million TEUs). The same is true of the local housing market, where the annual number of homes sold and their values continue to climb. The 10,946 sales registered during 2012 represented steady post-recession progress, but fell 30 percent short of the pre-recession mark of 15,700. Likewise, the median value of a home during 2012 was $261,065. This figure represented improvement over the 2009-2011 period, but remained well short of the $299,720 value posted in 2008.

Retail sales in the Charleston region have barely missed a beat, along with the visitor industry and air travel. Retail sales grew by 58 percent during the past decade, from $12.9 billion in 2001 to $20.3 billion in 2012. Steady progress occurred up until 2009, when the effects of the recession on consumer confidence began to take hold, and spending plummeted 13 percent - from the previous year total of $18.7 billion to $16.3 billion. This setback was a one year 'blip,' however, and by 2010, retail sales regained the lost ground and exceeded 2008 levels.

Priority Industries and Local Advantages --

The Four Traditional Economic Engines

The Charleston region has for many years been anchored by four economic engines, including: the Port of Charleston; the military; MUSC and the medical sector; and the tourism industry. These engines remain very viable today, but are now augmented by several recent 'game changers.'

The Port

The Port of Charleston opens doors for its customers across the globe, with every key ocean carrier present and offering service to about 150 countries spread across every continent. This is a huge draw for exporting manufacturers, and many of those located across the Southeast utilize the Port of Charleston, which is recognized for its world-class intermodal facilities and industry-leading efficiency.

Manufacturing is alive and well and flourishing in the Charleston region, characterized by household corporate names such as The Boeing Company, DuPont, Alcoa, Nucor Steel, Cummins, Daimler, Kapstone Pulp & Paper, MeadWestvaco Speciality Chemicals, Robert Bosch Corporation, and many others.

The Port of Charleston continues to trend in a good direction, increasing its annual tonnage during 2012 to 1.5 million TEUs. The South Carolina Port Authority (SCPA) priority project is Charleston's Post -45 Harbor Deepening. According to the SCPA, "Charleston currently has the deepest channels in the region and can handle ships drafting up to 48 feet on high tide. Deepening Charleston Harbor to 50 feet will open the port to han-

dling larger post-Panamax container ships 24 hours a day." The deepening is projected to be completed by 2020 and is estimated to cost $300 million; a share between state and federal governments. Nonetheless, the S.C. General Assembly has made provisions to fund the entire project if federal government funding falls through. Now under construction, the Navy Base Terminal (NBT) is slated for completion by 2019. This facility is design specifically to host the larger Post Panamax ships and is projected to increase the container cargo capacity of the SCPA by 50 percent.

The Port has created a growing source of business focusing on non-containerized cargo and break bulk. The cruise industry is another facet that is in demand as noted in the SCPA's strategic plan. According to the Port of Charleston, "in CY2012 Charleston handled 14 port-of-call vessels and 70 turnport vessel calls for an annual total of 84." Between port of call and embarkations, passenger counts exceeded 189,000 in CY2012. The Carnival Fantasy has made Charleston a homeport operation since spring of 2010. The ship offers five- and seven-day cruises to the Caribbean.

The Medical University of South Carolina

The Medical University of South Carolina (MUSC) is a major employer in Charleston County, and along with the Roper/St. Francis, Columbia/HCA, and Tenet Healthcare hospital systems, drives the growing Charleston medical sector. Added to that list are pharmaceutical operations such as aaiPharma and Charles River Labs, and medical device companies such as Berchtold, BeliMed, and Getinge. With its growing medical research activity, MUSC is a catalyst for medical discoveries, and the recently erected Research Innovation Center in downtown Charleston provides space for entrepreneurs to develop their science for commercial application.

Along with patient care and academics, research is at the heart of MUSC. With core facilities, state of the art centers and institutes, and the latest clinical trials, MUSC is poised to be a leader in medical research and development. MUSC's current strategic plan allows for the creation of the Center for Medical Innovation and Entrepreneurialism. The Center will serve as a gateway for partner engagement as well as a resource for entrepreneurial health and biomedical scientists. The South Carolina Clinical and Translation Research Institute is bringing positive change to biomedical research and creating an avenue for shared expertise and resources. Furthermore, the Foundation for Research Development is paving the way for inventors, industry, and entrepreneurs to collaborate. In patient care, for 2013-14, MUSC was ranked as the #1 hospital in South Carolina by U.S. News & World Report. In addition, MUSC received national rankings in Ear, Nose, and Throat (#27), Nephrology (#40), and Rheumatology (#17). The Hollings Cancer Center, renowned Children's Hospital, and numerous specialties make MUSC a fixture in healthcare excellence.

The Military

Despite the 1993 Base and Realignment Commission (BRAC) decision to close the Charleston Naval Complex, the U.S. military still accounts for a large portion of area employment. Over 20,000 local jobs are provided by the 457th Airlift Command adjacent to Charleston Airport, the Nuclear Submarine Training School and the U.S. Army Combat Asia facility at the Naval Weapons Station at Goose Creek, and a host of other federal agencies located at the former naval base including the U.S. Border Patrol, Department of State, and U.S. EPA.

Space and Naval Warfare (SPAWAR) Systems Center Atlantic is a high technology, engineering facility that designs, builds, tests, fields, and supports the Navy as well as other federal customers. SPAWAR Atlantic is responsible for integrating the Mine Resistant Ambush Protected (MRAP) vehicles used to protect the war fighters on the ground in Afghanistan. The facility employs over 3,100 Civil Service employees with an average salary of $87,000 and supports an estimated 80 defense contractors operating in the region, which employ an estimated 12,000 employees. Overall, SPAWAR supports over 25,000 jobs in South Carolina who contribute over $1.3 billion in annual labor income. SPAWAR's estimated impact on South Carolina's economy is estimated at $3.1 billion.

The Tourism Industry

The tourism industry has fared well through the recession, with the number of visitors to the area steadily increasing annually. Economic uncertainty resulted in a drop in occupancy and average daily room rates during 2009-10, but this was a 'blip' on an otherwise favorable radar. Hoteliers have seen the occupancy rate bounce back and in 2012 the average room rate of $122.74 was the highest ever recorded.

The forecast by the College of Charleston Office of Tourism Management is for continued growth in occupancy and average daily rates during 2013 and 2014. Confidence in the industry is riding high, with several major new hotels under way in downtown Charleston, North Charleston, and Mt. Pleasant, which will add over 1,500 new rooms. The only cloud on the horizon, as reported by the Metro Chamber of Commerce, could be the downturn in defense spending and the impact it might have on military related business travel to Charleston.

The "Holy City" received numerous accolades in 2013 that continue to impress tourists and residents alike year after year:

- #1 U.S. City by *Condé Nast* Traveler Readers' Choice Awards (2011, 2012, and 2013);
- #1 Top City in the U.S. and Canada by *Travel + Leisure* World's Best Awards (2013);
- #1 Friendliest City by *Condé Nast* Traveler Readers' Choice Awards (2012);
- #1 Best Weekend Getaway by *U.S. News & World Report* (2013);
- #11 Top 25 Parks in the U.S. - Waterfront Park by TripAdvisor Travelers' Choice Awards (2013);
- #11 Best Minor League Network in America in 2013 by *Sportsbusiness Journal*;
- #15 Top 25 Destinations in the U.S. by TripAdvisor Travelers' Choice Awards (2013); and
- Arthur Ravenel, Jr. Bridge - Most Beautiful Bridges Around the World by CNN (2013).

Recent Economic 'Game Changers'

Several developments occurring in the Charleston economy during the past five years have created decided business advantages for the region.

Medical University of South Carolina (MUSC)

Discount Air Carriers

Air traffic at the Charleston International Airport has increased 63 percent during the past decade, energized in recent years by the introduction of discount air carriers Southwest and JetBlue. JetBlue began serving passengers earlier in 2013 with flights to New York's JFK International and Boston's Logan International airports. Since 2011, the addition of Southwest and JetBlue has added over 500,000 new flight seats at Charleston International. Passenger activity grew steadily until 2006, when the onset of the recession discouraged many business and leisure fliers. Regaining its momentum temporarily, the passenger growth trend was interrupted again by the economic uncertainty during 2009 and 2010. The years 2011 and 2012 have been marked by robust growth, with the current flier volume eight percent above the previous high water mark of 2008. The forecast by the Charleston County Aviation Authority is for a steady three percent growth during 2013 and 2014.

The Boeing Company and a Bourgeoning Aerospace Sector

The economic landscape of Charleston was transformed by the arrival of Boeing in 2009, which announced that it had chosen North Charleston and the Charleston International Airport as its second 787 Assembly site. Here the $250 million aircraft would be assembled, and the site would assume responsibility for the production of all aft fuselage sections serving both the west-coast and east-coast assembly lines. With this announcement, the Charleston area joined the elite ranks of Everett, WA and Toulouse, France as one of only three places in the world where wide-body commercial aircraft are assembled and delivered.

The final assembly of the Boeing 787-8 began in 2011 in North Charleston on the massive 240-acre multi-building complex, and the first delivery occurred in October 2012 with customer Air India. Earlier in 2010 Boeing had announced the location of the Interiors Responsibility Center in Palmetto Commerce Park, about 10 miles north of the Final Assembly complex. This facility fabricates and supplies internal components of the 787 such as the restrooms, galleys, and overhead bins. Since the 2011 plant opening, some 6,100 employees have come on board. This figure is sure to increase in the near future with the news in late 2013 that the longer 787-9 will soon be produced here as well.

In the spring of 2013, Boeing again gave its vote of confidence in the Charleston area as it announced a $1 billion expansion that would promise an additional 2,000 employees. As part of this expansion, Boeing committed to bring information technology and engineering capabilities to its campus, along with additional production workers. Later in the year, it also moved to acquire an additional 460 acres in and around the Final Assembly complex and announced a new paint facility that would shift that task here from San Antonio, TX. The company also announced that a second aircraft program, the 737-Max, would be supported from North Charleston with an engine inlet (nacelles) production plant to be located in Palmetto Commerce Park.

The economic magnitude of building the 787 is breathtaking in and of itself, but is made all the more impressive when one considers the further impact of business visitors to the area. The multitude of business visitors to the North Charleston campus that occurs just in the normal daily course of business creates a massive spin-off effect in area restaurants, hotels, shops, and tourist venues. In addition, the delivery of aircraft is a prestigious ceremonial event that is preceded by the hosting of large entourages of airline owners, their families and staff over extended periods of time.

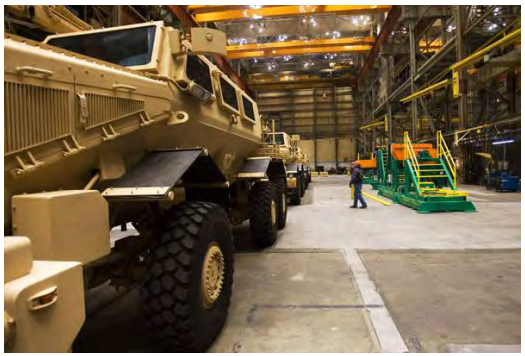
As Boeing increases its workforce to 8,000 employ-

ees during 2014, it will also be making a new imprint in the Charleston technology sector. The company announced that it will create engineering and IT centers of excellence, as well as a new Boeing research and technology center. Over 1,500 positions will be staffed by high tech knowledge workers, further complementing the home-grown technology sector growth the Charleston area has been experiencing.

Clemson University Energy Innovation Facility

The Clemson University Research Institute (CURI) Campus is home to the nation's newest and world's most advanced capacity wind-turbine drive train testing facility. The $100 million Clemson University SCE&G Energy Innovation Center opened in November 2013. The center is capable of full-scale highly accelerated mechanical and electrical testing of advanced drive-train systems for wind turbines with 7.5 MW and a 15 MW test bay. This technology will pave the way for future energy innovation.

By 2030, the U.S. Department of Energy has set a goal to generate 20 percent of the nation's power needs through wind. The South Carolina coast offers strong winds in shallow water, access to the ports of Charleston and Georgetown, and a large demand which drives development of offshore wind farms. In addition, ship-building and manufacturing facilities enhance the potential to become an industrial hub as larger turbines are created. Through the efforts of CURI, South Carolina can benefit from the wind energy industry that is coming to the forefront.



General Dynamics Land Systems - Force Protection Factory, Ladson, SC

Technology Sector Growth

Organic growth by the Charleston technology sector has been astounding. Charleston's technology sector has been dubbed "Silicon Harbor" by Nate DaPore, President and CEO of PeopleMatter and the Charleston County nominee as 2013 South Carolina Department of Commerce Economic Development Ambassador. "Home-grown" information technology and high tech firms such as PeopleMatter, SPARC, Benefitfocus, and Blackbaud have experienced exponential growth which is continuing into 2014. The recent Google data center expansion, in Berkeley County and the Boeing IT Center of Excellence showcase the pinnacle of which has reached. The Charleston area also hosts three firms included in the Inc. 500 list of fastest-growing companies. Benefitfocus went public during 2013, and several Charleston firms successfully acquired venture capital.

Through the efforts of the Charleston Digital Corridor, the Charleston region is on the cusp of being a technology center. Knowledge-based companies and emerging companies have the convenience of utilizing one of two incubator facilities, dubbed 'Flagships,' to grow and incubate their companies and host a co-working space. The 40,000 sq. ft. Flagship 3 has just been announced and will continue to foster Charleston's development of its knowledge economy. In addition to the Digital Corridor initiatives, the Harbor Accelerator is an independent recently founded business accelerator program for entrepreneurs with scalable business concepts. Their 14-week program caps off with introductions to potential capital sourcing to grow a start-up.

Numerous other platforms are geared to the tech and knowledge-based creative sector such as Parliament, a coalition of businesses and entrepreneurs dedicated to support the creative community. Parliament hosts Pecha Kucha Nights sporadically to bring the community together and showcase the vast creative talent. DIG South, "the Southeast's Interactive Festival," is a similar effort which began in the spring of 2013. This multi-day event features a conference of over 100 presenters from various companies such as Samsung, LinkedIn, Inc. Magazine, Google, and local tech firms such as PeopleMatter and SPARC. The 2-day tech and creative industry expo presents opportunities for entrepreneurs to interact and start-ups to get noticed. The efforts of both Parliament and DIG South have continued to grow each year to adapt to the changing tide of Charleston's "Silicon Harbor."

Recent Accolades

The number and diversity of accolades garnered by Charleston are a continuing testament to its status as a "boom town." These include everything from manufacturing growth to entrepreneurial success, and from leading visitor destination to award-winning culinary town.

<u>2008 rankings include:</u>

- 7th – Job Creation in the State;
- 9th – Capital Investment in the State;
- 2008 Best Performing Cities (2nd year in a row) – Miliken Institute; and
- Top U.S. Cities for Doing Business (2nd year in a row) – Inc.com.

<u>2009 rankings include:</u>

- 1st – Job Creation in the State;

The Boeing Company, North Charleston, SC

- 1st – Capital Investment in the State;
- 50 Best Places to Live: The Next Great Adventure Towns – *National Geographic Adventure*;
- Best Small Cities for Startups – *Businessweek*;
- Next Cities: Best Places to Live & Work for Young Professionals – Next Generation Consulting;
- Best Cities for Technology Jobs – *Forbes*;
- Progressive Environmental Stewardship & Sustainable Growth – National Resource Defense Council;
- America's Best Colleges – *Forbes*;
- The World's Smartest Cities – *Forbes*; and
- Best Cities for Business – Marketwatch.

2010 rankings include:

- 9th – Job Creation in the State;
- 7th – Capital Investment in the State;
- #1 for Noteworthy Neighborhoods & Friendly People – *Travel & Leisure Magazine*; and
- #1 Coolest Small City in America – *G.Q.*

2011 rankings include:

- 7th – Job Creation in the State;
- 13th – Capital Investment in the State;
- #1 Top City in the United States – *Condé Nast*;
- A Top 20 Best Performing Large City – Miliken Institute;
- #4 Small Business Vitality Score in the Nation – *Portfolio Magazine*;
- #1 Brain Gainer Metro – *Wall Street Journal*;
- #8 Best City for Job Growth – New Geography; and
- A Top 50 best Place for Business & Careers – *Forbes.*

2012 rankings include:

- 6th – Job Creation in the State;
- 8th – Capital Investment in the State;
- #1 in the U.S. for Growth in Manufacturing Jobs – Brookings Institute;
- South Carolina Ranks in the Top 10 best Places for Business – Chief Executive;
- Charleston is the #1 Tourist City in the World – *Condé Nast*;
- #2 for Economic Growth – Area Development;
- A Top 10 Best Places for Jobs in the U.S. – *Forbes;*
- Charleston Ranks #9 for Job Recovery Amongst U.S. Metros – Brookings Institute; and
- South Carolina Ranked #4 for Exports; Set New record $25B in total exports – U.S. Chamber of Commerce.

Comparative Business Cost Advantages

The cost of doing business in Charleston County has long received a reputation as being favorable and affordable. Whether a company is looking to start a business, relocate a business, or simply expand, the start-up costs (construction), ongoing operating

Clemson University Energy Innovation Facility

costs (lease, electricity, wages) state and local tax climate, and available business incentives and support programs are very attractive. These advantages include:

- Wage rates - the Charleston area offers features a salary structure which is competitive with other leading business cities. In fact, Charleston finishes third among a list of 14 competitor cities for salary affordability from the perspective of a business looking to locate in Charleston. This creates a competitive advantage in various industry niches in which the Charleston region competes (see *Figures 3.2.8 and 3.2.9*).
- Facility establishment costs - The Charleston region features below average land and building costs based on U.S. National averages according the ACCRA Cost of Living Index (see *Figure 3.2.10*). Nationally competitive industrial and office space lease rates vary favorably within the region (see *Figures 3.2.11, 3.2.12, and 3.2.13*).
- Ongoing operating costs – A variety of ongoing operating costs, including competitively priced utilities, and lower than average state and local taxes represent business advantages (see *Figure 3.2.14*).

Figure 3.2.8: Wages in the Charleston Region (2012)

Occupation	Employ..	Annual Mean Wage	Hourly Mean Wage	Annual Median Wage	Hourly Median Wage
All Occupations(000000)	291,750	$41,180	$19.80	$32,710	$15.73
Architecture and Engineering Occupations(170000)	7,360	$69,670	$33.50	$67,010	$32.22
Arts Design Entertainment Sports and Media Occupations(270000)	3,030	$44,750	$21.52	$36,400	$17.50
Building and Grounds Cleaning and Maintenance Occupations(370000)	10,920	$22,700	$10.91	$19,950	$9.59
Business and Financial Operations Occupations(130000)	11,950	$61,650	$29.64	$56,140	$26.99
Community and Social Service Occupations(210000)	2,970	$39,270	$18.88	$35,500	$17.07
Computer and Mathematical Occupations(150000)	6,720	$64,960	$31.23	$62,950	$30.26
Construction and Extraction Occupations(470000)	10,880	$36,210	$17.41	$33,760	$16.23
Education Training and Library Occupations(250000)	14,600	$45,490	$21.87	$44,810	$21.54
Farming Fishing and Forestry Occupations(450000)	180	$32,380	$15.57	$29,040	$13.96
Food Preparation and Serving Related Occupations(350000)	29,960	$20,320	$9.77	$18,430	$8.86
Healthcare Practitioners and Technical Occupations(290000)	22,810	$66,550	$31.99	$58,810	$28.27
Healthcare Support Occupations(310000)	8,140	$27,640	$13.29	$25,910	$12.46
Installation Maintenance and Repair Occupations(490000)	12,190	$41,360	$19.89	$38,970	$18.74
Legal Occupations(230000)	2,030	$77,270	$37.15	$56,520	$27.17
Life Physical and Social Science Occupations(190000)	1,900	$56,840	$27.33	$48,730	$23.43
Management Occupations(110000)	13,340	$98,970	$47.58	$85,900	$41.30
Office and Administrative Support Occupations(430000)	47,560	$32,270	$15.52	$30,320	$14.58
Personal Care and Service Occupations(390000)	8,020	$23,740	$11.41	$20,320	$9.77
Production Occupations(510000)	16,920	$40,600	$19.52	$38,100	$18.32
Protective Service Occupations(330000)	7,340	$35,060	$16.86	$33,460	$16.09
Sales and Related Occupations(410000)	34,080	$30,470	$14.65	$22,610	$10.87
Transportation and Material Moving Occupations(530000)	18,860	$32,520	$15.64	$27,090	$13.03

Source: U.S. Department of Labor, Bureau of Labor Statistics, May 2012.

Figure 3.2.10: Cost of Living Comparison (2013)

State	City	Composite Index	Housing	Utilities	Transportation	Home Price
New York	New York	175.6	326.9	129.4	114.3	$999,746.00
Massachusetts	Boston	140.1	177.4	139.2	103.2	$491,000.00
California	San Diego	129.2	194.9	96.9	113.7	$584,254.00
District of Columbia	Washington	141.6	251.1	95.0	105.7	$777,025.00
Washington	Seattle	117.5	136.1	97.2	118.0	$372,516.00
South Carolina	**Charleston**	**100.8**	**93.1**	**113.7**	**92.1**	**$250,593.00**
Alabama	Huntsville	96.8	81.5	103.7	102.0	$233,127.00
North Carolina	Charlotte	96.1	84.4	109.6	96.1	$250,105.00
Florida	Orlando	95.9	78.4	104.6	98.6	$216,734.00
North Carolina	Raleigh	94.6	83.2	104.6	100.1	$249,432.00
Georgia	Atlanta	93.5	87.3	91.5	102.2	$240,956.00
North Carolina	Durham	92.1	78.8	86.6	96.5	$232,675.00
Georgia	Savannah	91.9	70.4	113.7	102.7	$200,707.00
Kansas	Wichita	91.9	75.5	109.7	98.9	$224,829.00

Sources: ACCRA Cost of Living Index, 3rd Quarter 2013 and C2ER.org.

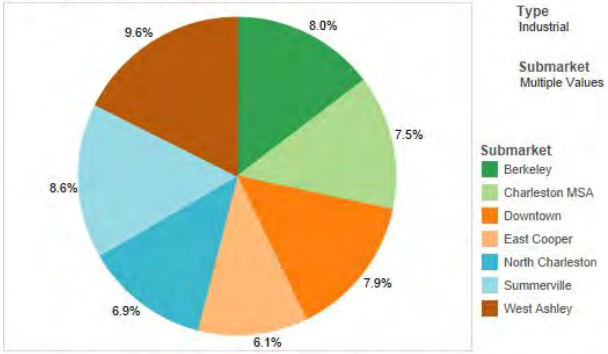
Figure 3.2.9: Wage Comparisons (2012)

Area name	*Hourly mean wage*	*Annual mean wage**
Washington-Arlington-Alexandria DC-VA-MD-WV	*$30.65*	*$63,750*
Boston-Cambridge-Quincy MA-NH	*$28.05*	*$58,350*
Seattle-Bellevue-Everett WA Metropolitan Division	*$27.68*	*$57,560*
New York-Northern New Jersey-Long Island NY-NJ-PA	*$27.38*	*$56,940*
Durham-Chapel Hill NC	*$26.20*	*$54,500*
San Diego-Carlsbad-San Marcos CA	*$24.41*	*$50,770*
Huntsville, AL	*$23.97*	*$49,860*
Atlanta-Sandy Springs-Marietta GA	*$22.80*	*$47,420*
Raleigh-Cary NC	*$22.06*	*$45,880*
Charlotte-Gastonia-Rock Hill NC-SC	*$22.00*	*$45,750*
Wichita KS	*$19.84*	*$41,260*
Charleston-North Charleston-Summerville SC	***$19.80***	***$41,180***
Savannah GA	*$19.75*	*$41,080*
Orlando-Kissimmee-Sanford FL	*$18.96*	*$39,430*

Source: U.S. Department of Labor, Bureau of Labor Statistics.
**Note: Annual wages have been calculated by multiplying thr hourly mean wage by 2,080 hours; where an hourly mean wage is not published, the annual wage has been directly calculated from the reported survey data.*

Figure 3.2.11: Industrial Space Lease Rates (2013)

Vacancy Rate Comparisons

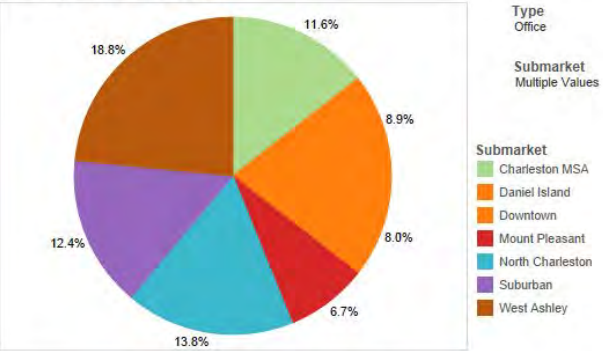


Submarket	Total SqFt	Vacant SqFt	% Vacant	Available Rate	Asking Rent	Absorption
Berkeley	8,030,430	642,434	8.0%	10.9%	$3.65	0
Downtown	2,796,182	220,898	7.9%	8.5%	$5.12	(75,000)
East Cooper	4,344,219	264,997	6.1%	16.5%	$5.39	(13,443)
North Charleston	19,449,464	1,342,013	6.9%	9.7%	$4.59	(279,168)
Summerville	8,829,792	759,362	8.6%	14.6%	$4.40	174,375
West Ashley	1,326,820	127,375	9.6%	12.5%	$5.00	12,450
Charleston MSA	44,776,907	3,358,268	7.5%	11.5%	$4.53	(180,786)

Source: Avison and Young.

Figure 3.2.12: Office Space Lease Rates (2013)

Vacancy Rate Comparisons



Submarket	Total SqFt	Vacant SqFt	% Vacant	Available Rate	Asking Rent	Absorption
Downtown	1,717,658	137,413	8.0%		$31.02	5,400
North Charleston	3,765,905	519,695	13.8%		$22.55	4,095
West Ashley	1,204,394	226,426	18.8%		$20.85	(42,269)
Charleston MSA	9,399,773	1,090,374	11.6%		$26.04	3,624
Daniel Island	1,120,434	99,719	8.9%		$22.67	7,713
Mount Pleasant	1,591,382	106,623	6.7%		$26.94	28,685
Suburban	7,682,115	952,582	12.4%		$23.48	(1,776)

Source: Avison and Young.

Figure 3.2.13: Average Construction Costs by City (2012)

Figure 3.2.13 shows the average construction costs in various cities with 100 being the base. A score of more than 100 indicates above average costs and a score of less than 100 indicates below average costs.

Sources: Chamber of Commerce and the RS Means Group.

City	
New York	132.2
Boston	117.5
Seattle	104.2
San Diego	103
Orlando	89.1
Atlanta	88.5
Huntsville	84.1
Wichita	83.3
Savannah	81.5
Charleston	**80.3**
Durham	77.5
Raleigh	76.8
Charlotte	76.7

Figure 3.2.14: Utility Rates in SC and the US (2013 and 2010)

Natural Gas & Electricity (2013 DATA)

	South Carolina		United States	
	Natural Gas*	Electricity**	Natural Gas*	Electricity**
Industrial	$5.06	0.0590	$4.39	0.0680
Commercial	$9.24	0.0952	$8.34	0.1030
Residential	$19.53	0.1224	$12.48	0.1231
All Sectors		0.0889		0.1001
Transportation				0.1041

*per thousand cu.ft.
**cents per kwh

United States Department of Energy
Energy Information Administration
October 2013

Water & Sewer (2010 DATA)

	Water			Sewer		
Type	Charleston Water System	Mount Pleasant Water Works	North Charleston Sewer District	Charleston Water System	Mount Pleasant Water Works	North Charleston Sewer District
Average Daily Use	60.0	8.7		24.0	7.7	15.0
Daily Capacity	118.0	10.7		32.0	9.7	32.0
Daily Peak Use	75.0	12.1		28.0	7.8	20.0

millions of gallons

Charleston Regional Development Alliance

State and Local Taxes

The State of South Carolina features one of the lowest corporate income taxes in the nation (five percent before credits and incentives) and Charleston features a below average sales and use tax (8.5 percent) when compared to communities across the U.S., according to TaxFoundation.org. Local property taxes are levied according to a state statutory formula which derives an assessed value from the appraised value of real and business personal property multiplied by an assessment value (10.5 percent for manufacturers; six percent for other business) and then multiples that assessed value by a local millage rate factor. This local millage rate factor is determined by the cost of delivering local services and the value of the local tax base.

Financial Incentives

The State of South Carolina has enacted a variety of financial incentives for businesses over more than two decades. These incentives are intended to promote the creation of new jobs and leverage new capital investment, and they generally consist of credits against the state corporate income tax, local property tax relief, grants for infrastructure, site preparation, or facility construction, and turn-key customized workforce training during facility ramp-up.

During the 1980s and 1990s, the S.C. General Assembly enacted incentives legislation for manufacturing plants, corporate headquarters, research and development facilities, and large distribution facilities employing more than 75 employees. Since 2000 these incentives have been further revised or expanded, and new legislation has been enacted for technologically intensive facilities, some high-paying service sector facilities, and companies who are incrementally increasing their cargo volumes through the Port of Charleston.

Statutory Incentives

Statutory incentives require no negotiation with state or local governments,and are claimed automatically by a company which meets the statutory requirements. The process is an administrative one governed by the filing of proper forms, schedules, and other required documentation with the S.C. Department of Revenue.

Statutory Incentives include:

- Five-year property tax abatement – an eligible company enjoys exemption from county portion of property taxes in each of the five years following its expenditure of $50,000 or more;
- Sales tax exemptions – many of the cost items associated with a company's means of production are exempt from the state sales tax, including, but not limited to: electricity, pollution control equipment, rolling stock, inventory;
- Jobs tax credit – a company receives $1,500 in each of the five years following the creation of a 'net new job' (jobs exceeding the previous year benchmark). These job tax credits can be used to offset up to one half of state corporate income tax liability, with unused credits carried forward and applied over the next 15 years;
- Corporate headquarters credit – credits against the state corporate income liability are automatically available to corporate headquarters; and
- Research and development credit - credits against the state corporate income liability are automatically available to research and development facilities.

Discretionary Incentives

Discretionary incentives require negotiation with state or local governments and involve an application process followed by public approval. These incentives are offered to a company at the discretion of state and local officials and are typically driven by the meeting of certain capital investment, job creation, and average annual salary benchmarks. Discretionary incentives include:

- Fee-in-lieu of taxes (FILOT) – a company investing more than $2.5 million can negotiate with the county to have its investment taxed at a six percent assessment, rather than the 10.5 percent which typically applies to all business personal property (e.g. machinery & equipment, computers, etc.) and to all manufacturing property (including land and building). This incentive also 'fixes' the local millage rate at its current level for the next 20-30 years. A company investing more than $150 million and hiring 200 or more employees is eligible to negotiate with the county for an enhanced FILOT ("super-fee") featuring a four percent assessment rate.
- Job development credit (JDC) – a company which proposes substantial hiring of employees at salary rates meeting or exceeding the county's average per capita income can negotiate with the State of South Carolina to receive JDC, an incentive which derives from a portion of the state's employee tax withholding. After its application is approved by the S.C. Coordinating Council for Economic Development, the company enters into a Revitalization Agreement with the S.C. Commerce Department wherein it guarantees its hiring schedule, as well as the specific cost items (site preparation, facility construction, etc.) towards which the JDC will be placed. Once hiring targets are achieved, the reimbursement JDC payments flow to the company on a quarterly basis over a ten year period.

Grants

Grants require negotiation with state or local governments and involve an application process followed by public approval. Grants typically are offered to address public infrastructure needs or to help a company offset site preparation costs. These grants are offered to a company at the discretion of state and local officials and are typically driven by the meeting of certain capital investment, job creation, and average annual salary benchmarks. Grants include:

- Set-Aside grants – The State of South Carolina typically offers Set-Aside grants to companies which are requiring public infrastructure (water, sewer, roads, rail) improvements to the sites where they intend to locate. A company applies for a Set-Aside grant, and the decision is made by the S.C. Coordinating Council for Economic Development.
- Closing Fund grants – The State of South Carolina in some cases will offer a grant from its Closing Fund in cases where such assistance can address an impediment and be a deal closer.
- ED Fund grants – Charleston County utilizes its ED Fund on occasion to address public infrastructure improvements (water, sewer, road improvements) in response to the expansion needs of existing companies within the county.
- Utility tax credit (UTC) grants – UTC grants are occasionally offered by electrical and telecommunication utilities within South Carolina to address public infrastructure needs at a development site. The enabling legislation requires that such improvements occur within a public right-of-way, and limits the range of cost items to an approved list.

Productive Workforce and 'Best of Class' Training Programs

As noted earlier, the Charleston region has exceeded the state and national average

for growth of its workforce over the past decade and is projected to do so going forward. The in-migration rate, coupled with graduation rates from its higher education institutions, will position the area workforce for the future. Alongside this accumulating critical mass of talent are the considerable state-supported workforce training and continuing education resources of the Charleston area.

- Turn-key customized workforce training – The State of South Carolina was the first in the nation to develop a workforce training program geared to relocating industry during the 1960s. Its agency known as readySC offers customized recruitment, assessment, training development, management, and implementation services. It essentially fields the turn-key workforce for a relocating or expanding operation at state cost and does so to the precise specifications of the company. Since its inception, readySC has trained well over 40,000 employees for blue-chip domestic and international companies as diverse as The Boeing Company, BMW, Michelin, and Hoffman-LaRoche.
- Technical training, continuing education, and re-training – Federal, state, and local programs address the full spectrum of workforce needs: from the start-up of an operation through its maturation, encompassing all of the changing training and education needs along the way.
- The Federal Workforce Investment Act (WIA) - enables the SC Works Trident system to offer services such as: facilities and meeting spaces for training sessions, recruitment events, business seminars, conferences, career fairs, and employee testing; On-the-job and classroom training programs; WorkKeys skill assessment tests; and Incumbent worker training (IWT) grants.
- Employee retraining funds are available as a discretionary incentive administered by the S.C. Coordinating Council for Economic Development. They are available to manufacturing, processing, and technology- intensive companies.
- 'Right-to-Work' environment with low unionization - S.C. state laws allowed under provisions of the Taft-Hartley Act prohibit agreements between labor unions and employers that make payment of union dues, membership, or fees a condition of employment prior to or following hiring.
- Pro-business State and Local Partnership with Business - The State of South Carolina is consistently ranked by national publications as among the nation's 'Top Five' states to do business. Being 'business-friendly' is a philosophy, and it requires consistent leadership and a vast degree of intergovernmental teamwork from the federal level down to the city hall.

The Charleston area has risen to the top of the list in the Southeast among site selectors due to its solid business fundamentals, as well as renowned business-friendly practices. In Charleston County, a relocating company seeking to construct a new facility benefits from coordinated federal/state environmental permitting, as well as expedited local plan reviews and construction permitting.

One amazing example of this can be found in the experience of The Boeing Company when it constructed its 1.2 million Final Assembly facility for the 787 in 2010-11. The State of South Carolina took the lead in 2004 in devising and funding a wetlands mitigation plan which allowed Vought Aircraft to lose no time as it began site clearing for its fuselage fabrication and integration facility. When it announced the second 787 Final Assembly Facility in 2009, with no wetlands concerns to hamper progress, Boeing then benefitted from the assistance of state government agencies such as DHEC to expedite air permitting. At the local level, the City of North Charleston stationed building officials on-site on a seven-days-a-week basis in order to keep building inspections and permitting on track with the aggressive schedule for facility completion. The end result was the completion, ahead of schedule, of a massive, technically complex and state-of-the art aerospace assembly building in 12 months.

Value-added public services bolster "bottom line" – In a business-friendly community, local government has to deliver value for the tax dollar, rather than eroding a bottom line through inefficiency in its service-delivery or time-consuming and costly regulations. Charleston County is noteworthy as a recognized leader among the 46 counties in South Carolina when judged by several criteria:

- Fiscal Management: A legacy of fiscal integrity provides a firm foundation for the cost effective provision of high quality public services.
- Planning and Environmental Stewardship: Careful land planning, extensive greenbelt acquisition, and a far-reaching solid waste program act to safeguard the cherished Charleston County landscape and preserve its natural resources.
- EMS and Public Safety: Excellent emergency medical service providers, along with our Sheriff's well-trained and highly capable law enforcement officers, give our businesses and residents great peace of mind.
- Consolidated 9-1-1 and Emergency Preparedness: The County's award-winning program has a new state-of-the-art facility to better serve the public, which opened in 2013.
- Public Transportation Infrastructure: Strategic investment in highway infrastructure and public transportation within its business corridors creates exciting new business and job creation opportunities.
- Small Business Procurement and Mentoring: The County also targets much of its procurement at local businesses, mentoring and encouraging them to bid on County contracts.

- Economic Development: Charleston County Council creates value in the business climate through balancing preservation with growth and progress. The County has a unique 'sense of place' that beckons to an earlier time, but enthusiastically embraces a culture of economic innovation.
- The Business Retention & Expansion (BRE) program offered by the Charleston County Economic Development Department provides "service after the sale" by cementing the relationship with the company through the cost-free offering of a vast array of business assistance which begins with start-up and progresses through the business establishment stage, and continues on an ongoing basis indefinitely.

During the start-up phase, the BRE program assists a business with permitting, acting as a liaison with OCRM, DHEC, and area municipalities. It addresses workforce needs, acting as a liaison with ReadySC and SC Works, as well as infrastructure needs at the site.

As the business gets established, the BRE program assists the company with community introductions and business networking, helping it make important early connections. During this phase the BRE program is positioned to assist with personal relocation, contacting realtors, and providing community and school info to help facilitate the relocation of key employees. It is during this phase that the BRE program can also help a company address its supply chain needs, identifying local, in-state, or recruited companies that it will need as suppliers.

As the company matures, the BRE program provides ongoing support. The staff will visit the company on a periodic basis, assisting with business challenges, and striving to position the company for expansion. The BRE program also promotes initiatives (such as roundtables) designed to support the automotive, aerospace, and technology sectors. The BRE program also utilizes networking events, such as the annual Charleston County Council Industry Appreciation Luncheon event, to showcase local companies and call attention to their achievements.

- Quality of Life: The Charleston area enjoys a coveted quality of life which is characterized by the breathtaking physical beauty of the area, the moderate year-round climate (see *Figure 3.2.15*), the vast offering of leisure/outdoor recreation, and its extensive cultural and social opportunities.
- "Sense of place": Charleston County offers numerous unique communities with differing personalities offering diverse residential options: from grand, historic homes to sleek condominiums outfitted with the latest amenities. Comfort abounds for every taste. Whether it is the beach or a golf course view or a sustainable community to a downtown pied-a-terre, footsteps from the best dining and shopping. There are countless lifestyles to choose from.
- "Mid-sized city" with "big-city" amenities: Charleston County offers robust year-round cultural, arts, and entertainment offerings, a plethora of world-class restaurants, first-rate shopping, and exciting minor league and college sports.

Figure 3.2.15: Temperature, Precipitation, and Hurricanes

Temperature & Precipitation

	Average Maximum Temperature	Average Minimum Temperature	Average Total Precipitation	Average Total Snow Fall
January	56.7	34.0	3.67	0.0
February	56.4	37.2	3.89	0.0
March	63.1	43.0	4.27	0.0
April	67.3	55.1	3.33	0.0
May	76.5	65.8	3.56	0.0
June	81.9	72.5	4.75	0.0
July	84.2	76.7	5.55	0.0
August	83.7	75.8	5.41	0.0
September	81.6	67.6	4.15	0.0
October	73.6	56.9	2.99	0.0
November	62.6	47.3	2.68	0.0
December	55.0	37.5	3.54	0.0

Temperature = degrees F
Precipitation = inches

Southeast Regional Climate Center
Average from 1930-2013

Hurricane Storms

		Direct Landfalling Storms	Non-Landfalling Storms Affecting within 50 Miles	Total Storms Affecting
Number of Storms	Alabama	26.0	51.0	77.0
	Florida	243.0	27.0	270.0
	Georgia	14.0	-2.0	12.0
	North Carolina	45.0	6.0	51.0
	South Carolina	26.0	1.0	27.0
	Virginia	6.0	2.0	8.0
Percentage of Storms	Alabama	0.0	0.0	0.0
	Florida	0.1	0.0	0.2
	Georgia	0.0	0.0	0.0
	North Carolina	0.0	0.0	0.0
	South Carolina	0.0	0.0	0.0
	Virginia	0.0	0.0	0.0
Average Years Between Storms	Alabama	6.3	3.2	2.1
	Florida	0.7	6.0	0.6
	Georgia	11.6	-81.5	13.6
	North Carolina	3.6	27.2	3.2
	South Carolina	6.3	163.0	6.0
	Virginia	27.2	81.5	20.4
Average Storms Per Year	Alabama	0.2	0.3	0.5
	Florida	1.5	0.2	1.7
	Georgia	0.1	0.0	0.1
	North Carolina	0.3	0.0	0.3
	South Carolina	0.2	0.0	0.2
	Virginia	0.0	0.0	0.1

State Climate Office of North Carolina
Hurrican Strikes 1851-2013

Sources: Southeast Regional Climate Center and National Hurricane Center - National Weather Service

3.2.3: ECONOMIC DEVELOPMENT ELEMENT GOAL

Charleston County will be an integral part of a strong, diverse, and growing regional economy, providing economic opportunities for its citizens and fostering fiscal health for County government services and facilities.

Economic Development Element Needs

Economic Development Element needs include, but are not limited to, the following:

- A unified economic development vision for the Charleston Region;
- Fostering a stable and competitive business climate; and
- Supporting existing industries, encouraging new business start-ups, including small business enterprises and minority-owned businesses, and attracting new targeted sectors to Charleston County.

3.2.4: ECONOMIC DEVELOPMENT ELEMENT STRATEGIES AND TIME FRAMES

The following strategic actions should be undertaken by the County in support of the objectives of the various economic development agencies that promote and serve the County and in support of the strategies of the other elements of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

ED 1. Encourage and support initiatives and strategies (such as those described in efforts such as *Opportunity Next* and *Accelerate Charleston*) to maintain and improve the business climate through property tax relief, stream-lined regulatory processes, and addition of infrastructure critical to business.

ED 2. Encourage mixed-use developments in proximity to neighborhoods to provide for business growth and development and to provide retail and personal services to local residents.

ED 3. Support incentives for underutilized commercial centers for redevelopment and re-use that allow for mixtures of residential and non-residential uses.

ED 4. Designate land with regional access and access to services and amenities for business uses to support growth of new and existing sectors of employment.

ED 5. Support economic development objectives of the Berkeley-Charleston-Dorchester Council of Governments.

ED 6. Encourage Rural Area economic development efforts on agri-tourism and other employment opportunities that provide jobs for the local population and promote community sustainability.

ED 7. Promote and enhance agricultural activities in the Rural Area by providing incentives to keep land in active agricultural production.

ED 8. Support economic development objectives through land use regulations that encourage the provision of high quality and affordable housing.

ED 9. Support tourism by continuing to protect valuable historic, natural, and cultural resources through adequate land development regulations.

ED 10. Continue to highlight the natural and agricultural heritage of the Lowcountry in promotional materials for economic development.

ED 11. Continue to promote the development and maintenance of all infrastructure including: services, amenities, and transportation networks that support economic development activities. This would include capital improvement plans and coordinated priority investment.

ED 12. Utilize Intergovernmental Agreements with other municipalities, agencies, and jurisdictions to strategically focus regional resources on prime economic development sites within the County.

ED 13. Support the enhancement of existing and new businesses through infrastructure funding initiatives, code enforcement, and beautification programs.

ED 14. Support the efforts of the Charleston County Economic Development Department and supporting agencies.

ED 15. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to authorize the combination of land uses within communities, including land uses that facilitate economic development opportunities within and in close proximity to such communities.

ED 16. Support the initiatives in regional plans to educate the local workforce (e.g., *Our Region, Our Plan*).

ED 17. Support those other entities in the community that are promoting economic development.

Intentionally Blank

Chapter 3.3 Natural Resources Element

3.3.1: OVERVIEW

Natural resources are included in this Plan because of: their significant contribution to the character and quality of life in Charleston County; their local value expressed through the public input process of this Plan; their ability to attract new residents; and because South Carolina State Law requires that a Natural Resources Element be included in the Comprehensive Plan. As a steward of natural resources, the County has a responsibility to coordinate with other jurisdictions and agencies to minimize the impacts of growth on the natural environment.

A key component in protecting natural resources is the promotion of sustainable development practices and patterns. The concept of "sustainability" involves the ability of a community and society to meet the needs of the present population while ensuring that future generations have the same or better opportunities.

There are increasing concerns that, as a culture, we are using resources at a faster rate than we are replenishing them and are creating communities that are not sustainable in the long run. Charleston County seeks to progress in a manner that conserves natural resources and minimizes degradation of the natural environment.

One of the challenges in addressing sustainability in a community comprehensive plan is that many of the issues are global in nature – air quality, biodiversity, ozone and climate depletion, food production, and others - and it is often difficult to identify how local planning policies can address these issues. It can be overwhelming for community leaders to address these issues, particularly when the community has its hands full with local development issues. However, the County believes it is important to act responsibly through the implementation of strategies to address these issues. The County aspires to "think globally, act locally," while also recognizing that these efforts must be balanced with other local demands on government time and resources. To supplement the strategies of this Element, the County adopted an Energy Element in 2012, which includes additional strategies to promote sustainable development practices.

Purpose and Intent

The purpose and intent of the Natural Resources Element is to: promote protection and enhancement of natural resources in the County; sustain natural environments, habitats, and wildlife for the general health, safety and welfare of current and future generations; promote sustainable development practices in conjunction with the other elements of this Plan; protect and enhance the unique natural characteristics of the County that contribute to the County's identity and quality of life of its residents; and support the recommendations of the Charleston County Greenbelt Plan.

3.3.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Numerous agencies are involved in the protection of natural resources including but not limited to the Environmental Protection Agency (EPA), the South Carolina Department of Health and Environmental Control (SCDHEC), the Department of Natural Resources (DNR), the Office of Ocean and Coastal Resource Management (OCRM), the U.S. Army Corps of Engineers (USACE), and non-profit agencies such as the Coastal Conservation League, the Sierra Club, Ducks Unlimited, the Lowcountry Open Land Trust, the Trust for Public Land, and The Nature Conservancy.

Charleston County's regulatory power regarding natural resource protection is limited to land-side issues related to the impacts of growth and development on the natural environment. For example, Charleston County can and does require larger lot sizes, lot widths, and buffers for development along the OCRM Critical Line and protects greenspace through the Charleston County Greenbelt Program. The County also is responsible for the impacts of non-point sources of pollution, or runoff, on water quality through its Stormwater Management Program, an implementation of Phase II of the Environmental Protection Agency's National Pollution Discharge Elimination System (NPDES). In contrast, Charleston County is not responsible for permitting development activities such as docks or wetland filling or crossings; however, the County does regulate the land-side effects of these water dependent uses.

Water Resources

Charleston County has extensive water resources including the Atlantic Ocean, tidal rivers, creeks, lakes, tributaries, marshes, and freshwater wetlands. The Environmental Protection Agency, the South Carolina Department of Health and Environmental Control, and the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) hold the main responsibilities for establishing and enforcing water quality goals through utilization of the *208 Water Quality Management Plan*. These agencies monitor water quality to determine permit limits for treated wastewater dischargers and any other activities that may impact water quality. The U.S. Army Corps of Engineers has the authority to regulate certain activities in navigable waters and to protect freshwater wetlands. As stated above, the County has enacted regulations on land-side development activities to minimize the impact on water resources.

Floodplains are another important natural resource in Charleston County. Flooding in the County is principally due to hurricanes, tropical storms, and extra-tropical storms; however, it can also occur due to intense severe thunderstorm activity. Flooding also occurs from storm surge when storm tides are higher than the normal high tide. The Federal Emergency Management Agency (FEMA) has determined areas subject to flooding in the County.

Approximately 60 to 65 percent of the County is in a FEMA flood hazard area. Within Charleston County, the storm surge area encompasses most of the major rivers and adjoining estuarine marsh areas. Much of the remaining area that is not subject to storm surge is within the 100-year floodplain as designated by FEMA. The County's flood zones are shown on *Map 3.3.1: Charleston County Flood Hazard Zones*.

In July 2012, the United States Congress passed the *Biggert-Waters Flood Reform Act of 2012*, which mandated changes to FEMA policies, as well as the National Flood Insurance Program (NFIP). These changes most significantly impact local flood insurance rates. To attempt to mitigate not only high flood insurance costs but also the impacts of future hazards due to climate change, Charleston County continuously works with local government entities to create and implement the *Charleston Regional Hazard Mitigation Plan*. The plan was originally adopted in 1999, and annual updates occur each year to ensure the plan is relevant. On November 7, 2013, the latest plan was adopted by County Council. Thirty other government entities in Charleston County have adopted the *Regional Hazard Mitigation Plan*, and this collaboration ensures that all communities within Charleston County agree to implement the strategies set forth in the plan.

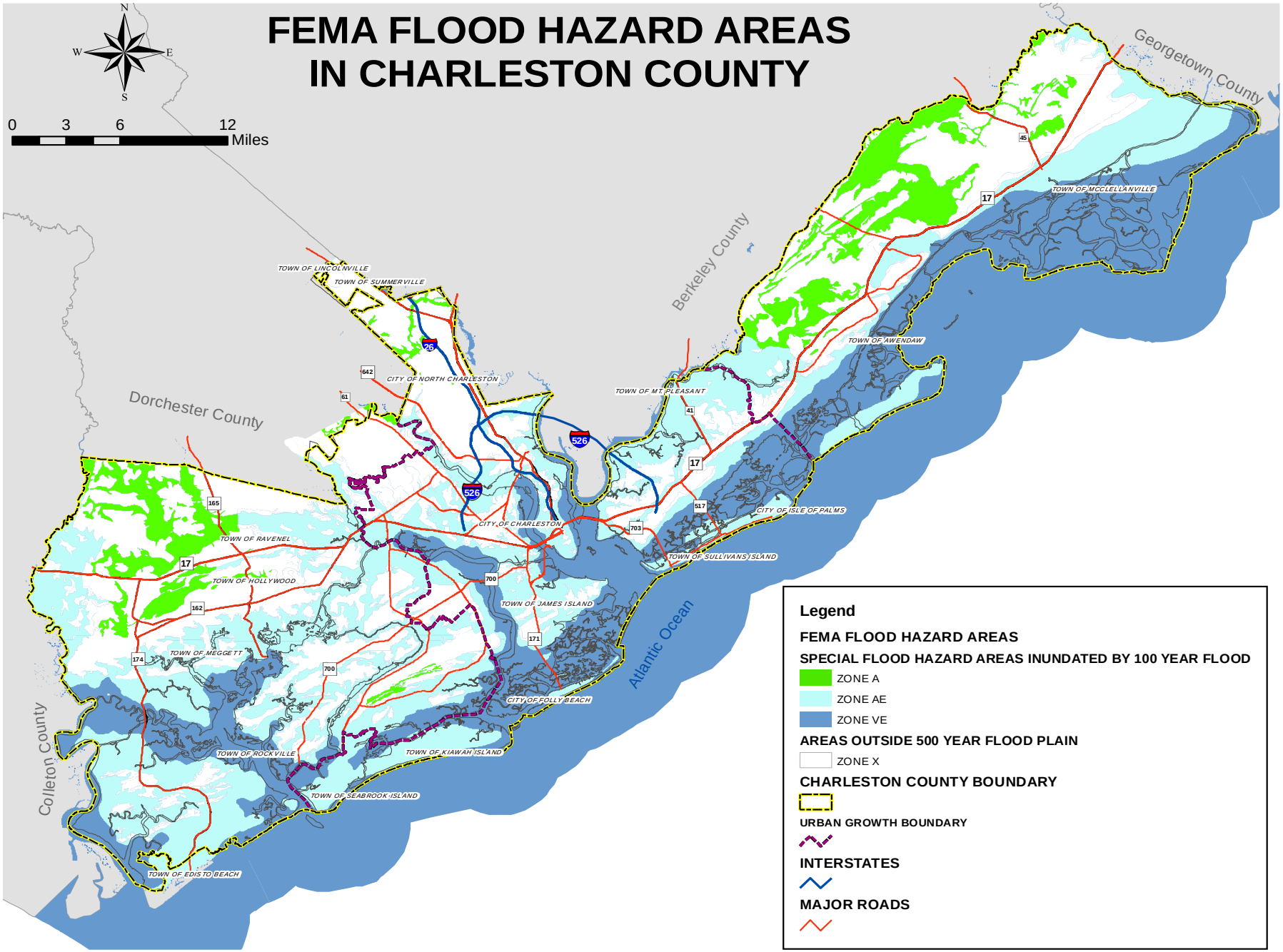
Critical Areas

SCDHEC defines "critical area" as coastal waters, tidelands, beaches, and beach/dune systems. State law mandates that SCDHEC permit all activity occurring in critical areas, which could include building docks, bulkheads, boat ramps, dredging, or filling. With the abundance of water resources in the County, several critical areas exist and permits are issued regularly. *Map 3.3.2: Office of Ocean and Coastal Resource Management Critical Area Permits* demonstrates the permits that have been issued as of March 2014. The *Charleston County Zoning and Land Development Regulations Ordinance* (ZLDR) includes waterfront development standards to protect these important areas.

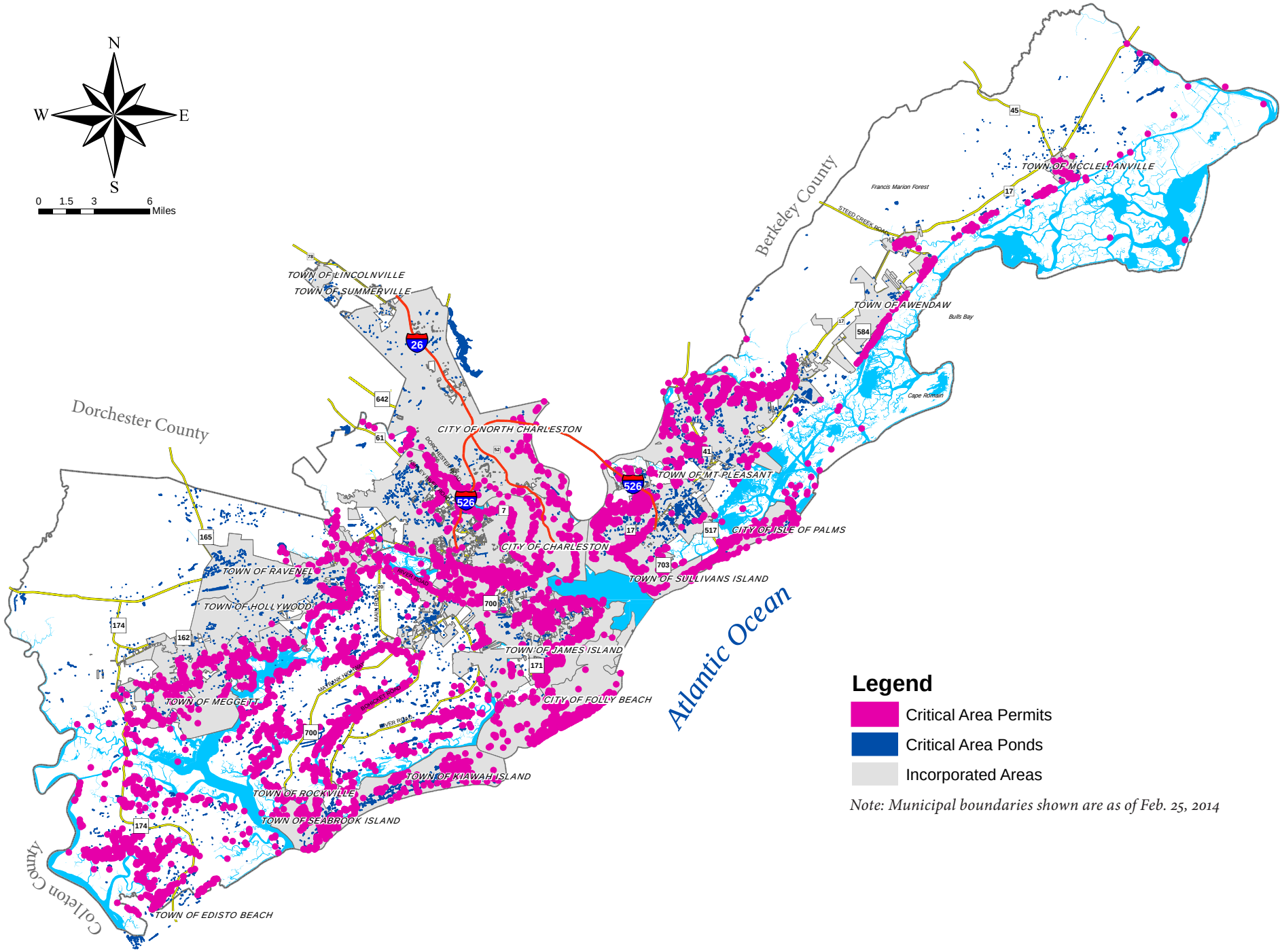
Aquatic Habitat

The aquatic habitats of Charleston County include coastal marine, estuarine, and freshwater ecosystems. The coastal marine ecosystem consists of tidal ocean beaches and sand bars, as well as coastal waters that extend seaward to the limit of low tide. The estuarine ecosystem extends from the ocean inland to the limit of tidal influence and the point where saltwater is measur-

Map 3.3.1: Charleston County Flood Hazard Zones, 2014



Map 3.3.2: Office of Ocean and Coastal Resource Management Critical Area Permits, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014

ably diluted by freshwater drainage. Freshwater ecosystems include swamps, bays, savannahs, floodplains, marshes, lakes, ponds, creeks, reservoirs, and rivers with certain average salinity levels.

Each of the aquatic habitats in Charleston County is characterized by unique hydrologic and water quality conditions, as well as biological communities adapted to survive and reproduce in those environments. Meandering shallow tidal creeks and salt marshes are dominant features of the estuaries of Charleston County, providing nursery habitat for many species of fish, crabs, mollusks, oysters, clams and shrimp. Pollutant loading from upland areas draining into tidal creeks is a water quality concern because these creeks function as direct conduits, receiving stormwater from the adjacent upland and conveying it to the larger estuarine system. Potentially toxic chemicals carried in stormwater also typically accumulate in bottom sediments, and depending upon the chemical conditions of the water, such as pH, salinity, or dissolved oxygen levels, can be released to cause unacceptable levels of some pollutants such as zinc, copper, lead and mercury. Malfunctioning septic tanks create another water quality concern. Fecal coliform and bacteria leaching into waterways can devastate aquatic systems and create unsafe drinking water and swimming conditions. SCDHEC gathers water quality data to develop South Carolina's 303(d) list of impaired waterbodies as required by the *Clean Water Act*. This list can be found by visiting the SCDHEC website (www.scdhec.gov). The sources for impairment of waters are identified, as well as recommended corrective actions to improve water quality. In Charleston County, the leading pollutant resulting in water impairments is fecal coliform bacteria.

There are generally three types of impacts on aquatic habitats associated with human activities: physical destruction or alteration of habitat, changes to water quality, and general disruption of normal feeding and breeding behavior caused by human disturbance. In addition to activities that affect habitat conditions, human impacts include, but are not limited to, direct harvesting of species through commercial and recreational fishing and hunting.

Terrestrial Wildlife Habitat and Designated Species

Charleston County is one of the most biologically rich and diverse habitat areas on the Atlantic Coast of the United States, containing many thousands of acres of tidal marsh and freshwater swamps. Interspersed with natural wetlands are thousands of acres of impoundments created during the nineteenth century when upland areas were altered and flooded for rice cultivation. Uplands in the eastern portion of the County are dominated by the fire-dependent Longleaf pine ecosystem - one of the most diverse ecosystems in the Country.

The wetlands and impoundments of Charleston County provide migration and wintering habitat for huge numbers of shorebirds and wading birds. The forested wetlands provide extensive breeding, migration, and wintering habitat for significant resident and migratory duck and geese populations. The region also provides important foraging and nesting habitat for a diversity of non-game species and species designated as endangered or threatened at the federal or state levels.

Farmland Soils

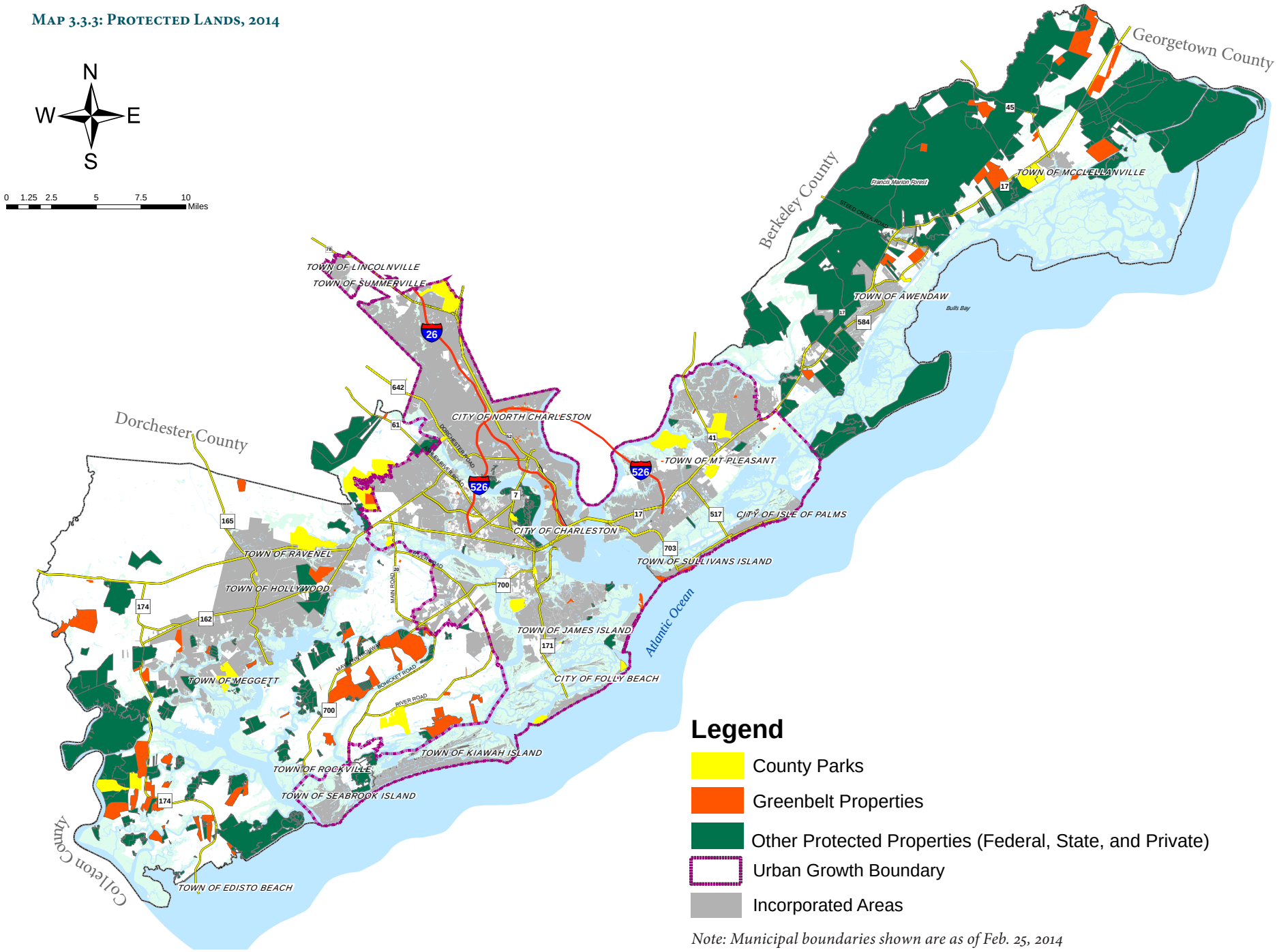
Productive soils generally predominate over large areas in Charleston County, providing expansive areas suitable for agriculture. At the time of the Charleston County

Conservation programs involving public-private partnerships and citizens in the County include:

- The Ashepoo, Combahee and Edisto (ACE) Basin Project:
- The ACE Basin National Wildlife Refuge;
- The Cooper, Ashley, Wando, and Stono (CAWS) Basin Project;
- The Santee Basin Habitat Protection Project;
- The Francis Marion National Forest;
- The Cape Romain National Wildlife Refuge;
- The Santee and Washo Coastal Reserve Wildlife Management Area;
- The Santee Delta-Cape Romain Unit of the Carolinian-South Atlantic Biosphere Reserve;
- The Edisto River Basin Project;
- The South Carolina Heritage Preserves; and
- The Charleston Harbor Project.

Public-private partnerships, along with the work of programs such as the County Greenbelt Program, ensure that land is conserved for green space and recreational purposes. *Map 3.3.3: Protected Lands* demonstrates conserved lands that are part of the County parks system, Greenbelt Program, or protected privately or by federal or state government.

Map 3.3.3: Protected Lands, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014

Soil Survey (USDA 1971), almost three-quarters of Charleston County's land area outside of the City of Charleston (exclusive of tidal marsh) was farmland soils, categorized by the United States Department of Agriculture as prime farmland, statewide significant soils, or unique soils.

Farm and Forest Resources

Charleston County's vision for the future clearly establishes a need to preserve and protect the community's agricultural tradition and its farm economy. The agricultural lifestyle is considered a vital element of the community's rural character and historic heritage. Today, this lifestyle and the rural countryside that supports it in Charleston County are threatened by a number of forces. The County is losing irreplaceable agricultural resources to urban sprawl at an alarming rate, with much of the new development in the County since 1982 occurring on prime farmland previously used by many generations of farmers for production of crops and livestock.

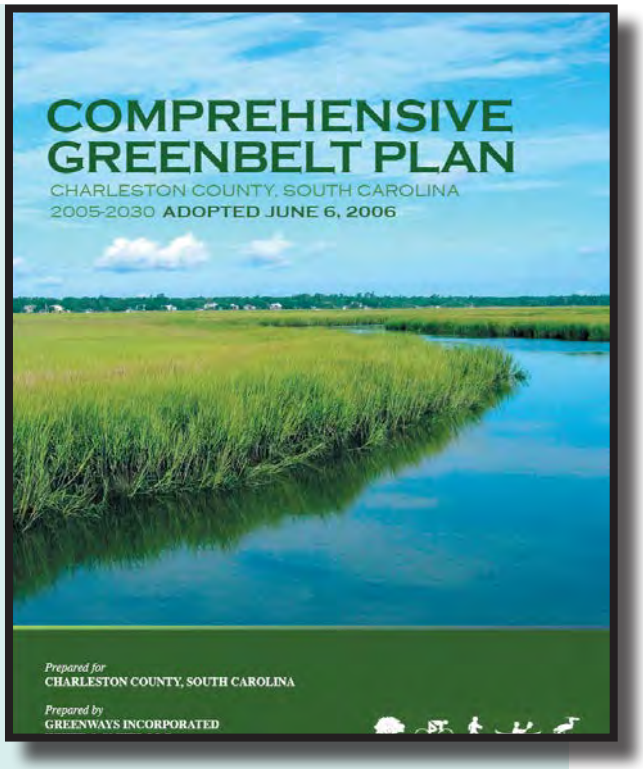
With the adoption of the *1999 Comprehensive Plan* and subsequent updates, the County has shifted significant focus on the preservation of farmland resources both through the land use plan recommendations and the current *Zoning and Land Development Regulations Ordinance*. Agriculture and timbering activities have also been reinforced through the provision of preferential tax assessments for such activities.

While the County has done much to manage growth through this Plan, the conversion of farmland to residential use still increases pressures on the farming community, not merely by taking land out of production but by creating a perception of rising property values for uses other than agriculture. With development, and the gradual dispersal of population into the suburbs and rural areas, come conflicts between farming activities and the interests of new residents unhappy with the noise, dust, and smells of routine farm activities. As farms are sold and converted, the remaining operations become separated by new development. Additionally, as the farming community shrinks, so does its local political voice, and the chances increase that local planning and zoning decisions can be incompatible with agricultural activities.

However, sustainability initiatives, rising energy costs, and climate change predictions have resulted in a return to more local production of agricultural products. With its climate, quality soils, and access to the unique resources of the coastal environment, Charleston County has witnessed a renaissance of agricultural production, particularly in the fields of viniculture, organic farming, artisanal meat and cheese production, and other niche markets that are supported by the sustainability movement of thinking globally and buying locally. Several organizations exist in Charleston County that focus on access and production of local food.

Other issues affecting the agricultural economy include rising land values that adversely affect the viability of farming by making it increasingly difficult for new farmers to enter agriculture or for existing producers to buy or rent land to expand operations. Additionally, state and federal inheritance taxes make it extremely difficult for farming families to transfer ownership of the family farm from one generation to the next, particularly in locations where land has acquired significant value due to its development potential.

Charleston County also has extensive forest resources that benefit the County's economy, its natural resource base, and its rural character. A portion of the Francis Marion National Forest is within the County, and this immense natural resource is beneficial to the County in a variety of ways from enhancing the quality of life and providing recreational opportunities to preserving a unique ecosystem that has been present for hundreds of years in the Lowcountry. The manner in which forest land is managed has a direct influence on water quality, the way wetlands function, wildlife habitat, air quality, and scenic resources, as well as the land's long-term productive capabilities. In 2012, the Francis Marion National Forest began updating their *National Forest Land and Resource Management Plan* to comply with



Note: The 2006 ***Charleston County Comprehensive Greenbelt Plan*** is incorporated into this Comprehensive Plan.

recent changes in federal regulations. This plan revision includes several community workshops and incorporates strategies to address challenges facing National Forests such as forest restoration, watershed and habitat protection, and effects of climate change, among other issues. A number of initiatives and state programs are in place in South Carolina today that encourage forest stewardship and the long-term sustainability of forest resources.

Charleston County Council, recognizing the importance and plight of agriculture and forestry, established the Agricultural Issues Advisory Committee (the Committee) in November 2009. The Committee is a joint effort of municipal, county, state, and federal governmental agencies, non-profit organizations, and private sector agricultural and forestry operations whose mission is to identify ways to foster agriculture and agri-business in both Charleston County and across the state. The Committee is an extremely effective advocate for preservation of agriculture and forestry in South Carolina, facilitating the flow of information and ideas between farmers, foresters, non-profit groups, private entities, government agencies, and elected and appointed officials; bringing together agricultural preservation efforts from around the state; and providing links between local producers and consumers.

In November 2011, the Town of Mount Pleasant, in partnership with the Appalachian Sustainable Agriculture Project (ASAP), completed a *Local Food and Farm Assessment,* which provided insight on the importance of agriculture in Charleston County. *Reference Box 3.3.1* summarizes this study. Continued attention to the importance of agriculture to Charleston County's economy and history will help ensure that this sector of the local economy is preserved and enhanced for years to come.

Groundwater Resources

Many residents and businesses of Charleston County and neighboring Dorchester and Berkeley Counties are and will be dependent upon groundwater to meet their water needs. Mount Pleasant Water Works relies in large part on water drawn from wells to meet the potable water needs of its residents. In the Rural Area, residents are completely dependent upon individual wells to provide for their water needs. As demand for groundwater grows in coming years, users will be forced to compete for a shrinking portion of the groundwater resource. Because the groundwater resources are part of a much larger interrelated system of aquifers underlying 28 counties from Columbia to the coast, planning for use and protection of groundwater resources is an issue that must be addressed collectively by many communities in the State. Both the South Carolina Department of Health and Environmental Control and the South Carolina Department of Natural Resources (SCDNR) are involved in the development of a coordinated groundwater protection program. The BCDCOG is the agency designated to coordinate a groundwater management Plan for the

Reference Box 3.3.1: *Local Food and Farm Assessment (2011)*

In 2011, the Town of Mount Pleasant consulted with the Appalachian Sustainable Agriculture Project (ASAP) to provide a Local Food and Farm Assessment. The study resulted in an emphasis on the relevance of the agriculture and timber industries across Charleston County.

According to the 2012 USDA Census of Agriculture, the County has **359 farms** and **nearly 35,436 acres of farmland**. The average farm size is 99 acres. Using 2007 data, the Assessment determined the value of agricultural products sold from Charleston County farms was approximately **$24 million**. Charleston is the number one aquaculture (farming of fish, crustaceans, mollusks, etc.) producer in the state. A comparison of 2007 and 2012 data indicates that the number of farms increased however, the total acres of farmland decreased.

To understand the food market, ASAP consulted market research, restaurants, and grocers; all research indicated that locally grown food has more appeal with customers. Survey results from County residents indicate that there is strong support for having locally grown food available for purchase, conserving the region's farmland, and enjoying the recreational aspects associated with agriculture.

The report includes policy recommendations, many of which the County already practices including tax incentives for agricultural uses and creating an agricultural preservation board. Additional recommendations include promoting agri-tourism, creating a comprehensive farmland plan, and creating new zoning districts or regulations that encourage agriculture or urban gardening.

To read the complete report, please visit www.tompsc.com.

Berkeley-Charleston-Dorchester Region. A coordinated effort is needed to ensure that the quantity and quality of our groundwater resources is protected.

Air Quality

Air quality is monitored and regulated by several agencies including the U.S. Environmental Protection Agency (EPA) and the SCDHEC Bureau of Air Quality (BAQ). The *Clean Air Act*, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards (NAAQS) for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment.

The *Clean Air Act* established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment and damage to animals, crops, vegetation, and buildings. EPA has set NAAQS for six principal pollutants, which are called "criteria" pollutants. The *Clean Air Act* requires EPA to review scientific information and standards for each pollutant every five years. In 2008, EPA set new standards for ozone pollution, called primary 8-hour ozone standards, that reflect new scientific evidence regarding ozone and its effects on public health and the environment. The new standards set the ozone limit at a maximum of 0.075 parts per million[1].

The BAQ is responsible for the conservation and enhancement of air resources in South Carolina in accordance with regulations pursuant to the *Pollution Control Act*, the *Asbestos Licensing Act*, and the *Clean Air Act*. The EPA and the BAQ have implemented an air quality monitoring program throughout South Carolina that measures concentrations of major pollutants in the ambient air. The effectiveness of the State's air quality program is measured in part by the rate of compliance with applicable statutes and regulations, and in part by the State's attainment status for the NAAQS.

From 1999 to 2008, Charleston County experienced a degradation of air quality; however, from 2008 to 2012, the ozone level improved from 0.074 parts per million to 0.065 parts per million. In 2008, when the County had an ozone level of 0.074 parts per million, this was extremely close to the EPA limit of 0.075 parts per million. Nonattainment of NAAQS has serious implications including:

- Public health impacts such as asthmas and lung issues;
- New stringent air pollution control regulatory standards such as requirements to develop traffic restrictions to reduce nitrogen oxides and volatile organic compounds from automobiles, mandated use of low sulfur fuels, carpooling or busing requirements, and reduced driving days (failure to comply with such regulations can result in withholding of federal highway construction funds); and
- Impacts to industry and economic development due to required air pollution controls resulting in increased costs for goods and/or reduced employment opportunities.

The improved ozone level in 2012 could have resulted from the *Early Action Plan* (EAP), a collaboration of the County, BCDCOG, SCDHEC, and EPA. The EAP was created in 2004, and it determines what actions must be taken at state and local levels to ensure compliance with recently adopted federal regulations regarding ozone emissions. The EAP contains a "List of Emission Reduction Strategies" that facilitate the County's efforts to reduce harmful emissions through a series of suggested actions items.[2]

1 *Information obtained from EPA.*

2 *Information obtained from BCDCOG.*

3.3.3: NATURAL RESOURCES ELEMENT GOAL

Unique Lowcountry natural resources, such as rivers, creeks, wetlands, aquatic and wildlife habitat, beaches and dunes, groundwater, forests, farmland soils, and air quality will be preserved, and actions will be taken to mitigate any potential negative impacts of growth and development, and enhanced, where appropriate.

Natural Resources Element Needs

Natural Resources Element needs include, but are not limited to, the following:

- Protecting and enhancing natural resources;
- Sustaining natural environments, habitats and wildlife;
- Promoting sustainable development practices;
- Promoting and protecting scenic corridors; and
- Allowing compact land use patterns to help minimize the fragmentation of natural resources.

3.3.4: NATURAL RESOURCES ELEMENT STRATEGIES AND TIME FRAMES

The following strategic actions should be undertaken by Charleston County and cooperating agencies that promote and protect natural resources in the County. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

NR 1. Maintain the *Zoning and Land Development Regulations Ordinance* to ensure that natural resources are protected prior to, during, and after development activities.

NR 2. Continue protecting critical and natural resource areas by designating them for very low intensity uses in the future land use recommendations and the *Zoning and Land Development Regulations Ordinance*.

NR 3. Promote sustainable, low impact development practices including but not limited to stormwater management, maintenance of vegetative cover, Critical Line buffers and setbacks, and conservation set-asides in development plans and the *Zoning and Land Development Regulations Ordinance*.

NR 4. Promote sustainable development patterns by concentrating high intensity development in the Urban/Suburban Area where public facilities and infrastructure exist and encouraging low intensity development in the Rural Area to protect sensitive and unique natural resources.

NR 5. Work with the Charleston County Greenbelt Program and participating non-profit agencies to implement the *Comprehensive Greenbelt Plan* and provide incentives for protection of natural resources using methods such as conservation easements to place land into permanent protection and provide development incentives such as density bonuses for land set-asides through land development regulations.

NR 6. Explore the feasibility of establishing a public/private/multi-jurisdictional transfer of development rights program.

NR 7. Investigate the *Firewise guidelines* and *Wild Land Interface Building Code* and use these tools to evaluate the *Zoning and Land Development Regulations Ordinance* for possible amendments to incorporate standards to protect rural residents from the danger of wildfires.

NR 8. Continue to promote best management practices, including prescribed burning where appropriate, in forest maintenance, timber harvesting and agricultural production.

NR 9. Continue to support local agricultural and timber operations through incentives such as tax relief initiatives to owners who keep their property in agricultural or timber production and voluntary agricultural and forestal areas/communities.

NR 10. Continue protecting water quality through implementation of the NPDES Phase II Stormwater Management Program.

NR 11. Work with applicable jurisdictions in the region, the BCDCOG and SCDHEC to adopt and implement a regional groundwater management plan.

NR 12. Encourage sustainable landscaping that includes attractive environments that are in balance with the local climate and require minimal use of fertilizers and pesticides, while at the same time conserving water.

NR 13. Adopt innovative planning and zoning techniques such as Form-Based Zoning and Multiple-Use Overlay Zoning District regulations to authorize the combination of land uses in compact development patterns.

NR 14. Continue the efforts of the Charleston County Council Agricultural Issues Advisory Committee to identify ways to foster agriculture, agri-business, and forestry in the County and across South Carolina including but not limited to supporting state and local enabling legislation such as the Tourist Oriented Directional Signage Program and voluntary agricultural and forestal areas/communities.

NR 15. Administer and implement the *Charleston County Local Comprehensive Beach Management Plan* as approved by Charleston County Council (through adoption of this Plan) and SC DHEC-OCRM.

NR 16. As recommended in the *Charleston Regional Hazard Mitigation Plan*, prepare and adopt a county-wide Community Wildfire Protection Plan (CWPP) with the assistance of local and locally represented land management agencies and organizations and local hazard mitigation officials, including fire departments.

NR 17. Investigate programs such as Septic Maintenance Programs to protect water quality and provide clean and safe sewage systems to communities in the Rural Area.

NR 18. Support agriculture and agribusiness by: (1) recognizing these operations as the important economic engines they are; and (2) completing a detailed food and farm assessment that maps the local food shed and the farmland required to support it and that makes recommendations regarding planning for a more resilient food supply by protecting adequate land and farms in the surrounding region.

NR 19. Continue to coordinate with the BCDCOG, SCDHEC, and other jurisdictions and agencies to implement the *Early Action Plan* and its Emission Reduction Strategies and continue working to meet federal air quality standards.

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Chapter 3.4 Cultural Resources Element

3.4.1: OVERVIEW

Charleston County encompasses an area richly endowed with a history that is revealed to its residents through a legacy of historic properties, scenic roadways, and historic rural landscapes. In recent years, citizens, as well as many historic preservation professionals, have increasingly raised concerns that these resources are threatened by the changing character of the community. Public-private partnerships, such as recent efforts to preserve the Morris Island Light House, are important in the effort to protect the County's cultural resources. Today, there is a recognized need for more public awareness of the importance of history and natural beauty to the quality of life in Charleston County, appreciated by both residents and visitors. In this sense, recognition and appreciation of the County's historic legacy is not just an issue of historic preservation, but is a key contributor to the local economy. It is at the heart of the vision for Charleston County which calls for preservation of rural community character, cultural resources, and traditional lifestyles.

Purpose and Intent

The purpose and intent of the Cultural Resources Element is to protect and preserve the County's significant historic and archaeological resources and cultural heritage, to recognize and increase public awareness of the historic character of Charleston County and the efforts to preserve that heritage and the associated economic benefits, and to promote mechanisms for public and private partnerships to preserve and protect historic and/or culturally significant heritage, properties, or landscapes.

3.4.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

There is a strong preservation community composed of a number of organizations that have made a commitment to preserve cultural and historic resources in the County. Much of the responsibility for protecting cultural resources lies outside the purview of Charleston County Government. Some of the agencies involved in the protection of cultural resources include:

- The State Historic Preservation Office;
- The Office of Ocean and Coastal Resource Management;
- The Edisto Island Open Land Trust;
- The East Cooper and Mount Pleasant Preservation Society;
- The Mount Pleasant Open Space Foundation;
- The Lowcountry Open Land Trust;
- The South Carolina Institute of Archaeology and Anthropology;
- The National Trust for Historic Preservation;
- The Trust for Public Land;
- The Preservation Society of Charleston;
- The Historic Charleston Foundation; and
- The Edisto Island Historic Preservation Society.

Charleston County has incorporated regulations to protect cultural resources through the *Zoning and Land Development Regulations Ordinance* and coordinates with other agencies responsible for protecting these resources. However, the County is not solely responsible for their protection.

Historic and Architectural Resource Inventories in Charleston County

Between 1989 and 1992, two historical and architectural surveys were conducted to identify historical and cultural resources in parts of Charleston County. In 1989, a historical survey, funded by the South Carolina Department of Archives and History, Charleston County Government, and the City of Charleston, was conducted on James Island and Johns Island. A total of 85.5 square miles was surveyed, and 330 sites were identified. 201 sites were located on James Island and 129 sites were located on Johns Island. In 1992, Charleston County Council organized a public-private partnership to conduct an additional historic and architectural survey designed to include surveys of areas not previously surveyed, and to consolidate findings of prior studies that had looked at specific sites within those areas. Concurrent with the 1992 historical and architectural survey, the County partnered to conduct an archeological inventory of Charleston County. The South Carolina State Historic Preservation Office (SHPO) granted funding for both projects, with matching funds provided by the Charleston County Council, the City of Charleston, the Historic Charleston Foundation, and the municipalities of Ravenel, Seabrook Island, and Kiawah Island. In order to raise public awareness, foster public support of preservation, and reach consensus as to how best to protect historic resources, the survey sponsors incorporated broad-based community participation throughout the survey process. These surveys remain the most recent historical and archaeological surveys produced by Charleston County; however, the County is pursuing a federal historic preservation grant to fund an update to the historical and architectural survey, as the 1992 survey is now over 20 years old.

Based on the results of both the 1989 and 1992 surveys, approximately 1,170 historic and architectural sites have been surveyed within Charleston County, exclusive of the City of North Charleston, the Town of Mount Pleasant, and the City of Charleston (except for James Island areas within the City which are included in the 1,170 total).[1] Surveyed sites include properties built prior to 1942 whose level of significance is considered to be local as well as those that are nationally significant. A few sites that retain little integrity or setting are included in the surveys pending assessment of their level of importance with regard to local history.

Table 3.4.1: Type Distribution of Historic and Architectural Sites in Charleston County presents a summary of the type distribution of the surveyed sites within Charleston County. These indicate that almost two-thirds of the historic sites are residences, including houses, slave cabins and tenant or employee cottages. Cemeteries compose the second most common site type, including approximately 12 percent of the total. Approximately three-quarters of the sites surveyed contained structures built between 1878 and 1940. Few structures survive that were built before 1800.

The surveyed sites are spread throughout Charleston County (*Table 3.4.2*). Approximately one-half of the sites are located on Edisto Island, Wadmalaw Island, James Island, and Johns Island. Approximately 15 percent are within the vicinities of Hollywood, Meggett

1 *Preservation Consultants 1988, 1989, 1992.*

and Ravenel. The incorporated area of McClellanville has the highest concentration of sites, with 87 sites located within the corporate limits, composing 11 percent of the countywide total sites surveyed.

Of the surveyed sites identified in the 1992 survey in Charleston County, 133 sites located within the unincorporated areas of Charleston County are either nominated to the National Register of Historic Places, considered eligible for the National Register, or classified as potential historic districts. One-half of these sites are located on Edisto Island. These 133 sites include the more significant historic properties in the County. Additional sites are likely to meet criteria for inclusion on the National Register, but were not included in the survey due to the lack of resources needed to compile documentation required for review by the State Historic Preservation Office.

In 2014, the County utilized improved mapping technology to spatially display many of the 1992 survey sites. Not all sites can be mapped due to some survey cards lacking accurate parcel identification numbers. Some parcels also no longer exist due to subdivisions; therefore, only 623 of the sites (81 percent of the total sites included in the 1992 survey) can be mapped. Of the 623 sites, 412 sites (66 percent) are located in unincorporated Charleston County, as shown on *Map 3.4.1*.

National Register of Historic Places

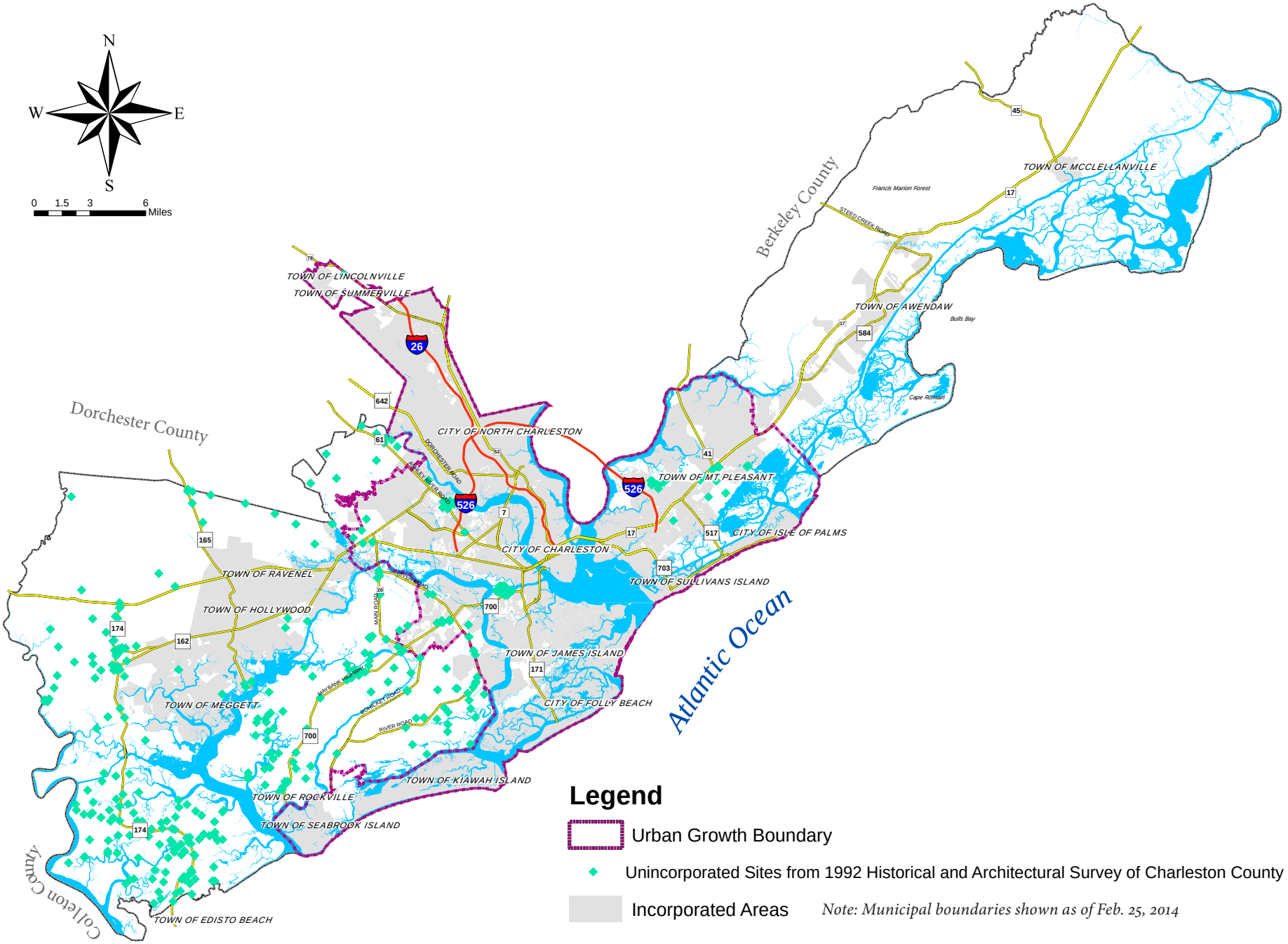
Listing a property in the National Register recognizes that it is of significance to the Country, the State, and the local community. It qualifies property owners for certain federal tax benefits and federal assistance for historic preservation (when funds are available). It also mandates consideration of potential impacts on the historic properties that result from federal or federally-assisted projects. As of 2014, 183 National Register of Historic Places (NRHP) listings (including 167 sites and 16 historic districts) exist in Charleston County (including incorporated and unincorporated areas). *Map 3.4.2* indicates the NRHP sites located in unincorporated Charleston County as of 2008. In 2013, one of the unincorporated NRHP sites, Point of Pines Plantation Slave Cabin on Edisto Island, was delisted from the National Register of Historic Places when it was dismantled and sent to Washington, D.C. The slave cabin will be reassembled and featured in the future National Museum of African American History and Culture in the nation's capital.

Table 3.4.1. Type Distribution of Historic and Architectural Sites in Charleston County

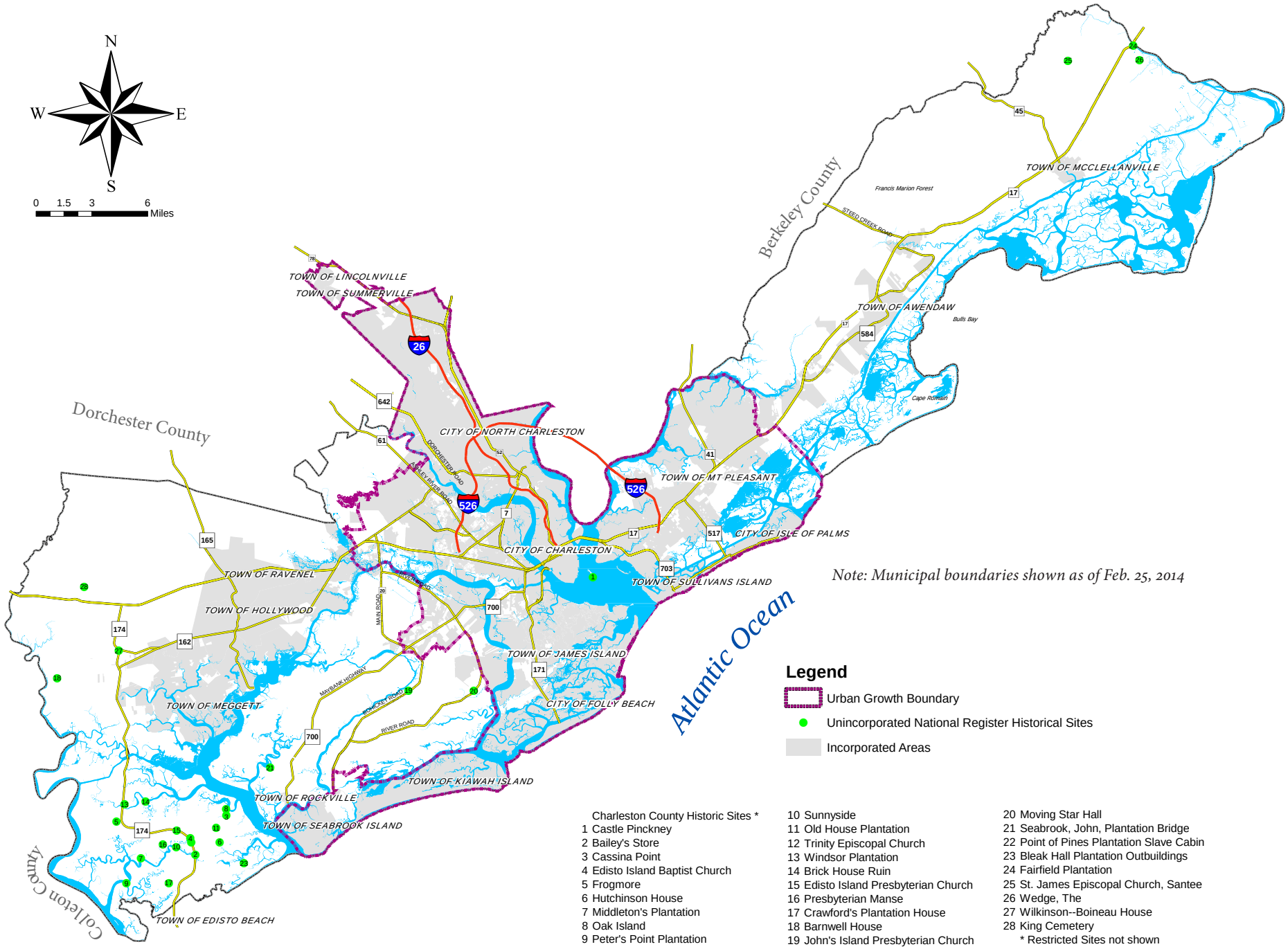
Type	Number of Sites	Percent Total
Residences	753	64.4%
Cemeteries	135	11.5%
Roads and Landings	36	3.1%
Church Buildings	37	3.2%
Stores and Commercial Buildings	36	3.1%
Barns, Stables and Agricultural Outbuildings	28	2.5%
Railroad Lines and Structures	19	1.6%
Domestic Outbuildings	28	2.5%
Designed Landscapes	20	1.7%
Ruins and Building Sites	16	1.4%
Schools	14	1.2%
Bridges and Bridge Sites	11	0.9%
Canals	7	0.6%
Pecan Orchards and Groves	7	0.6%
Windmills	3	0.3%
Oyster Factories	3	0.3%
Cotton Gins	4	0.3%
Fire Towers	3	0.3%
Other	17	1.4%
Total	**1,170**	**100.0%**

Note: Exclusive of the City of Charleston, the Town of Mount Pleasant, and the City of Charleston (except for James Island, which is included in the numbers shown)
Source: Preservation Consultants 1988, 1989 and 1992

Map 3.4.1: Unincorporated Sites on the 1992 Charleston County Historical and Architectural Survey



Map 3.4.2: Unincorporated Sites on the National Register of Historic Places, 2008



Charleston County Historic Sites *

1 Castle Pinckney
2 Bailey's Store
3 Cassina Point
4 Edisto Island Baptist Church
5 Frogmore
6 Hutchinson House
7 Middleton's Plantation
8 Oak Island
9 Peter's Point Plantation
10 Sunnyside
11 Old House Plantation
12 Trinity Episcopal Church
13 Windsor Plantation
14 Brick House Ruin
15 Edisto Island Presbyterian Church
16 Presbyterian Manse
17 Crawford's Plantation House
18 Barnwell House
19 John's Island Presbyterian Church
20 Moving Star Hall
21 Seabrook, John, Plantation Bridge
22 Point of Pines Plantation Slave Cabin
23 Bleak Hall Plantation Outbuildings
24 Fairfield Plantation
25 St. James Episcopal Church, Santee
26 Wedge, The
27 Wilkinson--Boineau House
28 King Cemetery

* Restricted Sites not shown

Table 3.4.2: Geographic Distribution of Historic and Architectural Sites in Charleston County

Area	Number of Sites		Percentage of Countywide Total
	Incorporated	Unincorporated	
McClellanville and Vicinity	87	41	10.9%
Awendaw and Vicinity	2	18	1.7%
Mt. Pleasant and Vicinity	2	75	6.6%
Lincolnville and Vicinity	2	1	0.2%
Highway 61 Corridor	-	43	3.7%
Ravenel and Vicinity	29	22	4.4%
Charleston Area	-	5	0.4%
Hollywood and Vicinity	19	20	3.3%
Meggett and Vicinity	45	33	6.7%
Adams Run/Osborne and Vicinity	-	76	6.5%
Edisto Island	-	151	12.9%
James Island/Johns Island	(not determined)	330 (total)	28.2%
Kiawah Island	2	-	0.2%
Wadmalaw Island	-	167	14.3%

Note: Exclusive of the City of North Charleston, the Town of Mount Pleasant, and the City of Charleston (except for James Island which is included in the numbers shown)
Source: Preservation Consultants 1988, 1989 and 1992

Historic Preservation Committee

In April 2014, the Charleston County Planning Commission established a Historic Preservation Committee to assist in updating the *Zoning and Land Development Regulations Ordinance* to better enhance and protect the County's natural resources. The Committee will also assist planning staff with drafting the grant application to receive a federal historic preservation grant to update the County's Historic and Architectural Survey. If a grant is awarded, the Committee will be instrumental in administering the grant. The Historic Preservation Committee was formed to carry out the strategies set forth in this Element and identify new ways to promote historic preservation in the unincorporated parts of Charleston County.

3.4.3: CULTURAL RESOURCES ELEMENT GOAL

Cultural, historic and archaeological resources, unique settlement patterns of traditional Lowcountry communities (such as historically African-American communities and family settlements), and traditional activities (such as Sweetgrass Basket Making) should be preserved and protected from potential negative impacts of growth and development.

Cultural Resources Element Needs

Cultural Resources Element needs include, but are not limited to, the following:

- Preserving the County's significant historic and archaeological resources and cultural heritage;
- Increasing public awareness of the historic character of the County; and
- Promoting public and private partnerships to preserve and protect cultural resources.

3.4.4: CULTURAL RESOURCES ELEMENT STRATEGIES AND TIME FRAMES

Charleston County should take the following actions to promote and protect cultural resources in the County. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

CR 1. Continue to promote historic preservation in Charleston County and enhance the County's historic preservation ordinance.

CR 2. Pursue grant opportunities to update the historical/architectural survey for Charleston County, with emphasis on areas not previously surveyed, and promote continued preservation of local historic sites and structures, including applying for federal historic preservation grants, as administered by the South Carolina State Historic Preservation Office.

CR 3. Support policies, incentives, and plans that encourage historic preservation and protection of cultural and archaeological resources such as the Gullah Geechee Cultural Heritage Corridor.

CR 4. Maintain a database of archaeological resources, heritage corridors, and historic properties, roads, and landscapes.

CR 5. Require a historic and archaeological survey for all Planned Development and Form-Based Zoning District requests.

CR 6. Monitor inventories and studies conducted by other agencies which identify new or recently discovered historic or cultural resources.

CR 7. Protect rural historic landscapes from development that may be out of character with their inherent rural attributes.

CR 8. Maintain and update development standards that preserve scenic and historic roadways and vistas.

CR 9. Utilize planning and zoning techniques to protect historic communities and neighborhoods and other areas of cultural significance.

CR 10. Consider possible tax relief initiatives to owners who rehabilitate historically significant property.

CR 11. Encourage adaptive reuse and rehabilitation of older buildings that complement historic development patterns.

CR 12. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to promote and protect cultural and archaeological resources.

CR 13. Explore options to create a local program to protect locally significant historic and cultural resources.

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Chapter 3.5 Population Element

3.5.1: OVERVIEW

Purpose and Intent

Analysis of historic, current, and future population trends included in this Element identifies the changing needs and preferences of residents of the County. This information is intended to help shape the Future Land Use Plan, and identify future service needs of the population which can be addressed through the Comprehensive Plan.

3.5.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

As part of the *2008 Comprehensive Plan Update*, Miley, Gallo, and Associates prepared a *Demand Analysis* that addressed population and growth forecasts, municipal boundaries and annexations in regards to population, and growth variables. The *Demand Analysis* was an adequate substitution for the lack of available, current U.S. Census Bureau data at the time and was also helpful in planning for future years. The findings of the *Demand Analysis* included:

- Based on an assumed annual growth rate of 1.7 percent, Charleston County could expect a population of 425,000 residents by 2020 (approximately 85,000 new residents).
- Based on the municipal population capture analysis, 70 percent of new residents, or 60,000 people, were expected to live in the incorporated areas of the County, and 30 percent of new residents, or 25,000 people, were expected to live in the unincorporated areas. Municipalities were expected to grow annually by 1.54 percent, while unincorporated areas would grow at a higher annual rate, 2.24 percent. If annexation activity increased significantly, the estimates would shift accordingly.
- The expected population growth was anticipated to stimulate the housing demand in Charleston County, resulting in the need for approximately 42,000 new housing units by 2020 - 30,000 new units in municipalities and 12,000 new units in unincorporated areas.
- Assuming no change in housing preferences, 70 percent of the new units (30,000 units) were expected to be single-family residences.
- Although Charleston County's annual employment growth rate was projected to be 1.9 percent, the majority of the demand for new commercial square footage was expected to likely occur within the municipalities.

Since the adoption of the *Comprehensive Plan Update* in 2008, changing conditions have greatly impacted the nation and made the findings of the *Demand Analysis* somewhat outdated. In late 2008, some financial institutions collapsed, and the housing market was drastically affected as home foreclosure and eviction rates skyrocketed. Unemployment rates and poverty levels increased due to prolonged uncertainty in the market. The effects of the financial crisis affected all groups of people, as evidenced by the data available in this Element. After six long years, in 2014, the economy is slowly recovering.

In addition, the release of the 2010 Dicennial Census data and 2007-2011 Five-Year Estimates from the American Community Survey indicate large shifts in racial diversity and age trends at local, state, and national levels that need to be examined to better accommodate and plan for the needs and impacts of our current and future residents.

Population Estimates, Trends, and Forecasts

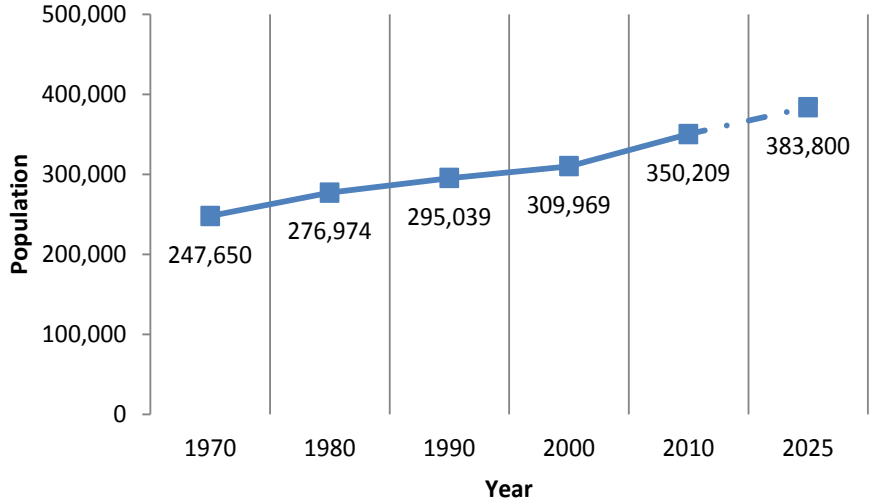
Of all the regions in the United States, the South has consistently seen the most growth in recent decades. By 2030, over half of the American population (approximately 52 percent) is expected to live in the South, according to the U.S. Census Bureau population projections. *Figure 3.5.1: Countywide Population Trends and Projections* illustrates the County's growing population. From 2000 to 2010, the population increased by 13 percent (40,240 new residents). From 2010 to 2025, the County's population is projected to increase by 9.6 percent to 383,800 residents (33,591 new residents). Similar to Charleston County, Berkeley and Dorchester Counties' populations have continued to increase and are projected to increase into 2025, as demonstrated in *Figure 3.5.2: Tri-County Populations, 1990-2025*.

Municipal Capture Rates

Since the 1970s, municipalities within Charleston County have experienced not only natural population growth but also substantial growth from the expansion of municipal boundaries by annexation.

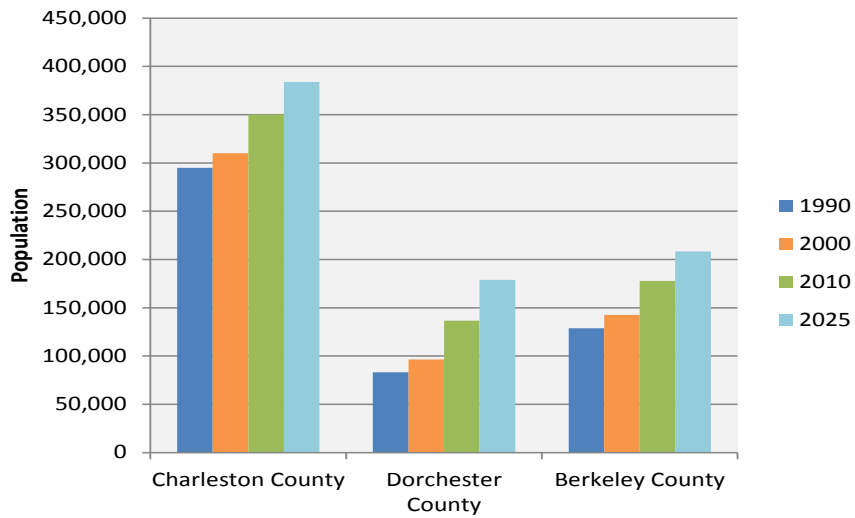
Figure 3.5.3: Charleston County Land Area demonstrates the proportions of unincorporated and incorporated land in the County. As evidenced, 68 percent of the County's land area (approximately 715 square miles) is unincorporated, and the majority of the unincorporated portion is located in the Rural Area. *Figure 3.5.4: Municipal Growth* indicates the growth of municipalities as a result of annexation in recent years. The Cities of Charleston and North Charleston, as well as the Town of Mount Pleasant are illustrated as they are the largest municipalities in the County with more vigorous annexation policies. Historical data implies annexation activity peaked in the 1990s with incorporated/unincorporated capture ratios of 298 / - 198 per-

Figure 3.5.1: Countywide Population Trends and Projections, 1970-2025



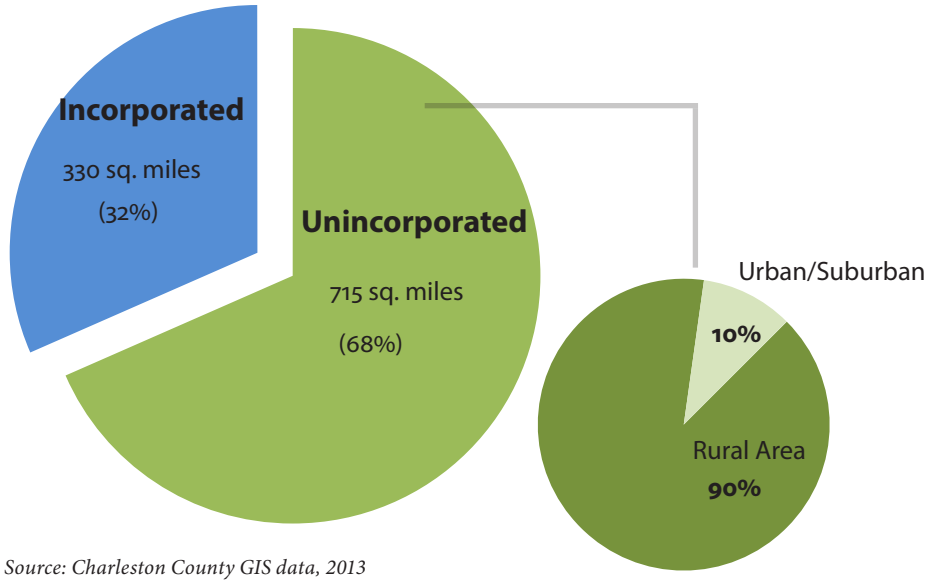
Sources: U.S. Census Bureau, 1970, 1980, 1990, 2000, 2010; BCDCOG via South Carolina Office of Research and Statistics, 2012. Note: 2025 projection provided by BCDCOG utilizing data from the South Carolina Office of Research and Statistics.

Figure 3.5.2: Tri-County Populations, 1990-2025



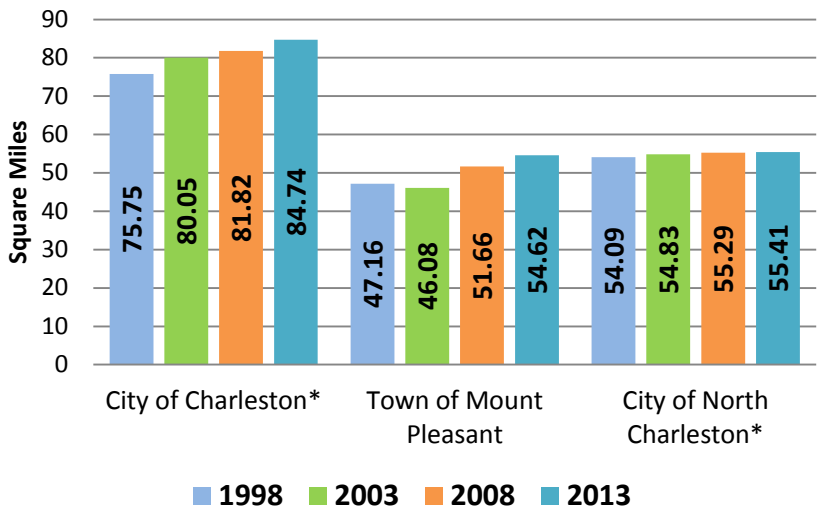
Sources: U.S. Census Bureau, 1990, 2000, 2010; BCDCOG via South Carolina Office of Research and Statistics, 2012. Note: 2025 projection provided by BCDCOG utilizing data from the South Carolina Office of Research and Statistics.

Figure 3.5.3: Charleston County Land Area, 2013



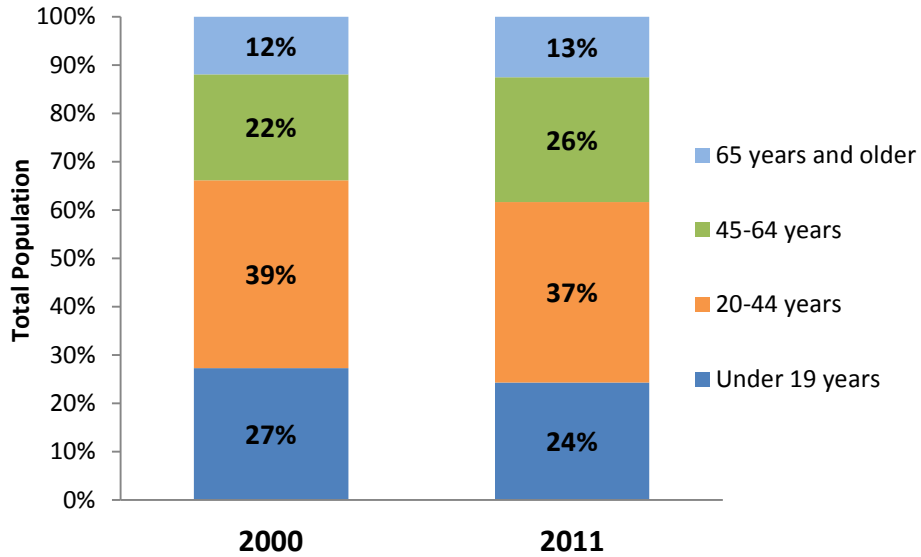
Source: Charleston County GIS data, 2013

Figure 3.5.4: Municipal Growth of Largest Three Municipalities



Source: Charleston County GIS data, 2013
**Note: Municipal size is reflective of portions of jurisdictions located within Charleston County only.*

Figure 3.5.5: Charleston County Age Profile



Sources: U.S. Census Bureau, 2000; American Community Survey Five-Year Estimate, 2007-2011

cent (1990 – 2000). From 2000 to 2007, the capture ratio dramatically declined to 66/34 percent indicating population growth via annexation slowed considerably. Accordingly, net population gains resulted in the unincorporated areas of the County. It is important to note the ratio for 2000 through 2007 is based on the actual municipal boundaries in place during 2007, a distinct advantage of a spatial projection model. Based on the uploaded 2007 boundary files, the ESRI model predicted the capture ratio to settle at 70/30 percent during 2007 to 2012. This projection was fairly accurate, as actual municipal boundaries in place in January 2014 indicate a capture ratio of approximately 68/32 percent, as illustrated in *Figure 3.5.3*.

Population Composition

Recent Census Bureau data revealed that the United States population is diversifying in many ways. Racial and ethnic groups are increasing; generational gaps are more prominent; and lifestyle changes are resulting in more heterogeneous households. The County's population continues to diversify as well, and the shifting demographics will affect County policies and change the provision of services. The following sections illustrate the County's changing population.

Age Distribution

Charleston County's population is aging, a trend also seen in other parts of the country, as illustrated in *Figure 3.5.5: Charleston County Age Profile*. From 2000 to 2011, the per-

centage of residents age 45 years and older increased from 34 percent in 2000 to 39 percent in 2011 (by 28,391 residents). To plan for an increasing proportion of older residents, the County should be aware of changing transportation and housing needs. Access to public transportation and housing that is affordable to those on a fixed income and close to services will be crucial to serving this age group.

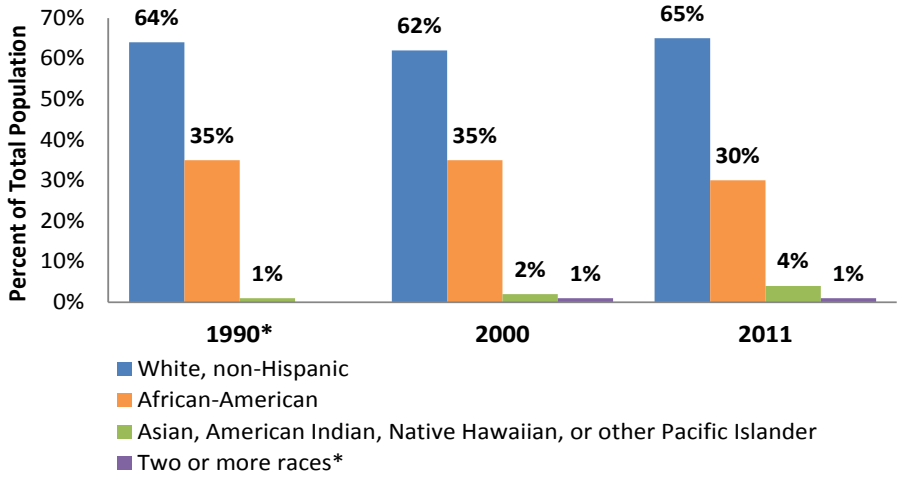
In 2011, 37 percent (129,402 residents) of the County's population was between the ages of 20 and 44 years. This younger group, mostly Millenials (those born between the early 1980s and early 2000s) and Generation Xers (those born between the early 1960s and early 1980s), contains more college-educated residents. Charleston County's growth in knowledge-based industries will continue to draw younger generations to the Lowcountry. Lifestyle preferences are distinct among younger residents, as many prefer dense urban and suburban settings with opportunities for walkable communities and public transportation, which has implications for land use planning. Younger generations also prefer to communicate in different ways. The County should identify new mechanisms (such as social media outlets and innovative community workshops) to engage its younger population in the community planning process.

In 2011, 24 percent (84,110 residents) of the County's population was under the age of 19. Educational and employment opportunities should continue to be available for the County's youth, as the County strives to retain its young residents.

Racial Composition

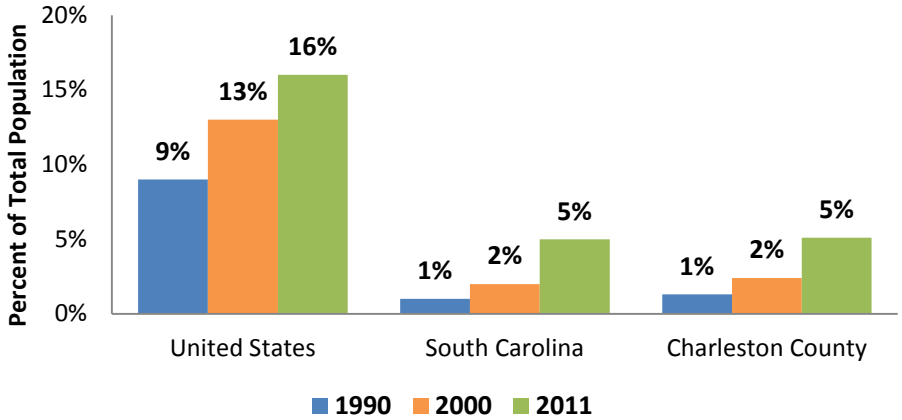
Between 1990 and 2000, the total population in all race categories in Charleston County increased. *Figure 3.5.6* displays the historic racial composition of the County. From 2000 to 2011, the African-American population decreased five percent, while the Asian, American Indian, Native Hawaiian, or other Pacific Islander population increased two percent. Surprisingly, the White population increased three percent from 2000 to 2011, which does not parallel national trends. *Figure 3.5.7* depicts the increases in the Hispanic population. Minority populations, specifically the Hispanic population, are expected to increase more rapidly in future years due to higher birth rates among this group and declining birth rates among the White population. The U.S. Census Bureau predicts that by 2043 there will actually be no majority race in the United

Figure 3.5.6: Charleston County Racial Profile, 1990-2011



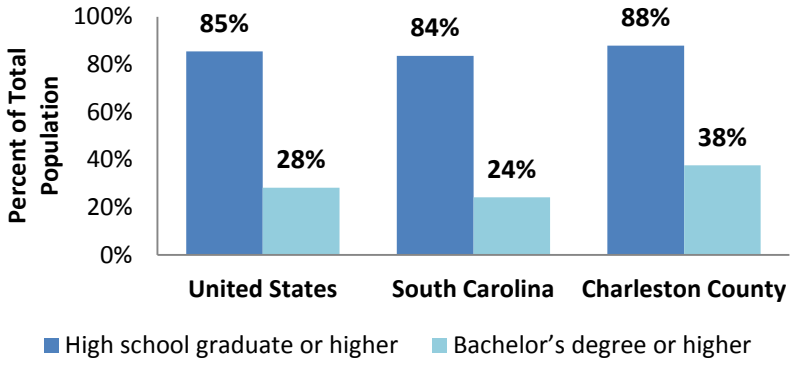
Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011
**Note: Identification as multiracial was not an option for citizens during the 1990 Decennial Census.*

Figure 3.5.7: Hispanic Population in Charleston County, 1990-2011



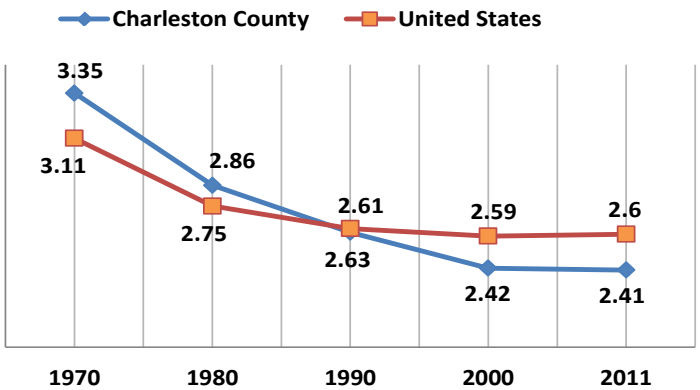
Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011

Figure 3.5.8: Charleston County Educational Attainment, 2011



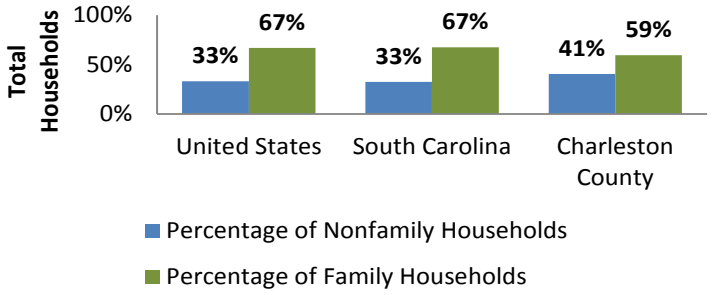
Source: American Community Survey Five-Year Estimate, 2007-2011

Figure 3.5.9: Average Household Size, 1970-2011



Sources: U.S. Census Bureau, 1970-2000; American Community Survey Five-Year Estimate, 2007-2011

Figure 3.5.10: Household Composition, 2011



Source: American Community Survey Five-Year Estimate, 2007-2011

States. The older population will continue to be predominately non-Hispanic white; however, the under-18 population is projected to be approximately 33 percent non-Hispanic white, resulting in a non-majority population.

Gender

Between 1970 and 1990, there was a 1.7 percent increase in the percentage of females who compose the total County population and a corresponding increase in the percentage of males. In 2011 females outnumbered males in the County, comprising approximately 52 percent of the population.

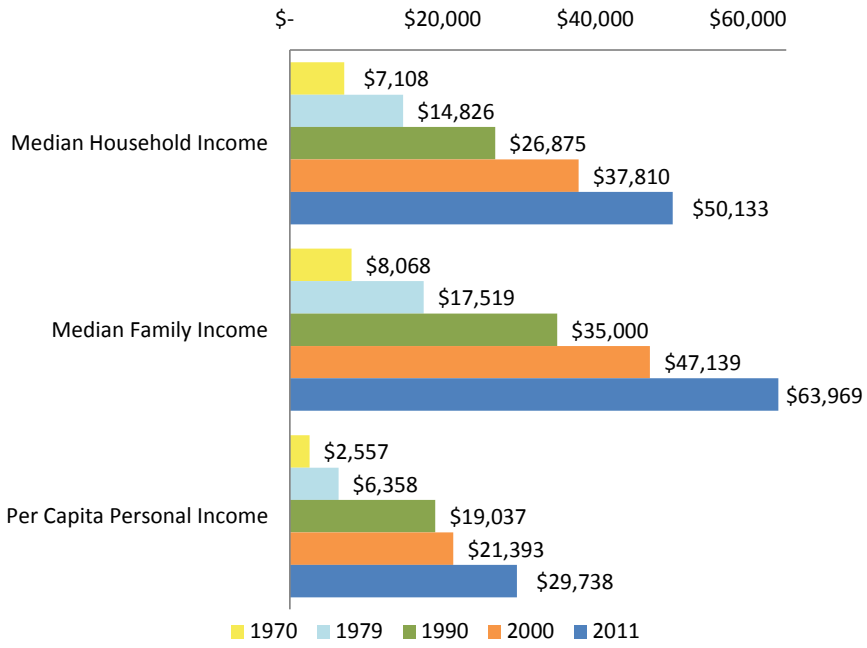
Education

The Charleston County population has generally achieved a higher level of education when compared to other counties in South Carolina. In 2011, approximately 12 percent of the population in the County over 25 years of age was not a high school graduate while approximately 38 percent of the population in the County over 25 years of age held a bachelor's degree or higher, as illustrated in *Figure 3.5.8*. The larger population of educated residents could be attributed to the influx of new residents drawn to knowledge-based career opportunities as well as the many higher educational institutions that are located in region. A significant proportion of the County's population is actively working towards meeting educational goals. In 2013, the total enrollment for all higher education institutions in the region was over 40,000 students. In addition, in 2013, the Charleston County School District enrolled just over 43,000 students in public schools. For more enrollment figures, please see *Table 3.8.1* in the Community Facilities Element.

Household Size & Composition

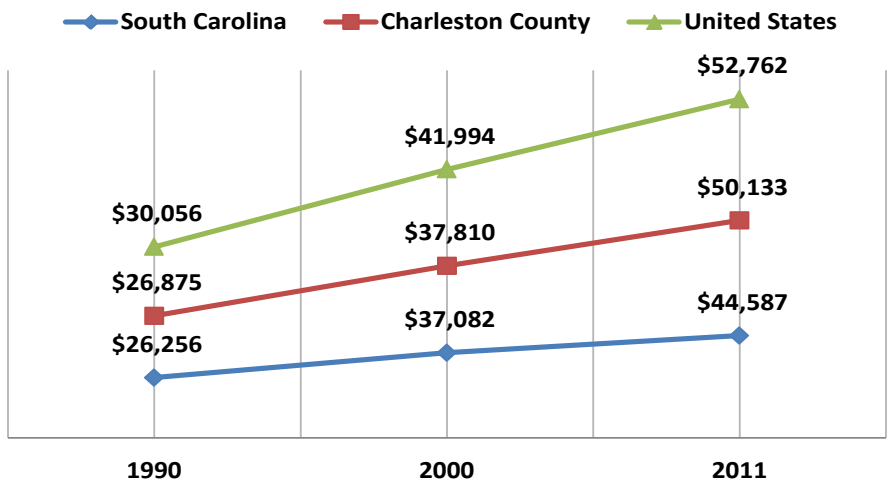
Figures 3.5.9 and *3.5.10* illustrate the continued trends of decreasing household sizes and changing household composition in Charleston County. In 2011, the average household size had decreased to 2.41 persons per household from 2.42 persons per household in 2000. Family households (defined as a married couple or single parent and at least one child) comprised approximately 59 percent of the total households. The remaining 41 percent were non-family households, defined as single-person households or households of multiple unrelated individuals. The U.S. Census Bureau estimates that by 2025, single-person households will equal family households nationally, and by 2050, they will exceed the number of family households. Changing household sizes will have long-term implications on housing unit size, type, and location. Smaller, more energy-efficient homes may be more preferential.

FIGURE 3.5.11: CHARLESTON COUNTY INCOME CHARACTERISTICS, 1970-2011



Sources: U.S. Census Bureau, 1970, 1979, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011. Note: Household income includes the incomes of everyone in the household 15 years and older. Family income includes the income of all members of a family 15 years and older. Per capita personal income is the mean money received over 12 months for every individual over 15 years of age in an area. These figures have not been adjusted for inflation.

FIGURE 3.5.12: MEDIAN HOUSEHOLD INCOME, 1990-2011



Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011
Note: Figures have not been adjusted for inflation. Table 3.5.1 below indicates the median household income for Charleston County adjusted for inflation and shown in 2011 dollars.

TABLE 3.5.1: MEDIAN HOUSEHOLD INCOME, CHARLESTON COUNTY, 1990-2011

	1990	2000	2011
Median Household Income	$ 26,875	$ 37,810	$ 50,133
Inflation Adjusted (2011)	$ 46,253	$ 49,253	$ 50,133

Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011

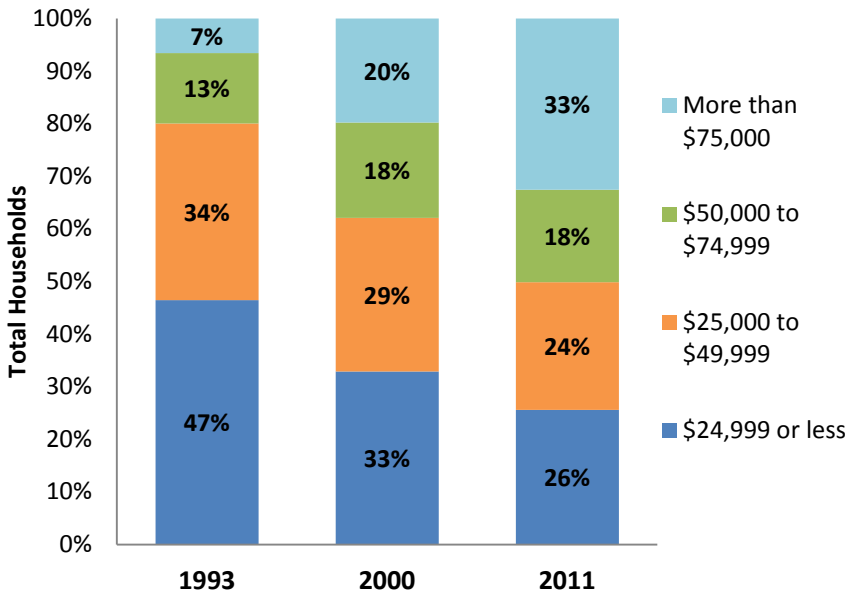
Income Levels

Since 2008, the local economy has been recovering from one of the worst recessions in recent years when unemployment rates increased nationwide, and the housing and financial markets collapsed. Charleston County experienced a slowing of the local economy; however, employment growth remained somewhat steady compared to other parts of the state and nation, as illustrated in the Economic Development Element. To better understand the income levels of the County's residents, *Figure 3.5.11* illustrates the Median Household Income, Median Family Income, and Per Capita Personal Income. Figures have not been adjusted for inflation. *Figure 3.5.12* illustrates the inflation-adjusted figures for change in Median Household Income from 1990 to 2011.

Poverty Levels

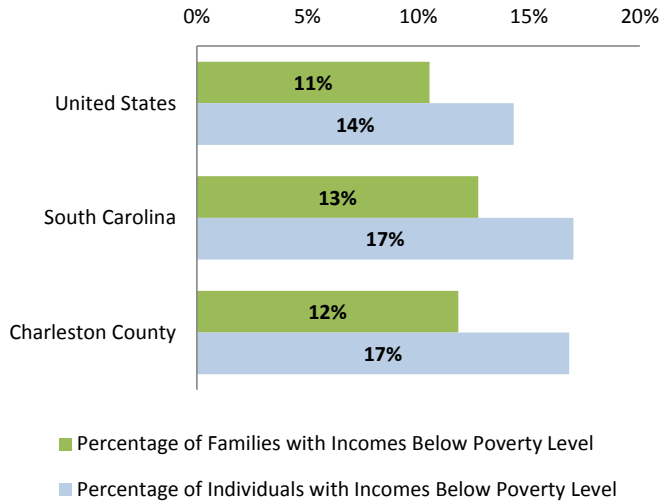
In 2013, the poverty guideline for a family of three was $19,530, as determined by the U.S. Department of Health and Human Services. Based on the 2011 poverty guideline for a family of three ($18,530), nearly 12 percent of families in Charleston County (approximately 9,762 families) had incomes below the poverty level. Nearly 17 percent of all people in Charleston County (approximately 58,293 people) had incomes below the poverty level. The majority of the poorest residents in Charleston County live in the unincorporated areas of the County. *Figure 3.5.13* illustrates the income ranges of households in the County in 1993, 2000, and 2011 and indicates that wages are growing in the County. The Charleston Regional Development Alliance (CRDA) reported in the *2013 Economic Scorecard* that the region's wages grew 11.5 percent from 2005

Figure 3.5.13: Distribution of Household income, Charleston County, 1993-2011



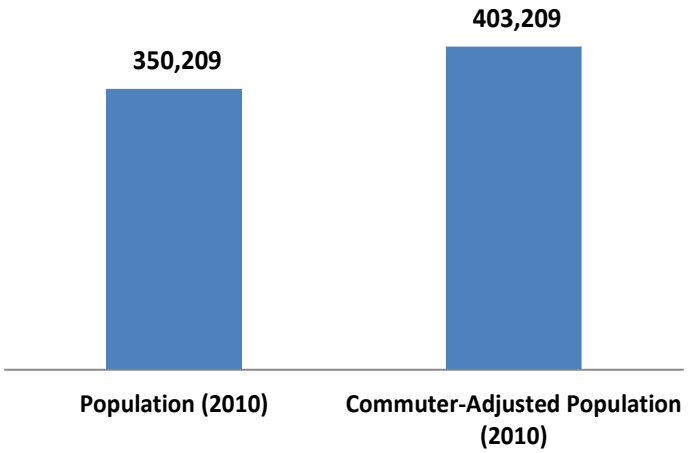
Sources: U.S. Census Bureau, 1993, 2000; American Community Survey Five-Year Estimate, 2007-2011

Figure 3.5.14: Poverty Levels by Geographic Area, 2011



Source: American Community Survey Five-Year Estimate, 2007-2011

Figure 3.5.15: Commuter-Adjusted Population, 2010



Source: U.S. Census Bureau, 2010

to 2012; however, the region's wages are only 85 percent of the national average wage, making it difficult for the County's residents to afford to rent or buy homes. *Figure 3.5.14: Poverty Levels by Geographic Area* compares the percentage of individuals and families with incomes below the poverty level in Charleston County to both the state and nation. As illustrated, Charleston County has slightly fewer families with incomes below poverty level than South Carolina as a whole; however, poverty levels are higher for all individuals in Charleston County than the United States.

Commuter-Adjusted Population

Because the County not only serves residents, but also visitors (both daily commuters and tourists), it is crucial to understand the commuter-adjusted population. As a major employment center for the region, Charleston County's daytime population increased by about 53,000 people or approximately 16 percent in 2010, as depicted in *Figure 3.5.15: Commuter-Adjusted Population.* This important statistic is useful for transportation planning, emergency planning, and other policy-making. A large commuting population also indicates that many residents do not live near employment centers, resulting in high transportation costs and overburdened transportation infrastructure.

3.5.3: POPULATION ELEMENT GOAL

A socioeconomically diverse and growing population will be accommodated by Charleston County in an environmentally and fiscally sustainable manner with particular attention to low to moderate income residents.

Population Element Needs

Population Element needs include, but are not limited to, the following:

- Monitoring population and cultural shifts and national trends;
- Developing policies to meet the needs of the County's population; and
- Encouraging diversity within communities.

3.5.4: POPULATION ELEMENT STRATEGIES AND TIME FRAMES

The County should undertake the following strategic actions in support of the Vision and Goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

P 1. Monitor population growth trends and demographic shifts as indicators of population change and use this information to guide future updates to the *Comprehensive Plan.*

P 2. Develop land use strategies and implementation measures that address the needs of the population.

P 3. Support a diverse population through land development regulations which accommodate a range of housing, transportation, and employment opportunities.

P 4. Continue to monitor and evaluate population, cultural shifts, and national trends for their potential impacts on land use and development patterns.

P 5. Adopt innovative planning and zoning techniques such as Form-Based Zoning and Multiple Use Overlay Zoning District regulations that encourage diverse communities and respect culture and history.

P 6.. Identify new mechanisms (such as social media outlets and innovative community workshops) to engage the County's younger population in the community planning process.

Chapter 3.6 Housing Element

3.6.1: OVERVIEW

Housing is included in the *Comprehensive Plan* to ensure policies are in place to promote safe and affordable housing in the County and provide housing options for residents of various demographic and economic backgrounds. As a desirable place to live, the demand for housing is high in Charleston County. The County's population increased 13 percent (40,240 residents) from 309,969 residents in 2000 to 350,209 residents in 2010. By 2025, the BCDCOG predicts that the County will reach a population of 383,300. This continual growth will require additional housing units that are diverse in type, size, and affordability.

Purpose and Intent

Charleston County includes the housing element in the Comprehensive Plan in compliance with South Carolina State Law. Furthermore, the intent of this chapter is to promote a sufficient, diverse supply of housing with access to facilities and services and promote housing alternatives for low and moderate income households. The strategies for housing are meant to preserve existing housing stock and encourage community revitalization while promoting a supply of safe and structurally sound homes. To further enhance the quality of life of County residents, the strategies encourage attractive land uses that promote community identity and support a wide range of housing needs with particular emphasis on promoting diverse and affordable housing opportunities.

3.6.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

The primary role of the County in provision of affordable and safe housing is guided by South Carolina State Law which endows the County with certain regulatory powers over development activity. The County Government does not have a housing department dedicated to directly providing affordable housing opportunities; however, the Charleston County Community Development Department works to fund affordable housing and community revitalization projects through Community Development Block Grants and other funding sources. This Department prepares the *Five-Year Consolidated Plan*, which outlines the County's priorities for housing and community development projects. In creating this plan, the County consults with agencies and organizations actively involved in public assisted housing, affordable housing development, and homelessness to ensure the strategies included in the plan align with community needs. In addition to creating and implementing the *Consolidated Plan*, the County provides regulatory incentives for the provision of affordable units and monitors building standards and quality through the *Building Code* and the Beautification Section of the *Charleston County Code of Ordinances* (Ordinance #1227). The County also periodically reviews the development process for any hindrances to the provision of affordable housing and seeks out ways to streamline processes. Furthermore, the recommendations of this Plan, including the Future Land Use Plan, promote mixed-use growth with a variety of housing types to help further the provision of affordable housing units in the County.

The County can also increase the supply of affordable housing through coordination with other agencies such as the South Carolina Community Loan Fund (CLF) (formerly the Lowcountry Housing Trust), which is a regional advocate for affordable housing and sustainable communities. CLF is a non-profit organization established to provide a dedicated ongoing source of funding for the production and preservation of affordable housing, as well as healthy food retail, community facilities, and community businesses. Charleston County has long partnered with CLF to promote the implementation of policies that reduce unnecessary barriers to affordable housing.

In May 2013, CLF hosted the first annual Tri-County Housing Summit. The

County Planning Commission's Affordable Housing Committee along with partners from other jurisdictions and non-profits were instrumental in the planning of the event. This day-long conference brought together professionals from the private, public, and non-profit sectors to discuss housing trends and issues and how housing matters to various fields from banking to education to government. The Summit focused on identifying possible solutions to housing problems in the region.

Regional Housing Needs

In 2011, County Council requested that the BCDCOG conduct a regional housing needs report to: identify current and emerging housing needs and trends in the region; generate a greater understanding of local housing issues; and provide direction for addressing housing-related issues. The BCDCOG report consists of three sections:

- Issues and Trends;
- Community Profile; and
- Housing Market Analysis.

The Community Profile highlights the region's demographics. The Housing Market Analysis includes data on the existing housing inventory, housing market, future needs, and housing issues. Analysis of these two sections, as well as national and state demographic trends, was utilized to create the Issues and Trends section, which highlights the top five most pressing issues facing the region.

Two groups - an Advisory Committee and a Focus Group - oversaw the creation of the report. Stakeholders from the private, public, and non-profit sectors partnered to provide valuable feedback in identifying the top issues, as well as the goals and strategies to address the issues.

Housing in Charleston County

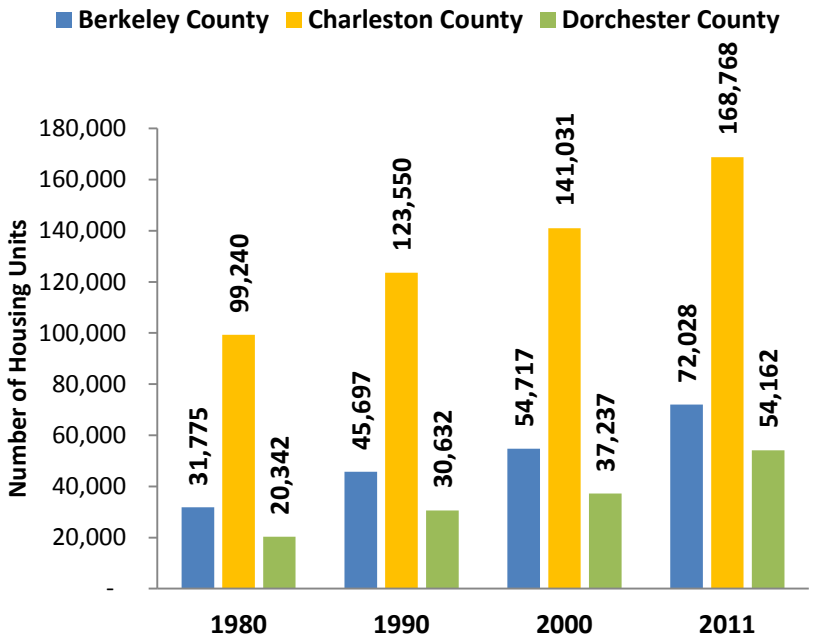
Charleston County contains 57 percent (168,768 housing units) of the total housing units in the region (294,958 housing units). While the majority of the regional housing stock is in Charleston County, more development has been occurring in Berkeley and Dorchester Counties in recent years as housing prices in Charleston County have become out of reach for many residents. *Figure 3.6.1* indicates the growing number of housing units in the tri-county region.

Understanding the existing housing conditions in the County is crucial to planning for the needs of current and future residents. The following sections closely examine the existing housing stock by assessing housing characteristics, tenure, and costs.

Like many other communities, the majority of the housing units in Charleston County (59 percent or 98,653 homes) are in the form of single-family detached homes. As shown in *Figure 3.6.2*, Charleston County has a slightly more diverse housing stock than South Carolina, with 25 percent of the housing units in the form of apartments and nearly ten percent of units in the form of townhouses, rowhouses, or duplexes. The housing stock in Charleston County is fairly comparable to that of the nation.

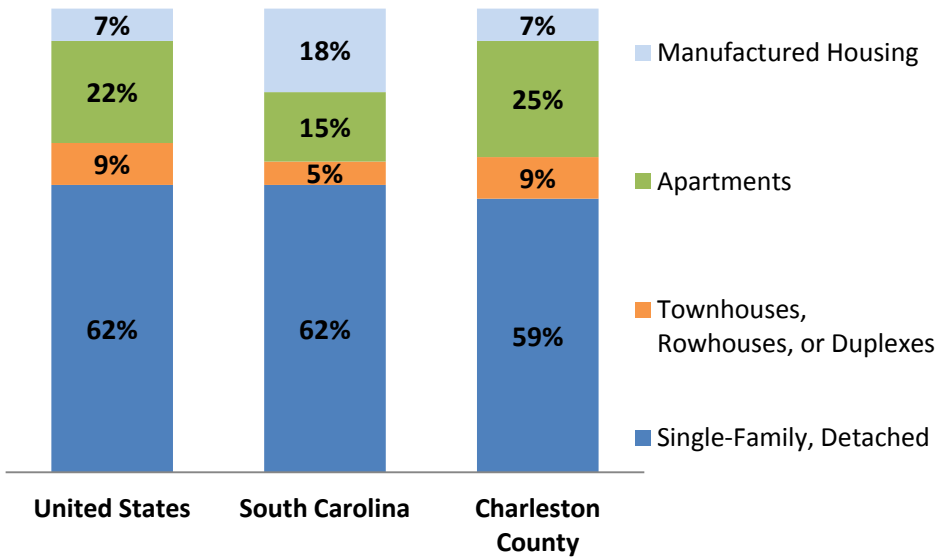
Figure 3.6.3 demonstrates the changing housing tenure in Charleston County. Between 1990 and 2011, the percent of owner-occupied housing units remained relatively constant; however, the percent of renter-occupied housing units decreased slightly over the same

Figure 3.6.1: Total Housing Units by County, 1980-2011



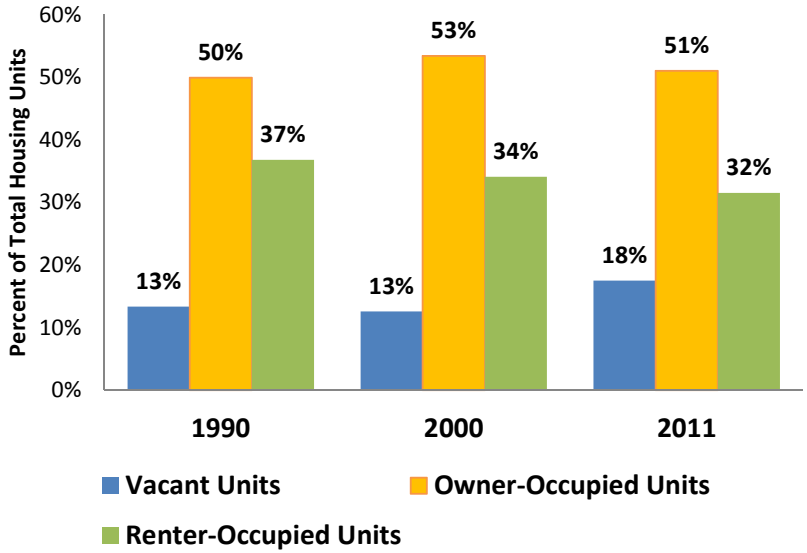
Sources: U.S. Census Bureau, 1980-2000; American Community Survey, 2007-2011

Figure 3.6.2: Housing Type, 2011



Source: American Community Survey, 2007-2011

Figure 3.6.3: Housing Tenure in Charleston County, 1990-2011



Sources: U.S. Census Bureau, 1990-2000; American Community Survey, 2007-2011

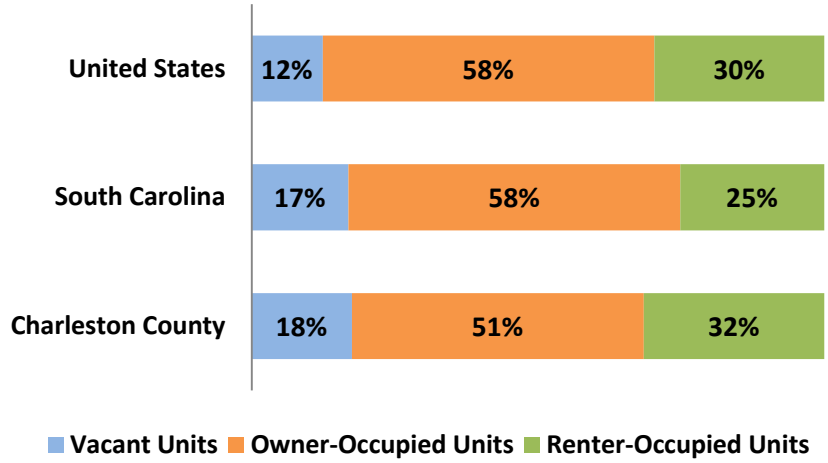
period of time and the percent of vacant units, which include seasonal homes (second homes and vacation rentals), increased slightly.

Figure 3.6.4 compares the County's housing tenure to state and national trends. In 2011, Charleston County had a lower percentage of owner-occupied units than both South Carolina and the United States, but the percentages of both renter-occupied units and vacant units were higher in Charleston County than either the state or nation.

The age of the local housing stock can be used as an indicator of local housing quality. Data from the American Community Survey 2007-2011 Five-Year Estimates indicates that 53 percent (89,538 units) of the housing stock in Charleston County was built after 1980, which means that the majority of the housing stock is relatively new. While this information provides some indication of the quality and age of housing, the true measure of quality is dependent on more factors than are reported in Census data. The County's *Building Code* and the Beautification Section of the *Charleston County Code of Ordinances* (Ordinance #1227, as amended) help sustain quality housing in the County.

Home values and median gross rent both tend to be higher in Charleston County, when compared to state and national figures. In 2011, the median home value of owner-occupied homes (as reported to the Census) was $242,000. This is much higher than the state median ($137,000) and national

Figure 3.6.4: Housing Tenure, 2011



Source: American Community Survey, 2007-2011

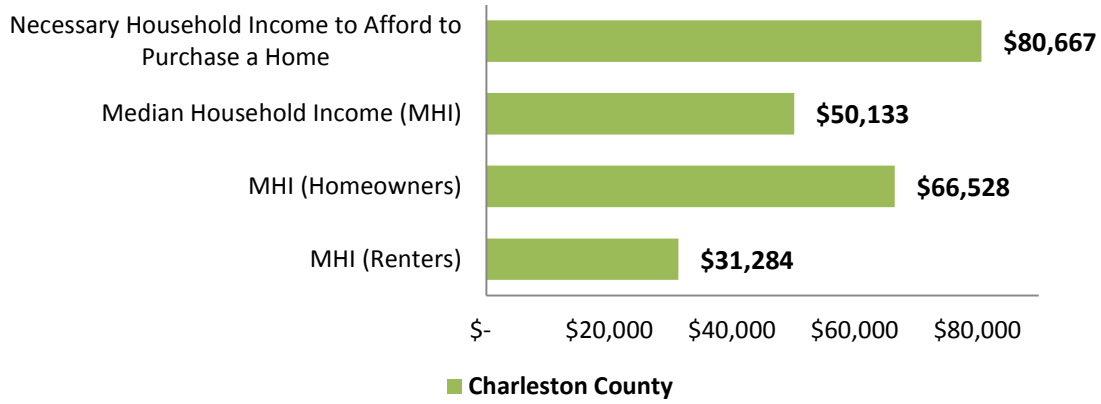
median ($186,200). *Map 3.6.1* demonstrates the median home value by Census block group for Charleston County. The map demonstrates median home value in two categories: homes that are affordable to households earning up to 120 percent of the Median Household Income ($60,159) and homes that are not affordable to the same households. As demonstrated, many areas in the County are unaffordable to households earning less than $60,159. Median gross rent in Charleston County was $895, again higher than the state median ($728) and national median ($871). Housing affordability is a critical issue in the region as housing costs are consistently higher than surrounding areas and comparable metros.

Housing Affordability

The affordability of homes in Charleston County is an area of concern, particularly for service workers, low- to moderate-income earners, seniors, and entry-level professionals. *Figure 3.6.5* demonstrates the annual household income needed to afford to purchase a home in Charleston County ($80,667) compared to the actual median household incomes of all residents, homeowners, and renters in Charleston County ($50,133, $66,528, and $31,284, respectively). As illustrated, the income necessary to afford to purchase a home in Charleston County is 38 percent ($30,534) higher than the median household income earned in 2011. According to Census data, renter-occupied households earn significantly less than owner-occupied households, which indicates a greater affordability issue for the renting population.

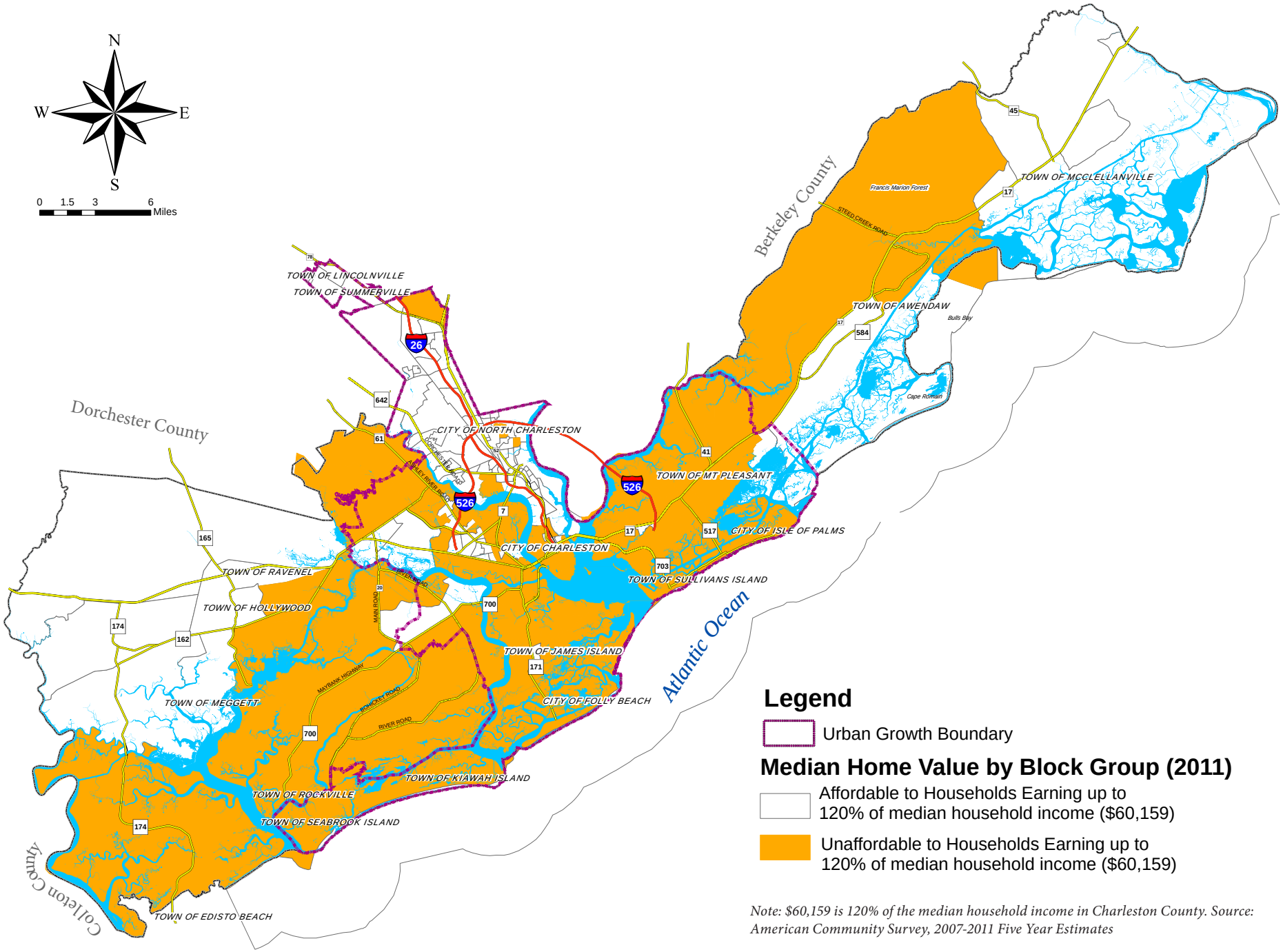
Housing is considered affordable when occupants pay less than 30 percent of their monthly income on monthly housing costs. In 2011, slightly more than one-third of homeowners and one-half of renters in Charleston County, a total of 56,882 households, were paying more than 30 percent of income on housing costs (see *Figure 3.6.6*). In the region, a total of 92,830 households reported that they spend more than 30 percent of

Figure 3.6.5: Household Income Relative to Median Home Value, 2011



Note: Home Price is based on the Median Home Value in Charleston County is $242,000.
Source: American Community Survey, 2007-2011

Map 3.6.1: Median Home Value by Block Group in Charleston County, 2011



Note: $60,159 is 120% of the median household income in Charleston County. Source: American Community Survey, 2007-2011 Five Year Estimates

Housing Issues and Trends

1. Lack of affordability
2. Housing located far from employment centers and public facilities
3. Lack of diverse housing options
4. Regulatory barriers
5. Lack of an active partnership

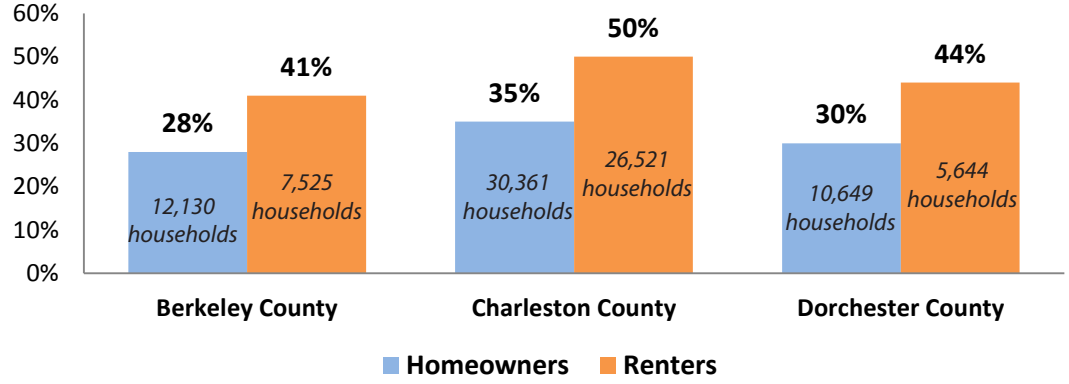
income on housing costs.

As shown in *Figure 3.6.7*, Charleston County consistently had the highest median sales prices of homes in the region between 2007 and 2012, based on data from the Charleston Trident Association of Realtors (CTAR).

Table 3.6.1 demonstrates the average sales prices of homes in the region in 2012, according to CTAR data. To account for possible outliers in the data, Charleston County was assessed with and without home sales in the beach communities, due to the higher priced homes located in these communities. Berkeley County was also assessed with and without home sales on Daniel Island, as the homes in that community tend to be much higher priced than in other areas of Berkeley County. The income necessary to afford the average-priced home in any area of the region is higher than both the regional median household income ($51,332) and the median household income in Charleston County ($50,133). It should be noted that *Table 3.6.1* compares average sales data to median household income data because neither median sales data nor average household income was available for comparison.

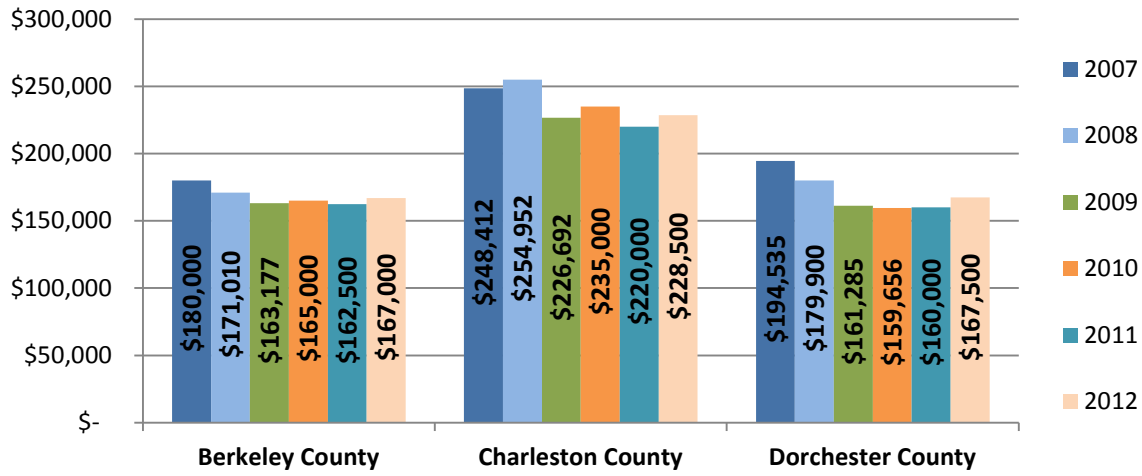
As stated in the *2013 Economic Scorecard*, published by the Charleston Regional Development Alliance (CRDA), while average wages in the Charleston region have grown almost 20 percent since 2005, the region's average wages are only 85 percent of the national average. *Figure 3.6.8* provides an example of how residents employed as firefighters, teachers, and service workers are not earning enough to afford housing in the region.

Figure 3.6.6: Proportion of Homeowners and Renters spending more than 30% of Monthly Income on Housing Costs by County, 2011



Source: American Community Survey, 2007-2011

Figure 3.6.7: Median Home Sales Prices by County, 2007-2012



Source: Charleston-Trident Housing Market Annual Report, 2012, Charleston Trident Association of Realtors

Location of Housing that is Affordable

Much of the most affordably-priced housing is located in the rural parts of region, far from employments centers. This results in residents driving further to find housing they can afford, which can increase living expenses by up to 15 percent, increase traffic congestion, excessively burden transportation infrastructure, and negatively impact economic development and the quality of the environment.

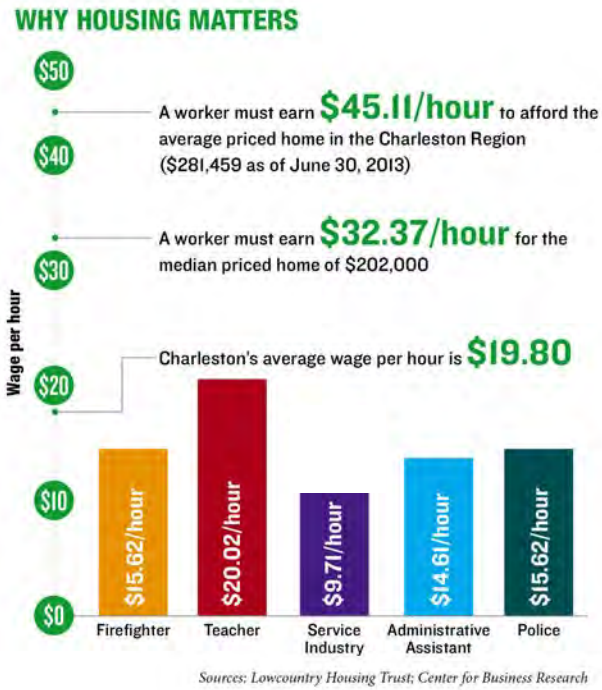
Transportation costs can increase overall living costs by up to 15 percent, which can make housing more or less affordable based on its location and proximity to services, employment, and alternative transportation modes. The BCDCOG report looked at public transportation accessibility in the region and found that only 31 percent of residents (206,745 residents) live within one-quarter mile of a public transit stop (see *Figure 3.6.9*). When residents live further than one-quarter mile from transit, they are much less likely to utilize the service, which means that nearly 70 percent of residents in the region are not likely to use public transportation. Looking at public transportation use as reported by the Census, it is even more evident that public transportation is severely underutilized in the Charleston area - only two percent of the County's population reported using public transportation to commute to and from work. The dependency on automobiles in the region is resulting in traffic congestion, high costs for local governments and taxpayers to maintain the extensive road infrastructure system, and sprawling development.

Table 3.6.1: Income Necessary to Afford Average-Priced Homes, 2012

	Average Sales Price	Income Necessary to Afford	Necessary Income as % of MHI
Region	$265,806	$88,804	173% of MHI
Berkeley County	$214,334	$71,351	139% of MHI
Berkeley County (without Daniel Island)	$173,000	$58,005	113% of MHI
Charleston County	**$314,207**	**$104,717**	**204% of MHI**
Charleston County (without Beach Communities)	**$278,003**	**$92,911**	**181% of MHI**
Dorchester County	$176,931	$59,032	115% of MHI

Note: MHI is an acronym for Median Household Income. The regional MHI in 2011 was $51,332.
Source: Multiple Listing Service (MLS) Closed Sales, Charleston Trident Association of Realtors, 2012.

Figure 3.6.8: Wage versus Home Price Comparison



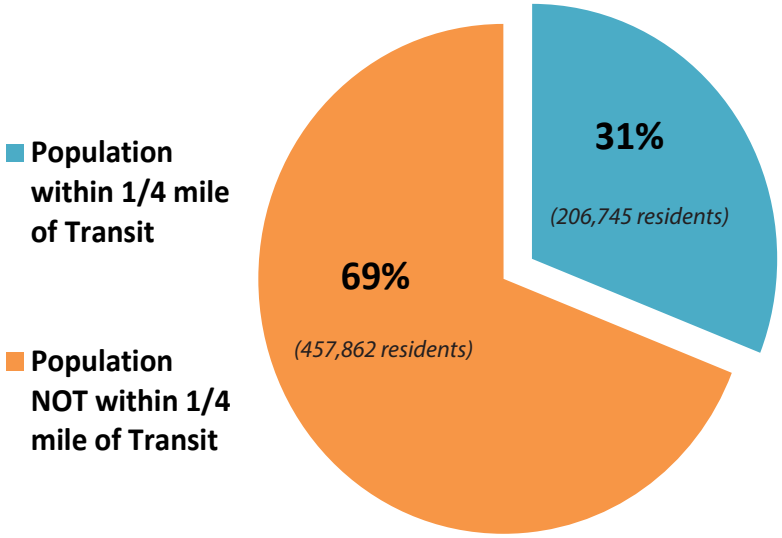
Source: Graphic published in 2013 Economic Scorecard, Charleston Regional Development Alliance (CRDA).

Housing that is affordable to residents should be encouraged in the Urban/Suburban Area of Charleston County where public infrastructure, facilities, and employment exist. Encouraging infill development will increase the concentration of residents near existing public transportation stops, which could increase utilization of the routes and decrease reliance on automobiles.

Diverse Housing Options

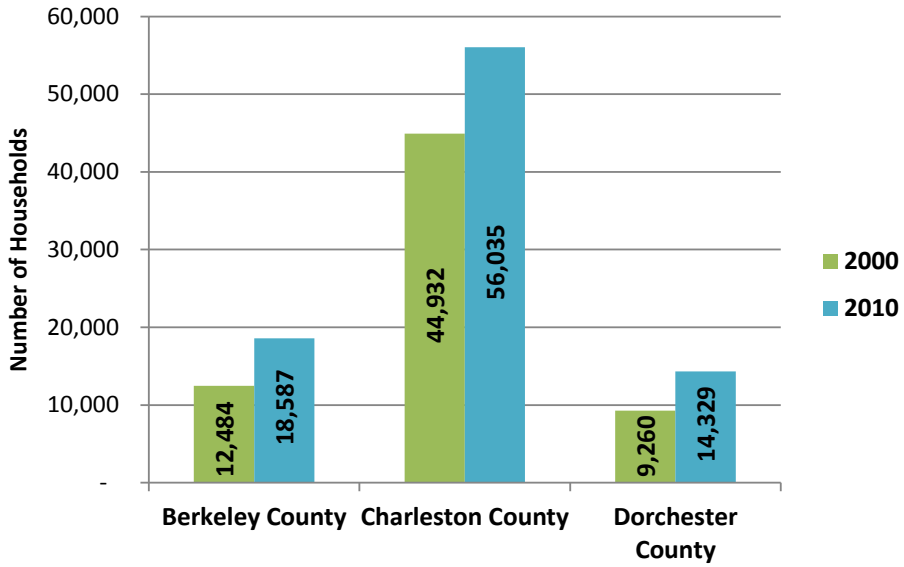
Changing demographics and lifestyle preferences are resulting in changing housing preferences. Nationally, household sizes have been decreasing for years, and Charleston County is no different. From 1990 to 2011,

Figure 3.6.9: Public Transportation Accessibility in Region,2010



Source: ESRI Business Analyst via U.S. Census Bureau, 2010

Figure 3.6.10: Single-Person Households by County, 2000-2010



Sources: U.S. Census Bureau, 2000, 2010

the average number of persons per household decreased from 2.61 to 2.41 in the County. Additionally, the number of single-person households are on the rise, as shown in *Figure 3.6.10*. In 2010, single-person households in Charleston County comprised 39 percent (56,035 households) of the total households. Additionally, almost a quarter of those households were individuals over 65 years of age. The number of single-person households is expected to continually increase in future years. By 2025, nationally, single-person households are expected to equal family households; by 2050, single-person households are expected to exceed family households.

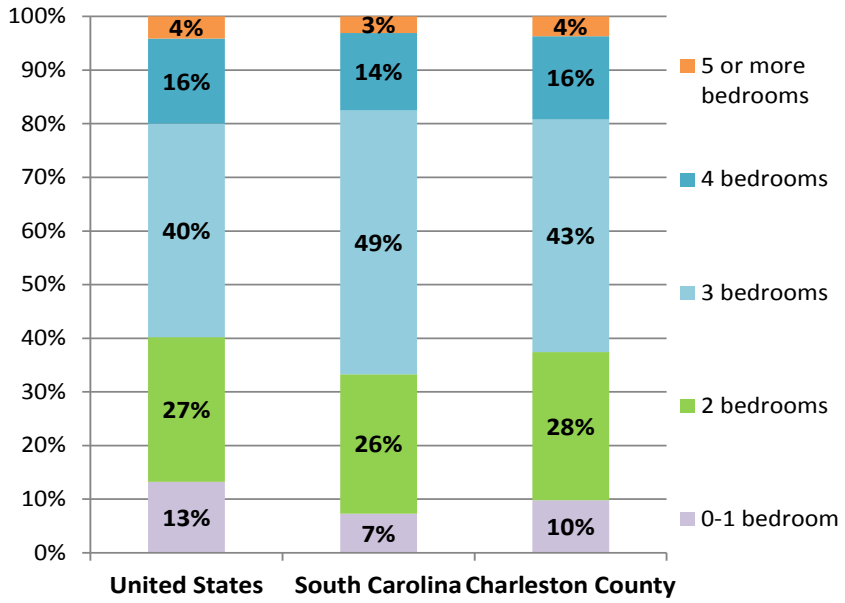
Decreasing household sizes will impact the types of housing units that need to be provided. As mentioned previously, the majority (59 percent) of the housing stock in the County is in the form of single-family detached units. *Figure 3.6.11* demonstrates the size of existing homes in the County, South Carolina, and United States based on the number of bedrooms. In the County, 63 percent of housing units have three or more bedrooms. The existing housing stock and size of units might not be compatible for current and future residents in the County as household sizes continue to decrease and more people live alone.

Lifestyle changes are also already impacting local housing markets. Two generations, the Millennials and Baby Boomers, have very distinct needs and preferences when choosing where and how they want to live. Baby Boomers have traditionally lived in large, single-family detached homes, often in suburban settings; however, as they age, they may prefer smaller homes located closer to services. Some may not want the onus that comes with home maintenance and as they stop driving, walkable environments with access to public transportation will be important.

Millennials, the largest generation in the United States at around 86 million people, have very different preferences than the generations before them. Millennials tend to move more, desire more urban or dense suburban settings with access to public transportation, are less likely to marry at a young age, and are better educated. Renting is often more prevalent in this generation. The mobility afforded by renting is attractive to many Millennials and changes to mortgage lending practices combined with large amounts of student loan debt may make homeownership unattainable for many in this younger generation.

Overall, people of all ages are finding renting more appealing than homeownership. In recent years, the perception of renting has changed (see *Reference Box 3.6.1*). According to the American Community Survey 2007-2011 Five Year Estimates, ap-

Figure 3.6.11: Housing Size by Bedroom Count, 2011



Source: American Community Survey, 2007-2011

proximately 38 percent of the housing units in Charleston County (53,151 units) are renter-occupied, which is higher than the proportions of renters in both South Carolina (30 percent) and the United States (34 percent).

Not all residents live in individual privately-owned or rented homes. A small proportion of the County's population (3 percent or 11,379 residents) resided in group quarters in 2011, which can be categorized into two general groups - institutional and non-institutional. The instititutionalized group quarters population includes but is not limited to people living in adult correctional facilities, juvenile facilities, nursing facilities/skilled nursing facilities, in-patient hospice facilities, residential schools for people with disabilities, and hospitals with patients who have no usual home elsewhere. The non-institutionalized group quarters population includes people living in college/university student housing, military barracks, emergency and transitional shelters, and group homes.[1] Residents living in group quarters will most likely increase as the population ages and as the educational institutions in the region expand. The types of group quarters, such as assisted living facilities, nursing homes, and dormitories may need to be expanded to accommodate these groups of residents.

Regulatory Barriers to Affordable Housing

The BCDCOG report identified regulatory barriers as a prominent housing issue. Most specifically, local zoning regulations can often unintentionally encourage low-density, single family/single lot development resulting in higher priced housing and environments where residents are forced to drive to services, offices, employment centers, and parks. Local zoning regulations should instead encourage a variety of housing types and sizes, as well as offer bonus densities and other incentives to encourage the development of affordable or workforce housing located near employment centers, services and public transportation.

Federal regulations can also unintentially create hardships to housing affordability. Most recently, the Biggert-Waters Flood Insurance Reform Act of 2012 has the potential to negatively impact housing affordability in Charleston County. As a coastal community, changes to FEMA and the National Flood Insurance Program (NFIP) will result in increased rates for many homes located in flood zones.

Lack of Active, Collaborative Housing Partnership

The final housing issue that was identified in the BCDCOG report is the lack of an active partnership among regional stakeholders. Several separate organizations with some stake in housing exist throughout the region; however, there is little collaboration occurring. One of the goals of the annual Housing Summits is to create an active partnership to address the housing and related issues.

Reference Box 3.6.1: *How Housing Matters: Americans' Attitudes Transformed by the Housing Crisis & Changing Lifestyles* **(2013)**

Conducted on behalf of The MacArthur Foundation

A national survey was conducted among adults from November 2012 to March 2013 that focused on the role of housing and changing preferences. Overall, the appeal of renting versus owning is changing. Fifty-seven (57) percent of adults believe that "buying has become less appealing", while nearly the same amount (54 percent) believe "renting has become more appealing." However, the study did find that many Americans still aspire to one day own their home (greater than seven in ten renters aspired to own one day).

The perception of renting is changing due to both lifestyle changes and less apparent benefits of homeownership. Finally, the survey pointed out that as a nation, we are becoming more mobile, increasing the appeal of renting.

To read the full report, visit www.macfound.org/programs/how-housing-matters/.

1 *Information from Census Website.*

Addressing Housing Issues

The BCDCOG report suggests the following goals to address housing issues in the region:

1. Increase the proportions of both owner- and renter-occupied homes in the region that are affordable to households earning below 120 percent of the regional median household income ($61,598) and are located in close proximity to employment centers and existing public infrastructure by at least ten percent by 2020. Diverse housing types should be encouraged.
2. Increase the average hourly wages and salaries in the region paid by existing industries, encourage the recruitment of businesses and industries that pay the wages necessary to afford housing ($32.37/hour), and train residents to obtain higher paying jobs through coordination with the Charleston Regional Development Alliance (CRDA) and local Economic Development departments. This will also require collaboration with local Chambers of Commerce.

Several strategies are included within the BCDCOG report to begin working towards accomplishing the above goals. The County should continue to participate in regional Housing Summits and continue to serve on the regional housing task force.

3.6.3: HOUSING ELEMENT GOAL

Quality housing that is affordable will be encouraged for people of all ages, incomes, and physical abilities.

Housing Element Needs

Housing Element needs include, but are not limited to, the following:

- Meeting the projected demand for a diversifying population;
- Promoting housing that is affordable to all residents; and
- Ensuring a supply of safe and structurally sound homes.

3.6.4: HOUSING ELEMENT STRATEGIES AND TIME FRAMES

The County should undertake the following action strategies in support of the Housing Goal and the other elements of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

H 1. Coordinate with adjacent jurisdictions, the SC Community Loan Fund, and other affordable housing agencies in pursuit of supplying housing that is affordable to all residents.

H 2. Continue to support funding for affordable and workforce housing agencies such as the SC Community Loan Fund and local housing authorities that provide subsidized housing.

H 3. Maintain and develop incentives in the *Zoning and Land Development Regulations Ordinance*, such as density bonuses, transfers of density, and mixed-use development provisions to promote diverse housing options that are affordable to all residents and are located within walking distance to services, retail, employment opportunities, and public transportation, particularly in the Urban/Suburban Area.

H 4. Continue to allow density bonuses in planned developments and the use of accessory dwelling units to promote housing that is affordable to all residents, including but not limited to low and moderate income households.

H 5. Support existing communities and maintain existing housing stock.

H 6. Continue to enforce the Building Code and Beautification Section of the Charleston County Code of Ordinances (Ordinance #1227) and coordinate with other jurisdictions to maintain housing stock in a safe and habitable condition that meet all FEMA requirements.

H 7. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to promote mixed-use developments with diverse housing options in walking distance to services, retail, and employment opportunities.

H 8. Continue to encourage provision of housing that is affordable to all residents and meets the needs of the diversifying population (e.g., rental apartments, townhouses, duplexes, and first time home buyer initiatives).

H 9. Charleston County should be proactive in promoting housing that is affordable to all residents through incentives and removal of regulatory barriers.

H 10. Support the findings of local and regional housing studies and implement applicable strategies by adopting amendments to the *Zoning and Land Development Regulations Ordinance* and coordinating with other County departments, outside agencies, non-profit organizations, and private businesses/industries.

H 11. Ensure that infill development preserves and enhances the character of surrounding existing communities.

Chapter 3.7 Transportation Element

3.7.1: OVERVIEW

Transportation is an important *Comprehensive Plan* Element because it provides the strategies tying the movement of people and goods with the strategies of economic development and land use. Because roads are capital facilities maintained in part by the County, they are linked to the strategies for capital facility improvements and the provision of adequate public facilities. The impact of new development on the roadways is often felt on a countywide level. As development in areas of the County intensifies, one of the first things long time residents and new residents notice is an increase in traffic and traffic congestion. Furthermore, the general health, safety, and welfare of the citizens and visitors to Charleston County are strongly influenced by the road network's ability to handle evacuations during severe weather and other emergencies.

A transportation system that offers a complete network of transportation choices, including, but not limited to, pedestrian and bicycle facilities as well as public transportation and mass transit options, is key to developing a sustainable community. The provision of transportation in the County should reflect the unique characteristics of the landscape and adhere to the character outlined in the development quality strategies of the *Comprehensive Plan*. Safe and adequate transportation options should maintain and enhance the rural character throughout the County.

Transportation systems are not confined solely to roads. In Charleston County, the transportation system includes: a large port system; the Intercoastal Waterway, along with the Atlantic Ocean and various rivers used for shipping purposes; several airports, both public and private; Joint Base Charleston; public transportation systems; and a network of local roads, collector roads, arterial roads, and highways. The economy of the Berkeley-Charleston-Dorchester region is dependent upon the viability and success of these diverse transportation systems. Therefore, a key strategy in this Element is to support these systems and ensure that they are balanced with land use recommendations.

Purpose and Intent

The purpose of the Transportation Element of the Comprehensive Plan is to: present information and strategies that respect the scenic beauty, community character, natural resources, and cultural heritage of Charleston County in the provision and use of any transportation system; consider the impacts of proposed new development in the existing transportation systems during review of proposed developments; improve efficiency of the existing and planned transportation system by managing its supply and demand; encourage the provision of safe, convenient pedestrian and bicycle systems; encourage public transit options in the County; promote intermodal transportation systems such as park and ride, pedestrian and bike ways, and commuter rail; and support and improve the existing emergency evacuation and transportation planning policies.

3.7.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

The County's primary function in relationship to transportation is through improvements of roadways and drainage. The Transportation Development Department is responsible for these improvements, while the Public Works Department is responsible for drainage and maintaining county roads. In 2006, the County completed a *Comprehensive Transportation Plan* as part of the Charleston County Transportation Sales Tax Program, which is administered by the County's Transportation Development Department. The Plan includes a forecast of Charleston County road projects over the next 25 years, a review of funding sources and leverage options, and a review of mass transit systems. A Transportation Advisory Board (TAB) was created by the Charleston County Council

to make recommendations on transportation sales tax expenditures for transportation projects.

In Charleston County, transportation planning is a combined effort of Charleston County, adjacent counties and municipalities, the South Carolina Department of Transportation (SCDOT), and the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG), which is the Metropolitan Planning Organization (MPO) for the region as designated by the Federal Highway Administration (FHWA). Public transportation is provided by the Charleston Area Regional Transportation Authority (CARTA) and the Rural Transportation Management Agency (RTMA). Together, these agencies analyze the short- and long-range transportation needs of the region and offer a public forum for transportation decision making. The BCDCOG prepares a five year plan which is included in the biannual SCDOT Statewide Transportation Improvement Program (STIP).

South Carolina Department of Transportation

The SCDOT is responsible for transportation planning for federal and state highways. Its focus is on providing statewide regional networks of transportation. Plans from SCDOT allocate federal and state funds toward projects. The SCDOT Commission determines the funding priorities for the federal-aid program following each new federal highway bill and annual appropriations act which includes the funding level allocated to the BCDCOG through the Charleston Area Transportation Study (CHATS). Since the mid 1990s, the allocation between urban and rural federal-aid funds for MPOs and COGs, called Guideshare, has been based on study area population. Since the metropolitan population of the BCDCOG Region exceeds 200,000, CHATS is entitled to specific allocations of federal funds called Urban Attributable Funds.

Charleston Area Transportation Study

In 1977, the BCDCOG was appointed to perform the planning and programming functions of the Charleston Area Transportation Study (CHATS), in cooperation with the SCDOT, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). CHATS currently serves approximately 800 square miles comprised of the region's most urbanized areas. CHATS is governed by a 47-member board representing governmental and transportation-related organizations from throughout the CHATS region. There are many ongoing planning efforts associated with CHATS. The CHATS Transportation improvement plan lists three primary documents which encompass the regional transportation efforts.[1]

1. The *Unified Planning Work Program* lists the transportation studies and tasks to be performed by the MPO staff, which is the BCDCOG staff, on an annual basis.

2. The *Long-Range Transportation Plan* (LRTP) is used as a guide for region plans to invest in the transportation system over a 25 year period. The plan includes environmental, social, and intermodal considerations. The vision of the LRTP is guided by estimated available financial resources. The LRTP was adopted in April of 2005 and must be updated every five years to reflect changing conditions. The plan was most recently updated in 2010.

3. The *Transportation Improvement Program* (TIP) is a short-range five year capital improvement program prioritizing projects for federal funding. The current five year transportation improvements program was adopted in June 2009 and last amended on September 23, 2013. The current program spans from fiscal years 2010-2015. A project must have available funding and be included in the LRTP to be included in the TIP. CHATS also prepares an annual rural planning work program.

Public Transportation

Charleston Area Regional Transportation Authority (CARTA) provides local, express, and neighborhood bus service within the urban and suburban areas of the Berkeley-Charleston-Dorchester region. In Charleston County, CARTA provides service in and between North Charleston, Charleston, Mount Pleasant, West Ashley, and James Island. CARTA's services (other than fixed route services) include express routes, DASH service, and Tel-A-Ride vehicles all of which are described as follows.

Express Routes

Eight express service routes run between James Island and North Charleston, between West Ashley and Mount Pleasant, between Summerville and downtown

1 *Information from BCDCOG. 2008.*

Charleston, and between downtown Charleston and Charleston International Airport in North Charleston. All routes include stops in downtown Charleston.

DASH Service

Rubber-wheeled trolleys provide bus service in downtown Charleston. This service is often utilized by downtown workers and tourists.

Tel-A-Ride Vehicles

This service provides curb-to-curb service for residents who meet the Americans with Disabilities Act Certification Requirements.

TriCounty Link provides rural bus service to Berkeley, Charleston, and Dorchester Counties. In Charleston County, three bus routes serve the western portion of the County, including Johns Island, Kiawah Island, Seabrook Island, and Edisto Island, as well as the Towns of Meggett, Hollywood, and Ravenel. Two routes serve the eastern part of the County and extend into the Towns of Awendaw and McClellanville. Commuter routes are also available through TriCounty Link.

Charleston County Transportation Committee

The Charleston County Transportation Committee (CTC) is a group of professionals appointed by the Legislative Delegation from all legislative bodies within the County. Charleston County appoints two of the ten members of the CTC. The main objective of the CTC is to distribute gas tax funding, which is 2.66 cents derived from the State Gas Tax of 16 cents, for small construction and resurfacing projects. The Charleston County Transportation Development Department acts as program manager for the CTC.

The Charleston County Comprehensive Transportation Plan

The Charleston County Comprehensive Transportation Plan (The Transportation Plan) as proposed by the Transportation Advisory Board in May 2006 is hereby included as the Transportation Element of the *Charleston County Comprehensive Plan*. The Transportation Plan is an initiative of the RoadWise Program, created through the *Charleston County Half Cent Transportation Sales Tax Program (Half Cent Sales Tax)*. The Transportation Plan was developed through a process that included participation from the regional planning organizations, local jurisdictions and the public. The plan includes reviews of the various transportation plans established by local municipalities, CTC, CHATS, BCDCOG, and SCDOT. The existing plans and priorities encompass roadways and greenways, bike and pedestrian paths, drainage and construction plans, intersection improvements and signalization, as well as mass transportation options.

The Transportation Plan, which is funded by the Half Cent Sales Tax and required by *Ordinance No. 1343 Sales Tax Spending Plan*, is to develop structured, yet flexible, short-term and long-term strategies that can be implemented systematically to take advantage of available funding and improve the transportation network throughout Charleston County.

To guide the development of the *Comprehensive Transportation Plan,* Ordinance No. 1343 also created the Transportation Advisory Board (TAB) and tasked the Board with commenting on the plan and its recommendations, as well as receiving input from the public through the Public Information Meeting process. The County TAB developed a list of values to be considered in evaluating the projects and developing recommendations. Those value statements include:

1. Maintaining and completing existing infrastructure;
2. Environmental Impact;
3. Projects that include interconnects between communities;
4. Projects with regional benefits;
5. Projects that provide the greatest significance to the most people;
6. Projects with the capacity to leverage other funding sources; and
7. Projects that are multi-modal and/or multipurpose.

These values were used to generally evaluate projects for prioritization; however, they do not have universal applicability to all projects under consideration. Therefore, it was necessary to selectively apply them to the various categories. Staff completed a thorough analysis of projected resources and expenditures for the 25 year program and developed recommendations to improve the County's transportation network. The Transportation Plan reflects comments from the public and extensive financial analysis.

Bonding and Recommended Projects

Revenue Projections

The Charleston County voters approved the Sales Tax Referendum in 2004 which will provide funding to the recommended improvements. The revenue projections from the Half-Cent Sales Tax are shown in *Table 3.7.1: Transportation Sales Tax Revenue Projections*. The Transportation Plan recommends the allocations of $234,604,800 (18 percent of the sales tax revenues) to mass transit.

Bonding Approved in Referendum

Bonding approved in the referendum includes $113 million in general obligation bonds sales that are payable from the proceeds of the Half-Cent Sales Tax. The Initial Bond Program, which consisted of $36 million for greenbelts and $77 million for roadways, allowed the County to finance portions of the following highway projects, all which are complete or near completion:

- $25 million to complete the right-of-way acquisition and engineering process for widening and improvement of Johnnie Dodds Boulevard from the Arthur Ravenel, Jr. Bridge to the I-526 overpass (completed);
- $7 million for the Glenn McConnell/Bees Ferry Road Intersection improvements, for which construction is scheduled to begin in May 2014;
- $10 million for the road improvements on James Island, which included the Folly Road and Maybank Highway intersection improvements (completed), Harbor View Road improvements (future project), and loop-ramp interchange from the James Island Connector to Folly Road (deferred);
- $6 million for the improvements to Folly Road from south of Windermere Boulevard to US Highway 61 (completed); and
- $29 million for acquisition and construction of the Palmetto Commerce Parkway, the roadway connecting Ashley Phosphate Road and Ladson Road (completed).

Commitment to Fund the Arthur Ravenel, Jr. Bridge

The County has also committed funds in the amount of $72 million for the State Infrastructure Bank as the County's matching funds for the construction of the Arthur Ravenel, Jr. Bridge.

Recommended Funding Allocations

Considering the commitments already made for a portion of the tax revenues, and in response to the comments received from the public on the need for funding in certain program areas, the Transportation Development Department recommends annual allocations to the following programs:

Local Paving Program	$ 2.0 Million
Resurfacing Program	$ 4.0 Million
Annual Drainage Projects	$ 1.0 Million
Council/Public Works Projects	$ 1.0 Million
Pedestrian/Bike Projects	$ 0.5 Million
Annual Intersection Projects	$ 2.0 Million

Recommended Bonding

County Council approved the sale of three tranches of general obligation bonds of $77 million, $42 million, and $142 million. The proceeds from the bond issuance provide funding availability during the accelerated construction period. *Table 3.7.2* shows the project recommendations.

Table 3.7.1: Transportation Sales Tax Revenue Projections, 2014

Year	Fiscal Year	4% Receipts	17% Green Space	18% Transit	65% Roads
1	2005	5.870	0.998	1.057	3.816
2	2006	37.116	6.310	6.681	24.125
3	2007	39.521	6.719	7.114	25.689
4	2008	40.097	6.816	7.217	26.063
5	2009	37.470	6.370	6.745	24.356
6	2010	36.293	6.170	6.533	23.590
7	2011	37.931	6.448	6.828	24.655
8	2012	40.673	6.914	7.321	26.437
9	2013	42.527	7.230	7.655	27.643
10	2014	46.000	7.820	8.280	29.900
11	2015	48.250	8.203	8.685	31.363
12	2016	50.180	8.531	9.032	32.617
13	2017	52.187	8.872	9.394	33.922
14	2018	54.274	9.227	9.769	35.278
15	2019	56.445	9.596	10.160	36.689
16	2020	58.703	9.980	10.567	38.157
17	2021	61.051	10.379	10.989	39.683
18	2022	63.493	10.794	11.429	41.270
19	2023	66.033	11.226	11.886	42.921
20	2024	68.674	11.675	12.361	44.638
21	2025	71.421	12.142	12.856	46.424
22	2026	74.278	12.627	13.370	48.281
23	2027	77.249	13.132	13.905	50.212
24	2028	80.339	13.658	14.461	52.220
25	2029	56.925	9.677	10.247	37.001
26	2030	-	-	-	-
Totals		1,303.000	221.510	234.540	846.950

FY 2005 includes 2 months of revenue, and FY 2030 includes no more than 10 months of revenue to reflect start of collection in May 2005. All amounts shown on the schedule are in thousands and are subject to annual budget submission to County Council and annual appropriation by County Council. FY 2005 - 2013 are actual amounts.
Source: Charleston County Transportation Development Department, 2014.

Table 3.7.2: Projects Recommended for Funding

Project	Amount Authorized by Nov. 2004 Referendum	Amount Authorized by Referendum	Additional Bonded Funding GOB	Current Estimated Cost	Additional Sales Tax Funding Recommended	Recommended Other Funding
A. Completion of Limited Scope of Initial Bond Projects				-		
Palmetto Parkway/Ashley Phosphate Rd. Acquisition and Construction	$28.5 M	$7.5 M	-	$36.0 M		
Johnnie Dodds Blvd.	$37.0 M	-	$45.7 M	$82.7 M		
Glenn McConnell/Bees Ferry Rd. Intersection Improvements	-	-	$7.8 M	$7.8 M		
Road Improvements on James Island				-		
Loop Ramp from James Island Connector to Folly Rd.	-	-	$0.3 M	$0.3 M		
Folly Rd./Maybank Hwy Intersection Improvements	$5.0 M	-		$5.0 M		
Harbor View Road	$3.0 M	$1.0 M	$3.5 M	$16.3 M		$8.8 M SCDOT
U.S. 17/Hwy. 61 Connector near Wesley Dr.	$3.5 M			$3.5 M		
Total Initial Bond Projects	$77.0 M	$8.5 M	$57.3 M	$151.6 M		$8.8 M
B. High Priority Regional Projects						
Completion of the Mark Clark Exwy.				$556.0 M		$556.0 M SIB
Port Access Road and Railroad Overcrossing				$300.0 M		$300.0 M SIB
Interchange at I-526/Hungry Neck Blvd.				$40.0 M		$32.0 M SIB $8.0 M Federal Earmark
Total High Priority Regional Projects				$896.0 M		$896.0 M
C. High Priority Local Projects						
Glenn McConnell/I-526 Loop		$7.5 M		$7.5 M		
Bees Ferry Road Widening from Savannah Hwy. (Hwy 17) to Ashley River Rd. (Hwy. 61)		$11.0 M	$12.5 M	$43.3 M		$12.8 M SCDOT $7.0 M Federal Earmark
Folly/Camp Rd. Intersection		$2.5 M	$13.2 M	$25.1 M		$6.5 M SCDOT $2.9 M Federal Earmark
Future Dr. Loop to Ladson Rd. and Northside Dr. Extension		$9.0 M	$34.0 M	$43.0 M		
Maybank Hwy. Widening (Johns Island - I-526 to Main Rd.)		$1.0 M	$14.0 M	$15.0 M		
Medical University Roadway Infrastructure Improvement Project (Phase I)		$2.5 M		$4.8 M		$2.3 M SCDOT
Allocation Projects			$11.0 M	$11.0 M		
Total High Priority Local Projects		$33.5 M	$84.7 M	$149.7 M		$31.5 M
Grand Total	**$77.0 M**	**$42.0 M**	**$142.0 M**	**$1,197.3 M**		**$936.3 M**

Source: Charleston County Transportation Development Department, 2014.

Other Transportation Initiatives

Mark Clark Expressway

In 2006 and 2012, the South Carolina State Infrastructure Bank (SIB) voted to commit a total of $556 million of additional funding to Charleston County for the completion of I-526 (Mark Clark Expressway). Of the $556 million, the SIB awarded the County $99 million for preliminary design, environmental impact studies, engineering, and right-of-way acquisition. The SIB made a commitment to fund the Mark Clark Expressway's complete construction, from its current terminus at US Highway 17 South to the James Island Connector, as funding becomes available to the Bank. Charleston County Council directed the County's greenbelt consultant to conduct a study of the likely impacts of the proposed I-526 Mark Clark Expressway on the community of Johns Island.

The study, called the *Mark Clark Community Impact Assessment*, found that Johns Island will experience significant increases in the number of households and residential serving uses in the years ahead. Although regional growth patterns will bring more people to Johns Island with or without the Mark Clark, the completion of this road could shift land and development patterns in the region.

More growth occurs in areas with improved interstate access at the expense of other parts of the region; therefore, Johns Island can expect to capture a higher share of future regional growth than communities without enhanced interstate connections. An accelerated rate of development and change poses physical, social, and economic challenges for any community. The study also included recommendations to preserve the qualities most valued by community stakeholders and to lessen the impacts of development and land use and socioeconomic change resulting from the Mark Clark such as community design of corridors, green infrastructure, customized rural development standards, community design of interchanges, and promoting opportunities for affordable housing.

Widening of Maybank Highway

As noted above, the widening of Maybank Highway on Johns Island, from the Stono River Bridge to Main Road, is a project that is recommended for funding through the *Half Cent Sales Tax*. This project was included as part of the 2004 bond referendum for the *Half Cent Sales Tax*. In June of 2007, the City of Charleston conducted a community planning effort for the area of Johns Island within the Urban Growth Boundary. The transportation objectives for the Maybank Highway Corridor that resulted from this effort were vastly different than the widening project included in the 2004 referendum.

Charleston County Council subsequently directed County staff to coordinate with the City of Charleston staff to evaluate the merits of both transportation improvement plans for the Maybank Highway Corridor to determine the most feasible route. Council also directed staff to include coordination of land use and transportation in the resulting study in order to ensure that the recommended transportation alternative does not negatively impact land use in the Corridor.

Commuter Rail

Commuter rail transit systems are short-distance transportation modes that primarily serve persons traveling to and from employment centers; therefore, ridership is generally confined to the morning and evening peak hours. These systems are often used to provide transportation choices, mitigate air quality impacts, effectuate urban form, or relieve overcrowded highways during peak travel times.

In response to increasing traffic congestion in the I-26 corridor, the BCDCOG, in partnership with CARTA, examined the potential success of a commuter rail system in the *Charleston Metropolitan Area Commuter Rail Feasibility Study*, completed in 2006. This study was an update of a 1990 study entitled *Study of Potential Commuter Rail Services in the Charleston Urban Area*. The 1990 study found that it was not appropriate for the Metropolitan Charleston Area to support a commuter rail project at that time; however, the study recommended that the potential for future commuter rail projects be revisited by the year 2000. The population increases and growth of the urban area since 1990 provides evidence that the region is ripe for a transit option that focus on commuters.

The 2006 study focused on a 22 mile corridor, the Norfolk Southern Line from the Charleston Peninsula to Summerville, running parallel to I-26. Capital costs for this project were estimated to be a total of $45.8 million, with $27 million for fixed facilities and $18.8 million for equipment. These estimates did not include the cost of land acquisition, demolition, utility modifications, corridor clean-up, or track reconstruction. The study estimated annual operating costs to be approximately $3.96 million with operating revenue, based on estimated ridership levels, to be $2.55 million, making the operating deficit $1.41 million.

Past studies coupled with continual population growth have indicated to regional leaders that a need exists for enhanced transit to alleviate traffic demands on the I-26 corridor. To obtain financial assistance from the Federal Transit Administration (FTA) in constructing a Fixed Guideway system (such as commuter rail), FTA requires detailed analyses of current and projected demand, based on current and projected populations within a defined service area, and various transit mode alternatives that could potentially serve the corridor. The region's Metropolitan Planning Organization (MPO), Charleston Area Transportation Study (CHATS), initiated a *Fixed Guideway Analysis* for the I-26 corridor under a previous federal transportation bill. Referred to as an *Alternatives Analysis,* FTA had a predefined methodology and submission requirements for conducting these analyses. With transition to a new federal transportation bill (MAP-21), concurrent with the region's submission to FTA to initiate the project, the requirements for such the defined *Alternatives Analysis* were integrated into a later stage of the project development process.

Working with FTA, a subcommittee of CHATS is now moving forward with performing an in-depth analysis of current transit service options, current and projected demands for public transportation within the corridor, potential alignments and transit modes to meet those demands, and a preliminary fiscal assessment to determine a locally preferred alternative for establishing a

Fixed Guideway system along the corridor. The study is expected to be completed by June 2015[2].

Future development can have a direct impact on the success of a commuter rail service. Creating an urban form that supports transit service should be pursued in conjunction with the municipalities of Charleston County. Transit Oriented Development (TOD) is designed to maximize access by transit and non-motorized transportation, with other features, to encourage transit ridership. TOD does more than simply shift car trips to transit; it also increases accessibility and transportation options through land use clustering and the mix of residential and commercial facilities. It reduces the need for automobile use and parking. By reducing the distance required for car trips, it encourages walking and cycling, and allows some households to reduce their car ownership, which together can result in large reductions in vehicle travel. TOD strategies address how development on a "greenfield" site can be adjusted to incorporate transit strategies early on, and continue to be transit-accessible as the community grows.

Rail

Rail transport is an important component in the movement of freight in the region. Highway facilities are capacity constrained and coupled with limited funding for improvement, rail transport shows the potential to alleviate the demand on the entire transportation network. A multi-modal approach to the movement of goods and people will be necessary to accommodate the growth in transportation demand.

To serve passenger transportation, an inter-modal transportation facility was originally planned for the intersection of West Montague Avenue and Dorchester Road in North Charleston; however, CARTA requested to relocate the inter-modal facility to the current AMTRAK site on Rivers Avenue and the Federal Transit Administration (FTA) approved the relocation. CARTA intends to sell the original site located at the intersection of West Montague Road and Dorchester Road. Proceeds from the sale, along with FTA funding, will enable a new inter-modal transportation center to be constructed for $14.5 million. The inter-modal facility is scheduled to be constructed by the fall of 2016. The facility is planned to be interconnected with AMTRAK, CARTA, Greyhound/Southeastern Stages Bus Lines, and taxi-ground transportation services[2]. Updates on this ongoing project can be found by contacting the BCDCOG.

Airports

Charleston County contains three airports including the Charleston International Airport located in North Charleston, the Charleston Executive Airport located on Johns Island, and the Mount Pleasant Regional Airport located in Mount Pleasant.

Charleston International Airport

The Charleston International Airport terminal complex includes approximately 270,000 square feet. In 2013, 1.5 million passengers enplaned and 1.4 million deplaned. Freight traffic increased in 2013 to 12.1 million pounds enplaned and 28.4 million pounds deplaned at Charleston International Airport.

Million Air, a new facility that opened in August 2007, is incorporated within the Charleston International Airport and the Air Force Base (AFB). Million Air includes a 22,000 square foot hangar and provides such services as luxury rental cars and limousine and catering services. It serves both private and corporate aircraft as well as charters.

Since 2011 when Boeing completed their facilities located in North Charleston, the Charleston International Airport has increased in service and significance to the local economy. The addition of Southwest Airlines and JetBlue Airlines led to increased passenger service. The expansion of aerospace industries has also been successful, partly due to the success of this local airport.

Charleston Executive Airport

The Charleston Executive Airport is located on the eastern edge of Johns Island next to the Stono River. The majority of the air traffic, 50 percent, is local general aviation. Approximately 41 percent is transient general aviation, five percent is military, and four percent is air taxi aviation. Between January 2012 and December 2012, the airport saw approximately 151 daily aircraft operations.

A new General Aviation Terminal was opened in May 2007 under the Atlantic Aviation banner, which is a

2 *BCDCOG, 2014*

Passenger airlines available at the Charleston International Airport in 2014.

SOUTHWEST

AmericanAirlines AA.com

UNITED A STAR ALLIANCE MEMBER

DELTA

jetBlue

U·S AIRWAYS

modern 5,900 square foot facility and includes additional ramp parking for aircraft.

Mount Pleasant Regional Airport

The Mount Pleasant Regional Airport is located in the Town of Mount Pleasant. The majority of the air traffic at this airport, 60 percent, is local general aviation. Approximately 36 percent is transient general aviation, three percent is air taxi, and less than one percent is military air traffic. Between January 2007 and December 2007, the airport saw approximately eighty daily aircraft operations. An addition completed in 2009 added 2,400 square feet in support of general aviation activities.

Joint Base Charleston

A Joint Land Use Study (JLUS) was initiated in December 2006 and completed in 2008. The study goals and objectives are to encourage cooperative land use planning between the Charleston Air Force Base (AFB) – Naval Weapons Station (NWS) Charleston, which together form Joint Base Charleston, and the surrounding communities within the Berkeley-Charleston-Dorchester region to ensure future civilian growth and development is compatible with the operational mission objectives of these installations and to seek ways to reduce the operational impacts on adjacent civilian land. The 2008 JLUS provides an overview of existing land use issues and reviews relations between the military operations and civilian growth surrounding Joint Base Charleston. It also provides recommendations such as a Transfer of Development Rights Program (TDR), zoning overlay districts, land acquisition programs, noise and sound abatement measures and real estate disclosures. In the fall of 2013, the BCDCOG began implementing tasks from the 2008 JLUS including a TDR Feasibility Study and Maritime Traffic Study. The BCDCOG is also drafting model ordinances for an Air Installation Compatible Use Zone (AICUZ) Overlay Zoning District and Sound Attenuation and Noise Abatement Standards. A Communications Plan will also be established to enhance coordination among the many jurisdictions.

Ports

The South Carolina State Ports Authority (SCSPA) owns and operates five marine terminals in the Port of Charleston: Union Pier, Wando Welch Terminal, North Charleston Terminal, Columbus Street Terminal, and Veterans Terminal. The Wando Welch Terminal is the only terminal located in unincorporated Charleston County. In 2013, the Port of Charleston handled approximately 1.56 million twenty-foot equivalent units (TEUs). The SCSPA has an approximate capacity of 2.6 million TEUs at its three existing container facilities, encompassing 450 acres of land designated for container operations. Union Pier, Columbus Street, and Veterans Terminals handle non-containerized cargoes such as vehicles and breakbulk goods.

Currently, the SCSPA is developing a new container facility at the former Navy Base. Permitted in April 2007, the new facility is proposed to have a capacity of 1.4 million TEUs, increasing the Port's container capacity by about 50 percent. Extensive site preparation to stabilize the expansion site began in late 2007 and construction of the storage yard and berth was projected to begin around 2010. Phase I of the new terminal, which encompasses 170 acres, is expected to open by 2014. An SCDOT access road is proposed for ingress/egress between I-26 and this Terminal with funding from the State Infrastructure Bank.

Aside from the public marine terminals operated by the SCSPA, there are several private terminals in the Port of Charleston that handle commodities such as bulk coal and fuel.

3.7.3: TRANSPORTATION ELEMENT GOAL

A transportation system that is coordinated with land use patterns, community character, and promotes alternative ways to move people and goods with an acceptable level of service that supports economic development and maintains a high quality of life.

Transportation Element Needs

Transportation Element needs include, but are not limited to, the following;

- Tying transportation with the strategies of housing, economic development, and land use;
- Encouraging transportation options such as public transit and pedestrian and bicycle systems;
- Improving the efficiency of the existing and planned transportation system, with particular attention to connectivity and evacuation planning; and
- Ensuring that transportation planning is a coordinated effort of all jurisdictions.

3.7.4: TRANSPORTATION ELEMENT STRATEGIES AND TIME FRAMES

The County should undertake the following action strategies to support the transportation Goal and the Vision for this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

T 1. Administer and implement the approved roadway improvements detailed in *Charleston County Ordinance No. 1324*, the Charleston County Half Cent Sales Tax Referendum, adopted in 2004.

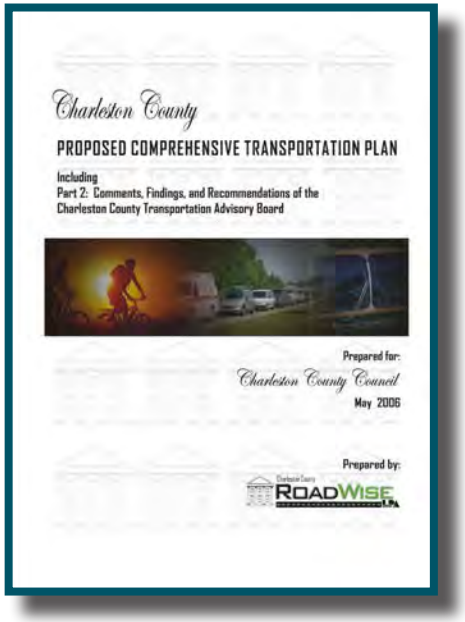
T 2. Continue to require traffic impact studies consistent with the *Zoning and Land Development Regulations Ordinance*.

T 3. Adopt and administer standards requiring provision of adequate transportation infrastructure including but not limited to:

- Connecting existing sidewalk and bicycle facilities to proposed road facilities;
- Adding turn lanes at driveways and intersections;
- Installing traffic signals; and
- Widening roads and bridges.

These types of proposed improvements should be made in accordance with the appropriate transportation agency based on traffic impact studies and should be made as a condition of approval for all proposed developments, zoning changes, or special use approvals. Incentives or fee-based programs should also be used to promote transportation improvements.

T 4. Create and adopt a major thoroughfare plan including functional classifications as defined by the South Carolina Department of Transportation (SCDOT) and the Charleston County *Zoning and Land Development Regulations Ordinance* and identify planned right-of-way to be set aside for future roadways, sidewalks, and bicycle paths. The *Zoning and Land Development Regulations Ordinance* should provide incentives to dedicate thoroughfares during the development approval process.


Charleston County

PROPOSED COMPREHENSIVE TRANSPORTATION PLAN

Including
Part 2: Comments, Findings, and Recommendations of the Charleston County Transportation Advisory Board

Prepared for:
Charleston County Council
May 2006

Prepared by:
ROADWISE

Note: The 2006 ***Charleston County Comprehensive Transportation Plan*** is incorporated into this *Comprehensive Plan*.

T 5. Create and adopt a set of access management standards to regulate levels of access depending on the function of the roadway.

T 6. Adopt "Complete Streets" policies for publicly owned and maintained streets, which are transportation policies that incorporate aesthetics as well as alternative modes of transportation such as bike lanes, sidewalks and mass transit into the transportation system.

T 7. Preserve future transportation corridors and other rights-of-way to reduce future acquisition costs.

T 8. Coordinate with all communities throughout the County to develop traffic impact studies.

3.7.4: TRANSPORTATION ELEMENT STRATEGIES AND TIME FRAMES CONTINUED

T 9. Mandate that adequate transportation infrastructure be in place prior to, or concurrent with, additional development.

T 10. Coordinate transportation strategies with growth management and land use strategies.

T 11. Promote increased traffic safety along roadways including but not limited to separation of pedestrian and bicycle traffic from motorized traffic, intersection improvements, access management plans such as curb cuts, and lower speed limits.

T 12. Support and participate in Metropolitan Planning Organization functions, as designated by the Federal Highway Administration and SCDOT.

T 13. Continue to monitor the status of population evacuation for emergency preparedness for natural or man made disasters.

T 14. Continue to identify additional ways of financing transportation improvements including the Transportation Half-Cent Sales Tax Program and public/private partnerships.

T 15. Support the functions of the Charleston County Transportation Committee (CTC).

T 16. Promote multi-transit opportunities including the improvements at the Charleston International Airport/Air Force Base, State Ports Authority, and maintaining the Intracoastal Waterway.

T 17. Support initiatives and plans to expand and enhance public transportation networks in the Urban/Suburban Area, as this will benefit residents by possibly decreasing transportation costs and providing more transportation options.

T 18. Promote a transportation network and systems that contribute to a sustainable development pattern for long-term success of Charleston County.

T 19. Base transportation plan approvals on the projected capacity of various types of transportation facilities to accommodate development of a mix of land uses over time in response to market conditions.

T 20. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to encourage flexible street design that is context-sensitive and reflects adjacent land uses.

T 21. Support the comprehensive trails plan developed by the Charleston County Park and Recreation Commission (CCPRC), to be implemented through the Charleston County Transportation Development Department, and recognize that some municipalities have developed their own bike and pedestrian plans to be implemented through coordination with the County's Transportation Development Department.

T 22. Encourage pedestrian and bike access be incorporated on all public roadways, including bridges, and explore potential funding sources for additional pedestrian and bike access projects.

T 23. Coordinate with the City of Charleston, Dorchester County, Town of Summerville, and the SC Department of Transportation on the potential extension of the Glenn McConnell Parkway.

Chapter 3.8 Community Facilities Element

3.8.1: OVERVIEW

The County includes community facilities as a component of the *Comprehensive Plan* to ensure that land use planning is balanced with the availability of public services and infrastructure. Coordinating land use decisions with the provision of public facilities and services protects the quality of life for existing residents and ensures the ability to provide for future residents. There are many agencies involved in the provision of public facilities and services making interjurisdictional coordination a key component in managing them. Additional information on coordination efforts to ensure efficient provision of public services can be found in *Chapter 3.7, Transportation Element*, as well as in *Chapter 3.9, Priority Investment, Implementation, and Coordination Element*.

Purpose and Intent

The strategies contained in this Element are intended to ensure that essential facilities and services necessary for the growth, development, or redevelopment of the County are provided. They are also meant to ensure coordination with the various providers of public facilities and services, including, but not limited to:

- Water and sewer service, such as Charleston Water Systems, Mount Pleasant Water Works, and North Charleston Public Service District;
- Parks and recreation, such as the Charleston County Park and Recreation Commission;
- Fire departments, such as the St. Johns Fire Department;
- Consolidated 9-1-1 Center;
- Public safety services including Emergency Medical Services (EMS), the Charleston County Sheriff's Office, and the Charleston County Emergency Management Department;
- Solid waste collection and disposal;
- School District;
- Public libraries and other cultural facilities; and
- Government facilities.

3.8.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Numerous agencies are involved in the provision of public facilities and services. Many of these agencies are outside the purview of Charleston County requiring interjurisdictional agreements to ensure the coordinated provision of public facilities and services. While this Plan can establish general strategies for the County to follow, the actual provision of most services and facilities is managed by outside agencies.

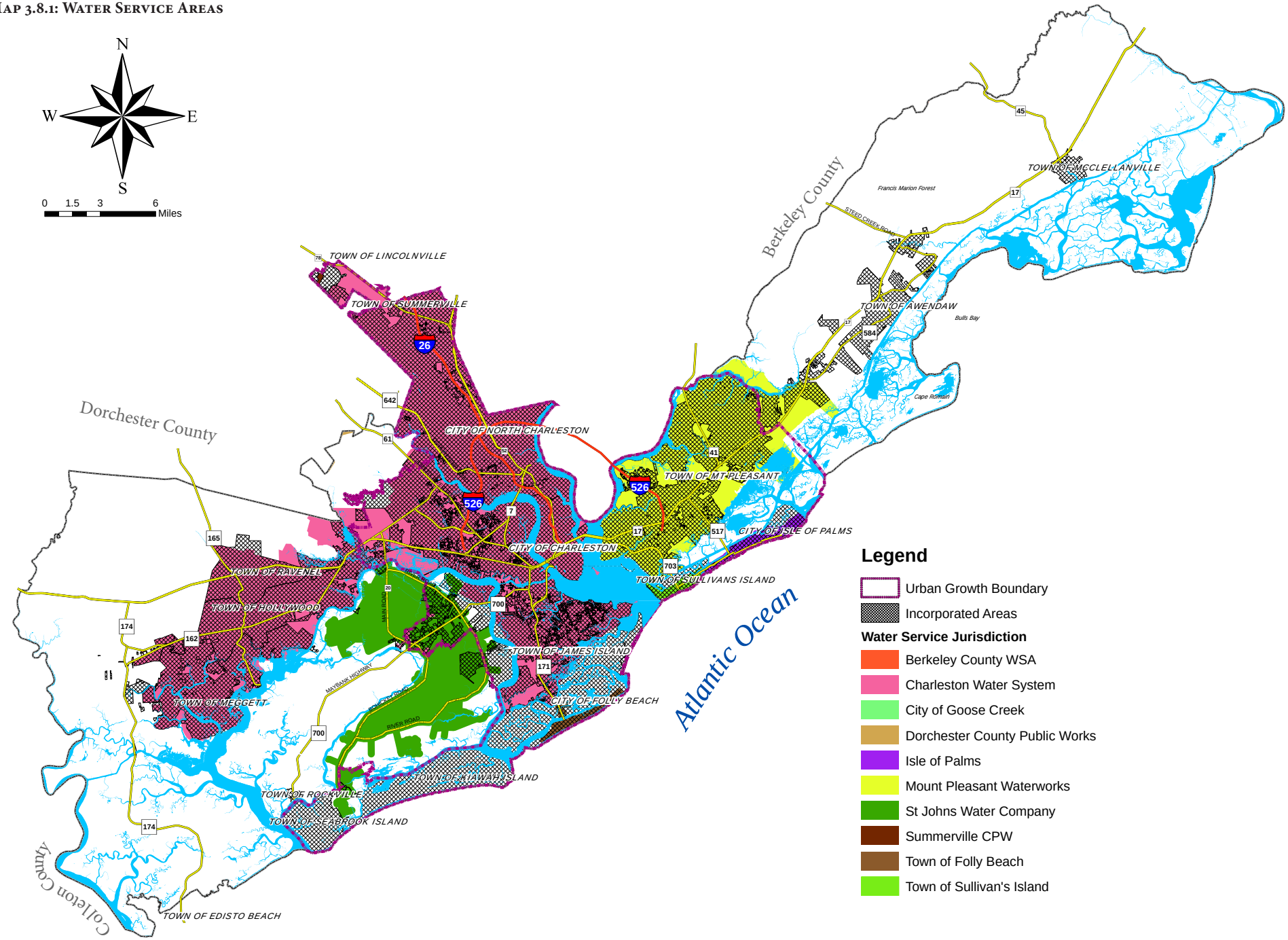
Water Supply

Charleston County is not a water service provider. Water service is provided by various agencies including, but not limited to Charleston Water Systems, Mount Pleasant Water Works, St. Johns Water Company, Kiawah Island Utility, Seabrook Island, Isle of Palms Water and Sewer, Sullivan's Island, Lincolnville, and Dewees Island. Each provider has a specific service area. Residents in areas located within water service areas where water lines do not exist or in areas located outside of service areas rely on wells to provide water supply. Areas within service areas generally have moderate residential densities while the Rural Area where service is not available is recommended for agricultural, natural, and very low density residential to make on-site wells a practical approach to potable water. See *Map 3.8.1.* for Water Service Areas.

Wastewater

Charleston County does not provide wastewater treatment services. Wastewater treatment service providers within the County include, but are not limited to, Charleston Water Systems, Mount Pleasant Water Works, North Charleston Public Service District, James Island Public Service District, Kiawah Island Utility, Seabrook Island, Sullivan's Island, Isle of Palms, and Dewees Island. Individual on-site wastewater disposal systems are in use throughout much of the Rural Area and in some of the Urban/Suburban Area where

Map 3.8.1: Water Service Areas



centralized wastewater treatment is not available. SCDHEC is responsible for permitting individual on-site wastewater disposal systems.

*The Section 208 Water Quality Management Plan (WQM Plan), a*dministered by the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG), guides the provision of wastewater treatment services by various agencies within the Berkeley-Charleston-Dorchester Region. The goal of the WQM Plan is to preserve and enhance water quality and to meet the water quality requirements of the Federal *Clean Water Act* and the *South Carolina Pollution Control Act*.

Designated Management Agencies assist the BCDCOG with managing and carrying out the provisions of the *WQM Plan*. There are several Designated Management Agencies within the Region, including Charleston County. See *Map 3.8.2.* for Wastewater/Sewer Service Areas.

Environmental Management

The Charleston County Environmental Management Department provides solid waste disposal and recycling services to all residents (incorporated and unincorporated areas) of Charleston County. The Environmental Management Department's responsibilities encompass solid waste collection, processing, disposal, and recycling in order to provide citizens with a clean and healthy environment in which to live. Services include municipal solid waste (MSW) disposal, construction and demolition debris (C&D) disposal, and composting at the Bees Ferry Landfill. The Bees Ferry Landfill tract's continued use as a public solid waste landfill without "use-specific conditions" is consistent with the *Comprehensive Plan* and the *Zoning and Land Development Regulations Ordinance*. Other services include waste-to-energy, curb-side recycling, drop-site recycling, convenience centers, metals and white goods recycling, tire recycling, materials recovery facility, household hazardous waste, enforcement of litter codes, and public education. The Environmental Management Department operates in accordance with a long-range solid waste plan to identify how to best serve the citizens of Charleston County through the year 2030. The Environmental Management Department focuses on public outreach and education regarding recycling, composting, and disposing of solid waste in proper ways that do not harm the environment.

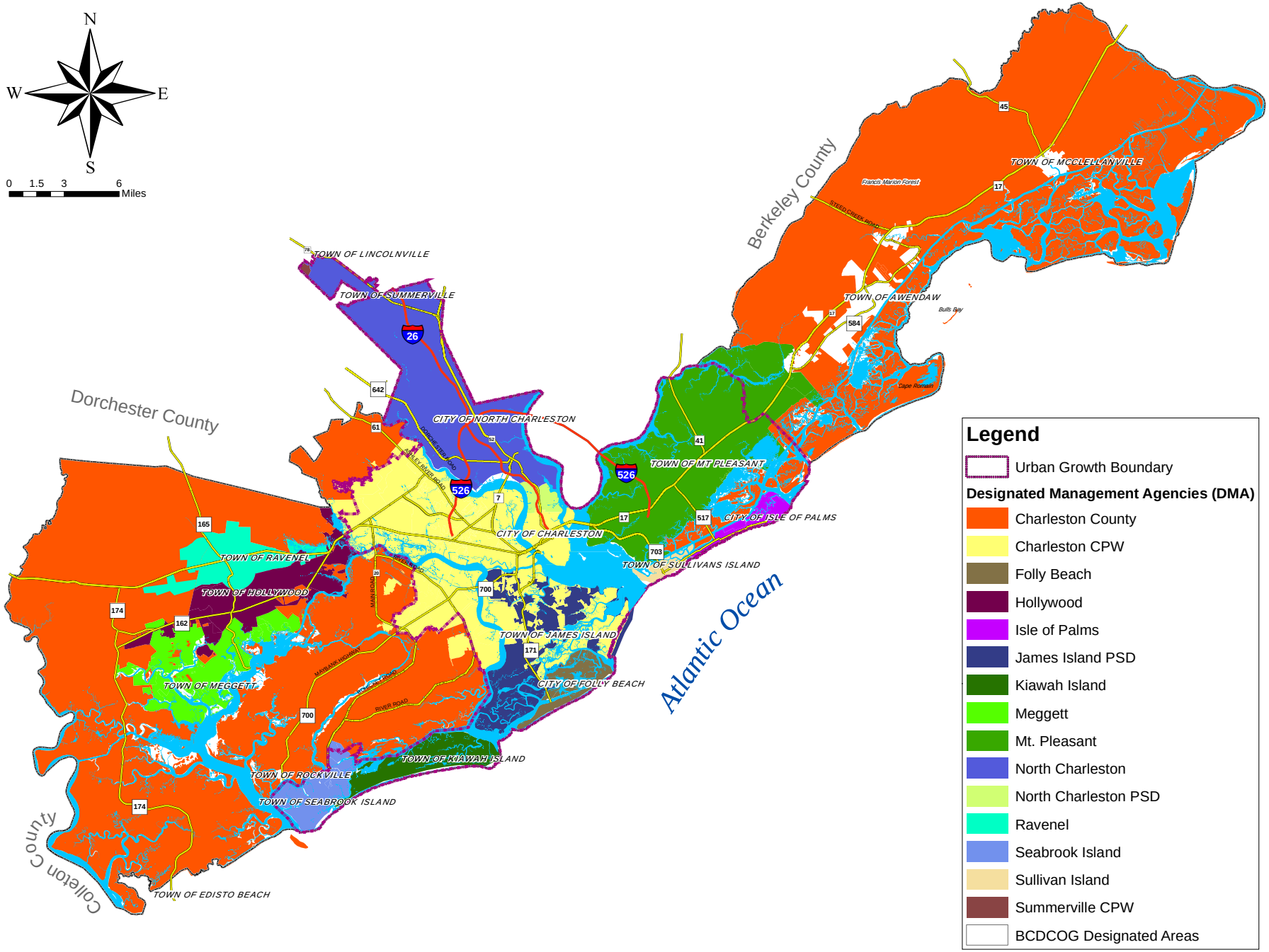
Public Safety Services

Fire Protection

Fourteen fire departments, as shown on *Map 3.8.3: Fire Service Districts*, provide fire protection services to the residents of Charleston County. One (St. Andrews) serves only unincorporated areas of the County. Four (James Island PSD, St. John's, St. Paul's and Awendaw Consolidated Fire District) are fire districts that serve a combination of municipalities and unincorporated areas. Two (North Charleston and Mount Pleasant) are municipal fire departments that have service agreements with Charleston County to provide fire protection to nearby unincorporated areas. Charleston, Lincolnville, Isle of Palms, Sullivans Island, and Dewees Island serve only the municipality in which they are located. The Joint Base Charleston has its own fire department which is federally maintained. One (C&B) is a volunteer department serving unincorporated areas of Charleston County located north of Ladson Road (as well as some unincorporated areas in Berkeley County).

The City of Charleston, the Joint Base Charleston, the City of North Charleston, the St. Johns, and the St. Andrews fire departments are staffed by paid firefighters. The C&B Volunteer Fire Department is staffed only by volunteers. The remaining eight departments have both paid and volunteer firefighters in differing

Map 3.8.2: Wastewater/Sewer Service Areas



ratios, with the majority of these fire departments relying almost exclusively on paid firefighters.

The standards by which fire protection services are evaluated are a function of the distances between fire stations and structures served, water availability, and the numbers and types of fire fighting equipment, fire stations, and personnel. The most widely used indicator of a fire department's ability to provide fire protection services is its rating assigned by the Insurance Services Organization (ISO). The lower the ISO rating the higher the level of protection and the lower the fire insurance premiums for insured properties within the service area.

Emergency Medical Services

Charleston County Emergency Medical Services (EMS) provides emergency medical assistance to residents of the urban and rural communities of Charleston County, including both incorporated and unincorporated areas. Its mission is to provide pre-hospital, advance life support, and paramedic services to residents and visitors. Services are administered from EMS Headquarters in North Charleston where the EMS Director maintains offices and directs administrative functions, and dispatching operations occur at the Consolidated 9-1-1 Center on Palmetto Commerce Parkway in North Charleston. A board certified emergency medical physician directs the medical aspects of the services, and a professional staff of emergency medical dispatch certified dispatchers and emergency medical technicians perform the services. Emergency medical services are decentralized, provided by medic units located in 14 EMS districts. Eight of the EMS districts are classified as urban and six of the EMS districts are classified as rural.

Charleston County EMS utilizes nationally recognized goals for response time in order to assess its service delivery, as well as to routinely evaluate the need for upgrading or re-distributing facilities, equipment, and personnel. Response time goals adopted by Charleston County EMS are as follows:

In Urban/Suburban Area

- Acceptable – Response time less than eight minutes 80 percent of the time.
- Marginal – Response time between eight and 15 minutes.
- Unacceptable – Response time greater than 15 minutes.

In Rural Area

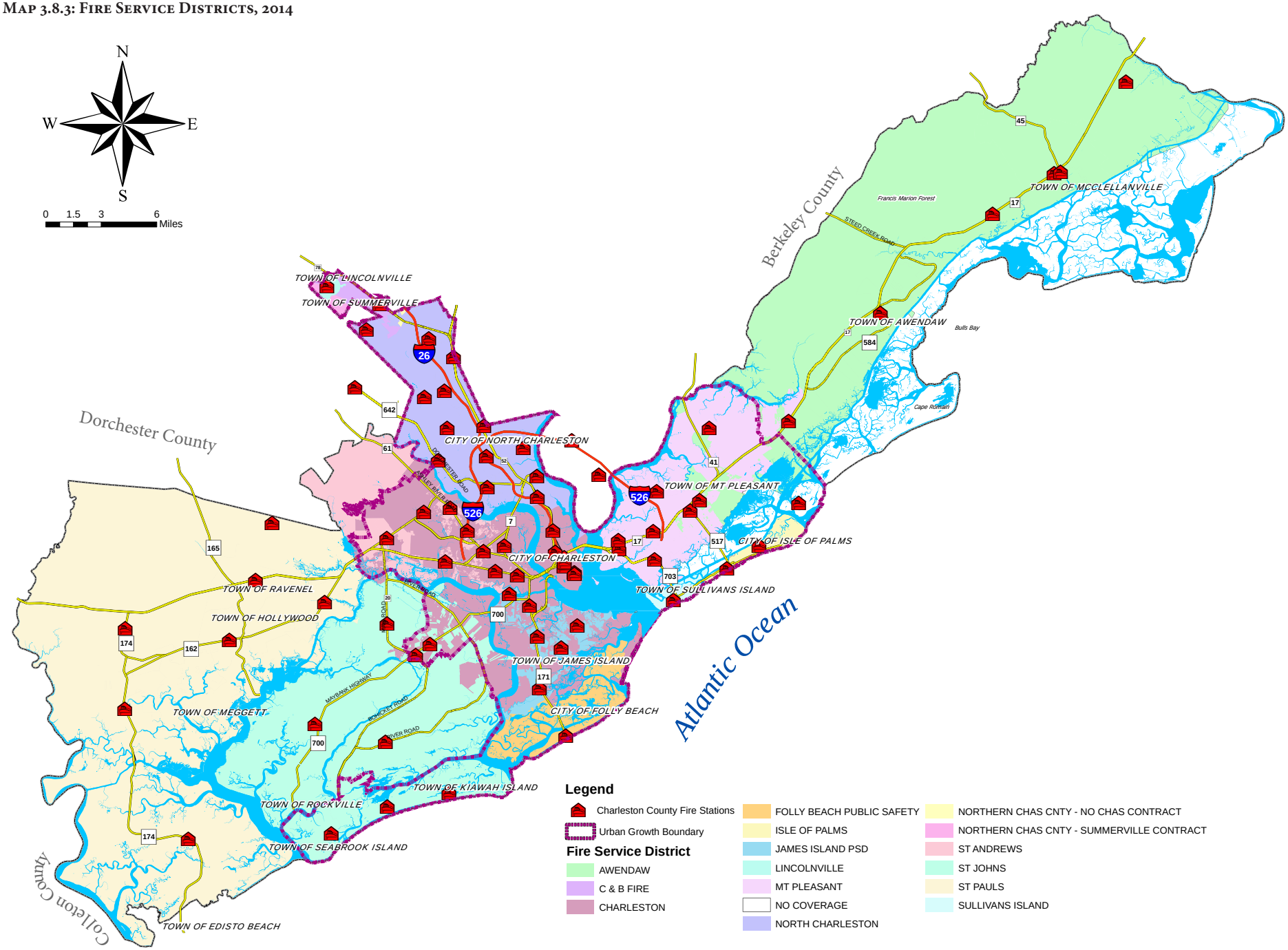
- Acceptable – Response times less than 15 minutes 80 percent of the time.
- Marginal – Response time between 15 and 30 minutes.
- Unacceptable – Response times greater than 30 minutes.

Charleston County EMS includes special units and programs including, but not limited to the Special Operations Emergency Medical Support Team, the Hazardous Materials (HazMat) Medical Support Team, the Tactical Emergency Medical Services Support Team, the Technical Emergency Medical Support Team, a Motorcycle Team, and a Bicycle Team. EMS locations are shown on *Map 3.8.4: EMS Locations.*

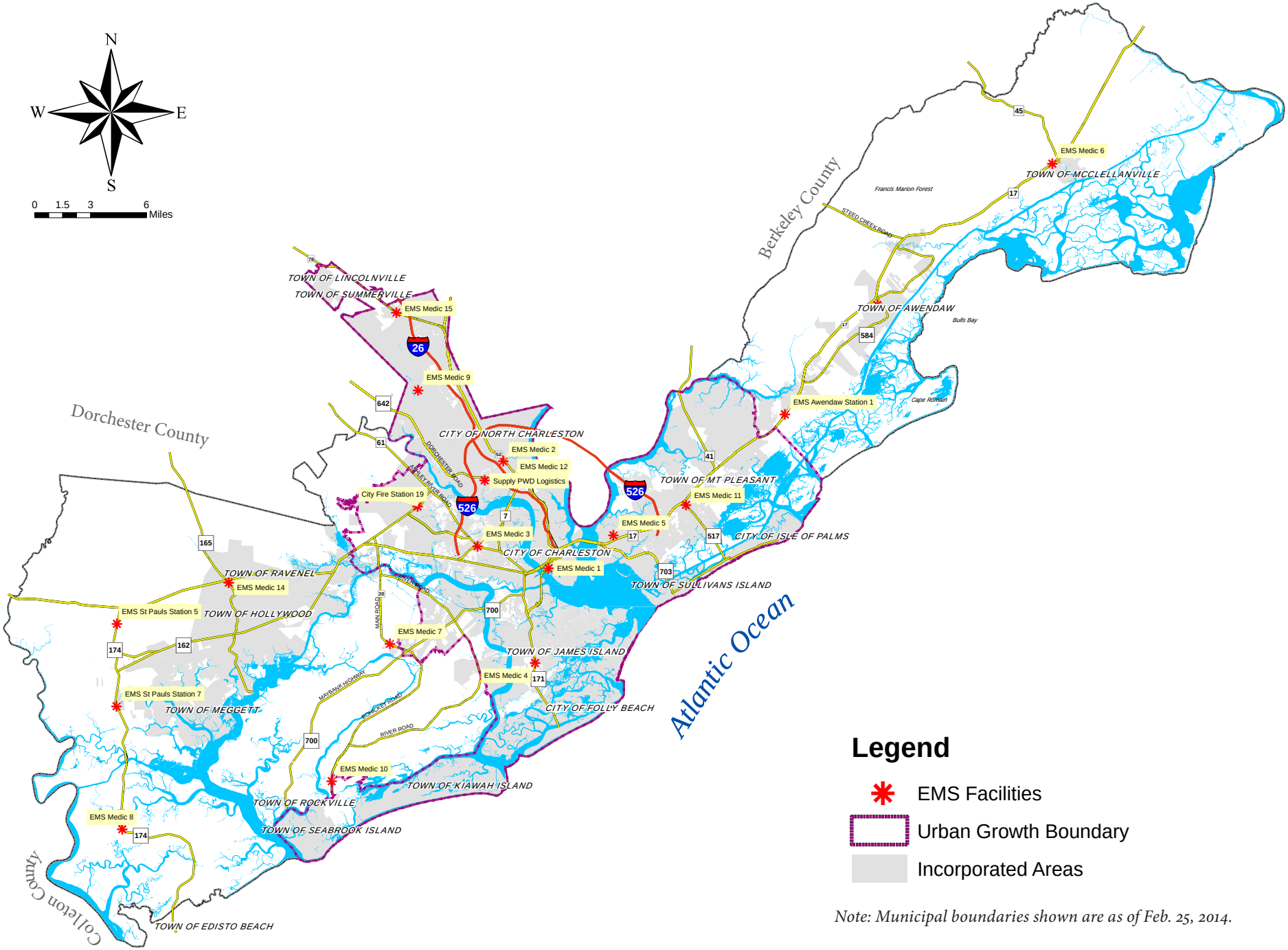
Law Enforcement

The Charleston County Sheriff's Office is the primary provider of law enforcement services for all unincorporated areas of the County. As the Sheriff is the Chief Law Enforcement Officer in the County, the agency may provide services to citizens living within a municipality. These services may be delivered directly to the citizen in need, or indirectly in the form of support for the police department of the respective municipality. The Sheriff's Office also maintains the County Detention Center, which is comprised of a jail facility for adults, a Juvenile Detention Center, and two post-conviction housing fa-

Map 3.8.3: Fire Service Districts, 2014



Map 3.8.4: EMS Facilities, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014.

cilities for adults. The agency is also responsible for all civil and criminal process issued by Magistrate Courts and courts of record, as well as prisoner transport, therapeutic mental health transport, courtroom security, school crossing guards, and animal control. The Sheriff's Office contains several units with specialized purposes and functions, such as SWAT and K-9. The Charleston County Detention Center, which was most recently expanded in May 2010, has a capacity for 1,917 inmates. In 2014, the yearly average daily population was 1,266 inmates.

Consolidated 9-1-1 Center

Provision of the public safety services discussed above involves the coordinated efforts of many agencies. Critical time can be lost when a citizen or visitor who has dialed 9-1-1 is transferred and/or asked several times for the same information. Additionally, dependency on cellular phones and other communications devices continues to increase, impacting the efficiency of operations of emergency communications centers. Charleston County recognized the need to address these issues and successfully created a Consolidated 9-1-1 Center, which opened in spring 2013. The Consolidated 9-1-1 Center is housed with the Emergency Operations Center (EOC) in a newly constructed facility in North Charleston. The new facility is approximately 38,000 square feet and received the Leadership in Energy and Environmental Design (LEED) silver certification goal. As of 2014, the Consolidated 9-1-1 Center dispatches for:

- Charleston County Sheriff's Office;
- Charleston County Emergency Medical Services;
- Charleston County Volunteer Rescue Squad;
- Awendaw Fire Department;
- City of Charleston Police and Fire Departments;
- Dewees Island Fire Department;
- Isle of Palms Police and Fire Departments;
- James Island Fire Department;
- Lincolnville Police and Fire Departments;
- Mount Pleasant Police and Fire Departments;
- St. Andrews Public Service District Fire Department;
- St. Johns Fire District;
- St. Pauls Fire Department; and
- Sullivan's Island Police and Fire Departments.

Government Facilities

General operations of the Charleston County Government are based in numerous county-owned or leased facilities located throughout the County. The County has expanded these facilities to keep pace with growth and to provide its citizens with social, legal, health, and other necessary services. Currently, the inventory of Charleston County's Real Property assets, which consists of facilities and land owned and leased by the County, includes 142 facilities totaling approximately 8 million square feet and approximately 1,600 acres of land. This property is divided into 19 sections based on function such as administration, boat landings, EMS stations, fire stations, fleet operations, public works sites, tower sites, libraries, service centers, parking, and vacant land/buildings/offices.

The Lonnie Hamilton III, Public Services Building is the County's main administrative office building. It houses the offices of the County Administrator, County Council, the Budget Office, the Controller, the Planning Department, the Building Services Department, the Human Resources Department, the Geographic Information Systems Department, and other County departments. The O.T. Wallace County Office Building and Annex, located in downtown Charleston, houses the main offices of the Assessor and the Treasurer, although representatives from these departments are available to assist the public at the main County building. Complimenting the County Office Building are two satellite service centers located in St. Paul's (Ravenel) and East Cooper (Mt. Pleasant). These centers offer residents access to county services at locations closer to home. The Ravenel Service Center has been limited to the Magistrate's Court and the EMS station. Satellite offices of the Auditor, Treasurer, Planning Department, and Building Services Department no longer provide services at this location.

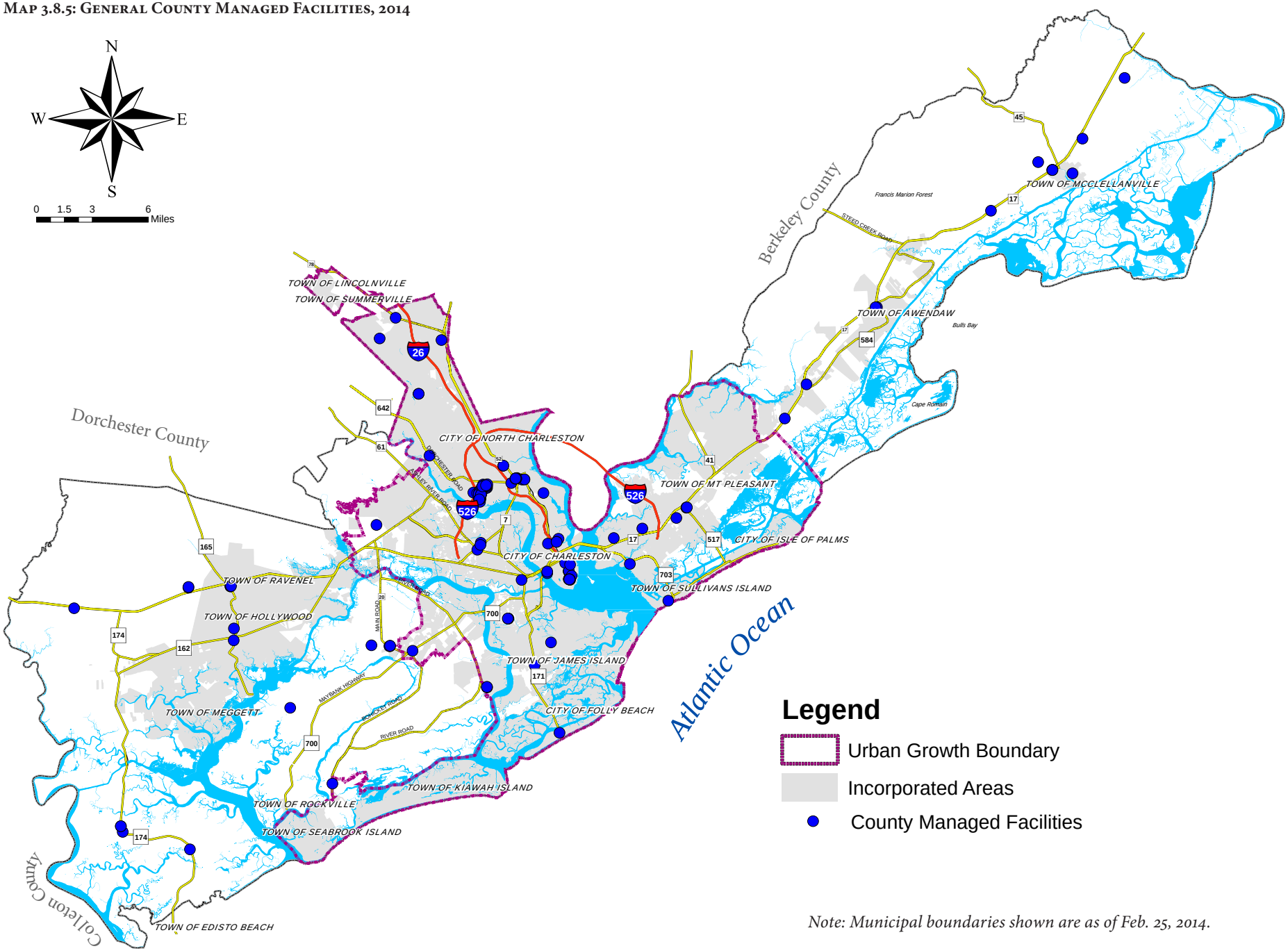
The Judicial Center, located Downtown, is the County's main judicial office building housing Circuit Judges, the Clerk of the Court, the Probate Court, Small Claims Court, the 9th Circuit Solicitor, the General Sessions Court, and State Probation and Parole Court Services. Offices of the County Attorney as well as the Magistrate's Summary Courts are located at the Lonnie Hamilton III site. Magistrate's Courts and Small Claims Court are dispersed at 14 locations throughout the County.

The Public Works Headquarters central office is located at the Lonnie Hamilton III site; however, various support facilities are clustered along Azalea Drive in North Charleston. These include various facilities that support fleet operations and mosquito control, and warehouse and storage facilities. In addition, the Public Works Department has six Public Works camps located in the following areas: Edisto Island, St. Paul's, Johns Island, James Island, Ladson, and McClellanville.

The Department of Alcohol and Other Drug Abuse Services (DAODAS) is headquartered at the Charleston Center. The various functions of DAODAS include Adult Residential Services, Community and Prevention Services, Criminal Justice Services, Detoxification Services, Women's and Children's Outpatient Services, and Youth Services. Community-based outreach facilities are located throughout the County, the larger of which include the McClennan-Banks Ambulatory Care Center on Ashley Avenue, which is an extension of the Medical University of South Carolina (MUSC), and the DAODAS Sojourner Center for Women and Women's Intensive Outpatient Center located on Hanover Street in Charleston.

The Charleston County Perimeter Center, located

Map 3.8.5: General County Managed Facilities, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014.

on Bridge View Drive in North Charleston, includes the County's General Services Department, the State Health Department, and the County Coroner's facilities.

Other locations used for Charleston County government functions include:

- Consolidated 9-1-1 Center and Emergency Management Department, located at the Emergency Operations Center (EOC), Palmetto Commerce Parkway;
- Radio Communications and Telecommunications, Lonnie Hamilton III site;
- North Charleston Housing Authority, Goodman Boulevard;
- Charleston County Records Center, Leeds Avenue;
- Offices of Veterans' Affairs are located at The Chicora Center; and
- Offices of the Board of Election and Voter Registration, Headquarters Road.

The locations of the Government Facilities are shown on *Map 3.8.5: General County Managed Facilities*.

Emergency Preparedness

The Charleston County Emergency Management Department (EMD) is responsible for setting up measures that assist the public in the event of a natural or man-made disaster, providing land and water search operations, and recording hazardous materials in the community. These measures include fire protection, educational services, and rescue operations. The Emergency Management Department sets up the Emergency Operations Center (EOC) with other County departments and agencies. Coordination with the various municipalities, adjacent counties, South Carolina Emergency Preparedness Division, and other agencies to ensure public safety in the event of a disaster also falls under the purview of EMD.

Public Libraries

The Charleston County Library is an independent authority established by the State of South Carolina Legislature to provide library services to the residents of Charleston County. A Board of Trustees, appointed by County Council, directs the activities of the Library.

The Charleston County Library System is organized to provide three tiers of service, including a main library, regional branch libraries, and local branch libraries. Currently the County operates the new Main Library in downtown Charleston, five regional branch libraries, and ten local branch libraries. In addition, the Charleston County Library operates one bookmobile that provides library services to the County.

The Charleston County Main Library is the focus of the library system. Its primary function is to act as the principal information center for Charleston County. As the hub of the system, information is distributed from the main library throughout the community via the network of branch libraries. The flow of information of a more specialized nature is from the main library through the regional branches to the local branches for distribution. Both the regional branch libraries and the local branch libraries serve the informational, educational, cultural, and recreational needs of the community in which they are located. *Map 3.8.6* shows the library locations.

As the County's population has grown, the Charleston County Library has not necessarily kept pace in increasing its public services. When compared to the public library standards adopted by the SC State Library, Charleston County Public Library failed to meet several standards. This resulted in a thorough analysis of the existing libraries and services, which included surveying the public and gathering community input. The research was compiled, and a proposal, which calls for construction and renovation measures, was created to improve the overall operations of the Library.

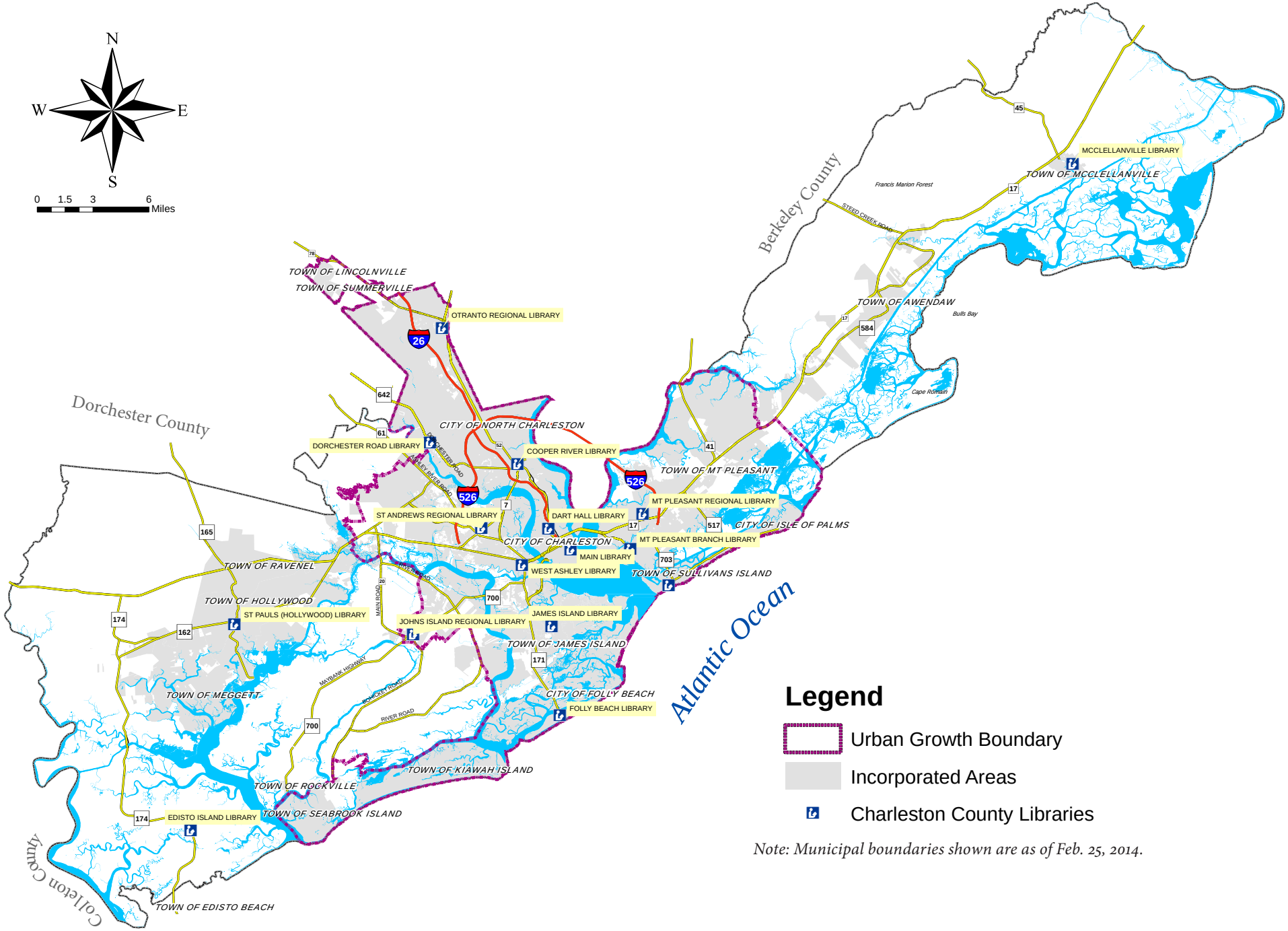
In April 2013, the Charleston County Library board members, along with members of Charleston County Council plus library and County staff, held a series of ten community meetings to introduce the new proposal to local residents and ask for feedback. The proposal calls for constructing four new buildings, renovating 12 existing branches, and moving library support services out of the Main Library to free up that space for public use. The estimated cost to construct, renovate, and relocate the 17 buildings is $103.8 million. In January 2014, Charleston County Council agreed to put the building referendum on the ballot in November 2014. If approved by voters, officials estimate the four new libraries could open by late 2017 or early 2018. The renovation of existing branches would be staggered, with most of it completed in 2018-2019.

Parks and Recreation Services

Established as a Special Purpose District in 1968, the Charleston County Park and Recreation Commission (PRC) has specific areas of responsibility defined by state legislation. PRC's area of responsibility encompasses the entire County, with the exception of Francis Marion National Forest, Capers Island, and Dewees Island. Its mission is to improve the quality of life in Charleston County by offering a diverse system of park facilities, programs, and services. In 1995, County Council increased the responsibilities of PRC by turning over responsibility for improving and managing the County's public boat landings.

PRC's operations are overseen by a seven-member board that is appointed

Map 3.8.6: Libraries, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014.

by the Governor upon the recommendation of the Charleston Legislative Delegation. PRC's orientation is toward resource-based passive recreation with income-producing activities. Charleston County has established public policy that its mission with respect to parks is to provide special purpose facilities (such as beach and water access), and large regional parks, typically greater than 300 acres in size within reasonable accessibility of all County residents.

It is a goal of the PRC to provide at least one County park within reasonable access of each population center in the County. The abundant waterways create physical barriers that in many cases greatly increase travel time from one area to another. It is therefore important that all areas are provided with recreation facilities. It is also a goal to acquire undeveloped lands while they are still available, in order to preserve and protect the land for future generations.

PRC is involved in providing public recreation programs, primarily through its various County park facilities and through the Community Education Program. PRC's Recreation Division offers a variety of environmental education and interpretive programs, land- and water-based activities, special events, experiential education, and park-related programs, most of which center around PRC's various County parks.

There are many other entities involved in the provision of or purchase of land for parks and recreational areas including, but not limited to the Charleston County Greenbelt Program, the Town of Mount Pleasant, and the Cities of Charleston and North Charleston. *Map 3.8.7* shows the parks and public boat landings in Charleston County.

Educational Facilities

Public educational facilities are the only educational facilities that fall under the purview of the South Carolina Department of Education and the Charleston County School District. This section is broken down into two sections, one regarding public educational facilities and another regarding private educational facilities.

In addition, information on schools in Charleston County that offer opportunities for continuing education such as associate degrees, bachelor's degrees, master's degrees and doctorates, is included.

Public Educational Facilities

Charleston County School District is divided into eight constituent districts educating a combined total of over 47,000 students in 46 elementary schools, 13 middle schools, 14 high schools, four alternative schools, and eight charter schools. There are also 53 Childhood Development (CD)/Head Start facilities. The school facility locations are shown on *Map 3.8.8.*

A nine-member Board of Trustees governs the School District. The Trustees are elected by the registered voters of the County for a four-year term of office. Planning, decision-making, and policy are determined by the Board of Trustees. The County School Superintendent is responsible for administrative management of the School District.

The eight constituent districts are special districts that are responsible for a variety of administrative functions. Each has its own elected board, known as the Constituent Area Board of Trustees. These boards determine the attendance zones of individual schools, make decisions regarding discipline referrals, and generally make recommendations to the Board of Trustees relative to the individual districts.

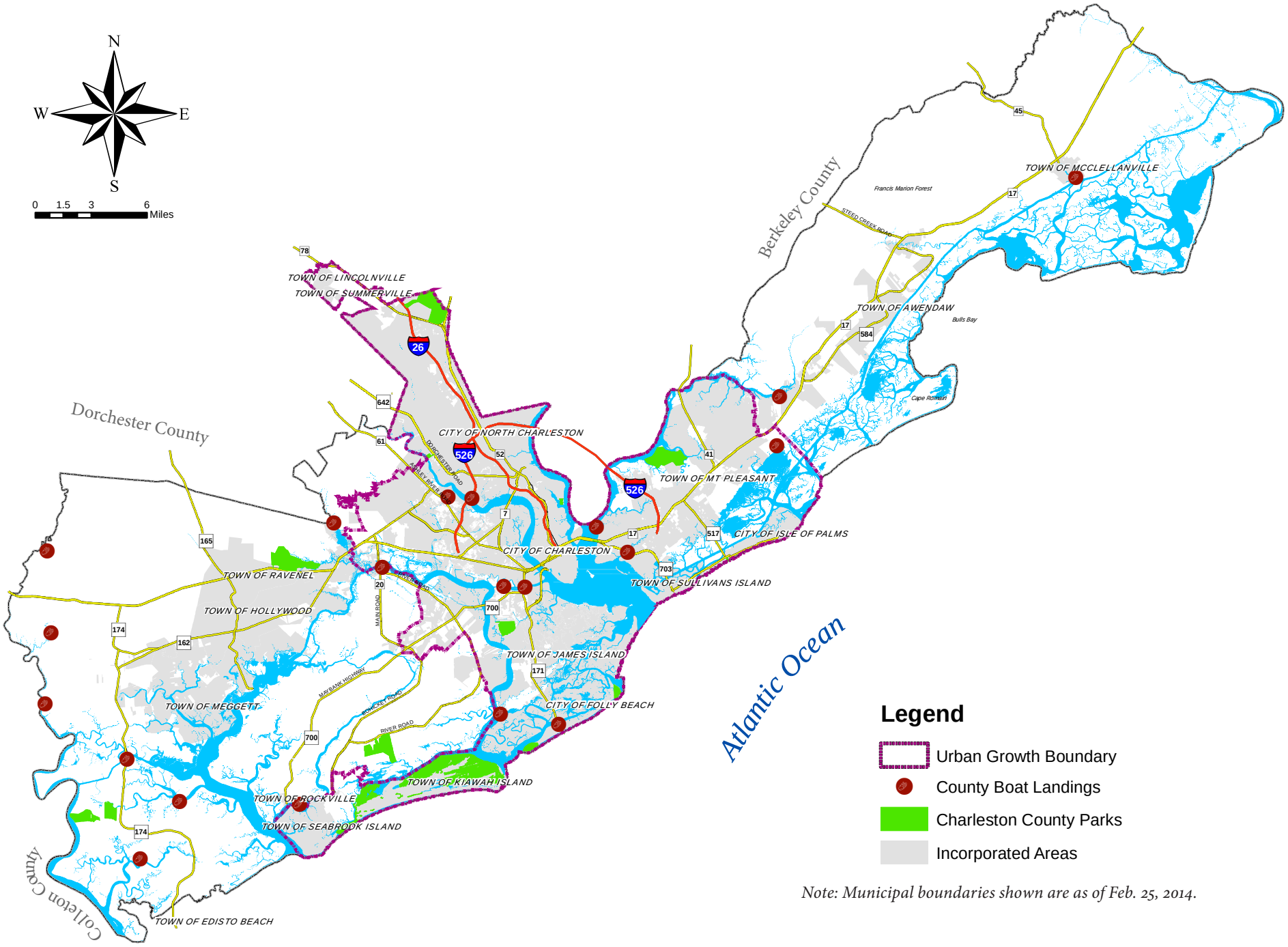
The overall mission of the School District includes public education excellence for kindergarten through 12th grade. However, the School District is offering some pre-kindergarten programs. The School District provides early childhood education and is merging the Head Start Programs with pre-kindergarten education, which will provide a good opportunity for change in low-income areas.

There is a high correlation between the standardized test scores and the socioeconomic status of the students attending the District's schools. The students living in the more affluent communities in the County have tested higher and the schools serving those communities have been rated Good-Excellent. Approximately 53 percent of students attending District schools receive free or reduced price lunches, which indicates that they are from families earning below poverty level incomes. Additionally, the School District has seen an influx of students that speak Spanish as their primary language, especially on Johns Island, which increases the need for bilingual teachers. In the 2013-2014 academic year, the School District had nearly 3,000 English Language Learners, and eight percent of the entire student body was Hispanic.

The County School District's strategic plan, Charleston Achieving Excellence, is focused on raising the academic performance of all schools and closing the achievement gap.

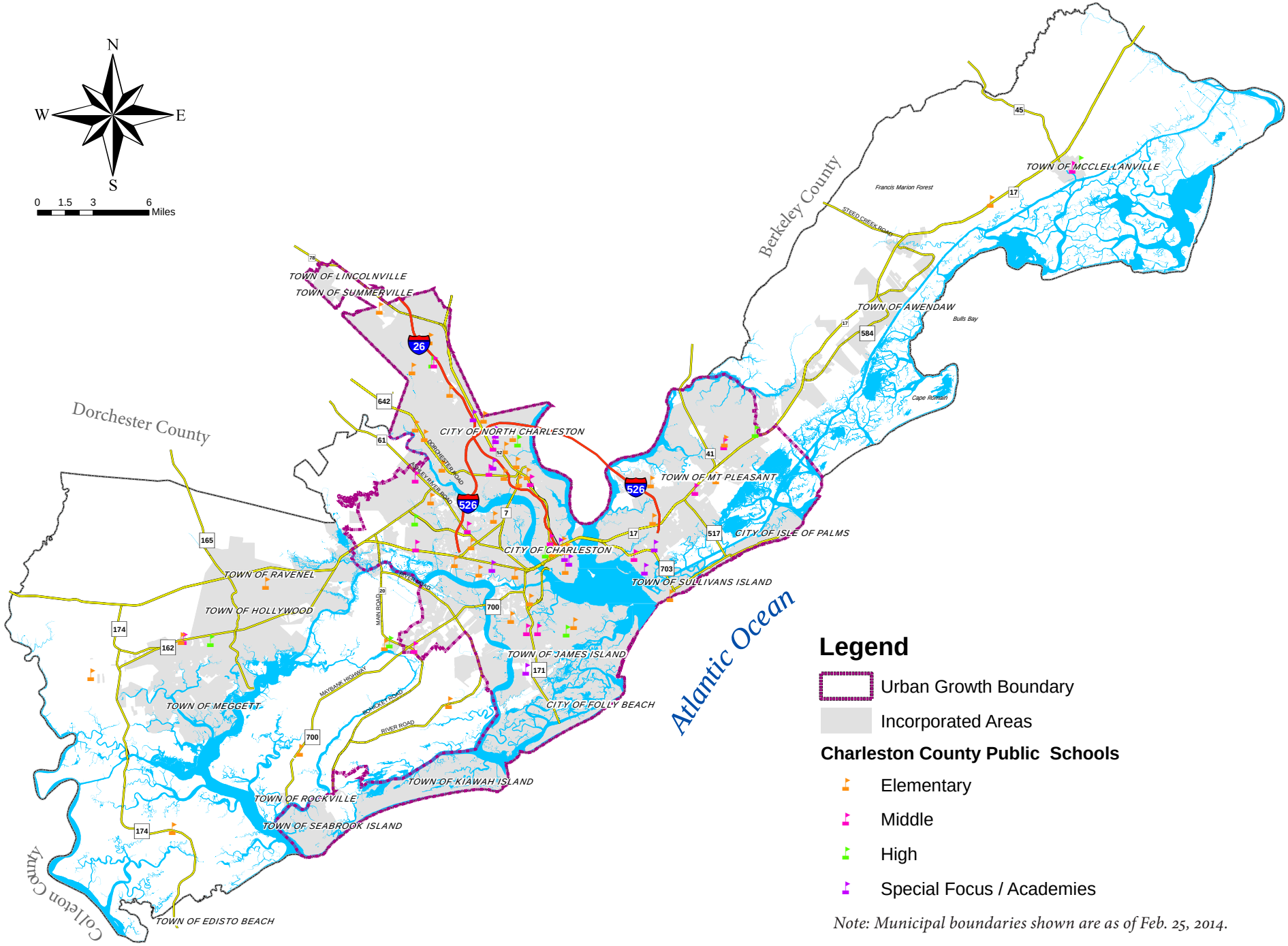
Historically, the District has seen a decrease in students enrolled in public schools; however, in recent years, enrollment in the public school system has increased. The percentage of school-age children has declined over the County, as noted in the Population

Map 3.8.7: Charleston County Parks & Recreation Commission Parks and Public Boat Landings, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014.

MAP 3.8.8: CHARLESTON COUNTY PUBLIC SCHOOL LOCATIONS, 2014



Note: Municipal boundaries shown are as of Feb. 25, 2014.

Element, is not uniform and some areas are experiencing a growing number of students. Furthermore, some growing areas are not located close to existing schools and require the District to seek new school sites. Meanwhile, some Rural Area schools have extra capacity due to the declining school age population. Opportunities exist for shared facilities in underutilized schools incorporating Sheriff's and EMS stations, administrative offices, and use of playgrounds as community recreation areas. The School District is partners with the various municipal and county authorities to increase recreational opportunities for all County residents[1].

Private Educational Facilities

Private Educational Facilities are not regulated by the South Carolina Department of Education or by the Charleston County School District. The South Carolina Independent School Association (SCISA) provides accreditation standards for private schools, although private schools are not required to be accredited. There are a total of 46 private schools in Charleston County educating approximately 10,000 students. Sixteen of these schools meet the accreditation criteria of the South Carolina Independent School Association (SCISA).

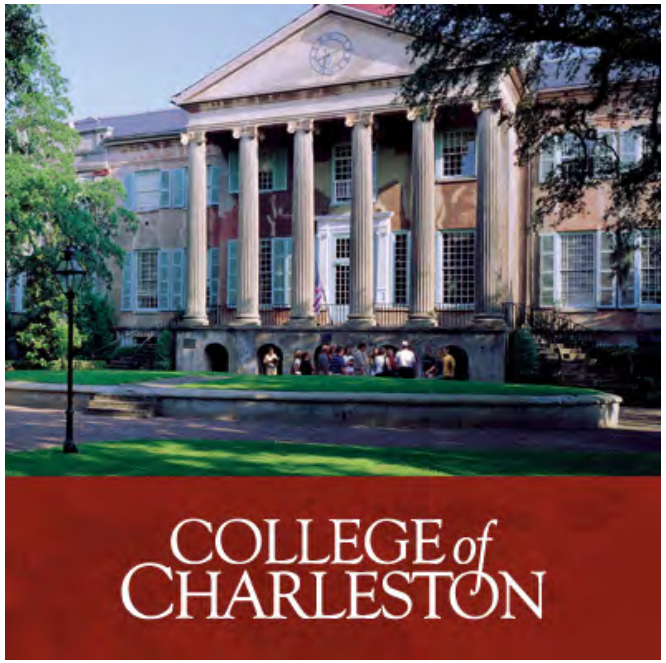
SCISA Accreditation Standards

An accredited independent elementary school must employ qualified (defined II, B) teachers and other necessary staff personnel, maintain a proper pupil-teacher ratio (defined II, G) use a course of study appropriate to its pupils, adopt adequate textbooks approved by appropriate personnel or by a committee on standards representing the SCISA, provide adequate library services and adequate guidance services including annual use of nationally recognized tests to validate local evaluation and to determine proper placement.

An accredited independent secondary school must meet the minimum standards set by the SCISA. To be accredited, an independent secondary school must:

- Employ a school administrator with at least a bachelor's degree who does not teach more than two of the following: Two periods a day or coach two varsity athletic teams, or one of each. An assistant administrator, who teaches less than a full load, is required in schools over 250 students enrolled.
- Employ teachers in grades K5 (hired after January 1994) through 12 whose academic training, experience, or combination of same, fully indicate the professional ability, insight, and enthusiasm necessary to complete classroom assignments satisfactorily. Each teacher in grades K5 through 12 must have a minimum of a state certificate and/or bachelor's degree.[2]

Once accredited, the school is recognized as a corporate body and is inspected every



five years to maintain accreditation standards. The school must also establish its code/means of governing and maintaining conduct, which is overseen by SCISA. Some of the SCISA schools in Charleston County include Addlestone Hebrew Academy, Ashley Hall, Northwood Academy, Charleston Collegiate School, Palmetto Christian Academy, Montessori School of Mt. Pleasant, and Trident Academy.

Continuing Education

There are 26 schools in the tri-county region that offer continuing education opportunities. This number includes schools that do not have main campuses located in Charleston County, but that do have branches or school programs located in Charleston County. *Table 3.8.1* lists these schools, along with location information and brief descriptions. The table does not list all institutes of higher learning; however, it does include the instititutions with the highest enrollments in the region.

1 *Source: Charleston County School District. 2014.*
2 *Source: The South Carolina Independent School Association website.*

Table 3.8.1: Continuing Education Institutions

School	Location	Type of School	Enrollment*	Brief Description
Art Institute of Charleston	Market Street, Downtown Charleston	4-Year, Private	700	A branch of the Art Institute of Atlanta, GA. 2- and 4-year. programs consist of Photography, Graphic Design and Interactive Media, Fashion and Retail Management, among others
Charleston School of Law	Mary Street, Downtown Charleston	Graduate, Private	700	Originated with the Forensic Club in 1825, is the oldest Law school in the South and effectively prepares students for the passing of the Bar as well as becoming positive civic leaders
Charleston Southern University	University Blvd, North Charleston	4-Year, Private	3,300	33 majors are available for study as well as an array of minor programs. The school features masters programs in Business Administration, Criminal Justice and Education as well
The Citadel	Moultrie Street, Downtown Charleston	4-Year, Public	3,206	Consisting of nearly 3,300 students and 19 programs of study, civilian evening graduate/undergraduate classes are available as well
Clemson Architecture Center, Charleston	20 Franklin Street, Downtown Charleston	4-Year, Public	22	3rd & 4th year Undergraduates can take Urban Design and Fabrication studios to learn to solve issues pending the Lowcountry. Graduate Architecture students can study here during their M.Arch degree
Clemson Restoration Institution	1360 Truxtun Ave, North Charleston	4-Year, Public	N/A	Established in 2004, students study in six fields including Renewable Energy, Resilient Infrastructure, among others, to create new technology that is both restorative and environmentally efficient
The College of Charleston	George Street, Downtown Charleston	4-Year, Public	11,466	Founded in 1770, now caters to nearly 10,000 students and 1,500 graduate students seeking a liberal arts education, 7 programs of study as well as 17 masters programs are available
ECPI College of Technology	Northside Drive, North Charleston	2-Year, Private	300	Associates and Diploma programs in Network Security, Electronics Engineering, Medical Administration as well as Medical Assistant are available programs of study
Limestone College	Leeds Ave, North Charleston	Evening, Private	120	Associates and Bachelors Degrees in Business Management/Administration, Liberal Studies, Social Work as well as an array of online classes are available for study
Lowcountry Graduate Center	International Blvd, North Charleston	Graduate, Public	300	13 graduate programs administered in conjunction with The Citadel, The College of Charleston, Medical University of South Carolina, Clemson and the University of South Carolina
Medical University of South Carolina	Ashley Ave, Downtown Charleston	4-Year, Public	2,593	Chartered in 1823, was the first medical school in the south, now caters to nearly 2,600 students with its Colleges of Dental Medicine, Medicine, Graduate Studies, Health Professions, Nursing, and Pharmacy
Miller-Motte Technical College	Rivers Ave, North Charleston	2-Year, Public	667	9 degree or certificate programs are offered in fields such as, Cosmetology, Criminal Justice, Medical Assisting, Management-International Trade, among others
Springfield College, Charleston Campus	Belle Oaks Drive, North Charleston	Weekend, Private	185	Masters and Bachelors degrees in Science, an Executive Masters Program in Human Services, and a YMCA Professional Directors Program for students working with the YMCA are available for study
Strayer University	Wetland Crossing, North Charleston	2,4-Year, Private	N/A	Undergraduate/graduate programs available for study such as Accounting, Business, General Studies, Health Services Administration, Information Systems, and Public Administration
Trident Technical College	Rivers Ave, North Charleston	2-Year, Public	16,195	The main campus in conjunction with the Two Downtown branches, Palmer Campus and the Culinary Institute of Charleston, offer 2 and 4 year specialized programs to students in 12 areas of study
Webster University	International Blvd, North Charleston	2,4-Year, Private	400	Located off of International Blvd and the Air Force Base, graduate/undergraduate programs of study are offered in fields such as Behavioral and Social Sciences, Business Management, among others

*From the Charleston Regional Development Alliance, updated May 2013.

3.8.3: COMMUNITY FACILITIES ELEMENT GOAL

Community facilities and services will be provided in a fiscally responsible manner with adequate levels of service and will be coordinated with surrounding jurisdictions and will be linked to land use planning and development decisions so that community facilities and services have capacity for expected growth and are in place when needed.

Community Facilities Element Needs

Community Facilities Element needs include, but are not limited to, the following:

- Continuing to evaluate and plan for additional community facilities and services;
- Coordinating with the various service providers in the County;
- Creating a stronger link between capital improvements programming and land use planning;
- Maintaining existing community facilities to ensure long-lasting, efficient use; and
- Encouraging the cost-effective provision of public facilities and services by promoting compact and mixed use development.

3.8.4: COMMUNITY FACILITIES ELEMENT STRATEGIES AND TIME FRAMES

The County should undertake the following action strategies to support the Community Facility Goal and the Vision for this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

CF 1. Ensure that new development contributes its fair share to the costs associated with growth with regard to community facilities and services.

CF 2. Create a stronger link between capital improvements programming and land use planning.

CF 3. Take the lead in establishing intergovernmental agreements for the provision of services to the residents of the County consistent with the land use and growth management strategies of this Plan.

CF 4. Support efforts to provide safe, high-quality, adequate supplies of potable water to meet the needs of present and future residents.

CF 5. Coordinate with the Berkeley-Charleston-Dorchester Council of Governments to carry out water quality planning responsibilities under Section 208 of the *Clean Water Act* designating the Rural Area to have primarily individual on-site wastewater disposal and the Urban/Suburban Area to have primarily public sewer service.

CF 6. Any proposed community based wastewater treatment systems proposed for the Rural Area should be approved by County Council and should be publicly owned.

CF 7. Continue to implement the *Charleston County Environmental Management Plan* to provide for adequate collection, processing, disposal of solid waste ,and recycling efforts in an environmentally sound and economically feasible manner to meet the needs of present and future residents. Plan for new and expanded solid waste management facilities and changing technologies including coordinating with adjacent counties.

CF 8. Support coordination efforts to provide adequate fire protection to all residents and visitors of Charleston County through efforts of the Charleston County Fire Chiefs Association, and shared service agreements, and the Consolidated 9-1-1 Center.

CF 9. Plan for and provide adequate emergency medical care to all residents and visitors of Charleston County as provided by Charleston County Emergency Medical Services and the Consolidated 9-1-1 Center.

CF 10. Continue to support and provide quality public safety services to all residents and visitors of Charleston County.

CF 11. Continue to encourage efforts of the Charleston County School District to coordinate their facilities planning with land use planning.

CF 12. Continue to support public library facilities and services throughout the County.

CF 13. Continue to provide government facilities to support County government functions and responsibilities.

CF 14. Explore opportunities for sharing/consolidating government facilities and services to lower the cost to all residents.

CF 15. Continue to coordinate and promote Countywide emergency preparedness to handle any emergency.

CF 16. Continue efforts to provide parks and recreational facilities and services in coordination with the Charleston County Greenbelt Program and the Charleston County Park and Recreation Commission.

CF 17. Maintain legislative mandates of the County such as judicial operations and property record maintenance.

3.8.4: COMMUNITY FACILITIES ELEMENT STRATEGIES AND TIME FRAMES CONTINUED

CF 18. Support efforts of fire departments to educate the public on the dangers of wildfires and the benefits of controlled burning in forested areas to reduce the chances of uncontrolled wildfires.

CF 19. Encourage alternative energy sources such as wind and solar energy systems, where appropriate.

CF 20. Encourage public-private partnerships in infrastructure planning.

CF 21. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to authorize coordinated and integrated infrastructure planning based on compact and mixed use land use patterns.

CF 22. As recommended in the *Charleston Regional Hazard Mitigation Plan*, prepare and adopt a county-wide Community Wildfire Protection Plan (CWPP) with the assistance of local and locally represented land management agencies and organizations and local hazard mitigation officials, including fire departments.

CF 23. Investigate programs such as Septic Maintenance Programs to protect water quality and provide clean and safe sewage systems to communities in the Rural Area.

Chapter 3.9 Priority Investment, Implementation, and Coordination Element

3.9.1: OVERVIEW

In 2007, the *South Carolina Priority Investment Act* (The Act) was passed by The General Assembly to address affordable housing and transportation issues and to create a formal process for interjurisdictional coordination. The Act requires two new elements be included in Comprehensive Plans, the Transportation Element and the Priority Investment Element. It also expands the Housing Element to require counties (1) to analyze regulatory barriers that may impede the provision of affordable housing; and (2) to utilize market-based incentives to encourage development of affordable housing. The primary intent of the *Priority Investment Act* is to better coordinate the funding of necessary public facilities with available resources and adjacent jurisdictions through implementation strategies. The significant challenge in meeting the requirements of The Act is the multi-jurisdictional nature of planning and public service provision in the County. As detailed throughout this Plan, many jurisdictions and agencies are involved in the provision of services and growth management in Charleston County. The multitude of service entities operating in the County requires extensive coordination.

Since its adoption in 1999, the Charleston County *Comprehensive Plan* has included an Intergovernmental Coordination Element with the goal of promoting regional cooperation and coordination in areas of mutual concern for Charleston County, internal municipalities, and its neighbors. The Intergovernmental Coordination Element has been expanded and included in this Plan update as the Priority Investment, Implementation, and Coordination Element. The approach to priority investment in Charleston County includes:

1. Strategies for ongoing coordination with adjacent jurisdictions, service providers, and other agencies;
2. Four major implementation initiatives; and
3. An implementation toolbox.

The four major initiatives for implementing this Plan prioritize the actions the County will take in an effort to coordinate land use, transportation, community facilities, and economic development. The primary components of these initiatives include the development of a Capital Improvements Plan and the coordinated provision of public services and facilities. The Priority Investment, Implementation, and Coordination Element will be an ongoing annual endeavor directed by County Council with adequate resources. As resources permit, the implementation should include a work program for land planning/growth management projects with a focus on coordinating with appropriate agencies and departments, strategies to consolidate services where appropriate, and maintenance strategies for County-provided services that protect the general health, safety, and welfare of the public such as 9-1-1 dispatch, EMS, fire, sheriff, detention center, drainage, stormwater, roads, and mosquito abatement.

Purpose and Intent

The Priority Investment, Implementation, and Coordination Element prioritizes the implementation actions for the County over the next ten years through strategies, implementation initiatives and an implementation toolbox. This Element provides guidance for implementation of strategies contained in the other Plan Elements by analyzing the potential federal, state, and local funds available for public infrastructure and facilities during the next ten years and prioritizing projects recommended for that funding. The strategies and implementation measures contained in this element: identify service providers, organizations and municipalities with which the County should coordinate provision of services; reference elements of this Plan which identify locations for improvements to public facilities; support the prioritization of County funds; lay groundwork for intergovernmental coordination; and provide the implementation tools to accomplish the strategies of the Plan elements.

3.9.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

The elements of this *Comprehensive Plan* identify where and how growth in Charleston County should take place over the next ten years. The strategies contained in those elements are carried forward through the Priority Investment, Implementation, and Coordination Element. The County intends to continue to maintain the public facilities and services that are in place today. Likely federal, state, and local funds available for public infrastructure and facilities during the next ten years include, but are not limited to:

- The Charleston County General Fund;
- The Half-Cent Sales Tax Transportation Program;
- The Half-Cent Sales Tax Greenbelt Program;
- The Charleston County Grants Department (Community Development Block Grants); and
- The Charleston Area Transportation Study (CHATS) Program.

An example of projects recommended for expenditures of these funds are included in the Half-Cent Sales Tax Transportation Program and Greenbelt Program.

The strategies and implementation measures contained in this element are intended to work in concert with and support current County initiatives, such as the Half Cent Sales Tax Transportation Program, the Greenbelt Program, and Consolidated Dispatch to ensure that these efforts continue in the future. Summaries of the main focuses of the other Plan elements are listed below.

1. Land Use Element

Contains specific recommendations on the location, type, form, and intensity of growth which should occur in the County and coordinates these recommendations with the Urban Growth Boundary which delineates the Urban/Suburban Area and the Rural Area of the County. The Land Use Element contains specific guidelines for each of these areas which reference the provision of services appropriate to maintain and enhance their respective character. The character of the Rural Area has been identified in this Plan as a unique and valuable resource in the County. There are limited public facilities and services in the Rural Area. Moreover, there is an expectation that any new development will not negatively impact the rural character and will contribute its fair share to the costs associated with growth, such as provision of public facilities and services. The Plan includes guidelines for preservation of agricultural and rural landscapes, and makes it clear that roads and services should be of a high quality while maintaining and enhancing the rural character. Strategies and implementation measures for the Rural Area focus on improvement of quality without significant expansion of capacity which may encourage more suburban style growth.

Conversely, the Vision for this Plan encourages intensification and infill within the Urban/Suburban Area of the County. This area of the County includes the highest levels of public facilities and services giving it the greatest potential to support future growth. The prioritization of investment in the Urban/Suburban Area should be focused on ensuring that the capacity of roads, water and sewer service, public safety services, open space and recreational areas, and other community facilities meet the needs of the existing population and that appropriate levels of service are planned for future residents.

2. Economic Development Element

Includes strategies to balance business and employment growth with population growth.

3. Natural Resources Element and Cultural Resources Element

Focuses on strategies to preserve, protect, and enhance the County's significant natural and cultural resources that contribute to the quality of life of its residents.

4. Population Element

Identifies demographic trends to help guide policy decisions that will meet the needs of current and future residents.

5. Housing Element

Includes strategies to ensure a sufficient supply of diverse, safe, and affordable housing types.

6. Transportation Element

Identifies the locations and types of improvements planned for the County's transportation systems for the next 20 years. The Transportation Element also references the *Comprehensive Transportation Plan* completed by the Transportation Advisory Board in 2006 which coordinates the recommended transportation improvements with the underlying land use recommendations carried forward in this Plan and provides recommendations for allocation of state and federal funding as well as the local Half Cent Sales Tax Program.

7. Community Facilities Element

Focuses on strategies to balance land use planning with the availability of public facilities and services.

8. Energy Element

Identifies strategies to promote the use of alternative energy sources and energy conservation measures that benefit our communities.

3.9.3: PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION ELEMENT GOAL

Public infrastructure projects will be prioritized through coordination with adjacent and relevant jurisdictions and agencies.

Priority Investment, Implementation, and Coordination Element Needs

Priority Investment, Implementation, and Coordination Element needs include, but are not limited to, the following:

- Interjurisdictional coordination;
- Annual planning work program for implementation of this Plan;
- Capital Improvements Programming, Fiscal Impact Assessment, and funding options;
- Encouraging intensification and infill within the Urban/Suburban Area while maintaining the character of the Rural Area; and
- Responding to changes by authorizing alternatives to conventional land use and development patterns.

3.9.4: PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION STRATEGIES AND TIME FRAMES

The Priority Investment, Implementation, and Coordination Element prioritizes the actions for the County over the next ten years. The strategies contained in this Element together with the implementation initiatives that follow, are intended to lay the groundwork to meet the goals of this Plan. All of the strategies contain elements of the implementation initiatives. Those initiatives are explained in detail following the strategies listed below. Some of the strategies come from other elements of this Plan to be carried forward through implementation actions described in this element. Other strategies are aimed at interjurisdictional coordination and cooperation, which is another implementation action the County will take to meet the goals of this *Comprehensive Plan*. Additional tools the County can use to carry out the strategies of this Plan are included in the implementation toolbox, which is located in the appendix to the *Comprehensive Plan*. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

PI 1. Prepare a Fiscal Impact Analysis to evaluate the cost of providing public services and infrastructure to serve new growth in the unincorporated County and across jurisdictions where the County is a major service provider.

PI 2. Prepare and update a five to ten year Capital Improvement Plan that includes funding options and coordinates with the Land Use, Community Facilities, and Transportation Elements of the *Comprehensive Plan*.

PI 3. Review and update the *Zoning and Land Development Regulations Ordinance* to ensure these regulations reflect the recommendations of the *Comprehensive Plan* elements including but not limited to infill development within the Urban Growth Boundary, rural preservation, development quality, resource protection, housing affordability, and economic development.

PI 4. Coordinate efforts to address specific planning issues involving Charleston County including, but not limited to:

- Consistent land use plans and architectural standards among adjacent jurisdictions;
- Consistent overlay zoning districts among adjacent jurisdictions;
- Implementing the goals and strategies contained in the *Berkeley-Charleston-Dorchester Housing Needs Assessment*; and
- Provision of transportation alternatives among jurisdictions.

PI 5. Seek agreements with water providers, Designated Wastewater Management Agencies, and agencies providing wastewater treatment that will:

- Establish service area limits in support of the regional land use pattern adopted in the Charleston County *Comprehensive Plan*; and
- Require that any wastewater treatment systems other than individual on-site systems in the Rural Area be approved by County Council as a *Comprehensive Plan* amendment and be approved by the BCDCOG as an amendment to the *Section 208 Water Quality Management Plan*. Wastewater treatment systems that are approved as part of Planned Development or Form-Based Zoning Districts, or Development Agreements do not require amendments to the *Comprehensive Plan;* however, they may require amendments to the *208 Water Quality Management Plan*.

3.9.4: PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION STRATEGIES AND TIME FRAMES CONTINUED

PI 6. Reinforce the location of the Urban Growth Boundary and the process and criteria to change its location through interjurisdictional coordination with the Cities of Charleston and North Charleston, the Town of Mount Pleasant, and other service providers in support of the this Plan.

PI 7. Continue the *Comprehensive Plan* implementation initiatives included in this Element and adopted by County Council.

PI 8. Continue to coordinate with municipalities in the County to achieve consensus on regional issues and strategies to address regional issues in an effort to ensure long-term consistency and compatibility between County and municipal plans.

PI 9. Continue regional coordination with Berkeley County, Dorchester County, and Colleton County to plan concurrently and compatibly, with particular attention to the regional implications of decisions regarding transportation system improvements, solid waste disposal, detention centers, and the extension of public sewer and water services.

PI 10. Advocate for coordinated public facilities and services necessary to support the regional land use pattern adopted in Charleston County.

PI 11. Continue coordinating with SCDOT and BCDCOG to enhance transportation planning in Charleston County, focused upon the following:
- Identification of roadway improvements in future updates of the *CHATS Plan* and the *Five-Year Transportation Improvement Plan* (TIP) that support the development pattern in the Charleston County *Comprehensive Plan*;
- Long-term planning for state highways that supports the goals of the Charleston County *Comprehensive Plan*;
- Design of state highways that supports the goals of the Charleston County *Comprehensive Plan*; and
- Funding implementation of the adopted CHATS Plan Actions to enhance transit use and funding implementation of the *CHATS Long-Range Public Transportation Plan*.

PI 12. Continue Emergency Planning coordination with Berkeley County, Dorchester County, and the South Carolina Emergency Preparedness Division to adequately plan for natural and man-made disasters.

PI 13. Coordinate land use planning with the Charleston County School District.

PI 14. Continue efforts to develop a regional database sharing Geographic Information System (GIS) data among municipalities, counties, the BCDCOG, state and federal resource management agencies, and other relevant stakeholders.

PI 15. Provide for allowances in the *Zoning and Land Development Regulations Ordinance* for potential new energy and sustainability endeavors.

PI 16. Encourage long-term public-private partnerships in land use, housing, economic development, and infrastructure planning.

PI 17. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to implement the Form-Based Zoning District strategies for each Element of this *Comprehensive Plan*.

PI 18. Continue to work with the City of Charleston, residents, and stakeholders in the DuPont | Wappoo Community to execute the DuPont | Wappoo Memorandum of Understanding and implement the DuPont | Wappoo Community Plan, which is adopted as part of this Plan by reference.

PI 19. Continue to work with the residents and stakeholders in the Parkers Ferry community to implement the Parkers Ferry Community Plan, which is adopted as part of this Plan by reference.

3.9.5: IMPLEMENTATION INITIATIVES

The following are the four Major Implementation Initiatives for the County to carry out some of the strategies recommended in this Plan. These specific work tasks should be reviewed annually and, based on available resources, the County Council should create an annual work plan for implementing the *Comprehensive Plan* through these initiatives. These recommendations include the general tasks to be completed and an overview of what would be required. A full description including case studies is included in the appendix document titled The Charleston County *Comprehensive Plan Implementation Toolbox*. The four initiatives are:

A. Area Specific Strategic Planning;
B. Capital Facility Program, Fiscal Impact Analysis, and Funding Options;
C. Interjurisdictional Coordination; and
D. Rural Preservation.

A. Area Specific Strategic Planning

The following tasks are a strategic component of a work plan to implement the *Comprehensive Plan*. The prioritization is detailed for each action. A Council-directed work program for the Planning Department should be established annually based on available resources.

These tasks will help implement this Plan by coordinating land use with the provision of public facilities and transportation initiatives. Many of them will require intergovernmental coordination to ensure development is consistent across jurisdictional lines. They can also be used to further the land use, population, and housing goals of the County. Future planning efforts should be approached to affirmatively answer as many of the following questions as possible:

- Does the proposed plan coordinate land use with the Urban Growth Boundary policies including Rural Preservation?
- Does the proposed plan include mixed use centers?
- Does the proposed plan encourage affordable and workforce housing?
- Does the proposed plan promote sustainable development practices?
- Does the proposed plan follow community form and quality standards?
- Does the proposed plan integrate transitional standards?

Major Planning Efforts

The intent of the County in identifying major planning efforts is to establish a process by which multi-jurisdictional agreements can be made to ensure coordinated land use planning and provision of public services. To achieve coordination, the County may enlist a third party to facilitate the process, which would involve extensive participation of the public.

Table 3.9.1: Priority Recommendations for Major Planning Efforts

Area	Recommended Time Frame*	Intergovernmental Coordination
Reinforce the location of the Urban Growth Boundary	1-2 Years	City of Charleston, City of North Charleston, Town of Mount Pleasant, and relevant service providers
Proposed Spring Grove Development (formerly East Edisto)	1-2 Years	Towns of Hollywood, Meggett, and Ravenel

**Time frame conditional based on availability of adequate resources, to be directed and reviewed annually by County Council.*

Urban Growth Boundary

As discussed in the Land Use Element, the Urban Growth Boundary is a growth management tool that is used by the County to create a regional approach to growth. For the Urban Growth Boundary to be effective, jurisdictions such as the Cities of Charleston and North Charleston, the Town of Mount Pleasant, and relevant service providers must collaborate regarding the location of the Urban Growth Boundary and the criteria and process to change its location.

The City of North Charleston has not adopted an Urban Growth Boundary. Therefore, the Urban Growth Boundaries adopted by the City of Charleston, Town of Mount Pleasant, and Charleston County should be located in a coordinated manner. During the *2013/2014 Five-Year Review* of the County's Plan, the County reviewed the location of its Urban Growth Boundary relative to the locations of those adopted by the City of Charleston and Town of Mount Pleasant. The County's Urban Growth Boundary was revised in specific locations to match those adopted by the other jurisdictions, as appropriate; however, there are still slight variations. These variations should be rectified and the necessary adjustments adopted by each jurisdiction. The jurisdictions should also coordinate to draft and adopt the criteria and process to move the Urban Growth Boundary and approach service providers regarding provision of services such as public water and sewer outside the Urban Growth Boundary.

Proposed Spring Grove Development

The proposed Spring Grove development (formerly East Edisto) encompasses approximately 14,500 acres in western Charleston County, spanning from south of Savannah Highway almost to the County boundary. For this property to be developed under the Development of County Significance provisions of this Plan and the *Zoning and Land Development Regulations Ordinance*, the following applications must be submitted to Charleston County for review and determination:

- Development Agreement;
- Development of County Significance;
- *Comprehensive Plan* Amendment; and
- Form-Based Zoning District (or other zoning map amendment application).

Urban/Suburban Area Review

Implementation of the Urban/Suburban Future Land Use Designation

The Land Use Element includes a new Urban/Suburban Future Land Use designation, Urban/Suburban Mixed Use, that takes the place of the former low and medium/high density residential future land use designations. The Urban/Suburban Mixed Use designation allows for mixed use, higher density development in the Urban/Suburban Area of the County where public infrastructure and services exist, implementing the County's policy to direct growth to the Urban/Suburban Area. This new future land use designation must be implemented in the *Zoning and Land Development Regulations Ordinance*. Such implementation must be coordinated with adjacent jurisdictions and may take the form of new zoning districts that include new or revised density, intensity, and dimensional standards, as well as changes to the uses allowed in various Urban/Suburban Area zoning districts. The character of existing development should be taken into account when implementing this initiative.

Consistency Review

The map entitled "Special Planning Areas" (*Map 3.1.3*) identifies areas in the Urban/Suburban Area of Charleston County that require further study regarding land use, zoning, and site design consistency with adjacent jurisdictions. The recommended implementation strategy for these areas is to review the consistency between the existing land uses, future land use recommendations, and zoning of these properties and coordinate with adjacent jurisdictions, affected agencies, and the public to make any necessary adjustments. This could result in amendments to the *Comprehensive Plan* and/or the *Zoning and Land Development Regulations Ordinance*.

Table 3.9.2: Priority Recommendations for the Urban/Suburban Area review

Area	Recommended Time Frame	Intergovernmental Coordination
Implementation of the Urban/Suburban Future Land Use Designation	**1-2 Years**	**All municipalities within the Urban Growth Boundary**
Consistency Review	**1-2 Years**	**All applicable jurisdictions**

Time frame conditional based on availability of adequate resources, to be directed and reviewed annually by County Council.

Rural Area Review

Table 3.9.3: Priority Recommendations for the Rural Area review

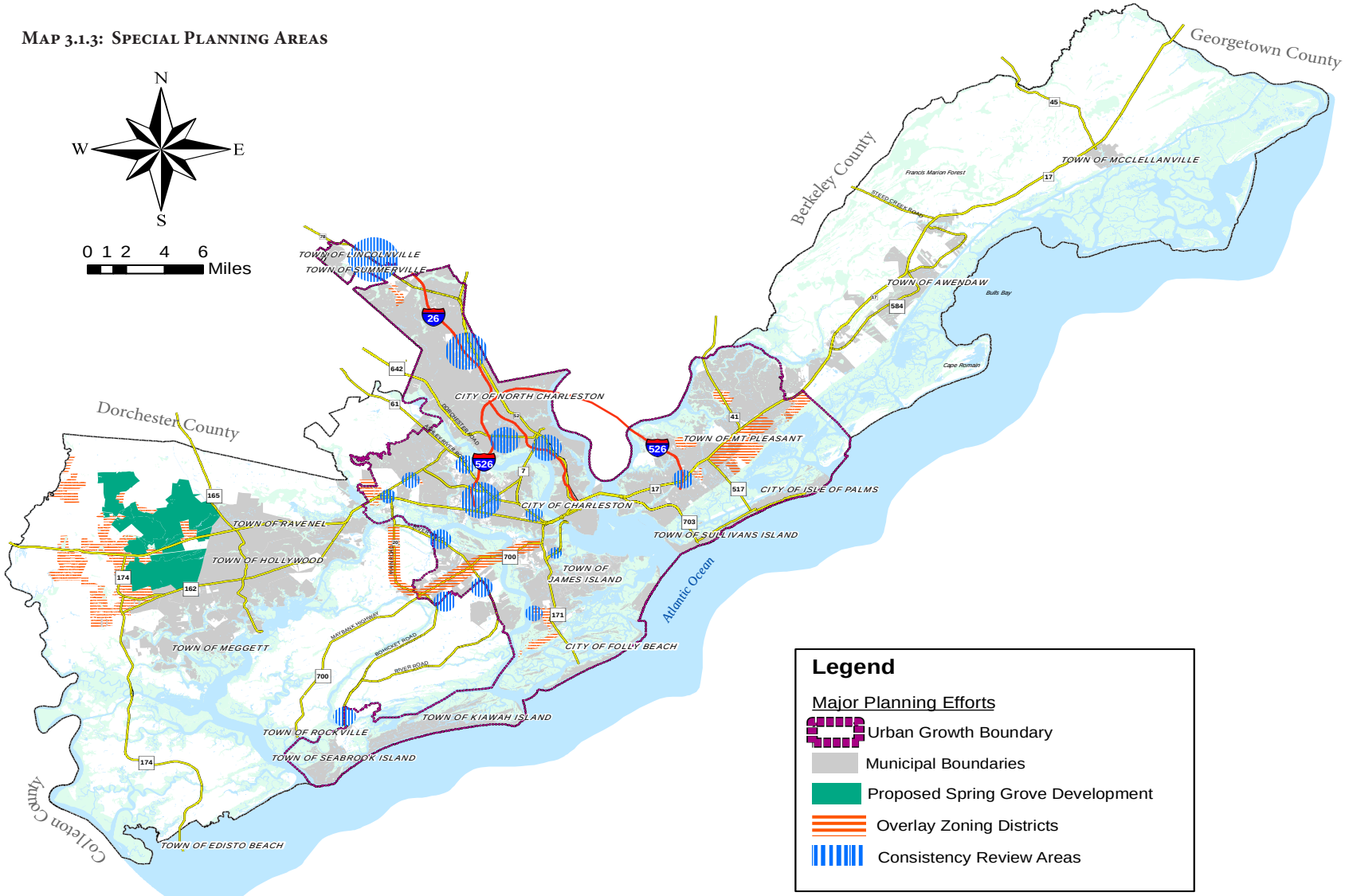
Area	Recommended Time Frame	Intergovernmental Coordination
Implementation of the Rural Residential Future Land Use Designation	**1-2 Years**	**City of Charleston and Town of Mount Pleasant**
Consistency Review	**1-2 Years**	**All applicable jurisdictions**

Time frame conditional based on availability of adequate resources, to be directed and reviewed annually by County Council.

Implementation of the Rural Residential Future Land Use Designation

Properties in the Rural Residential Future Land Use category are located in the Rural Area of the County along the eastern and western edges of the Urban Growth Boundary. This Future Land Use designation is currently implemented in the *Zoning and Land Development Regulations Ordinance* through the Rural Residential (RR-3) zoning district. This zoning district allows a maximum density of one dwelling per three acres, which is the base density recommended by this Future Land Use category. The *Zoning and Land Development Regulations Ordinance* should be amended to allow development on properties in the Rural Residential (RR-3) zoning district to occur at one dwelling per acre, consistent with the *Comprehensive Plan* future land use density recommendation, when specific criteria are met. Such criteria should include distance from the Urban Growth Boundary, frontage along major roads, and buffers from lower intensity uses. These amendments should be coordinated with the City of Charleston and Town of Mount Pleasant as they have similar future land use recommendations and zoning for adjacent properties.

Map 3.1.3: Special Planning Areas



Note: Municipal boundaries shown are as of Feb. 25, 2014.

Consistency Review

The map entitled "Special Planning Areas" (*Map 3.1.3*) also identifies areas in the Rural Area of Charleston County that require further study regarding land use, zoning, and site design consistency with adjacent jurisdictions. The recommended implementation strategy for these areas is to review the consistency between the existing land uses, future land use recommendations, and zoning of these properties and coordinate with adjacent jurisdictions, affected agencies, and the public to make any necessary adjustments. This could result in amendments to the *Comprehensive Plan* and/or the *Zoning and Land Development Regulations Ordinance*.

Overlay Zoning Districts

Map 3.1.3: Special Planning Areas identifies both currently adopted overlay zoning districts that need to be reviewed and areas of the County where new overlay zoning districts should be created. The purpose of these overlay zoning districts is to ensure that land use and design standards implement the desires of the community and are coordinated among relevant jurisdictions. Each overlay zoning district is described below.

Table 3.9.4: Priority Recommendations Overlay Zoning Districts

Area	Recommended Time Frame	Intergovernmental Coordination
Maybank Highway Corridor Overlay Zoning District (consistency with the Johns Island Plan and extension onto James Island)	1-2 Years	City of Charleston
Main Road (River Road to Maybank Highway including Kitford Road)	1-2 Years	City of Charleston
Mount Pleasant Overlay Zoning District - Sweetgrass Basket Stand Special Consideration Area	1-2 Years	Town of Mount Pleasant
Urban/Suburban Area Cultural Community Protection Overlay Zoning District	1-2 Years	Applicable jurisdictions and service providers
Rural Area Cultural Community Protection Overlay Zoning District	1-2 Years	Applicable jurisdictions and service providers
Aircraft Accident Potential Zones and high noise zones surrounding Joint Base Charleston	3-5 Years	BCDCOG and City of North Charleston

Time frame conditional based on availability of adequate resources, to be directed and reviewed annually by County Council.

Maybank Highway Corridor Overlay Zoning District

Map 3.1.8, Maybank Highway Corridor Overlay Zoning District in the Land Use Element illustrates the existing Maybank Highway Corridor Overlay Zoning District located on Johns Island. This overlay zoning district was developed in coordination with the residents of Johns Island and the City of Charleston in the late 1980s/early 1990s. Since that time, many changes affecting this corridor have taken place, including:

- The City of Charleston revised their Maybank Highway Corridor Overlay Zoning District, adopting land use, density, and site design standards that differ from those adopted by Charleston County;
- Charleston County Council approved the construction of the final leg of Interstate 526 from West Ashley, across Johns Island, and onto James Island; and
- Properties located along the James Island portion of Maybank Highway that were formerly part of the previous Town of James Island are now in the unincorporated County. The land use plan for these properties has not been addressed in several years due to their incorporation in the previous Town.

The recommended implementation strategy is to review this overlay zoning district in light of the changes described above, work with the public and the City of Charleston to make revisions as appropriate, and extend the overlay zoning district along Maybank Highway on James Island.

Main Road Corridor Overlay Zoning District

Land uses along Main Road, also located on Johns Island, vary from rural and agricultural residential uses to intensive commercial and industrial development. The recommended strategy to ensure a cohesive land use pattern for this area is to work with the public and the City of Charleston to create an overlay zoning district along Main Road from its intersection with River Road to Maybank Highway, including Kitford Road.

Mount Pleasant Overlay Zoning District - Sweetgrass Basket Stand Special Consideration Area

In 2007, Charleston County worked with the public, the Coastal Communities Foundation, and the Town of Mount Pleasant to incorporate the Sweetgrass Basket Stand Special Consideration Area into the Mount Pleasant Overlay Zoning District. The purpose of the Sweetgrass Basket Stand Special Consideration Area is to implement cohesive land use patterns, zoning, and site design requirements. Since that time, Highway 17 North has been widened, plans for the extension of Hungry Neck Boulevard have been drafted, and the Town of Mount Pleasant has amended their overlay zoning district for this area. Additionally, there are plans to re-align Long Point Road with Old Georgetown Road at its intersection with

Highway 17 North. The recommended strategy is to review this overlay zoning district in light of the changes described above, and work with the public and the Town of Mount Pleasant to make revisions as appropriate.

Urban/Suburban Area Cultural Community Protection Overlay Zoning District

The Land Use Element replaces the former Residential/Special Management Future Land Use designation with the Urban/Suburban Area Cultural Community Protection Future Land Use designation. This future land use category is intended to protect and promote the culture and unique development patterns of historic communities in the Urban/Suburban Area. Because it is a new future land use category, it must be implemented in the *Zoning and Land Development Regulations Ordinance*. The recommended strategy is to work with the residents of these communities and relevant jurisdictions and service providers to create overlay zoning districts customized to meet the needs of each individual community.

Rural Area Cultural Community Protection Overlay Zoning District

The Land Use Element includes a new future land use category called the Rural Area Cultural Community Protection Future Land Use designation, which is intended to protect and promote the culture and unique development patterns of historic communities in the Rural Area. Because it is a new future land use category, it must be implemented in the *Zoning and Land Development Regulations Ordinance*. The recommended strategy is to work with the residents of the communities that have been designated for this future land use category in the Plan, as well as with relevant jurisdictions and service providers, to create overlay zoning districts customized to meet the needs of each individual community.

Additional communities that meet the description of this future land use category should be identified in the future and corresponding amendments to the *Comprehensive Plan* and *Zoning and Land Development Regulations Ordinance* should be drafted in coordination with residents, relevant jurisdictions, and service providers.

Joint Base Charleston Overlay Zoning District

The relationship between a military installation and the surrounding communities is closely interconnected, where decisions made by leadership on both sides may have serious consequences for their respective installations and jurisdictions. Military installations are often critical to regional, state, and local economies, attracting jobs and workers and generating billions of dollars in economic activity and tax revenue (in Charleston, the annual impact is $3.3 billion). This economic driver in turn increases the demand for housing, public services, and infrastructure. However, as growth occurs and communities develop and expand, they often move closer to military lands, resulting in conflicting development types.

Incompatible residential and commercial development patterns are encroaching on Joint Base Charleston. Accident Potential Zones were identified in the *Air Installation Compatibility Use Zone (AICUZ) Study*, prepared by the Air Force in 2004. The AICUZ Study report offers guidelines and recommendations for zoning and regulatory changes in an effort to promote compatible land uses in areas subject to high aircraft noise levels and potential accidents around the base. Since local and county governments have responsibility for managing growth and protecting the health and safety of their citizens, they are encouraged to adopt and implement the recommendations in these guidelines. The recommended strategy is to develop an overlay zoning district in coordination with the public, Joint Base Charleston, the City of North Charleston, and the BCDCOG to identify appropriate land uses, residential densities, dimensional standards, site design standards, and review processes for properties surrounding Joint Base Charleston.

Zoning and Land Development Regulations Ordinance Updates

As a general implementation strategy, the County should review the *Zoning and Land Development Regulations Ordinance* to ensure conformance with the *Comprehensive Plan* goals and strategies. Updates may be needed to address modifications to the Plan and include design standards to support the character of the Rural Area and Urban/Suburban Area of the County. The time frame for completion of this initiative should be ongoing to stay up to date with current planning in the County.

B. Capital Improvement Plan, Fiscal Impact Assessment, and Funding Options

A Capital Improvements Plan (CIP) is a five- to six-year schedule of capital projects for public facilities including funding options which will be used to finance improvements. A strong CIP directs where development and redevelopment could be supported through infrastructure improvements. The types of public facilities in a CIP for Charleston County might include transportation, parks, public safety, and public buildings. A properly funded CIP is a fiscal business plan to meet the needs of the County. It takes stock of current levels of service for the included facilities, identifies deficiencies, and makes recommendations for needed improvements. To be successful, the CIP should take cues from the land use and development goals and strategies contained in this Plan that direct where and how growth should occur.

In addition to the creation of a CIP, the County should conduct a Fiscal Impact Analysis to determine the cost of providing services and infrastructure to new development. A Fiscal Impact Analysis evaluates the revenue and costs associated with

new development either on a per unit basis or as a marginal increase to the County's overall operations. A Fiscal Impact Analysis can help the County in the preparation of a CIP by determining the costs of additional facilities to service housing and business growth. It will also allow the County to prepare funding to ensure high levels of service are maintained and keep pace with growth. Understanding the fiscal impact is the first step in ensuring that new growth will contribute its fair share to the costs with which it is associated. Funding options that may be used to fund capital improvements include:

- Impact Fees - a one-time fee based on the cost associated with providing capital improvements to new homes or businesses. This fee is a per unit exaction paid at the time property is developed or purchased.
- Property Tax - a tax collected by the County based on the appraised value of a real asset.
- Capital Project Sales Tax - a sales tax collected for the express purpose of funding capital projects. The County is currently using a one-half cent sales tax to fund road, transit, drainage, and open space projects.

In considering any funding option, the following items should be addressed:

1. Identify the needed capital improvement(s);
2. Identify the costs of the capital improvement(s); and
3. Identify funding support for the improvement(s).

Any approval of a plan for development and/or application for services, whether within or without the unincorporated areas of the County, that relies on the use of County services or County capital improvements, should have a financial mitigation plan.

C. Interjurisdictional Coordination

The unique circumstances of the jurisdictional boundaries and service provision in the Charleston region make coordination necessary in order to have successful implementation of this Plan. Interjurisdictional coordination can be informal such as regular meetings between staff and open sharing of information, or formal, when an official contract, such as a Memorandum of Agreement, is enacted between jurisdictions. There are many topics in the *Comprehensive Plan* that would benefit from increased coordination including:

The DuPont | Wappoo Community Plan is incorporated into this Comprehensive Plan.

1. Formalize the Urban Growth Boundary (UGB)

- Coordinate the location of the UGB with municipalities in the County; and
- Work with municipalities to develop a mutually agreed-to process and criteria for amending the UGB including interjurisdictional communication and justification regarding proposed changes.

2. Continue the County's role as a Designated Management Agency under the Section 208 Water Quality Management Plan administered by the BCDCOG. The benefits of being a Designated Management Agency include:

- Provides the County with a seat at the decision-making table;
- Gives the County a critical role in determining how wastewater disposal needs are addressed in the unincorporated areas of the County;
- Provides greater assurance of compliance with the County's *Comprehensive Plan* and overall goals and objectives;
- Encourages development review process to look at wastewater treatment first;
- Provides a means for coordination with the County's National Pollutant Discharge Elimination System (NPDES) Phase II stormwater management planning and implementation;
- Allows the County to determine its level of participation in water quality planning.

3. Coordinate County policy governing County services regarding developments that do not comply with the Comprehensive Plan, whether they are located in the unincorporated area of the County or within a municipality that relies on County services.

4. Continue to coordinate with adjacent jurisdictions to achieve consensus on local and regional issues and strategies in an effort to ensure long-term consistency and compatibility between County and municipal plans.

5. Consider increasing property tax incentives for lands used for bona fide agricultural and/or forestry and rehabilitated historic buildings as defined by State Law.

D. Rural Preservation

Preservation of the natural and cultivated rural character of the Lowcountry landscape is among one of the highest priorities of this Plan, particularly in regard to its contribution to the character and quality of life for residents of the County and region. The unique Lowcountry rural landscape and the historic properties and landmarks benefit the local economy through their contributions to production, tourism, and recreation. In order to effectively protect the Rural Area, the County should continue to undertake efforts to promote traditional rural uses, preserve natural resources, and maintain the Lowcountry landscapes. The County should institute programs to support the preservation of rural character. The County has already taken many steps in this direction by having a future land use plan and zoning regulations that protect the Rural Area and creating the County Council Agricultural Issues Advisory Committee, which is focused on fostering agri-business in Charleston County and South Carolina. This Plan carries forward the Rural Area designation and strengthens the strategies to protect and preserve the unique features of the Lowcountry rural landscape. Further efforts the County may explore to build on past successes include:

1. Formalizing the Urban Growth Boundary (UGB):

- Coordinate the location of the UGB with municipalities in the County; and
- Work with municipalities to develop a mutually agreed to process and criteria for amending the UGB including interjurisdictional communication and justification regarding proposed changes.

2. Exploring ways, through zoning, to encourage and allow rural and agricultural businesses to prosper through farm and agricultural related activities. Such methods could include:

- Expanding agriculture and agricultural uses in districts;
- Allowing niche farming, agri-tourism, and agri-tainment uses such as hay rides and corn mazes; and
- Creating a rural industrial district to provide services and employment opportunities for rural residents.

3. Providing for conservation subdivisions as a development option to preserve open space; and

4. Exploring programs that promote local food production and consumption.

The Parkers Ferry Community Plan is incorporated into this Comprehensive Plan.

3.9.6. IMPLEMENTATION TOOLBOX

The following list includes additional tools the County can use to carry out the goals and strategies of this Plan. Some of these tools are already utilized by Charleston County, such as the *Charleston County Greenbelt Program* and the *Zoning and Land Development Regulations Ordinance*. Some of these tools have been mentioned previously in this document, while others are listed to ensure their inclusion should the County decide to use them. Each of these tools is explained in more detail including case studies and technical information in the appendix document *Charleston County Implementation Toolbox*.

- The *Zoning and Land Development Regulations Ordinance*;
- The *Charleston County Greenbelt Plan*;
- The *Charleston County Comprehensive Transportation Plan*;
- Design Standards;
- Conservation Subdivisions;
- Property Maintenance Standards;
- Solid Waste Management Plan;
- Stormwater Program;
- Public Private Partnerships;
- Capital Improvement Plans;
- Fiscal Impact Analysis;
- Development Agreements;
- Intergovernmental/Interjurisdictional Agreements;
- Impact Assessment Studies;
- Adequate Public Facilities Program;
- Transfer of Development Rights/Purchase of Development Rights;
- Funding Options;
- Impact Fees;
- Property Tax;
- Capital Project Sales Tax;
- Transportation Authority Sales Tax;
- Real Estate Transfer Fee;
- Local Option Gas Tax; and
- Tax Increment Finance District.

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Chapter 3.10: Energy Element

3.10.1: OVERVIEW

The Energy Element includes information about energy use, available energy sources, and recommendations to help Charleston County become more energy independent. Energy independence is vitally important for national security and economic stability because of our reliance on imported fuel and sources of energy that have become increasingly scarce and costly to obtain. Ways to achieve energy independence include:

- Conservation;
- Efficiency;
- Utilizing Renewable and Alternative Energy Sources; and
- Utilizing Local Resources.

Energy plays an important role in the development of civilization. For centuries, the primary source of energy came from human labor, domesticated animals, and biomass (wood related products). However, the primary source of energy over the past 150 years has increasingly shifted to fossil fuels. This shift has brought unprecedented growth and prosperity, changing every facet of human endeavor including transportation, medicine, agriculture, etc. In all levels of government, especially at a local level, energy consumption and conservation is a growing concern as demand is predicted to exceed the supply of accessible and inexpensive fossil fuels in the coming years. Integration of sustainable development into the comprehensive planning process at the local level is vital to achieving sensible growth in South Carolina.

When energy expenses are reduced, there is more disposable income to spend on other priorities. Reducing energy use and investing in efficiency measures keeps more dollars circulating in the local economy as well. Energy efficiency, demand-side management, and conservation need to be promoted, publicized, and encouraged. Conserving energy and using energy efficiently is far easier and less costly than developing new energy sources, and is the first and most important step toward adopting renewable energy and developing resilient communities. Energy efficiency allows us to do the same things we are doing today while consuming less energy. Examples include energy efficient appliances, construction and development techniques, and fuel efficient vehicles. By improving our energy efficiency, we reduce the size and cost of renewable and alternative energy systems needed to power our homes and businesses. Conservation saves energy by changing attitudes and behavior to stop wasteful activities. The Energy Element underscores the significance of energy through a detailed analysis of energy use and its sources and presents a series of strategies to promote alternative sources and conservation measures that can benefit our communities. The Energy Element is vital in this Plan as it both "sets the stage" and "reinforces" the concepts of most other Elements in the Plan.

Purpose and Intent

The purpose and intent of the Energy Element is to promote conservation and renewable energy. Additionally, Charleston County intends to lead by example. The strategies for energy conservation and renewability will aid in maintaining the character of scenic Charleston County without hindering business and employment growth of future generations.

3.10.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

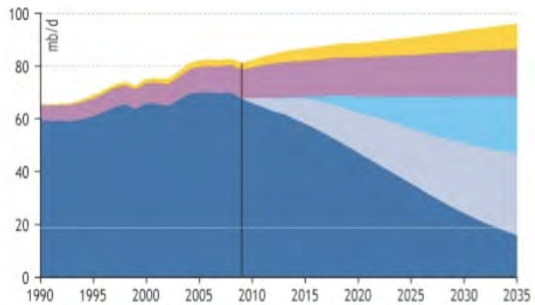
In order to understand the significance of energy at the local level it is important to understand energy consumption and available sources at all levels. This section provides detailed information about global, national, state, and county energy consumption. This will help guide the County to be more energy independent in the future.

Energy is the vital force powering business, manufacturing, and the transportation of goods and services. Energy supply and demand plays a vital role in our national security and the economy. In 2007, the U.S. Energy Information Administration (EIA) reported that the U.S. spends over $1.2 trillion annually on energy, which was 8.8 percent of Gross Domestic Product (nominal GDP). Additionally, in 2009, the EIA reported that the U.S. consumes 94.6 quadrillion British Thermal Units (BTUs) annually. On a per capita basis, U.S. citizens use an average of 308 million BTUs annually as compared to the 152 million BTUs utilized annually by European citizens. In order to understand energy consumption and the dynamic energy crisis, it is important to recognize that the era of abundant and inexpensive energy is coming to an end due to exponentially growing demand and the increased difficulty in finding and extracting the finite resources of fossil fuels.

The United States accounts for five percent of the world's population yet consumes 25 percent of the global oil production, the majority of which is imported from other nations.

In November 2010, the International Energy Agency (IEA) released a report indicating that conventional world oil production peaked in 2006 and was not expected to increase based upon known oil production data, yet the demand for oil is expected to increase. Peak Oil is the point in time that the world's oil production rate will reach a maximum and then decline because it is a finite resource. It is in this decline that the costs and energy required to extract or develop oil from unconventional methods approaches the amount of energy produced. This is known as Energy Returned on Energy Invested (EROEI). When the ratio of usable acquired energy to energy expended is one or lower, the source has lost its ability to be used as a primary source. All potential forms of energy must be evaluated for their individual EROEI. For example, wind power has a ratio of 18:1 and solar photovoltaic (solar panels) has a ratio of approximately 7:1. Early oil extraction ratios had an EROEI of 100:1, current oil extraction ratios range between 4:1 and 18:1. This means that for decades, one barrel of oil (in energy) was required to extract 100 barrels, while current production from tar sands yields only four barrels of oil per barrel of equivalent energy. EROEI ratios for all finite (non renewable) resources will eventually follow a similar trend.

Figure 3.10.1: World Oil Production



- Unconventional Oil
- Natural Gas Liquids
- Crude Oil: Fields Yet to Be Found
- Crude Oil: Fields Yet to Be Developed
- Crude Oil: Current Producing Fields

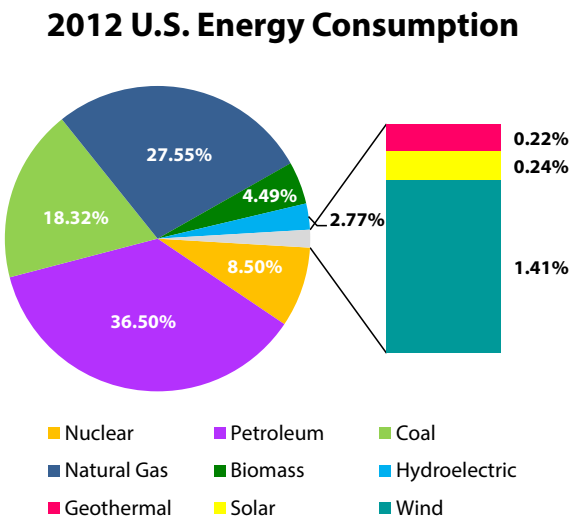
Source: International Energy Agency, 2010.

All economic activity requires energy. According to the EIA, as of 2009 roughly 37 percent of America's total energy demands and approximately 94 percent of the fuel we use for transportation is met by petroleum (crude oil and its multifarious derivatives). Petrochemicals are key components to all aspects of life including transportation, agriculture, modern medicine, water distribution, economic growth and national defense. For instance, a refrigerator, which is designed to preserve food grown and transported in fossil fuel-powered vehicles is primarily manufactured in fossil fuel-powered plants. It is then distributed using hydrocarbon-powered transportation networks and usually run on electricity, which most often comes from natural gas or coal. The gas and coal requires oil-based machinery to mine and transport. Like oil, natural gas and coal are finite resources that are likely to "peak" in the future as well.

According to the United Nations Population Division, the world population reached 7 billion people in October of 2011 and is expected to exceed 9 billion people before 2050. As seen in *Figure 3.10.2*, in 2012 approximately 82 percent of the U.S. energy consumption came from fossil fuels (petroleum, natural gas, and coal). Of that, about 37 percent was provided by petroleum, 28 percent from natural gas and 18 percent came from coal. Renewable resources provided the remaining 18 percent: nuclear-derived electric power provided nine percent of the nation's energy; biomass served four percent; hydroelectric powered three percent; and two percent came from alternative energy sources (geothermal, solar, and wind power).

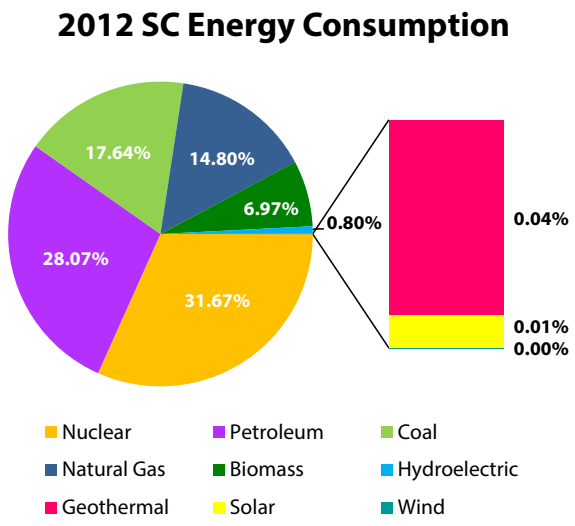
According to 2010 U.S. Census data, South Carolina had a population of approximately 4.6 million people. Between 2000 and 2030, South Carolina's population is projected by the Census Bureau to increase 28.3 per-

Figure 3.10.2: U.S. Energy Consumption



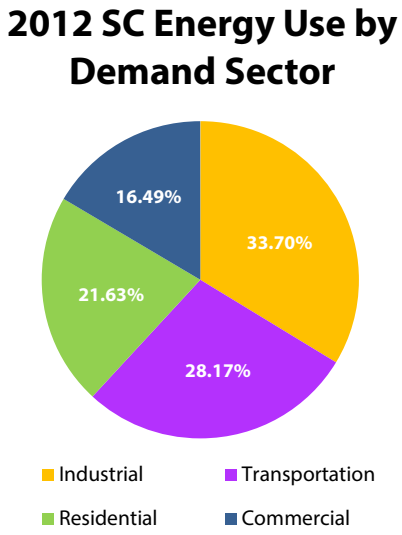
Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 2012.

Figure 3.10.3: SC Energy Consumption



Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 2012.

Figure 3.10.4: SC Energy Demand



Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 2012.

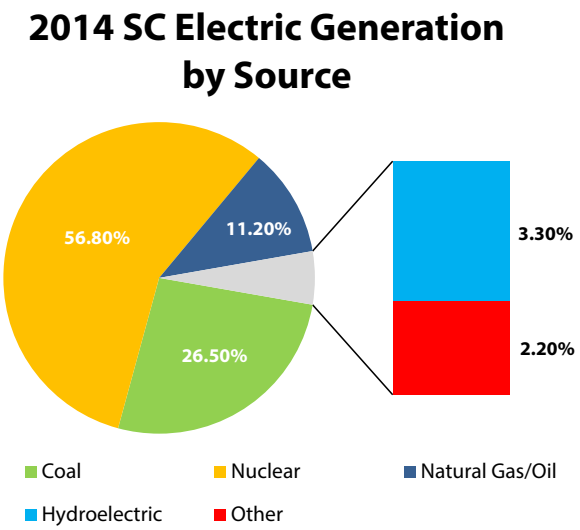
cent, adding over one million people to the state. As seen in *Figure 3.10.3*, in 2012, approximately 61 percent of South Carolina's energy consumption came from fossil fuels (petroleum, natural gas, and coal), which is below the national average, as shown in the 2012 U.S. Energy Consumption chart (*Figure 3.10.2*). Of that, 28 percent was provided by petroleum, 18 percent was provided by coal (although there are no coal mines in South Carolina) and 15 percent was provided by natural gas. Nuclear electric power provided 32 percent of South Carolina's energy. This is over three times the national average for this source due to the number of nuclear power plants in the state. Alternative energy sources (geotherman, solar, and wind power) accounted for seven percent of the state's energy consumption.

In 2012, the industrial sector in South Carolina accounted for the largest portion of the state's energy consumption by demand at approximately 34 percent (*Figure 3.10.4*). This was followed by transportation at 28 percent, residential at 22 percent, and commercial at 16 percent.

In 2010, South Carolina was ranked sixth highest in electricity use per capita in the nation with a consumption of 82,809 million kWh per capita, according to the California Energy Commission, which used data from the U.S. Energy Information Administration and U.S. Census Bureau American FactFinder. This high ranking can be primarily attributed to high electricity use associated with air conditioning. According to the EIA, South Carolina ranked 13th highest in the nation in total net electricity generation in 2011. Sixty-one percent (61%) of South Carolina residents use electricity as their primary energy source compared to 32.5 percent national use. As seen in *Figure 3.10.5*, as of March 2014 South Carolina electricity generation came from nuclear (57 percent), coal (27 percent), natural gas (11 percent), hydroelectric (three percent), and other miscellaneous sources and technologies including wind, solar, biomass and petroleum (two percent).

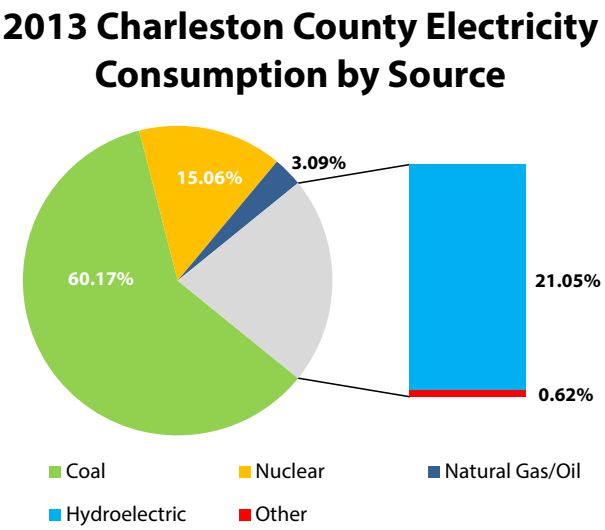
According to the 2012 data from the U.S. Census Bureau, Charleston County has a population of 365,162 people. As seen in *Figure 3.10.6*, in 2013, coal and nuclear power provided over 75 percent of the County's electric energy. Coal accounted for 60 percent and nuclear power provided 15 percent of the County's electric energy. Proportionally, the County uses approximately twice the coal and a third of the nuclear power as compared to electricity generation energy sources for other areas of the state. This can be attributed to the location of coal burning and nuclear power plants statewide and the method of electricity transmission. Hydroelectric power provided approximately 21 percent and natural gas/oil provided three percent of the County's electric energy consumption. Approximately one percent came

FIGURE 3.10.5: SC ELECTRICITY GENERATION



Note: 'Other' includes wind, solar, biomass, and petroleum.
Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 2014.

FIGURE 3.10.6: CHARLESTON COUNTY ELECTRICITY CONSUMPTION



Note: 'Other' includes wind, solar, biomass, and petroleum.
Sources: South Carolina Electric and Gas (SCE&G), Berkeley Electric Cooperative (BEC) and Santee Cooper, 2013.

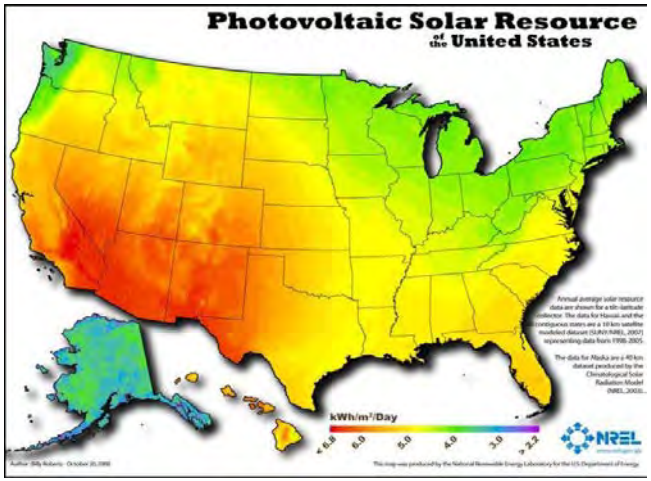
from other sources such as wind, solar, biomass, and petroleum.

A. Alternative Energy

The following is a discussion of alternative energy sources and their current and/or potential use in Charleston County and South Carolina:

- **Nuclear energy** is America's largest source of clean-air and carbon-free electricity, producing no greenhouse gases or air pollutants. Nuclear energy contributes 30 percent of the total energy consumption in the state. South Carolina is among the top nuclear power producers in the United States with four active reactors, which accounted for 57 percent of South Carolina's electricity generation as of March 2014. With seven nuclear plants, South Carolina is ranked third in the nation for installed nuclear power.
- **Solar energy** requires no additional fuel to run and is pollution-free. Photovoltaic systems and solar thermal power systems convert sunlight into energy. Photovoltaic (PV) cells absorb sunlight and convert it directly to electricity. There are three types of proven solar thermal power systems on the market, but they have limited use: the central receiver solar collector (a.k.a. power tower), the parabolic reflector, and parabolic trough system. PV solar energy has been in use for decades but manufacturing costs have prevented it from becoming a major source of energy in the past. However, recent improvements in manufacturing and technology have dramatically reduced the costs and improved the efficiency of PV solar panels. According to the U.S. Department of Energy (USDOE), the cost to install solar power in the United States fell by 17 percent in 2010 from 2009 and by an additional 11 percent within the first six months of 2011. Demand for solar power has increased 30 percent per annum over the past 15 years with over 7.3 GW of PV installations globally. The Department of Energy supports development of low-cost, high-efficiency PV technologies through the SunShot Initiative, which seeks to make solar electricity cost-competitive with other sources of energy by 2020. Currently, there is only about one MW of installed solar energy capacity in South Carolina. In 2010, IMO USA Corp. unveiled the state's single largest solar tracker solar panel located in Summerville, SC. The solar panel generates 22 kW, enough to power almost four homes. The assembly plant for the Boeing Company in North Charleston has a rooftop solar farm installation, which is the sixth largest solar farm in the United States and the largest in the southeast.

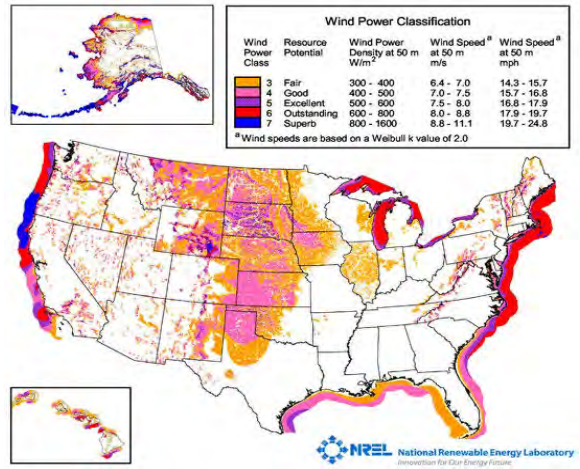
MAP 3.10.1: SOLAR ENERGY RESOURCE MAP



Source: National Renewable Energy Laboratory (NREL), 2010.

- **Biomass energy** and biofuels are energy sources from organic matter. They involve releasing the chemical energy stored in organic matter including trees, farm crops, manure, plants, and landfill gas. These materials are either burned directly to produce heat or refined to create fuels like ethanol and biodiesel. Biofuel can be used by itself or blended with traditional diesel fuel to fuel vehicles and equipment that have been modified to accept biofuel. There are currently several facilities in South Carolina that manufacture biofuel with one facility operating in North Charleston.
- **Hydroelectricity** is created when water from a river or stream flows through a turbine, which operates an electric generator. These plants have been in use in the U.S. since the late 1800s. In 1900, hydroelectricity comprised 57 percent of the electricity generated in the U.S; currently, hydroelectricity comprises 11 percent of the electricity generated in the nation and three percent of the electricity generated in South Carolina. Researchers are working on advanced turbine technologies that will maximize the use of hydropower while minimizing adverse environmental effects.
- **Geothermal energy** is the heat from the earth, both clean and sustainable. Geothermal heat pumps are among the most efficient and comfortable heating and cooling technologies available, requiring no supplemental heat source because of the moderate temperature of the ground even in winter. Geothermal heat pumps are used in South Carolina for residential and commercial purposes. These pumps require only the Earth's moderate, relatively constant ground temperatures to provide heating and cooling year round.

Map 3.10.2: Wind Energy Resource Map



Sources: U.S. Department of Energy (DOE) and National Renewable Energy Laboratory (NREL), 2010.

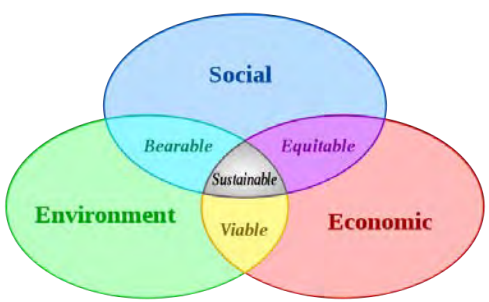
- **Wind power** has emerged as the world's fastest growing renewable energy market. The Department of Energy estimates that 20 percent of our national energy demand can be met with wind power by 2030. An estimated 1-5 GW of electricity from offshore wind can be produced in South Carolina alone, according to the Department of Energy. A 2009 study by Clemson University, Santee Cooper, Coastal Carolina University, and the South Carolina Energy Office determined that offshore wind resources in South Carolina could generate enough electricity to power one million homes more cost-effectively, due to the presence of sustained wind speeds of 12.5 miles per hour or more. In 2013, SCE&G and Clemson University partnered to dedicate a state-of-the-art wind turbine drivetrain test facility, named SCE&G Energy Innovation Center, in Charleston. The test facility is capable of full-scale highly accelerated mechanical and electrical testing of advanced drivetrain systems for wind turbines in the 7.5 to 15 megawatt range. South Carolina meets three important cost drivers for developing offshore wind farms: strong winds in shallow waters, access to commercial port facilities, and a large coastal demand. Building upon the offshore wind industry in South Carolina would offer economic development as the manufacturing of wind turbines and associated components could generate up to 20,000 jobs in the state.

B. Land Use

According to 2010 Census data approximately 8 percent (350,209) of the state's population resides in Charleston County. Charleston County is 1,358 square miles in size, with approximately 358

square miles of water and 1,000 square miles of land and marsh. Preservation of the County's natural resources and rural areas is one of the main goals of this Plan. One way the County protects these resources is through the Greenbelt Program, which aims to preserve 30 percent of the land in the County. Of the 669,440 acres of land within the County, 161,348 acres were under some sort of public private sector protection before the Greenbelt Plan started in 2006. In order to achieve 30 percent open space, the County set a target of acquiring 40,000 additional acres through the Greenbelt Program. As of March 2014, 19,908 acres of land have been protected through the Greenbelt Program. Another effective tool the County uses to protect open space is its Urban Growth Boundary Line (UGB). The area included within the UGB is considered urban/suburban and is designated for higher intensity infill development with homes, businesses, and industries that are contiguous to or near existing development to prevent premature and costly over extension of public services such as water and sewer. Everything outside of the UGB is considered rural, designated for less intense purposes such as agriculture, forestry, open space and preservation.

Figure 3.10.7: Sustainable Development



Source: World Conservation Union, 2006.

In 1987, the World Commission on Environment and Development (the Brundtland Commission) defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This is achieved by balancing social, economic, and environmental objectives or needs (*Figure 3.10.7*).

By promoting mixed use development within the Urban/Suburban Area and preserving land outside the Urban Growth Boundary for other activities such as agriculture, recreation, and open space, we begin to achieve sustainable development. Compact mixed use development within the Urban/Suburban Area requires less infrastructure (roads, water, sewer, etc.) because most of the required services already exist or are located nearby. This type of development generally uses less energy to install, maintain, and use while promoting alternative forms of transportation such as walking, biking, and mass transportation. Less intense modes of transportation are conducive to lowering energy and infrastructure costs and preserving the rural landscape. Planning and Zoning techniques such as an Urban Growth Boundary, Infill Development, Transit Oriented Development, and Form Based Code development can all be used to help promote sustainable development.

C. Transportation

Driving habits are a direct result of development patterns. The national transportation sector accounted for 28.5 percent of total energy use in 2009. Nationally, the average vehicle miles traveled (VMT) increased by 150 percent from approximately 2 trillion VMT in 1970 to approximately 5 trillion VMT in 2007, while population only increased by 50 percent from approximately 200 million people to 300 million people, according to the US Department of Transportation

and US Census Bureau. Therefore, the increase in VMT is attributed primarily to auto-oriented development. According to the American Community Survey, 2007-2011 Five Year Estimates, the average travel time to work in Charleston County was 22 minutes with nearly 79 percent of the population commuting alone by car, truck, or van. To assist in reducing vehicle miles traveled by single occupancy vehicles, the BCDCOG has initiated a travel demand management program which includes the promotion of Trident Rideshare, a free and convenient web-based service that connects commuters looking to share cars, bicycles, taxis, and transit or walking trips in Berkeley, Charleston, and Dorchester Counties. Public transit in Charleston County is offered through the Charleston Area Regional Transportation Authority (CARTA) for the Urban/Suburban Area and TriCounty Link for the Rural Area. CARTA is composed of 115 buses for transit in the Charleston area including 14 trolleys, 27 express buses, and neighborhood buses. Recently, CARTA upgraded its fleet by replacing outdated buses that only met the 1994 standards for exhausts and emissions with 11 buses that meet 2004 Air Standards.

Ways to reduce VMT include: improved interconnectivity with existing and proposed roadways and rethinking community design so that it is easier and safer to bike, walk, or use public transit. Charleston County transportation plans therefore no longer focus solely on roadway solutions. In the quest for an improved quality of life, Charleston County supports promoting livable communities with Complete Streets Policies that accommodate all modes of transportation including pedestrians and bicyclists. Besides reducing costs, the advantages of these latter modes of transportation include improved public health and environmental benefits from reduced air and noise pollution and improved water quality from fewer parking lots.

Over the next 25 years, the most growth in Charleston County is projected to occur within the Urban Growth Boundary (UGB). Future neighborhoods in these areas should be planned in close proximity to transit facilities with options that encourage future development of a mixed use land use pattern. In some areas of Charleston County, roadway capacity improvements on major thoroughfares help to relieve the congestion on existing roadway corridors. An example of regional traffic congestion is the Interstate 26 corridor. This corridor serves as the region's spine and in several areas, such as near the Charleston International Airport and through the Neck area northwest of downtown Charleston, existing development constrains future expansions of the roadway. Moving forward, it is important to more efficiently utilize existing transportation corridors for all modes of transportation. Transit options currently being considered for the area's major transportation corridors include the following:

- **Commuter Rail Service** refers to passenger trains operated on main line railroad tracks to carry riders to and from city centers. Commuter rail lines normally extend an average of 10 to 50 miles from their downtown terminus. The primary purpose for commuter rail in the Charleston region would be to improve overall capacity along the congested transportation network adjacent to the rail corridors, particularly during peak travel hours. Many of the primary roadway corridors connecting Summerville, Goose Creek and the northern sections of North Charleston to the Neck area and the Charleston peninsula are currently operating at a Level of Service (LOS) of F, or will be by 2035. LOS describes the effectiveness of infrastructure regarding traffic flow and safe driving conditions with F being the lowest category. Because there is limited right of way available for additional roadway improvements within the Neck Area and along the Interstate 26 corridor, the Charleston region has begun to take a look at reviving passenger rail travel along this corridor through a variety of means.

- **Light Rail Service** provides more frequent service than commuter rail with a shorter space between stops (approximately one mile apart in suburban areas and one-half mile within urbanized areas). The primary purpose for light rail service in the Charleston region would be to improve capacity along the congested transportation network adjacent to the rail corridors, particularly during peak travel hours.

- **Bus Rapid Transit (BRT)** is similar to Light Rail in that it provides relatively high speed, high frequency service from dedicated stops along a fixed route. The difference between the two are in the type of vehicle used and in the ability to utilize existing roadway facilities as part of a BRT system instead of requiring new rail lines. There are several options for transit providers in designing a BRT system that balance cost constraints with the ability to provide high-speed service.

- **Electric and Partially-Electric Vehicles** provide an emerging alternative source of powering vehicles. These cleaner, domestically-fueled vehicles offer environmental, economic, and national security benefits to our county and nation. According the U.S. Environmental Protection Agency (EPA), Electric vehicles can reduce emissions between 30 percent and 60 percent over traditionally-fueled vehicles depending on the source of generation. A study performed by the Pacific Northwest Laboratory found that our nation has enough off-peak electricity to power 73 percent of our nation's passenger and light duty truck fleet. That means if we limit our charging to off-peak hours and implement smart charging during peak hours, electric vehicles should not strain our electric grid at all. Already, South Carolina is leading the way with electrical vehicle (EV) charging stations. The South Carolina non-profit, Plug In Carolina, predicts at least 100 EV charging stations in ten South Carolina cities will be operational by the end of 2011. With these 100 EV stations, South Carolina will have one of the largest deployments per capita in the United States.

In the future, high-technology transportation equipment will result in usable advance information available to motorists. For example, Intelligent Transportation Systems (ITS) along major corridors will save time and energy costs by alerting travelers to alternate routes when main thoroughfares become congested.

D. Landfill/Recycling

Landfill gas emitted by the nation's 750 landfills has the potential to power three million homes if captured and converted into pure methane gas. Nationwide there are 518 operational methane capture projects and 520 candidate landfills that could remove and purify landfill gas into clean methane gas. South Carolina has 11 operational

methane capture projects and seven candidate landfills including the Bees Ferry Landfill, which was opened in 1977 in the St. Andrews area of Charleston County. A portion of the site was formerly an unlined municipal solid waste landfill that closed in 2006. This closed portion of the landfill has approximately 2.9 million tons of waste in place and is recognized as a potential methane capture project. The current 80-acre lined municipal solid waste site at the Bees Ferry Landfill was opened in 2006 and is also recognized as a potential methane capture project. With a life expectancy of approximately 30 years, this site had approximately 575,000 tons of waste in place as of July 2010.

The recycling of household and commercial waste is much more energy efficient than disposing solid waste and producing new materials. The process of supplying recycled materials uses less energy than supplying virgin materials to industry. Additional savings are gained in the manufacturing process itself, which recyclables have already undergone. In addition to recycling white goods, scrap metal, and tires that are collected at Bees Ferry Landfill, Charleston County has a voluntary curbside recycling collection program for the more populated areas of the County and numerous drop sites throughout the County for collecting the following:

- Glass bottles and jars;
- Aluminum;
- Steel cans;
- Aerosols;
- Plastics 1 - 7 (except plastic bags, plastic wrap, expanded polystyrene); and
- Paper, paperboard and cardboard.

The Bees Ferry Landfill also houses a 40 acre Compost Facility, where yard waste that is brought to the facility is composted. The compost is then sold to customers for $10 a ton or $2 a bag. The landfill also has a paint remix program which offers customers the opportunity to buy paint for $4 for a five-gallon bucket at the Bees Ferry Landfill Convenience Center.

E. Building Codes

Currently, Charleston County enforces the *International Building Code* (IBC) and the *International Residential Code* (IRC) of 2006 as adopted by the State of South Carolina. The exception to the IBC is that the State does not adhere to the Energy Element within the IBC, but rather a second document known as the *International Energy Conservation Code* (IECC) of 2009. Charleston County encourages developers and homeowners alike to build based upon Leadership in Energy and Environmental Design (LEED), which is the most well known green building rating system. South Carolina was ranked sixth in 2010 for LEED-certified buildings from the U.S. Green Building Council. However, LEED certification is voluntary.

F. County Facilities & Fleet

The County currently has 710 active vehicles in its fleet with an average age of 5.2 years. The County has 107 vehicles that fall into the class of truck with an average age of 6.9 years old, 22 ambulances with an average of 3.9 years old, 6 hybrid vehicles with an average of 4.4 years old, 319 vehicles in the car class with an average age of 4.7 years old, 207 vehicles of the pickup truck type with an average age of 5.4 years old, and 49 vehicles of the van class with an average age of 7.3 years old. As a whole, the County's fleet of vehicles has an average age of 5.2 years.

Charleston County is providing leadership in the production of sustainable energy in the region. In 2011, the County installed a solar power system on the roof of the Sheriff Al Cannon Detention Center. Power generated by the system is fed directly into the building power system and used as it is produced to offset energy from the power company. Because the power generated is fed directly into the power system, an energy storage system is not required, further reducing the effect on the environment, as batteries require replacement and disposal. In addition, the County's Consolidated 9-1-1 Center and Emergency Operations Center was designed to achieve the LEED silver certification by collecting rainwater, planting water efficient landscaping and using recycled materials.

Charleston County has 142 facilities encompassing approximately 2.8 million square feet. The Charleston County Facilities Department has adopted the Charleston County Energy Conservation Program, which has resulted in reduced electrical consumption through conservation measures such as installing programmable thermostats, automatic switches, and energy efficient fixtures. The County reduced electrical consumption by 9.3 percent in FY 10 based on an FY 08 baseline, resulting in a savings of over $200,000. In FY 11, the County saved over $500,000 from the FY 08 baseline by utilizing energy conservation and efficiency measures.

G. Workforce/Affordable Housing

Housing is affordable when no more than 30 percent of monthly income is spent on housing costs (mortgage, rent, insurance, HOA fees, etc.) according to the United States Department of Housing and Urban Development. As illustrated in the Housing Element, housing costs in Charleston County are very high and wages have not kept pace with national averages. Many of the more affordable homes are often not very energy efficient, meaning residents have higher utility costs. Additionally, many of the more affordable homes are located far from employment centers, requiring residents to drive long distances to and from their jobs. This results in increased vehicle miles travled (VMTs) and higher energy costs for both residents and local governments.

H. Food

In the United States, the average unit of food is transported almost 1,500 miles before it is consumed. In addition, one calorie of food produced requires ten calories of fossil fuels. This not only makes food more expensive for consumers, but also consumes an enormous amount of energy resources.

In September 2008, the Palmetto Agribusiness Council released a report, "The Economic Impact of the Agribusiness Industry in South Carolina," which showed that the agriculture and forestry industry is the largest economic cluster in South Carolina, with a direct and indirect impact of almost $33.9 billion per year and nearly 200,000 jobs. The availability of locally grown products affords our state and county the ability to provide food that is more fresh, costs less to transport, and reduces energy costs.

The County encourages agricultural uses through the goals and strategies of this Plan, the requirements of the *Zoning & Land Development Regulations Ordinance*, and through the Greenbelt Program, which has protected approximately 4,400 acres of farmland to date.

Other efforts to promote local living include two strong privately funded campaigns: the Lowcountry Local First campaign, which is part of the Business Alliance for Local Living Economics (BALLE) and Buy Local, a grassroots campaign to think, buy, and be local. The Buy Local campaign focuses on the need to re-circulate more money in our community to promote a strong local economy, to support and strengthen locally-owned, independent businesses and local jobs, to preserve and enhance our unique neighborhoods, and to establish economic justice in all communities.

Other local opportunities include Community Supported Agriculture (CSA), a program that provides a direct connection between the farmer and the consumer, the Sustainable Seafood Initiative, a program designed to promote the use of local and sustainable seafood in South Carolina's restaurants, and GrowFood Carolina, a program that provides distribution and marketing services for small- and mid-sized farms.

I. Education

South Carolina has a very high illiteracy rate. Twenty-five percent (25%) of adults fall in a level 1 category, in that they cannot read a simple story to a child or fill out a job application. Thirty-one percent (31%) of adults fall in a level 2 category, in that they cannot perform higher level reading and problem-solving skills. South Carolina has the fourth highest percentage (56 percent) of adults that fall within the level 1 or 2 categories. In Charleston County, approximately 25 percent of adults experience extreme literacy issues. If residents do not have basic reading and comprehension skills, the concept, implementation, and benefits of energy efficiency are much more difficult to convey and understand.

3.10.3: ENERGY ELEMENT GOAL

Promote use of alternative energy sources and energy conservation measures that benefit our communities.

Energy Element Needs

Energy Element needs include, but are not limited to, the following:

- Promoting conservation of resources;
- Investing in renewable energies;
- Educating the public on alternative energy sources and energy conservation; and
- Encouraging public and private partnerships to facilitate alternative energy sources and energy conservation.

3.10.4: ENERGY ELEMENT STRATEGIES AND TIME FRAMES

The following strategic actions should be undertaken by Charleston County and cooperating agencies in support of the Energy Element Goal and the other elements of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

ES 1. Support recommendations of other elements in this Plan that reduce energy demand and promote energy efficiency by adopting policies and regulations that encourage more efficient and cost-effective uses of existing energy sources.

ES 2. Facilitate educational outreach, training, and technical assistance to promote energy efficiency and the use of alternative energy sources.

ES 3. Utilize existing state, federal, and non-profit resources such as the South Carolina Energy Office and ENERGY STAR to promote energy efficiency and renewable energy sources.

ES 4. Conduct an energy audit for all County facilities (existing, undergoing renovation, and under design) and implement the recommended cost effective improvements.

ES 5. Evaluate all County operations to promote energy efficiency and reduce energy consumption.

ES 6. Convert the County fleet to more fuel-efficient vehicles over time.

ES 7. Evaluate the impact on vehicle miles traveled (VMTs) for both County residents and employees. Consider performing a cost/benefit analysis of having County facilities and services in centralized areas as compared to having more satellite facilities to bring services closer to residents.

ES 8. Expand the provision of online services, where practical, to reduce or eliminate the need for the public to travel to County facilities.

ES 9. Develop a County policy on telecommuting when it is a viable management work option to reduce VMTs by employees commuting to and from work.

ES 10. Provide support facilities at County buildings to promote walking and cycling to work. Support facilities may include, but are not limited to, bike racks, lockers, changing areas, and showers.

ES 11. Streamline and reduce government barriers to facilitate green building design.

ES 12. Adopt a voluntary approach to promoting green building code standards.

ES 13. Adopt a voluntary approach to promoting sustainable landscaping that aids in energy conservation such as strategically planting trees around buildings and parking lots for shade and as windbreaks to help reduce cooling and heating costs.

ES 14. Support weatherization programs, such as the Weatherization Assistance Program offered throughout the U.S. Department of Energy, and local agencies who are implementing these programs. Weatherization techniques such as those listed below can lower utility bills in existing older homes and in new construction:

- Adding insulation to attics/walls;
- Weather stripping doors and windows; and
- Using insulating foam on pipes and electric outlets.

ES 15. Analyze development regulations to remove any unnecessary regulatory barriers that deter local renewable energy generation.

3.10.4: ENERGY ELEMENT STRATEGIES AND TIME FRAMES CONTINUED

ES 16. Provide standards for solar collectors and wind generators as accessory uses in the *Zoning and Land Development Regulations Ordinance*.

ES 17. Monitor state and federal legislation that promotes energy efficiency and renewable or alternative energy sources such as net metering legislation that would allow those that produce alternative energy (e.g. wind and solar) to sell excess generated electricity back to the grid.

ES 18. Support individuals, farmers, and organizations involved with local food production and implement the strategies developed by the Charleston County Council Agriculture Issues Advisory Committee to promote agriculture in the area. Examples include but are not limited to supporting the following:

- Agricultural education (all levels);
- Food to School programs;
- Agri-business incentives;
- Local farmers markets;
- Community gardens; and
- Food Co-ops.

ES 19. Explore the feasibility of commuter rail service, light rail service, and bus rapid transit service within the Urban/Suburban Area of the County.

ES 20. Adopt land use regulations that allow clustered development, interconnectivity, and walkable communities at higher densities near accessible transportation corridors and nodes.

ES 21. Adopt land use regulations that allow the establishment of electric vehicle charging stations where feasible.

ES 22. Support tax incentives for properties that install/utilize alternative energy sources, such as solar power.

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Part 4: Additional Resources & References

Chapter 4.1 Definitions

Affordable Housing
'Affordable housing' means in the case of dwelling units for sale, housing in which mortgage, amortization, taxes, insurance, and condominium or association fees, if any, constitute no more than 28 percent of the annual household income for a household earning no more than 80 percent of the area median income, by household size, for the metropolitan statistical area as published from time to time by the U.S. Department of Housing and Community Development (HUD) and, in the case of dwelling units for rent, housing for which the rent and utilities constitute no more than 30 percent of the annual household income for a household earning no more than 80 percent of the area median income, by household size for the metropolitan statistical area as published from time to time by HUD. (SC Priority Investment Act Section 4.)

Agricultural Conservation Easement
A legal agreement restricting development on farmland. Land subjected to an agricultural conservation easement is generally restricted to farming, forestry, and/or open space use. (See also Conservation Easement.)

Agri-tourism
In general, agri-tourism is the practice of attracting travelers or visitors to an area or areas used primarily for agricultural purposes. Very often, the idea of tourism stimulates images of mass-produced travel that attracts a large number of travelers. These images may discourage small business owners from considering tourism as an option for enhancing their agriculture revenues. However, agri-tourism can be viewed much like eco-tourism in that it is small-scale, low-impact, and, in most cases, education-focused. (Va. Tech/VSU Cooperative).

Bulk and Area Regulations
The combination of land development regulations that establishes the maximum size of a building and its location on a parcel of land. Components of bulk regulations include: size and height of building; location of exterior walls at all levels with respect to lot lines, streets, or other buildings, building coverage, gross floor area of buildings in relation to lot area; open space requirements; and amount of lot area provided per dwelling unit.

Clustering
A form of development where houses are built close together in areas. By grouping houses on a small section of a large parcel of land, clustering is a technique that can be used to protect open space.

Complete Streets
Transportation policies that incorporate aesthetics as well as alternative modes of transportation such as bike lanes, sidewalks, and mass transit into the transportation system.

Conservation Easement
A legally recorded, voluntary agreement that limits land to specific uses. Easements may apply to entire parcels of land or to specific parts of a property. Most are permanent; term easements impose restrictions for a limited number of years. Land protected by conservation easements remains on the tax rolls and is privately-owned and managed.

Density
The number of housing units per unit of land. The density of a development of 100 units occupying 50 acres is 2 units per acre. The control of density is one of the basic purposes of zoning.

Development Rights
Development rights entitle property owners to develop land in accordance with local land use regulations.

Farmland Soils
Soils that are determined by the Natural Resources Conservation Service (NCRS) to be prime farmland, as well as soils that are considered unique farmland, and farmland of statewide importance capable of producing crops. NCRS has established criteria that are used to assign soils to each category of farmland soils. Farmland soils are identified and mapped on a countywide basis by the NCRS.

Geographic Information System (GIS)
A method of storing geographic information on computers. Geographic information can be obtained from a variety of sources, including topographic maps, soil maps, aerial and satellite imagery, and many others. Using GIS software, the computer can create special maps for presentation, can analyze spatial data from different sources simultaneously, and can generate interpretive maps. Among the many benefits of GIS are easily updated digital databases that can be used to print maps easily and efficiently, that can be easily shared by many users, and that can be used to analyze spatial relationships among the physical, social and natural environments.

Greenbelt
The native Lowcountry landscapes, greenway and trail corridors, undeveloped landscapes and habitat for plants and animals that have been defined, both through public opinion and by the passage of the Transportation Sales Tax, as highly desirable landscapes for conservation and protection. The Greenbelt System for Charleston County is designed to protect and conserve these resources and further to connect residents and visitors to these cherished landscapes. There are two distinctly important types of greenspace types that add value and function for the Charleston County community. The first is non programmed natural open space, which consists of wetlands, marshes, streams, native forests, meadows, and other Lowcountry landscapes. These lands serve to protect the fragile ecology, native plants and animals that inhabit the Lowcountry. The second type is programmed open space that consists of productive lands (managed forest and farm), parks, trails and lands that the County, PRC, municipal, State and Federal governments, and private sector land conservation organizations own and manage.

Green (Space)
An open space available for unstructured recreation, its landscaping consisting of grassy areas and trees. May or may not be associated with the Greenbelt.

Infill (Development)
Development or redevelopment of land that has been bypassed, remained vacant, and/or is under used as a result of the continuing urban development process. Generally, the areas and/or sites are not particularly of prime quality; however, they are usually served by or are readily accessible to the infrastructure (services and facilities) provided by the applicable local governmental entity.

Land Development Regulations
Regulations regarding the development of land within the County including development review procedures, zoning, subdivision, and development standards.

Ombudsman
A government official working in an advocacy capacity.

Open Space
Any parcel of land or portion thereof, water feature, essentially unimproved (net of impervious surfaces) and set aside, dedicated, designated, or reserved for either public or private use or enjoyment or for the use and enjoyment of owners, occupants, and/or their guests of land adjoining or neighboring such open space.

Parks and Recreation
Parks, playgrounds, swimming pools, recreation facilities, and open spaces available to the general public, either without a fee or under the management or control of a public agency.

Public Infrastructure
Transportation systems or facilities, water systems or facilities, wastewater systems or facilities, storm drainage systems or facilities, fire, police and emergency systems or facilities, school systems or facilities, open space/park and recreation systems and facilities, government systems or facilities, electric utilities, gas utilities, cable facilities, or other capital facilities providing services to the public.

Sustainable Development
A development practice or type of development that maintains or enhances economic opportunity and community well-being and protects and/or restores the natural environment upon which people and economies depend. Also development or building practices and products that meet the needs of the present without compromising the ability of future generations to meet their own needs. Durable low maintenance materials, recycled or renewable raw materials used in construction are often referred to as sustainable materials. Neighborhood configuration that reduces energy dependence and individual carbon-foot prints through incorporated pedestrian, bike, and mass transit transportation alternatives. Or Architectural design that reduces energy and resource consumption through innovative "green" systems.

Workforce Housing
Housing affordable to low and moderate income families (those earning up to 120% of the Charleston-North Charleston Metropolitan Statistical Area (MSA) median family income, as defined in the schedule published annually by the U.S. Department of Housing and Urban Development).

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Support and Related Documents

The following documents are integral parts of the creation and implementation of this Comprehensive Plan. They are available from the County Planning Department and are included here for reference purposes.

- Data and documents provided by the Berkeley-Charleston-Dorchester Council of Governments
- Charleston County Plan Implementation Toolbox
- Charleston County Demand Analysis 2007
- Charleston County Capacity Analysis 2008
- Charleston County Greenbelt Plan 2006
- Charleston County Comprehensive Transportation Plan 2006
- DuPont | Wappoo Community Plan
- Parkers Ferry Community Plan
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Comprehensive Plan

Guiding the future for a lasting Lowcountry.

APPENDIX A

CHARLESTON COUNTY IMPLEMENTATION TOOLBOX

An Appendix to the Charleston County Comprehensive Plan

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INTRODUCTION/PREFACE

This document is an appendix to the ***Charleston County Comprehensive Plan***, and is designed to assist in accomplishing the adopted goals and strategies. The following is a "toolbox" of actions and strategies Charleston County might consider undertaking to achieve the Plan's vision for the future. The strategies are organized around five "core" elements or themes:

1. The ***Planning and Land Use Regulation Strategies Section*** includes an overarching set of planning tools that the County can use, and in some cases already uses, to enable many of the action strategies of the Plan. Updating these tools for consistency with the Comprehensive Plan is the first step in achieving the Vision of the Plan.
2. The ***Land Use and Public Facilities Linkages, and Fiscal Sustainability Section*** focuses on tools that allow the County to proactively manage growth by recognizing the connection between growth and the provision of services. The tools include methods to prepare facility needs assessments, to estimate timing and cost of providing facilities and services to new development, and alternative models to increase revenue to fund infrastructure improvements.
3. The ***Intergovernmental Coordination Section*** focuses on the issues of implementing the Plan in an environment influenced by multiple jurisdictions, various plans, diverse interests, and ever-changing jurisdictional boundaries. These tools provide guidance on the types of agreements and efforts the County could pursue to ensure coordination amongst the various jurisdictions to successfully implement the Plan.
4. The ***Rural Preservation Section*** focuses on regulatory and administrative actions the County could pursue to further the efforts to protect the unique Lowcountry rural landscapes. Rural preservation is aided by other key themes of the Plan such as directing growth to areas with available infrastructure and services. Protection of the rural character is interconnected with most of the other implementation tools in this document.
5. The final section is ***Design Quality and Character.*** The tools in this section focus on guidelines (non-regulatory) or standards (regulatory) the County could include in the development review process to influence the quality and character of growth rather than just how much and where development takes place.

The following tools may be mixed and matched to meet the resources and needs of the County in the coming years. This document attempts to provide a strong foundation and understanding regarding approaches available for implementation. The information within the following sections should provide the County decision-makers with the tools necessary to manage the County's growth in a spirit consistent with the vision of the ***Charleston County Comprehensive Plan***.

A SPECIAL NOTE ON THE ANNUAL WORK PLAN FOR IMPLEMENTATION

Through the 2008 update of the Plan, Planning Commission recognized that there are geographic areas of the County, which due to location along major roadways, close proximity to the municipal jurisdictions, or perceived impact if the area is developed warrant additional study and planning. These areas were identified in the plan as "Special Planning Areas." The Implementation of the recommendation for further planning can be carried out in the short to mid-term. Each of the nine areas will require a customized planning approach. The County's Planning Department can head these efforts based on an annual directive from County Council with adequate resources.

The *Zoning and Land Development Regulations Ordinance* will be used to implement many of the strategies ~~overlay districts for the area plans and special corridors identified~~ in the *Annual Work Plan for Implementation* in combination with service and transportation land use planning. However, one of the unique topics in the Annual Work Plan for Implementation is in regard to Developments of County Significance. These geographic locations are identified as large areas in a rural context, where there is expressed desire to develop. If development occurs in these locations there will be a change to the landscape, thereby impacting the established way of life in potentially dramatic ways. Because of their location in relatively rural areas, access to services like sanitary sewer, roads, and to some extent schools, and EMS/fire services are currently unavailable or severely limited. Providing these services will be a challenge for such large areas and require extensive financial resources to complete. To ensure the agency approving the development is the one responsible for providing services and that a comprehensive approach is taken to evaluate the impacts of the development, it is recommended in the Plan that the County establish Intergovernmental Agreements with relevant jurisdictions.

It is impractical to guess what the impacts of such large developments will be, so it is the intent of the Annual Work Plan for Implementation to tackle each area specifically to complete detailed area studies. One of the first steps the County should take to address Developments of County Significance is to enter into Intergovernmental Agreements with the other jurisdictions to make sure the impact of such a development is not unfairly shifted to a jurisdiction with little or no regulatory control. It is essential that the development approval jurisdiction be able to ensure proper services without undue hardship to existing residents and landowners. Intergovernmental Agreements are explained under separate heading below.

The second layer of concern for the County in regard to Developments of County Significance is the proper treatment of the application and development approval process when and if it is not consistent with the current *Comprehensive Plan* recommendations but could be in keeping with the overall vision and the criteria established in the Plan. This second tier utilizes Plan Amendments, Development Agreements, and Planned Development and Form-Based Zoning Districts applications as well as criteria for such developments. Development Agreements and Planned Developments are also explained in more detail in the following sections.

1. PLANNING AND LAND USE STRATEGIES

The Planning and Land Use Strategies reflect the approach most commonly used by communities in the pursuit of planning goals. This list represents the basic tools the County has used to update and implement the Comprehensive Plan. These are options that are not novel and provide familiar foundation for effective management of County growth. These tools include:

A. The *Zoning and Land Development Regulations Ordinance*
   i. Overlay and Special Use Zoning Districts
   ii. Planned Development Zoning Districts

B. Development Agreements

C. Developments of County Significance

D. Coordination with Other Planning Efforts

Each of these tools is explained below.

A. The Zoning and Land Development Regulations Ordinance

The *Zoning and Land Development Regulations Ordinance* is the predominate regulatory tool the County has to implement the *Comprehensive Plan*. This ordinance provides standards that development must meet and therefore is the link between the recommendations of the Plan and the resulting development in the County. It will be important that the *Zoning and Land Development Regulations Ordinance* be evaluated to determine where updates are needed to be consistent with the vision of the Plan.

i. Overlay and Special Purpose Zoning Districts

As established in the *Zoning and Land Development Regulations Ordinance* the County can put into effect an overlay or special purpose zoning district to create development controls for a particular area. These districts can be used to focus regulations that are customized for a specific geographic area which can vary from the underlying zoning. This tool can be effective as follow up implementation for strategic land use plans and in the case of infill development to ensure new infill matches the character of existing development. They are also particularly useful in areas along jurisdictional boundaries to provide consistent regulations between the County and municipalities. Overlay and Special Purpose Zoning Districts are most appropriate in cases where a number of properties are owned by various parties but share some common characteristic or feature that should be protected or enhanced rather than modified by base zoning standards that may not be consistent with the features unique to the area. Examples include modified setbacks, design standards, or standards to address a unique natural feature.

ii. Planned Development Zoning Districts

Planned Development Zoning Districts (PD), which are provided for in the *Zoning and Land Development Regulations Ordinance*, are intended to promote innovative site planning through flexible development standards. There can be mutual benefit to both developer and County from a PD because in exchange for flexibility the development typically includes open spaces, affordable homes, and other amenities.

The PD is a good companion to a Development Agreement because it provides a tie to the development standards that can be customized for a particular site and development.

In trying to achieve the Plan's core elements, County baseline standards for future planned developments should address or continue to address the topics listed below. Following establishment of the minimum standards, the County should adopt the baseline standards as part of its development code.

- **Open space.** It is common for developments to require some open space (see Open Space definition, page 126). Current PD regulations call for the provision of open space if the PD includes a request to increase residential density to the maximum density recommended for the property by the *Comprehensive Plan*. When this is the case, a minimum of 0.2 acres of common open space per dwelling unit is required in the Rural Area and 0.05 acres of common open space is required in the Urban/Suburban Area. Ten percent of the land area designated for office, commercial, and/or industrial uses is required for any PD requesting density increases as described above, regardless of its location in the County.

- **Environmental protection.** As under current regulations, PDs should continue to protect any resources determined significant by the Planning Director. These include but are not limited to: agricultural soils and active farmland, buffer areas between active farmland and existing/planned future non-farm development, wetlands, mature trees, land adjacent to preserved farmland on neighboring properties, scenic views, water access and shoreline buffers, and habitat of species designated as of federal, state and local concern. PDs also must comply with all provisions of tree protection and preservation regulations and must adhere to the waterfront development standards of the underlying base zoning district.

Additionally, as part of the review process, coordination with other applicable agencies regarding environmental impacts and cultural/historic/archaeological resources may be performed to better inform the planning staff, public, and policymakers of the effects of a given development.

- **Transportation and public facilities.** PDs should comply with transportation demand management, traffic impact assessment, and any public facility mitigation requirements, and should not be allowed to waive or modify those requirements.
- **Connectivity and access management.** PDs should comply with all local connectivity and access management rules and should not be allowed to waive or modify those requirements.
- **Design Character and Quality.** PDs should meet or exceed all mixed-use, transitional, and community form standards and guidelines and should not be allowed to waive or modify those requirements.

B. Development Agreements

A Development Agreement is a somewhat unique tool in South Carolina that allows both local governments and a developer or land holder to enter in to an agreement that grants development rights and ties them to adequate public facilities through a public process. Development Agreements can be useful in cases that involve review and action by multiple governmental agencies. The *South Carolina Local Government Development Agreement Act* requires a detailed submission for any Development Agreement.

Under South Carolina state law, Development Agreements must conform to local development standards, and so they often are combined with a planned development ordinance (PD) to establish a negotiated approval for development over an extended period of time. The requirement for conformance to the local comprehensive plan influences the decision to require Developments of County Significance (described in the next section) to request a Plan Amendment when located in the Rural Areas. In Charleston County, Planned Developments are governed by the *Charleston County Zoning and Land Development Regulations Ordinance*. Development Agreements are allowed under Chapter 3 if they are in accordance with South Carolina Code of Law, Title 6, Chapter 31.

Any future Development Agreements should be required to meet or exceed the minimum standards outlined below (as stated in the Plan):

- Preservation of a portion of the land for open spaces, natural features and/or recreational areas (see Open Space definition, page 165);
- A historic and archeological resource study;
- Preservation, mitigation and/or management of significant cultural, historic and archaeological sites, resources and landscapes;
- Information regarding the location, density and intensity of proposed land uses;
- Proof that the proposed form and character of development is compatible with the intent of the Rural Area guidelines;
- Proof that residential land use patterns are coordinated with employment and service opportunities in the area of the proposed development;
- Inclusion of a variety of housing ownership types and affordability;
- Economic development information such as economic feasibility analysis, estimates of average annual ad valorem tax yields, economic development analysis of the impact on the economy and employment market;
- Fiscal impact analysis of the public infrastructure needs;
- List of required public improvements including, but not limited to transportation improvements; educational facilities, public safety services, and government facilities;
- Traffic impact study;
- Interconnected and complete transportation network;
- Analysis of public transit alternatives;
- Provision of transportation alternatives; and
- Emergency evacuation plans.

In addition, existing Development Agreements that are re-opened should be required to meet these minimum standards, to the extent permitted by law. Further, all future Development Agreements should contain language and criteria to establish when an agreement can be re-opened based on a set of defined conditions. These conditions should include:

- A phasing schedule that requires phases to be completed within a specified period of time, or the Development Agreement will be re-opened (something the statute does not require, but allows);
- A schedule that requires the transportation analysis component and mitigation requirements to be re-evaluated after certain thresholds are reached, to ensure transportation impact and mitigation issues are addressed;
- Recognition that subsequently adopted laws are not in conflict with the Development Agreement and can be applied, if at a public hearing the County Council determines:
    - There are substantial changes that have occurred within the County which, if not addressed by the County, would pose a serious threat to the health, safety, and welfare;
    - The new laws address these problems and are essential to addressing them; and
    - The laws expressly state they are to apply to the Development Agreement;
- Recognition that subsequently adopted laws can apply to the Development Agreement if it is found that the Development Agreement was based on substantially and materially inaccurate information supplied by the developer.

The County could adopt these standards as part of its local code for Development Agreements.

C. Developments of County Significance

Generally the first time the concept of defining and regulating projects of county or regional significance was seriously considered occurred in the late 1960s when the American Law Institute (ALI) of the American Bar Association decided to prepare a *Model Land Development Code*. The Model Code embraced two forms of the concept: the development of regional impact (DRI) and development of regional benefit (DRB) process, which served two different purposes; under the Model Code, the DRI process allowed for extra local review of development projects of a certain size to ensure any extra-local or regional impacts were addressed; the DRB process allowed for extra local review and preemptive decision making to ensure projects of regional benefit were not rejected at the local level because regional benefits were not considered (American Law Institute of the American Bar Association, 1976; Pelham, 1979; Bollens, 1992).

These proposals about projects of regional significance in the Model Code came in response to several problems identified with the traditional framework of local planning and zoning. First was the incapacity or unwillingness of local governments to address the issues of extra-local impacts when they considered development proposals. Second was the incapacity or unwillingness for local governments to consider the positive regional benefits of certain types of development proposals that would clearly have negative local impacts, like prisons or solid waste sites (LULUs, or locally unwanted land uses). It was suggested that unless these problems were addressed, the results would lead to environmental degradation, the inefficient siting of public facilities and regional inequality (Babcock, 1966; Bosselman and Callies, 1971; Reilly, 1973; Healy and Rosenberg, 1979; Plotkin, 1988). The Model Code recommendation was to allow limited state regulatory preemption into local decision making to address these problems.

Since that time this concept has been recognized as a legitimate and much needed planning tool to ensure extra-local impacts and regional benefits are addressed in the land use regulatory process, and a hand full of states have embraced the concept in a variety of forms. The broad-based and oldest state initiative where the project of regional significance concept has been adopted and implemented is in Florida, where in 1972, the *Florida Environmental Land and Water Management Act* (1972) was adopted, establishing the development of regional impact (DRI) review process. It has been in place now for over 25 years.

The lessons learned from the practice experience in implementing and administering a project of regional impact type review are multiple. However, one clear lesson learned is that translating the concept of "regional significance" into a clear and workable definition that is "implementable" with some degree of efficiency is challenging -- requiring consideration of multiple policy and technical issues. They include fundamental matters like what resources in the region are truly regional in nature and therefore require the evaluation of extra-jurisdictional impacts (e.g., potable water sources, roads, wastewater treatment facilities, water quality issues, wildlife impacts, the economy and housing); what methods are acceptable in evaluating regional impacts; and at what threshold is the size of a proposed project development going to generate significantly substantial impacts on regional resources.

There are a number of different ways to define "projects of regional significance." They include numerical thresholds by land use type; numerical thresholds based on public facility impact; numerical thresholds based on employment generation; thresholds based on impacts to natural, historic, archeological or cultural resources; thresholds based on extra-local impacts; and thresholds based on public facility type.

Beyond the pure definition, but relevant to the workability of the definition to the

overall program initiative are structural issues about process and intergovernmental relations (e.g., procedurally, how will the program work, and how is intergovernmental review considered), and general implementation. This is the case in Charleston County. South Carolina has not adopted a system like Florida's or the Model Code's. Just as clear as a practical matter, Charleston County, the municipalities within its borders, and neighboring counties and municipalities are faced with potential Development of Regional/County significance whatever definition is agreed upon. It is important that the municipalities communicate and coordinate their processes with one another. The same underlying rationale applies as with other tools. For physical and fiscal reasons, and for their own economic welfare and quality of life, these governments need to communicate and coordinate. Developments of County Significance are governed by Chapter 3 of the *Zoning and Land Development Regulations Ordinance*.

D. Coordination with Other Planning Efforts

One of the most basic approaches the County can take in pursuit of implementation is more focused or strategic planning efforts to develop recommendations or policies related to a particular area of County management or a geographically specific area. The general goals and strategies in the *Comprehensive Plan* are broad based and apply countywide. However, there are areas where more detailed and specific recommendations could be beneficial. The Plan identifies geographic areas where further planning will be needed; the approach for those Area Plans is detailed in the "Annual Work Plan for Implementation."

Coordination with other jurisdictions as well as other County departments that are responsible for ordinances that further the strategies of the *Comprehensive Plan* is discussed in the *Comprehensive Plan*, as well. Listed below are some general items regarding strategic land use plans and information on County plans and programs currently in place that further the goals of the *Comprehensive Plan*.

i. Strategic Land Use Plans

The County has the ability to undertake area specific land use plans that can focus on the context and conditions of a specific area. There are several locations identified in the Comprehensive Plan for further study.

These recommendations include coordination with adjacent jurisdictions to make sure the plan for the area is consistent across jurisdictional boundaries. These plans should focus on assessment of:

- The physical character of surrounding land uses and buildings;
- Road and transportation impacts;
- Availability of services; and
- Public input.

Following the example established in locations such as The Mount Pleasant Overlay District, Sweetgrass Basket Special Consideration Area, the County and impacted jurisdictions should establish coordinated regulatory overlay zoning districts to provide consistent guidance and standards for development in these areas.

ii. The Charleston County Greenbelt Plan

Charleston County voters initiated two strategic plans in 2004 when they voted in a countywide referendum to raise funds for transportation related improvements using a Half-Cent Sales Tax. The referendum includes requirements for acquisition and protection of green spaces called "greenbelts." The County prepared a *Comprehensive Greenbelt Plan* to provide an open public process to identify key resources and prepare a strategy for the best way to achieve the intent of the referendum. The *Greenbelt Plan* provides the County with the direction and tools necessary to allocate funds from the One Half-Cent Sales Tax toward Greenbelts. The County has since established the Greenbelt Program to administer the day-to-day activities and acquisition of land into in the County's *Greenbelt Plan*.

iii. The Charleston County Comprehensive Transportation Plan

As a result of the 2004 referendum, the County established RoadWise, a division under the Deputy County Administrator for the Half-Cent Sales Tax Program, to manage and oversee transportation related improvements. The Transportation Advisory Board prepared the *Charleston County Comprehensive Transportation Plan* that identifies a 25 year (through 2030) allocation of resources to transportation improvement projects. The *Comprehensive Transportation Plan* is a key resource in the achievement of Plan related strategies for improvements to the County's transportation networks and road conditions.

iv. Solid Waste Management Plan

The County operates solid waste management services and facilities through the Solid Waste Division. The Division maintains a Master Plan which considers the various costs and benefits associated with solid waste management options. The plan was updated concurrent with the *Comprehensive Plan* and details the approach the County will take in management of recycling and solid waste disposal facilities.

v. Stormwater Management Program

In October of 2007, the County put into effect the *Charleston County Stormwater Program Permitting Standards and Procedures Manual* to "protect, maintain, and enhance water quality and the environment of Charleston County and the short-term and long-term public health, safety, and general welfare of the citizens of the Charleston County." The program is intended to minimize property and environmental damage caused by development. This is a significant implementation tool for many of the strategies dealing with sustainable and environmentally sensitive development. The County is in the process of preparing a County Stormwater Management Plan.

vi. Public Private Partnerships

There are some elements of the Plan for which the County has the most control over implementation. However, there are elements where partnerships with other agencies particularly private agencies can be a benefit in implementation. Agencies such as the South Carolina Community Loan Fund (formerly Lowcountry Housing Trust) that can provide a unique resource to determine best practices the County could use to further many of its goals. A public private partnership can be useful for initiatives such as affordable housing initiatives, when the County may not have in-house resources.

2. LAND USE AND PUBLIC FACILITIES LINKAGE AND FISCAL SUSTAINABILITY

One of the major themes in the *Comprehensive Plan* is the need to link land use decisions to the availability of public facilities and services in a fiscally sustainable manner. The goals and strategies of the *Comprehensive Plan* establish a policy for the County to ensure that future growth is balanced with adequate provision of public facilities and services. However, the following tools could be used to further strengthen this effort. As discussed below, tools such as a Capital Improvements Program (CIP) and an Adequate Public Facilities Ordinance (APFO) can be effective in shaping, directing, and accommodating growth when land use assumptions and projections are taken into account in facilities planning. The state mandated Priority Investment Act is essentially a requirement for a Capital Improvements Program for certain public facilities that requires intergovernmental communication. Communication is the first step to coordination, and in Charleston County, intergovernmental coordination is essential to success. Investments in infrastructure and service provision should be directed to the Urban/Suburban Area of the County, located within the Urban Growth Boundary, to alleviate development pressure in the Rural Area of the County. Properly funded facilities plans that reinforce and facilitate compact growth in defined areas while working to meet needs elsewhere will result in less development pressure in the Rural Area of the County.

To address these goals, the County should consider focusing its efforts on the following planning, regulatory, and funding actions:

- Prepare a Capital Improvements Program (CIP) for transportation, parks, public safety, stormwater management, and public buildings in accordance with the South Carolina Priority Investment Act as well as the County's Future Land Use Plan.
- Establish Adequate Public Facilities Ordinances (APFOs), polices that only allow new development where adequate public infrastructure, such as transportation, potable water, and wastewater, to serve the development is in place at the time of impact of the proposed development. Establishing APFOs will require extensive coordination with other local jurisdictions to set up agreements regarding these policies.
- Establish financial feasibility for CIPs and APFOs through a fiscal impact assessment.

The following tools are included to support these efforts:

A. Capital Improvement Program
B. Impact Assessments
C. Adequate Public Facilities Ordinance
D. Funding Tools

A. Capital Improvement Program(s)

A CIP is a five- or six- year schedule of capital projects for public facilities. Types of public facilities in a CIP might include transportation, public water and sewer, parks, stormwater, public safety, public buildings, and schools. Many communities prioritize these facilities and develop a CIP for three or four public facilities. Chief among these are transportation, potable water, wastewater, and public safety.

A CIP is most effective when coordinated with assumptions and goals in the comprehensive plan. A CIP is effectively a business plan for the County both fiscally and physically:

- Fiscally: A properly funded CIP is a fiscal business plan for meeting the infrastructure needs of the County. It takes stock of where the County is presently with regards to service provision. It identifies present deficiencies and future needs. It then pairs these needs with funding sources in a fiscally feasible manner.
- Physically: The CIP is also a part of a larger business plan for guiding growth. Infrastructure improvements facilitate development. A CIP that takes the land use and development goals of the community into account can influence the shape and location of development. A strong CIP directs where development and redevelopment will be supported through public infrastructure investments.

Currently, Charleston County is using an annual CIP/budget process for the following facilities: Detention Center, Radio Communications, Judicial Center, Consolidated Dispatch, and other County facilities. These expenditures are not well coordinated with assumptions in the Land Use Plan and are not based on an extended time horizon.

On May 23, 2007, Governor Sanford signed into law the South Carolina Priority Investment Act. The Act amends the Local Government Comprehensive Planning Enabling Act of 1994 requiring two new CIP-like elements to the comprehensive planning process. The Act provides for a specific transportation element requiring local governments to consider all transportation facilities (i.e., roads, transit projects, pedestrian and bicycle projects) as part of a comprehensive transportation network.

The Act also added a new Priority Investment Element, which requires local governments to coordinate and analyze available public funding for public infrastructure and facilities over the next ten years and to recommend projects for expenditures of those funds for needed public infrastructure.

Additionally, the Priority Investment Element requires a basic level of coordination between local governments. The Act requires that the Priority Investment Element be developed through coordination with "adjacent and relevant jurisdictions and agencies." All governmental entities and utilities - counties, municipalities, public service districts, school districts, public and private utilities, transportation agencies and other public entities - that are affected by or have any planning authority over public projects identified in the Priority Investment Element must be consulted in the coordination process. The Act provides for a basic level of coordination requiring written notification to the other agencies and an opportunity for comment on the proposed projects.

The recommended process for establishing a CIP for a given facility is:

- Establish a Level of Service (LOS)[1] for the facility;
- Identify existing conditions of the facility, based on the established LOS;
- Identify deficiencies (if they exist), and costs to correct;
- Identify and utilize appropriate land use assumptions from the Comprehensive Plan;
- Estimate demand for the facility over the planning horizon, based on land use assumptions and the established LOS;
- Estimate capital improvement needs to accommodate new growth and development over the planning horizon in order to maintain the established LOS;
- Estimate costs over the next five (5) years (Five Year CIP), to provide needed improvements;
- Develop a financially feasible program to fund the capital improvements identified in the Five-Year CIP; and
- Update annually.

1 Level of Service is a term used to describe a benchmark or standards against which the provision of a service can be measures. For example, a roads level of service may be established by how many cars it is carrying in relation to the number of cars it is designed to carry, or how much congestion there is. In the case of water the Level of Service may be related to the capacity of the pipes carrying the water, or the pressure of water in the home, or the capacity to treat drinkable water in millions of gallons per day. The important thing with a Level of Service is that it can be established in many ways but is then used as a way to measure continued performance. If a goal Level of Service is set it can be used to assess need for new facilities to maintain the desired Level of Service.

Specifically, the CIPs for transportation facilities will include, at a minimum, the following elements:

- Establishment of a Level of Service (LOS) standard that gives the expectation of having rural transportation service and roads in the Rural Area of the County;
- Establishment of a LOS standard that gives the expectation of having a higher level of services in the Urban/Suburban Area of the County;
- Identification of the existing conditions of the public facilities, based on the established LOS, any deficiencies in service conditions (if they exist), and the costs to correct the deficiencies;
- Estimates of the capital improvement needs to accommodate new growth and development and their costs over a five (5) year planning horizon;
- Preparation of a specific list of capital improvements to be provided by the County to accommodate new development over the next five (5) years (Five Year CIP), which shall be updated annually; and
- A financially feasible program to fund the capital improvements identified in the Five-Year CIP.

Establish financial feasibility for CIPs and APFOs

Financial feasibility is the key element in CIPs and APFOs. Once needs and goals are identified, the County must have a feasible financial structure to bring about the infrastructure improvements. If the County hinges approval on the provision of services, it needs to have service provision plan. This is especially true in the case of APFOs where the County can risk legal challenges if it ties development approval to public facilities that it does not plan to fund feasibly.

It is also important to note that APFOs cannot be used to correct current infrastructure deficiencies.

B. Impact Assessment Studies

Impact Assessments are tools that can be used on a countywide or project specific basis. An impact assessment is a numeric analysis of the anticipated impact of growth on one or more systems and recommendations for necessary improvements and the cost of those improvements. Impact Assessment Studies often involve the use of geographic and mathematical models that can run growth or development scenarios to measure their impact on the facility, services, or system of choice. The County could choose to use an Impact

Assessment Study in one of two ways:

- Scenario one would be initiated by the County and would use land development regulations and growth projections associated with the Comprehensive Plan to generate demand for various services and systems in the County. The results of this type of assessment would offer a comprehensive picture of what improvements would be needed under a list of assumptions. This scenario would yield general results that would provide a long-term picture of the impacts of growth if it follows the guidance of the Plan. The results could serve as a basis for a Capital Improvements Program. It would also establish a baseline to assess the impacts of individual developments. This first scenario would be beneficial if the County decided to purse a countywide Impact Fee
- Scenario two allows the County to require an Impact Assessment for services or facilities as part of development approval for a specific development. This alternative provides the County with information how necessary improvements to support growth in a specific geographic location and analyze the cost of those improvements to determine how those improvements will be funded. The County could choose to require the developer to submit impact assessments or could require application fees to obtain an expert of the County's choice.

Fiscal Impact Assessments specifically look at the relationships between costs and revenues associated with new development; however, a service specific assessment could be prepared such as water or sewer services, schools, or transportation.

Fiscal Impact Assessment[2]

A fiscal impact model will compare County costs against County revenues associated with land use policies and specific development projects, thereby indicating the short- and long-term fiscal sustainability of land use decisions. The County could then weigh land use policy decisions, acceptable levels of public services provided, plans for capital investments, and long-term borrowing needs, in addition to prompting local officials to evaluate current and future revenue sources.

There are two primary methodologies utilized in Fiscal Impact Analyses. These are the average cost and case study-marginal methodologies. The average cost approach is the simplest method and the most popular. Costs and revenues are calculated on the average cost per unit of service (often per capita or per employee). This method assumes the current average cost of serving existing residents, workers, students, etc. is the best estimate of the cost to serve new residents, workers and students. The major weaknesses of this methodology include: (1) it does not reflect the fact that both costs and revenues generated by new development can differ significantly from those of the existing development base; (2) it does not consider available public service and capital capacities; and (3) it usually does not consider the geographic location of new development.

The case study-marginal methodology is the most realistic method for evaluating fiscal impacts. This methodology takes site or geographic-specific information into consideration. Therefore, any unique demographic or locational characteristics of new development are accounted for, as well as the extent to which a particular infrastructure or service operates under, over or close to capacity. This methodology is more labor intensive than the average cost method due to its more specific data needs.

If the County simply wants to estimate the fiscal impact of a project or development scenario at a point in time in the longer term future, say twenty years, then the average cost approach may generate somewhat similar results to the case study-marginal cost approach for that year. As discussed previously, the weakness of the average cost approach is its inability to adequately reflect fiscal realities pertaining to timing and spatial distribution.

Advantages:

- Fiscal Impact Analysis can bring a realistic sense of the costs of growth into the public discussion. The County can benefit from the "objective screen" that the analysis provides, which can lead to a better understanding-both for the public and for County Officials-of the relationships among the various factors contributing to growth and development.
- Encourages the integration of land use and budget decisions.
- Can provide an understanding of the fiscal/service delivery implications of different land use scenarios or specific development projects.
- Encourages "what-if" questions related to acceptable levels of service and land use and financial policy.
- From a planning perspective, a Fiscal Impact Analysis directly links proposed zoning and land uses with projected population and employment growth related to residential and nonresidential development.

Disadvantages:

- The most frequently mentioned criticism of fiscal analyses is the "inherent limitations" associated with any methodology or approach. In other words, "outputs

2 Description of Fiscal Impact Analysis provided by TischlerBise Associates, Inc.

are only as good as the inputs" and their specific relevance and application to the County and analysis. Consequently, a model developed using a methodology inappropriate to the situation, faulty assumptions, or a "black-box" approach, can significantly erode the public's trust and confidence in the model's output.

- Assumptions and data should be reviewed on a regular basis to ensure that they continue to accurately reflect current trends, thereby placing an administrative burden on the jurisdiction.
- A Fiscal Impact Analysis will not provide the "answer" to policy questions. It can be a useful tool, but it can also be a source of contention if there are substantial tensions regarding the costs of growth, which could lead to the practice of "fiscal zoning," approving only those development projects that generate a net surplus.

C. Adequate Public Facilities Ordinance

In an effort to encourage fiscally and physically responsible growth, the County should also consider coordinating land use permitting with public facilities. A chief tool local governments have used to this end is an Adequate Public Facilities Ordinance (APFO).

An APFO requires new development show adequate public facilities and services will be available at the time development impacts occur. The goal is to reduce lag time between project impact and service delivery.

One of the traditional roles of local government is the provision and management of capital facilities -- roads, potable water and wastewater infrastructure, solid waste facilities, drainage facilities, parks, police facilities, and fire and emergency medical service (EMS) facilities. In the majority of communities throughout the nation, these responsibilities are carried out either on an ad hoc basis (with local governments considering capital facility needs and their funding as they arise, usually on an annual basis), or more systematically, through the development of five- or ten-year capital improvement programs (CIPs) that are sometimes integrated into long-term infrastructure funding strategies for the local government.

Over the past 15 years, a growth management technique has emerged that embraces the idea that local government's provision and management of capital public facilities is more effective if the public facility planning and funding program is coordinated with the land use regulatory process so that the approval of development is coordinated with the provision of capital public facilities. This technique has been used primarily in rapidly growing communities in the sunbelt and in several fast-growing states (Maryland[3], Florida[4], and Washington[5]) where local governments have struggled to keep pace with the public facility demands created by new development. In the planning profession and literature, the concept is characterized as adequate public facilities or "concurrency."

At its most basic level, the concept of adequate public facilities is simple and straightforward. It is a growth management tool used by local government that coordinates the provision of capital public facilities, through a CIP, with the timing of development. It requires that adequate public facilities be available to accommodate new growth and development at or about the time it occurs. Experiences in the implementation of the APFO concept, however, especially for roads, teaches that it can be a complex growth management technique that must be carefully crafted and based upon a sound management and funding program to be effective.

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3 Montgomery County, Maryland, operates the longest running APF program in the country. Since 1973, when the county added an APF requirement to its subdivision ordinance, subdivision approval has been linked to the adequacy of public facilities. Since the inception of Montgomery County's APF program, over 18 local governments in Maryland have initiated APF programs. They include Anne Arundel County, Baltimore County, Prince Georges County, Frederick County, the City of Gaithersburg and others.

4 One of the centerpieces of Florida's 1985 growth management legislation is a concurrency mandate. The legislation requires that all local governments in the state (400 +) prepare a comprehensive plan that includes a "financially feasible" five -year capital improvement element (CIE) for a minimum of six public facilities (roads, potable water, wastewater treatment, parks and recreation, solid wastes, and drainage), that the CIE identify the public facilities needed to serve the expected population at locally established LOS standards for each public facility, that a concurrency management system (CMS) is designed as part of the implementation section of the comprehensive plan, and that the CIE, and the other portions of the local comprehensive plan be implemented in part through concurrency regulations that provide that public facilities and services meet or exceed the standards established in the capital improvements element "and are available when needed for the development, or that development orders and permits are conditioned on the availability of these public facilities and services necessary to serve the proposed development." Sec. 163.3202(2)(g), Fla. Stat.

5 Washington established mandatory planning and implementation standards which include concurrency requirements for the local governments around Puget Sound and for the other fast-growing counties and cities in the state in 1990. Like Florida's concurrency mandate, the Washington legislation follows the traditional approach to APF or concurrency management: to establish a management framework for the coordination of infrastructure with new growth and development so that adequate public facilities are available (or concurrent) at or about the time new growth and development needs the infrastructure. Washington's concurrency requirements, however, provide local governments broader latitude than Florida local governments to locally determine which local public facilities should be subject to concurrency. The one exception is roads, which are required to be included in the concurrency management program, and potable water and sanitary sewer systems, which are strongly encouraged to be included in the program.

In any initial discussion of the APFO concept, it is first important to dispel any misconceptions about what an APFO is or should be. The traditional and appropriate definition of APFO emphasizes planning/management/funding as the key and most important components of any APFO program. Under this view the focus of APFO is on government's responsibilities to establish sound planning and funding programs for infrastructure; while important, the regulatory aspects of the program are not as important, and are used only to ensure that adequate facilities are available -- which they should be if the planning and funding parts of the program are well managed. Thus, under the traditional and appropriate application of APFO, the focus is on the management of infrastructure so that the community's desired levels of growth and development are coordinated with the provision of infrastructure in an efficient and orderly way.

A second and inappropriate view perceives APFO as a purely regulatory and "no growth" measure, with no governmental responsibilities to manage and coordinate the provision of infrastructure. Under this perspective, County may impose an adequate public facilities requirement (e.g., that adequate road facilities shall be available prior to the approval of development) without planning, management, and funding efforts to ensure the adequate provision of infrastructure in an orderly fashion.

Given that the planning and management of infrastructure is at the heart of an APFO initiative, the key to a sound APFO program is the design and implementation of a financially feasible capital improvements program (CIP) for the public facility for which the APFO program is being established. Consequently, it is key that a sound APFO program be based upon a CIP and funding program that:

- Establishes a LOS to evaluate the conditions of existing infrastructure, identifying deficiencies, and capital costs to correct deficiencies;
- Projects needed capital improvements to provide adequate capacity for new growth and development;
- Is financially feasible so that there is funding to provide the needed capital facilities to accommodate new growth and development and correct deficiencies within reasonable time frames; and
- Annually monitors facility conditions so that the CIP can be updated to address changed conditions.

Types of public facilities for which an APFO could be applied include transportation, parks, potable water, sewage, drainage, solid waste, and schools.

The County should consider developing an APFO for transportation, sewer, water, EMS, stormwater, and fire systems. If established, the APFO shall require a CIP that:

- Establishes a LOS to evaluate the conditions of existing infrastructure, identifies deficiencies, and the capital costs to correct deficiencies within reasonable time frames;
- Identifies the capital improvements to provide adequate capacity for new growth and development;
- Is financially feasible so there is funding to provide the needed capital improvements to accommodate new growth and development and to correct deficiencies;
- A monitoring program that annually monitors/measures capacity and demand conditions on the system(s) subject to the APFO; and
- An ordinance that evaluates development and ensures development is not approved unless adequate capacity is available to accommodate it.

There are some challenges associated with implementing an APFO in Charleston County. The first is that water and sewer are two of the facilities/services that influence the placement and rate of growth. However, the County is not currently in the business of providing or regulating public sewer and water provisions. If an APFO were to include those services or transportation, a great deal of coordination between the County and the service providing agencies would be required. The second challenge, or reality of an APFO, is that they can not be used to address existing or current infrastructure deficiencies.

D. Funding Tools

The Capital Facility Plan, Fiscal Impact Assessment and the Adequate Public Facility Ordinance all include reference or components related to funding. The County has several options for funding capital improvements/infrastructure improvements. The following are the primary sources of funding for these facilities. All of the options except Impact Fees and Tax Increment Finance Districts can be used to correct existing deviancies.

i. Property Tax

The property tax is administered and collected by Charleston County with assistance from the South Carolina Department of Revenue. Real and personal property are subject to the tax. Approximately two-thirds of County-levied property taxes are used for support of public education. Municipalities levy a tax on property situated within the limits of the municipality for services provided by the municipality. The tax is paid by individuals, corporations,

partnerships, etc. owning property within the state.

Each class of property is assessed at a ratio unique to that type of property. Primary residences and privately-owned agricultural lands are assessed at four (4) percent of fair market value; rental properties are assessed at six (6) percent of fair market value. Other classes such as utility property and manufacturing property are taxed at higher rates. The assessment ratio is applied to the market value of the property to determine the assessed value of the property. Each county and municipality then applies its millage rate to the assessed value to determine the tax due. The millage rate is equivalent to the tax per $1,000 of assessed value. For example, if the millage rate is 200 mills and the assessed value of the property is $1,000, the tax on that property is $200. Charleston County's millage rate currently stands at 168 mills. The County itself charges 46.8 mills (32% of the county-wide millage). This rate has not been raised in the last thirteen years. On top of the County millage, the School Board charges 113.6 mills (68% of the county-wide millage).

ii. Sales Tax (Capital Projects, Local Option, Transportation Authority)

The State of South Carolina allows for three taxes to provide a dedicated funding source for infrastructure. They include the following:

1. The first is a voter approved Capital Project Sales Tax (S. C. Code of Laws 4-10-310), which must be used for capital projects such as bridges, highways, streets. This 1% tax has a duration period of seven years.

2. The second is a Local Option Sales Tax (S. C. Code of Laws 4-10-20), which if approved by the voters, must then issue a property tax credit to County taxpayers totaling the amount of revenue raised. This 1% tax has no duration limit.

3. The third is a Transportation Authority Sales Tax (South Carolina Code of Laws 4-37-10). This 1% tax has a duration limit of 25 years.

Charleston County is not currently using a Capital Projects Sales Tax. The County does currently use a Local Option Sales Tax to "roll back" property taxes.

Additionally, Charleston County is using a Transportation Authority Sales Tax. The Half Cent Transportation Sales Tax was approved by almost sixty percent of the voters in a countywide referendum on November 2, 2004. It was implemented in Charleston County business establishments on May 1, 2005 and is expected to raise $1.3 billion for Charleston County over twenty-five years. This tax is used to fund transportation projects, transit and the greenbelt program.

Advantages:

- A Capital Projects Sales Tax is often one of the most convenient forms of infrastructure financing, and can result in the generation of substantial amounts of revenue.
- A sales tax is generally easy to administer and relatively invisible when it is "piggybacked" onto state taxes.
- A sales tax broadens the tax base to include non-residents.
- A sales tax can be used to back revenue bonds, which will not impact the County's debt capacity.
- A sales tax is applied across the Region and County.

Disadvantages:

- A sales tax can be considered a regressive tax, especially if it is applied to groceries, since lower income households spend a greater share of their income on groceries than upper income households.
- Sales tax revenue varies with spending trends, and so is less reliable than property tax revenue.
- The Capital Projects Sales Tax must be approved by a vote of the voters.

iii. Impact Fees

An impact fee is a land use regulatory tool used by a local government that exacts a fair share fee on new development based on the costs the local government will incur to fund capital infrastructure (such as roads and parks) to accommodate new development. In determining the reasonableness of these one-time fees, the analysis that supports the fee should demonstrate that: 1) needed capital facilities are a consequence of new development; 2) the fees exacted are a proportionate share of the government's cost; and 3) revenues are managed and expended in such a way that new development receives a sufficient benefit.

Impact fees cannot be imposed on new development to pay for or provide public capital improvements needed by the existing development base. Capital improvements funded by impact fees must enable the jurisdiction to accommodate new development by adding capital facility capacity. To be proportionate, new development should pay for the capital cost of infrastructure according to its "fair" share of impact on the particular public facility for which it is imposed. To ensure impact fees are proportionate, the cost allocation methodology should consider variations by type of development and type of public facility. As appropriate, capital cost assumptions must consider the net cost of fa-

cilities after accounting for grants, intergovernmental revenues and other funding sources. The reasonable connection between the impact fees and the benefit requires that funds be earmarked for use in acquiring capital facilities to benefit the new development. Sufficient benefit also requires consideration of when the fees are spent. This benefit test generally leads communities to set up collection and expenditure zones for public facilities that have general geographic service areas.

South Carolina enables local government entities with comprehensive plans to impose certain types of development impact fees for transportation, public safety (Police, Fire, EMS), potable water, wastewater, solid waste, and stormwater facilities.) However, impact fees in South Carolina cannot be charged for schools. See *South Carolina Code of Laws § 6-1-910, et. seq.*

The impact fee ordinance must include an explanation of the calculation of the impact fee and specify the system improvements for which the impact fee is intended to be used. The ordinance must also establish a procedure for timely determinations of applicable impact fees and developer credits, include a description of acceptable levels of service for system improvements and provide for the termination of the impact fee. As described above, the amount of additional impact fees is limited to the amount attributable to the additional service units or change in scope of the development. A government entity imposing an impact fee is required to prepare and publish an annual report describing the amount of all impact fees collected, appropriated, or spent during the preceding year by category of public facility and service area.

Charleston County does not currently utilize impact fees.

Advantages:

- Impact fees can help meet capital infrastructure needs due to new growth with less pressure on the tax rate.
- Impact fees can generate substantial sums of revenue.
- Impact fees are politically attractive, since they pass on specific capital costs to future development.
- Impact fees coordinate new growth with the facilities demanded.
- Impact fees can be applied across the region.
- Impact fees are more predictable and equitable than informal systems of negotiated exactions and are likely to generate considerably more revenue.

Disadvantages:

- Impact fees are typically not due until development occurs. As a result, this makes it difficult for the jurisdiction to use the fees to construct capital improvements prior to or in conjunction with new development.
- In the context of funding growth-related facilities, impact fees cannot be assessed on the existing development base.
- Rational nexus requirements impose a set of earmarking and accounting controls that limit the use of impact fee revenue.
- Technical studies are required to develop and justify the adopted impact fee amount.
- A good impact fee program requires regular updating.

iv. Real Estate Transfer Fee

Also known as a deed transfer tax or documentary stamp taxes, a real estate transfer fee is a fee on the transfer, sale or conveyance of real property. The rate is applied against the purchase price of the property. The use of revenue raised can be restricted to certain capital expenditures. For example, the State of Maryland authorizes a real estate transfer tax with a specific percentage set aside for the purchase of parkland.

The State Legislature has not authorized Charleston County to utilize a real estate transfer fee at this time. At least one other local government, Town of Hilton Head, has received authorization for a real estate transfer fee.

Advantages:

- A real estate transfer fee has the potential to generate a substantial amount of revenue since it is based on all real estate transfers.
- A real estate transfer fee can be used to back revenue bonds, which will not impact the County's debt capacity.
- A real estate transfer fee is generally easy to administer and relatively invisible when it is paid at time of closing on real property.
- A real estate transfer fee is applied across the County.
- Does not affect residents who remain on their property or do not sell or buy real estate.

Disadvantages:

- Since revenue from the fee fluctuates with the real estate market, the revenue stream can be difficult to predict.
- It can be argued that real estate transfer fees are regressive since the burden is higher for lower income households.

v. Tax Increment Finance Districts

The *South Carolina Tax Increment Financing Act* enables the County to establish special districts for improvement or redevelopment; wherein in the incremental revenue generated from the improvements is used to fund the capital facilities for public good within that district. The use of incremental tax revenues derived from the tax rates of various taxing districts in redevelopment project areas for the payment of redevelopment project costs is of benefit to the taxing districts because taxing districts located in redevelopment project areas would not derive the benefits of an increased assessment base without the benefits of tax increment financing, all surplus tax revenues are turned over to the taxing districts in redevelopment project areas.

3. INTERJURISDICTIONAL COOPERATION

Given the patchwork of municipal and county governments and service providers, as well as the overlap of local, state, and federal jurisdictions in Charleston County, interjurisdictional cooperation is a key to achieving any of the planning goals or strategies recommended in the County's *Comprehensive Plan*. It is important because it touches each of the Plan's other goals: Land Use and Public Facilities Linkage, Compact Growth in a Well-Defined Area, Rural Preservation, and Design Quality and Character throughout all of the County.

This is especially true in South Carolina where annexation statutes allow municipalities to annex willing landowners into their jurisdictions without coordination from counties. This annexation puts the landowner beyond the reach of the County's land use policies and development regulations. Municipal plans and goals can be at odds with the County's policies and vision for rural preservation, compact growth, and design quality, and can be in conflict with the County's Urban Growth Boundary.

The same issues exist regarding service provision. First, as noted earlier, service provision increases development pressures. Service provision through municipalities and other entities may increase development pressures in ways not congruent with the County's policies and vision. Annexation into a municipality bypasses these County regulations, thwarting the County's vision. Again, in South Carolina, annexation into a municipality willing to take advantage of development pressures is an easy process for landowners. Second, the County provides many public services. Decisions by municipalities within and outside the County can and will have effects on the County's bottom budget line. Mutually agreed upon and mutually beneficial agreements are needed to ensure the County, municipalities, and service providers achieve coordinated physical and fiscal goals.

To address these goals, the County should consider focusing its efforts on the following actions:

1. **Establish a mutually agreed to Urban Growth Boundary (UGB) with the City of Charleston, the Town of Mount Pleasant and the City of North Charleston.**
2. **Enter into interjurisdictional agreements regarding service provision.**
3. **Enter into interjurisdictional agreements regarding Developments of County Significance.**
4. **Become a Designated Management Agency under the *Section 208 Water Quality Management Plan*.**

A. Urban Growth Boundary

Through its *1999 Comprehensive Plan*, Charleston County established an informal UGB with its Suburban/Rural Area Edge. Since that time, the idea has remained important within the County, but the ease of municipal annexation has left the Boundary without teeth. Intergovernmental agreements should solidify the rationale and formalize the process for moving the boundary. As an example, in North Beaufort County, South Carolina, the county and municipalities identified a boundary, agreed to jointly develop CIPs for infrastructure to serve the area, and agreed on how to address urban development issues and annexation at the edges.

Where cities designate areas for urban growth, growth management policies can guide new development patterns by directing urban service extensions to such designated areas and withholding them from others. The basic idea is to designate land for new development contiguous to or near existing development to encourage preservation of open space and resource lands, prevent the premature or costly over-extension of public services such as water and sewer, and discourage the development of stand-alone, isolated developments. Land within the growth boundary is targeted for growth. Land outside the boundary can continue to be used for agricultural, forestry, or other less-intensive purposes, but cannot be developed at urban densities. Most recent state growth management initiatives have required localities to establish urban growth boundaries within which new development is to be targeted and accommodated.

Advantages:

- When used in combination with appropriate capital improvement policies, adequate public facilities ordinances, intergovernmental agreements, and policies limiting annexations to delineated urban growth areas, growth boundaries can help steer development toward these areas and prevent the costly overextension of public services.
- Growth boundaries can influence growth patterns in a simple understandable fashion.
- Creation of urban growth boundaries has proven to be an effective tool to protect open space and agricultural and forest lands.

Disadvantages:

- Urban growth policies requirements guidance and planning for development patterns within the growth boundary.
- Urban growth policies alone do not address development quality issues.

- If urban growth policies are strictly local in effect; where local governments compete for new areas in which to expand, one jurisdiction's refusal to provide urban services can be undermined by others.
- If not enough land area is provided to accommodate development within the urban growth boundary, overly strict delineations may drive up the cost of land, and limit feasibility to a market based economy.

B. Service Provision Agreements

It is being increasingly recognized as an important planning and development tool in South Carolina due to annexation laws and fragmentation of service providers as communities urbanize. The reason is that many of the public problems caused by urban growth know no political boundaries and consequently development decisions made by one municipality will affect the County and other municipalities.

Cooperation must be voluntary

Various methods and procedures may be utilized to formalize cooperation. Intergovernmental cooperation may take any agreed arrangement. It may be horizontal, as between municipalities, or vertical, as between counties and the state, as between a municipality and a county, or as between a municipality and a state. It is important to note, though, that any intergovernmental cooperation on the local level must be voluntary. Essential control of the cooperative action or arrangement must be vested in the elected governing bodies of the units involved and the identities of the existing units of government must be preserved. It is fundamentally a legislative task to define intergovernmental relationships between municipalities and counties. (1 McQuillin Mun. Corp. § 3A.05 (3rd ed.))

Cooperation through contracts/agreements

The most effective approach to inter-jurisdictional cooperation may be through intergovernmental contracts or agreements. This approach is a flexible, yet predictable method of inter-jurisdictional cooperation. Such contracts or agreements can be used to accommodate program needs to desirable service areas without affecting basic structure and organization. (1 McQuillin Mun. Corp. § 3A.05 (3rd ed.))

Contracts are perhaps the most common form of interjurisdictional cooperation. The contract defines the terms of each local entity's respective rights and obligations. Ordinarily, contracts are used when one local entity undertakes to supply something, usually services or facilities, to another that agrees to pay for whatever is supplied; or the contract may cover reciprocal service or supply obligations. The Advisory Commission on Intergovernmental Relations has described interjurisdictional arrangements as being of two major types: (1) the provision of governmental services on a contractual basis by one unit of government to one or more additional units, and (2) the joint conduct by two or more units of government of a particular function, or the joint operation of a particular governmental facility. (1 McQuillin Mun. Corp. § 3A.05 (3rd ed.))

Per the *South Carolina Joint Agency Act*, Title 6, Chapter 24, a governmental entity may: jointly plan, finance, develop, acquire, purchase, construct, reconstruct, improve, enlarge, own, operate, and maintain an undivided interest in a project with one or more governmental entities in South Carolina; undertake the exercise of any administrative function or power jointly with one or more governmental entities in South Carolina; enter into, amend, and terminate agreements in the nature of forward supply agreements, agreements for the management of interest rate risks or risks posed by the fluctuation of the cost of gas supplies, agreements for the management of cash flow, and other similar agreements; and agree to share the costs of a like undertaking with another governmental entity. Even when agreeing to act jointly, each governmental entity agreeing to act jointly shall have the legal capacity, power, and authority, by charter, act, constitution, or other law, to so act on its own. Additionally, a joint agency can be created by agreement if its creation advances the best interests of the government entity and those it serves.

Establishment of joint agencies would advance a number of County goals. First, it is by definition interjurisdictional coordination. Beyond this formality, it gets parties to the table to discuss a range of other goals such as preservation, compact growth, etc. Just as with a CIP within a jurisdiction, joint agencies allow members to effectuate their other goals through their agency decisions, expenditures, and investments in infrastructure. Second, it allows for economies of scale in service provision. Local governments are interested in fiscally responsible growth as much as they are interested in physically responsible growth.

4. RURAL PRESERVATION

In previous plans, Charleston County has recognized the importance of rural preservation to the future character and quality of life to the residents of the County and Region. This recognition is important because rural preservation as a goal advances related goals ranging from historic character preservation to environmental stewardship to growth management to economic development to quality of life:

Historic Character Preservation

For three centuries, agriculture along with shipping dominated the regional economy of Charleston County. Whether cultivated by large antebellum plantations, post-Civil War freedman settlements, or more modern 20th Century farms, Charleston County's agricultural production left the economy firmly rooted in the County's rich soils. While agriculture has yielded its historic dominance to shipping, the medical industry, and others, much of the land of Charleston County remains essentially unchanged despite extensive urbanization in and around the Cities of Charleston, North Charleston, and the Town of Mount Pleasant. A rural preservation program works to protect this landscape that longtime residents have come to love and which continues to draw newcomers. Rural preservation is being augmented by the *Charleston County Greenbelt Plan*.

Environmental Stewardship

Rural preservation seeks to preserve both an agricultural and natural rural landscape. While agriculture can have its own deleterious effects on the environment, these effects are not as great as suburban sprawl and its earthmoving site plans, impervious surfaces, fertilized lawns, and auto-centered lifestyle. Additionally, rural preservation not only focuses on agriculture. It should also encourage through incentives and regulations the protection of natural resources like forests and wetlands. Such environmental stewardship is not only a good idea for broad, global ideas but also for local reasons. Most notably, these include local air and water quality.

Growth Management

Rural preservation is the flipside of any county "business plan" for managing growth. If not managed and anticipated properly, physical development can cost the County fiscally. Costs include service provision and infrastructure development. A strong rural preservation program that limits development in rural areas reinforces County plans to manage and control growth.

Economic Development

A comprehensive rural preservation plan empowers farmers and other landowners to develop rural and agricultural support uses. As discussed below, uses might include corporate retreats and agri-tourism. In an attractive area that is already a tourist destination, such as Charleston County, these expanded uses have the potential to unlock a great deal of economic development. Furthermore, as also discussed below, as fuel and food prices continue to rise, niche farming and general agriculture itself has the potential to bring tremendous economic development to the County. These rural economic development engines need rural preservation to foster their growth.

Quality of Life

Rural Preservation adds to the quality of life of a community. It protects and enhances natural resources. It also protects and enhances economic opportunities for farmers and other rural landowners. It allows for economic growth and physical development while protecting private rights and the public's real past and present connections to the landscape. It encourages economic viability for rural endeavors as well as environmental stewardship.

The County of Charleston *Comprehensive Plan* ("The 1999 Plan") as adopted by Charleston County Council on April 20, 1999 and as updated and adopted for the state mandated five-year review by Charleston County Council November 18, 2003 and October 5, 2004 recognized these public goods.

To these ends, the County has made a number of policy and regulatory decisions. These have included the establishment of the Rural Area, developing supportive zoning provisions, and implementing a greenbelt program.

A. Zoning to Encourage and Allow Rural Business

One tool to achieve Rural Preservation is to explore ways, through zoning, to encourage and allow rural and agricultural businesses to prosper through farm and agricultural related activities. The County could:

Expand Rural Commercial and Rural Industrial Categories

In the Agricultural Preservation districts, the basic agricultural uses like agriculture, horticulture, animal husbandry and equestrian activities should be expanded to include more agricultural support uses. Agricultural support uses are support businesses (re-

pair, service, retail, and related uses) related to the basic agricultural uses and activities. The support businesses are further divided into those that are directly associated with an on-going basic agricultural activity, and located on the same property, versus a support business that is off-site. Off-site support businesses should be small-scale in nature, and may include such uses as farm product sales, farm machinery repair and leasing.

As needed, performance standards should be used to address potential external impacts as well as ensure the maintenance and preservation of the agricultural and rural character of the area. The types of potential impacts identified that might need to be addressed include: access/traffic, location of the use on the land (setbacks); the size/bulk of the bulk of the use in relation to other uses; impact on rural character (e.g., height, visibility); and environmental impacts (such as noise and lighting).

Allow agri-tainment uses, by right

Examples of such uses could include new equestrian centers and boarding facilities, event facilities, nurseries, heritage and rural tourism destinations, farmer's markets, and bed and breakfasts.

Allow corporate retreats, subject to performance standards

Conferences centers, corporate retreats, and corporate training facilities should be allowed subject to access/traffic, setback, size/bulk, impact on rural character, and environmental impacts.

B. Conservation Subdivisions

Conservation subdivisions permit single-family residential development in rural areas with reductions in lot area and setback standards, in return for the landowner setting aside a large portion of the site in open space. Generally, a conservation subdivision has three primary characteristics: smaller building lots; more open space; and protection of natural features and agricultural lands. The rules for site development emphasize setting aside and conserving the most sensitive areas of a site, with the development of building lots on the remaining less sensitive areas. In most cases, by locating development on smaller lots and maintaining open space, a landowner can achieve similar densities as with a conventional subdivision. The additional open space, the protection of natural features, and a more compact development form benefit both the residents and the greater public. Conservation subdivisions implement Charleston County's land use planning goals by helping residential development in the Rural Areas maintain rural character and open space, encourage compact development form, and preserve natural features. The actual process of designing a conservation subdivision typically involves the following four basic steps:

Step 1: Resource Analysis/Mapping

The applicant identifies significant natural and cultural resources on the site. These are two basic categories of resources: (1) Primary conservation areas and (2) secondary conservation areas. Primary conservation areas include lakes, wetlands, floodplains, streams, rivers, wildlife habitat, significant vegetation, historic buildings, and archeological sites. Secondary conservation areas include areas of active agricultural activity, land with scenic vistas, and lands with recreation opportunities. The applicant also produces mapping showing resources and open space on neighboring parcels.

Step 2: Site Visit

Next, County staff and the applicant visit the development site to see first hand where resources exist and to understand the lay of the land and what areas might be suitable for development sites. The relationship to surrounding parcels is also examined.

Step 3: Delineation of Conservation and Development Areas

In Step 3, the applicant produces a map that depicts primary and secondary conservation areas and open space as well as areas suitable for development (the development delineation area or the yield plan).

Step 4: Submission of Conservation Design Plan

In Step 4, the applicant submits a conservation subdivision plat showing primary and secondary conservation areas and open space on the site, along with the development area where the single family cluster lots would be located. Areas suitable for development are specifically delineated as well as other areas that will be disturbed for accessory structures and uses, septic fields, roads, trails, and utilities. Where applicable, lot lines would be shown on the conservation subdivision plat. The full development density permitted by the zoning district for the entire site would be allowed within the development delineation area.

C. Purchase of Development Rights

The Purchase of Development Rights (PDR) concept is an approach to preserving and

protecting agricultural lands, environmentally sensitive areas, and other open spaces through the purchase of a portion of the property rights associated with the land. Typically, the ownership of land includes the possession of a bundle of property rights associated with the land, including surface, mineral, air: possession, use, modification, development, lease, or sale of the land (or a portion thereof).

In most cases, the County or other agency seeking to purchase the development rights acquires a legal easement from the landowner that is often referred to as a conservation easement, or an obstacle to future development that is placed on the deed and referred to as a restrictive covenant or deed restriction. These easements or restrictions can work to limit all, some, or a portion of the allowable development based upon the objectives of the purchaser. For example, a conservation easement might be designed to allow a farmer to continue farming, and even construct and sell an additional dwelling provided such activity does not impede the ability to successfully farm the land.

The County is currently operating a PDR program through the Greenbelt Program.

How the system works

After obtaining enabling legislation, the County then appoints a board or other body to manage the system. The primary functions of the board include reviewing applications from those seeking to sell property rights, obtaining appraisals, prioritizing lands for acquisition, negotiating agreements for selected lands, and ensuring enforcement of the easement terms. Appraisals are used to determine the value of the development rights being purchased. The value of development rights represents the difference between the land's value with and without the easement. For example, a 100 acre farm may be worth $10,000 per acre if sold for a residential subdivision, but only $3,000 per acre with the restrictive easement. This means that the development rights cost 7,000 per acre, or $700,000 for the entire farm. Actual purchases by the community or agency should take place under the guidelines of an established plan, and often work best when crafted to create large uninterrupted areas of agriculture or open space instead of smaller sites in a scattered arrangement.

Advantages:

The key benefit to the PDR system is that it is voluntary, and the property owner is compensated for the development rights. From the perspective of a County, a PDR system is a very cost-effective way to control the future of the land since it does not require expenditures for fee simple interest or maintenance costs. In addition, the system is flexible and allows the County to control types of subsequent development, and how or when development can occur (if at all). It is also a technique that allows a landowner to obtain equity value from the land while keeping it in its productive or natural state. The PDR system also helps ensure continued agricultural use by lowering the taxable value of the land.

Disadvantages:

One major disadvantage of the program is that the County must typically provide the money for purchases "up front," which can be a strain on budgetary resources. The programs can be funded through a bond referendum or another tax. Often, such programs must be established in an area before explosive development potential drives up land values; thus timing is a key issue. Additionally, the program is almost always funded by some form of tax (property taxes, excises taxes, sales taxes, etc.) which can be unpopular with constituents. In the case of the Charleston County Greenbelt Program it is funded through the Half-Cent Sales Tax established by referendum. Since the program is voluntary, the County has little means of controlling which lands are brought into the system. Since the PDR system relies on easements or other controls, it has little control over the landowner's ultimate disposition of the land. Finally, while the PDR system does avoid many of the long-term maintenance costs associated with fee simple acquisition, the local jurisdiction must still assure enforcement of the easement's terms, and unenforced easement rights may be forfeited through neglect.

D. Transfer of Development Rights

Transfer of Development Rights (TDR) programs are attracting increasing attention throughout the United States. Many once-rural communities are growing rapidly and are looking for ways to balance resource and open space protection with concern over property rights. When designed correctly, TDR programs, which seek to shift permissible development densities from unsuitable development areas to more appropriate sites, can be an effective growth management tool. By creating "receiving area" markets for the sale of unused development rights, TDR programs encourage the maintenance of low-density land uses, open spaces, historical features, critical environmental resources, and other sensitive features of designated "sending areas." Where a landowner in a sending area sells development rights to another landowner in a receiving area, the purchaser thereby augments the latter's development rights in excess of the otherwise permissible limits. In this manner, the County could protect a variety of sensitive features while providing a mechanism to help offset any perceived diminution in land development potential.

A successful TDR program incorporates the following three essential elements:

Sending Areas: Resources for Protection

The first step in creating a TDR program is the identification of valued resources and the designation of an area for the protection of such resources. This is the "sending area." Where development pressures threaten resources in the sending area, the TDR program enables landowners to transfer development rights to other locations, thus directing growth pressures away from the sending area. Where TDR programs are mandatory, the program restricts the landowner's development rights, allowing landowners to realize land value only through transfers. In voluntary TDR programs, sending area landowners participate in density transfers at their option; where they do not undertake density transfers, they retain their land development rights. In Charleston County, the sending areas could be the Rural Area.

Receiving Areas: Density Incentives

In a strong market, the developer seeks to maximize the intensity of development projects, and thus possesses an incentive to purchase additional development rights. Capitalizing on this incentive, a TDR program identifies those areas in which development can occur at relatively high densities without threatening valued resources or community character. In these designated "receiving areas," the program awards developers increased density allowances in exchange for their purchase of TDRs from landowners in sending areas. In Charleston County, the receiving areas could be the Urban/Suburban Area.

Allocation of Transferable Rights in Sending Areas and Receiving Areas

The TDR program must set forth formulas for allocating the amount of development rights that will be available to sending area landowners and receiving area projects. In order to negotiate a TDR transaction, the sending area landowner must understand how many development rights can be conveyed. Similarly, the receiving area purchaser must understand how much each purchased TDR will increase permissible development densities. Simple ratios setting forth TDRs/acre for sending areas and density bonus/TDR for receiving areas satisfy the basic program requirement. These ratios will be essential to the participants' basic understanding of how TDR transactions will benefit them; without this understanding, all parties will be reluctant to participate in TDR transactions.

The core elements set forth above provide the framework for a basic TDR program. Sending area landowners sell TDRs on the open market to receiving area developers, or to a government-administered TDR "bank" or clearinghouse. Where such transactions occur, the seller records a permanent easement on the property deed, permanently reducing development rights in the amount transferred. Upon application for development approvals, the developer then submits evidence of the TDR transaction to the approving agency, and thereby obtains permission to increase the density of the development accordingly.

E. Local Food Consumption

In a time of rising transportation costs, producers and consumers are increasingly looking locally for each other. The County should encourage this through public education. Local food consumption increases the viability of agriculture for farms of all sizes. It also enhances the public's connection to the landscapes immediately around them. Support of programs such as farmers markets, support of roadside produce stands and encouragement of supportive businesses that use local resources can all further support this goal. The County would probably need to address these issues through rural zoning that continues to allow road side stands, and through economic development activities that promote business growth that utilizes local food resources.

5. DEVELOPMENT QUALITY, TRANSITIONAL, MIXED USE

The *Comprehensive Plan* includes a section of guidelines to influence the quality of development. The guidelines are organized by the Rural and Urban/Suburban Areas of the County. These guidelines in the Plan serve as general recommendations, however, if the County desires to use them in a regulatory capacity they could be adopted into the Zoning and Land Development Regulations, and or as a separate ordinance to serve as a regulatory tool.

To achieve these goals, in addition to including clauses in Development Agreements with individual developers, the County should consider developing general design standards focused in the following areas for other developments:

A. Mixed Use

B. Big Box

C. Transitional

D. Community Form

While addressing the location, amount, timing, and cost of growth are often key elements of growth management systems, there is an increasing recognition at the local level that the quality, appearance, and environmental impacts of development must also be dealt with. Only then can a community be assured that its distinctive character will be protected and that development will be attractive, consistent, and sustainable from an environmental perspective. The other issue in the Charleston County environment is the need for consistency along jurisdictional boundaries. Adoption of consistent standards for areas that include multiple jurisdictions can improve the quality of development in those areas.

A. Mixed Use

In recent years, many jurisdictions have become dissatisfied with development under their traditional "Euclidean" or single-use/separated-use zoning. These schemes are seen to promote "sprawl", automobile dependency, and unattractive, undesirable development.

In an effort to create more dynamic, aesthetically pleasing, sustainable compact communities, many local governments are now allowing mixed use development. If designed properly, having a mix of uses in close proximity encourages walking and other non-auto modes of transportation, fosters community, and creates a lively, safe environment at all times of the day.

In order to ensure a desired degree of quality, while forgoing stricter use controls, these governments are retaining development controls through mixed use design standards.

Issues to consider in developing mixed-use standards include:

- Vehicular Connectivity/Cross Access;
- Block Length and Width;
- Traffic Calming;
- Calibrated Streetscapes;
- Variety of Street Types;
- Unified Character;
- Signage;
- Gathering Spaces;
- Vertical Mixed-use;
- Horizontal Mixed-use;
- Mandated Use Mix;
- Lot Size Mix;
- Housing Mix;
- Architectural Character;
- Massing & Articulation;
- Connected Open Space;
- Building Organization:
    - Build "to the sidewalk";
    - Frame street intersections with building walls; and
    - Use buildings to enclose gathering spaces and create a rhythm of built and empty space along the street frontage.
- Building Orientation:
    - Primary entrances should face streets not internal site areas or parking lots.

B. Big Box

Large retail developments depend on high visibility from major public streets. In turn, their design determines much of the character and attractiveness of major streetscapes. The marketing interests of many corporations, even with strong image-making design by professional designers, can be detrimental to community aspirations and sense of place when they result in massive individual developments that are not compatible

with a community's existing physical features. To address these concerns, an increasing number of communities throughout the nation have adopted development and design standards for large retail developments to ensure they contribute to the community as a unique place by reflecting its physical character, and are compatible with existing residential neighborhoods and streets.

Generally, this is done either through development standards or guidelines for large retail development, or as a combination of minimum requirements together with guidelines. The standards apply to all new retail development that exceeds a certain size threshold – for example, 25,000 square feet or more of gross floor area.

If the County decides to include Large Retail Development Standards in its regulations, consideration should be given to the following types of standards, some of which are already required by the Zoning and Land Development Regulations Ordinance:

- **Facades/Exterior Walls and Detail Features** – Facades of a certain length incorporate wall plane projections or recesses to break up building mass.
- **Roofs** – Require parapets to conceal flat roofs and rooftop equipment such as HVAC units be concealed from public view.
- **Building Materials and Façade Colors** – Metal siding and concrete block be prohibited for all building elevation; establish limitations on use of synthetic stucco near ground level and around doors; establish standards for the use and type of vinyl siding (exposure width, detailing, graining). Explore standards related to color.
- **Customer Entrances** – Require each principal building to have a clearly defined, highly visible customer entrance with features such as canopies or porticos; overhangs; recesses/projections; arcades; etc. These features can be presented as a menu, allowing the applicant to choose a few from a longer list. Some regulations also require, to the maximum extent feasible, the primary customer entrance be located on the side of the building that is closest in distance to the majority of off-street parking spaces and be located in the center of that building side.
- **Parking Lot Orientation** – Require a limited amount of the off-street parking area for the entire property be located between the principal building(s) and the primary abutting street.
- **Screening Outdoor Storage, Trash Collection, and Loading Areas** – Require screening of outdoor storage, trash collection, and loading areas.
- **Pedestrian Flows** – Require sidewalks on all sides of the lot that abut a public street, and continuous internal pedestrian walkways of a certain width connect parking areas and the primary entrance.

C. Transitional Standards in the Urban/Suburban Area

In the Urban/Suburban Area, the County's site plan review program should be implemented, including design review boards and architectural review boards and coordinate with design review boards, architectural review boards and planning staffs of adjacent municipalities that address issues such as:

- Building Facades;
- Building Dimensions;
- Site Design;
- Parking and Driveway Areas;
- Loading and Refuse Storage Areas;
- Lighting;
- Signage;
- Open Space;
- Alternatives for Shallow Lots of 150 Feet or Less in Depth; and
- Operational Standards.

D. Form Based Code

The most fundamental features of form based codes include blocks; streets and streetscapes; and alleys and parking. To address these issues, Charleston County could consider developing a form-based code with a basic set of community design standards. The following types of standards might be included:

- Block Design;
- Street Design;
- On-Street Parking;
- Off-Street Parking;
- Access to Lots;
- Street Connectivity;
- Sidewalks;
- Street Trees; and
- Traffic Calming.

E. Traditional Neighborhood Developments (TND)

Traditional Neighborhood Development (TND) is modeled after the pattern of development popular up through the mid-1900s. The traditional neighborhood concept reflected human scale, walkable communities with a mix of uses and densities and mixed-use cores. The TND Design Concept is a modern adaptation of that historic pattern is a viable and desirable option for some areas of Charleston County. This design is typically characterized by a "grid"—or frequently interconnected—street network, typically with alleys, mixed-housing types and some mixed-uses. These mixed-uses, with basic architectural consideration, can be integrated into a neighborhood, even if the neighborhood is established. Accessory residential units are also easily accommodated. This type of development requires a different set of physical standards, including maximum setbacks or "build-to" lines, porches and rear-facing or detached garages. These developments typically have a higher density than what is common in most parts of the County, which can be appropriate for many reasons, including efficiency of infrastructure, efficient use of land and more potential pedestrian opportunities. In this sort of development, appearance and size of the structure are often more important than use.

Most TND include open or recreational areas and a Neighborhood Center with varying amounts of retail, office, and civic uses depending on context and magnitude of the TND. A Neighborhood is a physical entity and is the fundamental building block of urban form–perhaps best described as an area in which most residents are within walking distance of its center. This distance is approximately one-quarter mile (1,320 feet), which is equivalent to a five minute walk.

Blocks in a TND are typically no more than 300 feet in width and 600 feet long. Larger blocks should include interior pedestrian paths or alleys or other features such as parks. Street networks in Neighborhoods may be either rectilinear or curvilinear but should be interconnected to form a block

system.

The County could adopt a TND zoning district or promote them through the use of a Planned Development (PD).

DuPont | Wappoo Community Plan

A collaborative planning effort of the residents of the DuPont | Wappoo Community, area business owners, stakeholders, the City of Charleston, and Charleston County

CHARLESTON COUNTY
SOUTH CAROLINA

Adopted November 1, 2016

DuPont | Wappoo Community Plan

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DuPont | Wappoo Community Plan

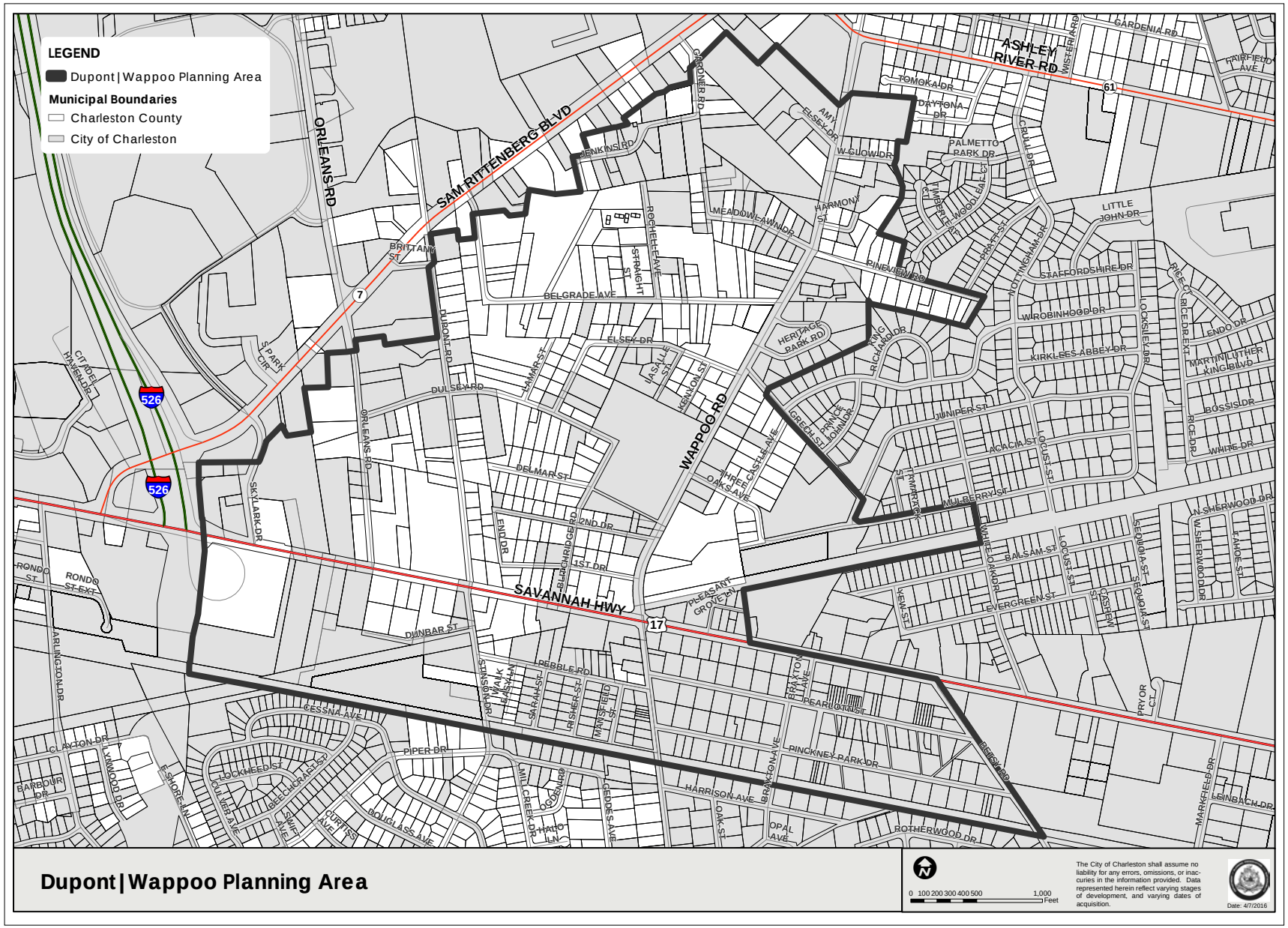
1. Plan Overview

The DuPont | Wappoo Community Plan project area generally includes the area bounded by Sam Rittenberg Boulevard, Wappoo Road, and Savannah Highway, as shown in more detail on the map on the next page. Approximately half of the properties in the project area are in the City of Charleston and the other half are in unincorporated Charleston County. The DuPont | Wappoo Community originally contained plantations, which became truck farms in the early 1900s, and then developed as suburbs following World War II. Many of the land uses and structures that have developed over time are becoming, or will soon become, obsolete making the area ripe for redevelopment.

Both Charleston County Council and the City of Charleston Council recognized the issues facing the community and directed their respective staff members to collaborate with each other and the community to address the fragmented land use and zoning designations, deteriorating traffic conditions and aging transportation infrastructure, severe drainage issues, the desire of residents to create a neighborhood center that is cohesive with the greater West Ashley Area, and the need to create predictable development patterns for the growth and redevelopment that will occur in the future.

The DuPont | Wappoo Community Plan is the outcome of those objectives and is the result of a year-long collaborative planning process including input from hundreds of residents, business owners, stakeholders, and representatives from non-profit organizations and governmental agencies. The Plan describes the public participation process and includes a series of recommended implementation strategies formulated to address the issues identified by the community and achieve their vision for the area. A summary of the public comments gathered during the public participation process can be found in the Appendix.

DuPont | Wappoo Community Plan



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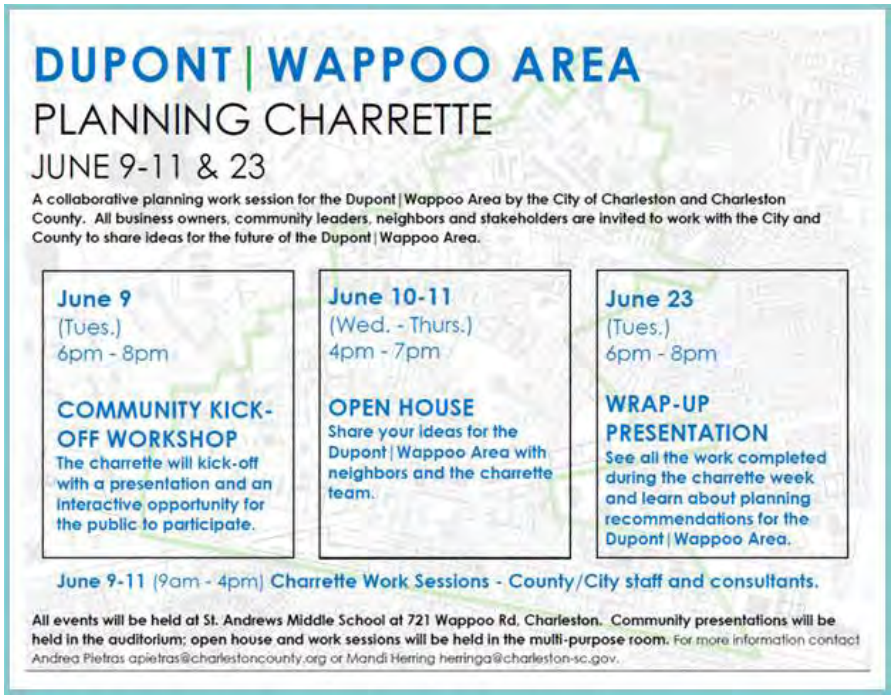
2. Public Participation

The project began with a three-day public workshop (June 9 - 11, 2015) hosted by Charleston County and the City of Charleston at St. Andrews Middle School (see the flier pictured to the right). A project kick-off meeting was held on June 9, at which time the public was invited to share their concerns and ideas for the area. On June 10 and 11, the public was invited to attend open house sessions to share ideas and see the planning work in progress. Attendees gave input on land use, multi-modal transportation improvements, drainage and stormwater issues, economic development and community needs, as well as design and development standards. County and City planning staff also met with stakeholders (drainage and transportation experts, business leaders, etc.) to gather input to present to the community during the workshop process, and conducted windshield surveys of the area.

On June 23, 2015, the public was invited to attend a wrap-up meeting where the results of the workshop were presented along with planning recommendations and next steps; and additional public input was also gathered.

Following the June 23 meeting, County and City representatives coordinated to draft a new overlay/zoning district that addresses the land use, zoning, and design needs identified by the public. They also worked with other agencies and organizations to identify potential solutions to transportation, drainage, and community issues. On January 27, 2016, Charleston County and the City of Charleston hosted another community meeting to present the proposed new overlay/zoning district for the DuPont | Wappoo Community; give updates regarding traffic and transportation, drainage and stormwater, economic development, revitalization, and other community elements; discuss proposed implementation strategies and next steps; and gather additional feedback from the public.



Notifications for all public meetings and workshops were sent to all area property owners, residents, businesses, stakeholders, and interested parties and press releases were sent to all media outlets. Almost 650 people attended one or more of the public workshops/input sessions. The information gathered from the public is summarized in the Appendix and is organized by topic, including:

- Community Elements;
- Land Use, Zoning, and Design Standards;
- Economic Development and Revitalization;
- Traffic and Transportation;
- Drainage and Stormwater; and
- Streetscape/Beautification.

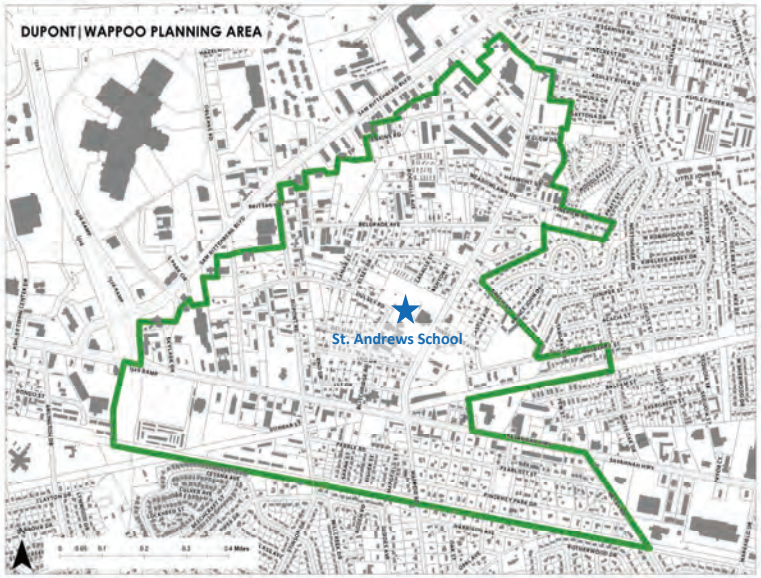
DUPONT | WAPPOO AREA

COMMUNITY MEETING

January 27, 6:00 PM

St. Andrews Middle School Auditorium (721 Wappoo Rd)

The public is invited to this follow-up community meeting co-hosted by the City of Charleston and Charleston County. City and County representatives will present a proposed new zoning overlay for the area as well as updates regarding traffic and transportation, drainage, land use, design standards and other community elements identified during the June 2015 workshops.



For more information contact Andrea Pietras apietras@charlestoncounty.org or Mandi Herring herringa@charleston-sc.gov or visit www.charleston-sc.gov/projects.

3. Plan Implementation Strategies

Listed below are the recommended implementation strategies to address the issues identified by the community and achieve their vision for the area.

1. Adopt the DuPont | Wappoo Community Plan, corresponding Memorandum of Understanding (MOU), and amendments to comprehensive plans and zoning and land development regulations ordinances, including but not limited to overlay zoning districts and zoning district changes, as applicable *(timeframe: complete adoption process within 6 to 12 months). *See page 7 for the draft Overlay Zoning District map as of April 8, 2016 and page 8 for examples of development currently existing in the area that the community would like to see emulated and that the Overlay Zoning District regulations are intended to encourage.*

2. Prioritize the projects included in numbers 3 through 8 below *(timeframe: begin within 6 to 12 months)*.

3. Community Elements Strategies

- Work with property owners and applicable agencies to revitalize and beautify the intersection of Wappoo Road and Savannah Highway *(see page 9 for an example of how the area could be redeveloped to implement this strategy)*. This strategy includes, but is not limited to:
  - Pulling the buildings up to the roads to give the area a unique and memorable character;
  - Planting street trees;
  - Adding a median;
  - Connecting the West Ashley Greenway and West Ashley Bikeway; and
  - Ensuring the safety of pedestrians and bicyclists.
- Work with local non-profit organizations and area residents to host community events.
- Create a DuPont | Wappoo Community brand through a community driven visioning process to enhance West Ashley's image, and highlight pride points such as West Ashley's strong sense of community, great neighborhoods, local businesses, and unique parks and public spaces.
- Identify a location and launch a West Ashley Farmers Market.
- Construct a West Ashley Senior's Center.
- Provide greater citizen support through staff availability, outreach, etc.

4. Land Use, Zoning, and Design Standards Strategies

- Monitor and evaluate updated zoning ordinances and amend as needed.

5. Economic Development and Revitalization Strategies

- Investigate methods to incentivize existing businesses to revitalize the exteriors of their buildings.
- Increase outreach efforts to commercial real estate brokers to share West Ashley plans and revitalization efforts.
- Increase business development and retail recruitment efforts.
- Encourage infill redevelopment by:
  - Supporting local businesses;
  - Assisting businesses in finding great locations in West Ashley and navigating city/county permitting processes; and
  - Facilitating professional connections and helping to identify financial resources.

6. Traffic and Transportation Strategies

- Conduct a comprehensive transportation study for West Ashley.
- Continue to actively pursue traffic and transportation improvements such as intersection improvements for Savannah Highway/Wappoo Road, Savannah Highway/DuPont Road, and Savannah Highway/Orleans Road.
- Optimize traffic signal timing and continue to monitor, evaluate, and adjust as needed.
- Approach the BCDCOG about a multi-modal study for Savannah Highway.
- Coordinate with CARTA to upgrade existing bus stops to include shelters, sitting areas, etc., and add new bus stops with the same amenities.
- Begin implementation of the City of Charleston's Bicycle and Pedestrian Plan for the area. **The City's Bicycle and Pedestrian Plan can be found on page 12.*
- Coordinate with the appropriate transportation authority to address pedestrian safety issues, including but not limited to the lack of a crosswalk at the DuPont Rd/Stinson Rd and Savannah Hwy intersection.
- Work with area residents to pursue scenic road designations for Wappoo Road (south of Savannah Hwy) and Betsy Road.

7. Drainage and Stormwater Strategies

- City of Charleston and Charleston County coordinate to conduct a joint drainage study.
- City and County prioritize and create an action plan to address the strategies recommended by the drainage study.
- Clean drains and gutter/bike lanes, and institute regular street sweeping.

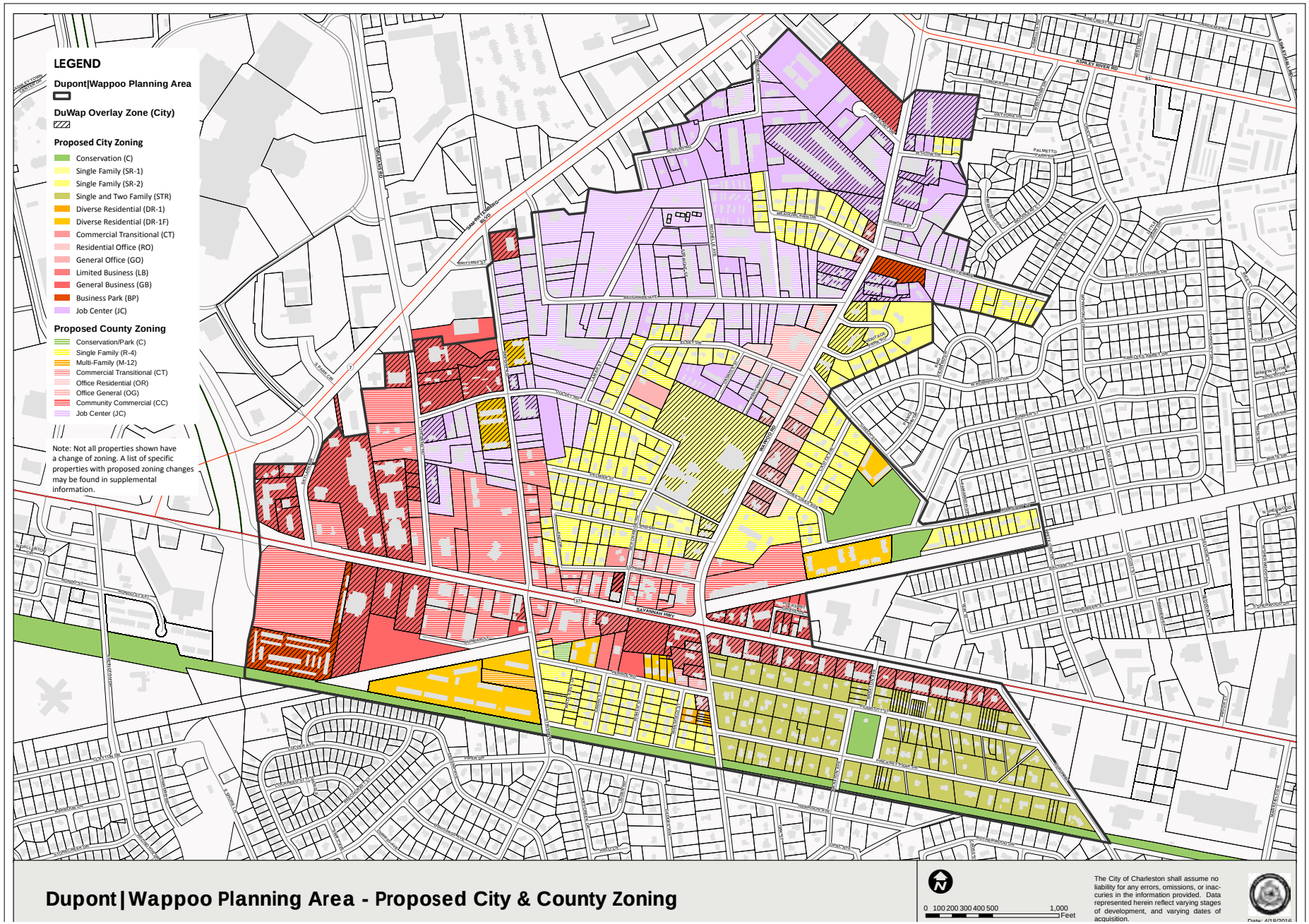
8. Streetscape/Beautification Strategies

- Plant trees in the Savannah Highway right-of-way from Orleans Road to Betsy Road. **See pages 10 - 11 for examples of how this strategy could improve the character of the community.*
- Coordinate with the appropriate transportation authority to address maintenance of vegetation in rights-of-way.

9. Manage and maintain the Plan, and keep the community updated on progress *(timeframe: on-going)*.

10. Evaluate and update the Plan at least once every five years with community input *(timeframe: on-going)*.

DuPont | Wappoo Community Plan



Dupont|Wappoo Planning Area - Proposed City & County Zoning

The map above shows the proposed zoning for both the incorporated and unincorporated properties within the project area. This map was created on April 18, 2016.

The pictures above are examples of development currently existing in the area that the community would like to see emulated.

Wappoo Rd/Savannah Hwy Intersection

The picture on the left shows the current condition of the intersection of Wappoo Rd and Savannah Highway. The picture below shows a vision plan for how the area could be redeveloped to address many of the public's concerns including beautifying the intersection, connecting the Greenway and Bikeway, ensuring the safety of pedestrians and bicyclists, and pulling the buildings up to the roads to give the area a unique and memorable character.

Existing conditions at the Wappoo Rd/Savannah Hwy intersection.

Savannah Highway Possibilities

The picture on the left shows the current conditions along Savannah Highway (Google Map image from April 2015). The picture below shows how the area could be redeveloped to address the public's desire to improve this streetscape and create community character through the planting of Palmetto trees in the right-of-way.

DuPont | Wappoo Community Plan

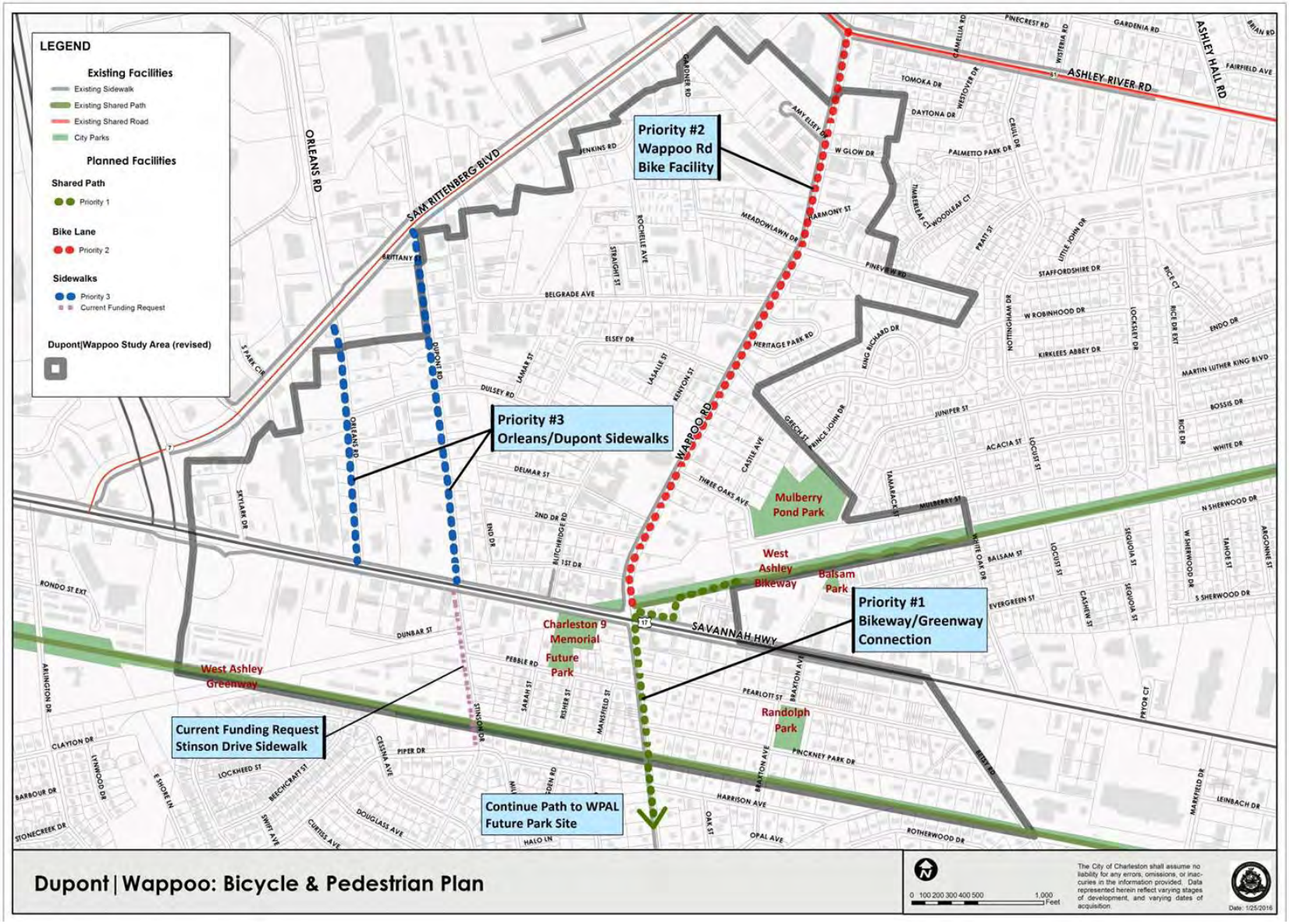
Savannah Highway Street Tree Possibilities

The picture below shows the potential locations for street trees in the Savannah Hwy right-of-way (stars indicate potential locations).

DuPont | Wappoo Community Plan

Bike and Pedestrian Plan

The map below shows the City of Charleston's plan for improvements to bike and pedestrian facilities.



DuPont | Wappoo Community Plan Appendix

A-1. Community Elements

The following community element needs were identified by the public during the public workshops/input sessions:

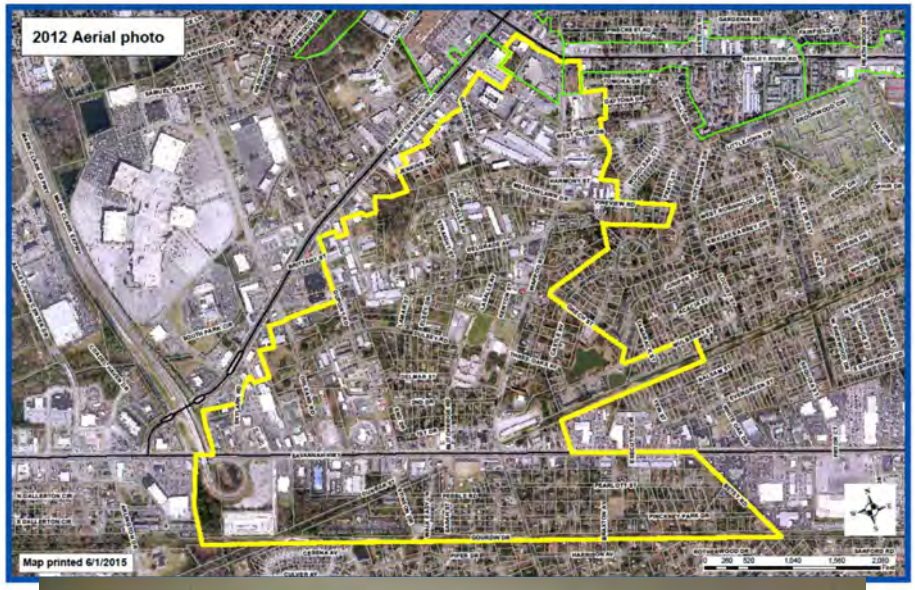
- Increase coordination/consistency between City & County;
- Improve safety and livability through increased police, livability, and code enforcement, and by offering additional citizen support and neighborhood services;
- Improve the West Ashley Greenway, West Ashley Bikeway, Randolph Park, and duck pond and provide additional public spaces and park improvements;
- Provide fiber optic conduit to create a digitally connected community;
- Provide more community places for residents such as a senior center, fun, safe places for teenagers, community events, farmers markets, etc.; and
- Improve the sense of place and strengthen the community identity.

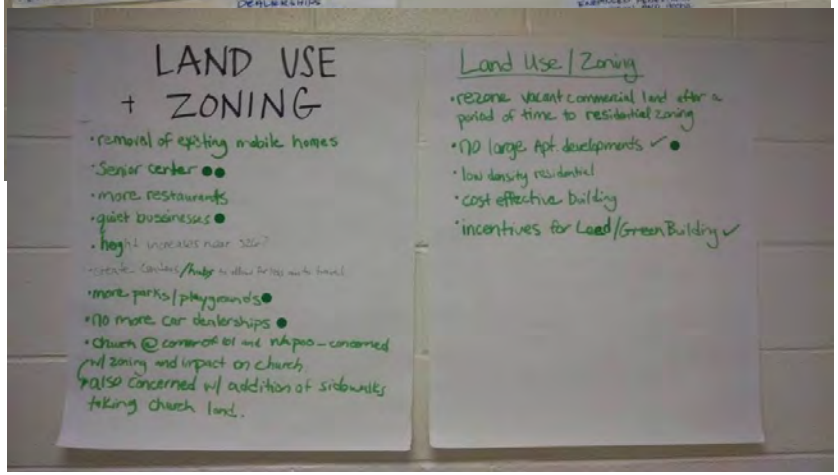
In addition to the community element input gathered at the DuPont | Wappoo Community Plan workshops, the City of Charleston conducted a West Ashley Community Perceptions Survey to better understand perceptions of West Ashley and the qualities that make West Ashley unique. The survey took place during the month of August 2015 and yielded 3200+ unique survey responses. The survey was made available to West Ashley community members via email, the City's website, and social media; paper copies were available at local libraries, recreation sites, and community meetings. The City will coordinate with the County to utilize this important citizen input to create a community driven visioning process to enhance West Ashley's image, and highlight pride points such as West Ashley's strong sense of community, great neighborhoods, local businesses, and unique parks and public spaces.

A-2. Land Use, Zoning, and Design Standards

The public identified the following land use, zoning, and design standard needs during the public workshops/input sessions:

- Adopt consistent land use, zoning, and design standards between the City and County that facilitate more authentic development;
- Create livable communities through enhanced pedestrian circulation and access service (restaurants, small businesses, stores);
- Create safe and connected pedestrian/bicycle accesses;
- Improve architectural requirements, but allow for cost effective building materials;
- Prohibit metal buildings on Savannah Highway;
- Limit building height to three stories with height increases allowed near I-526;
- Require buffers and landscaping;
- Require that development be low impact and pay special attention to buffer zones and storm water runoff;
- Require buildings to address the street;
- Require that parking be located at the back of buildings to create a more pedestrian friendly environment;
- Address public realm/right-of-way elements (street trees and street lights);
- Allow flexibility of uses in Wappoo/DuPont Wedge, Flex Business/ Trades/Small Business Park uses; and
- Prohibit large apartment developments and car dealerships.





A-3. Economic Development and Revitalization

The major items the community identified regarding economic development and revitalization included:

- Recruit businesses that serve residents' needs (personal services, natural/organic food stores, coffee shops, etc.);
- Support and encourage local/small businesses (local hardware stores and restaurants);
- Upgrade/utilize old shopping centers and the mall;
- Provide incentives for redevelopment of commercial properties;
- Create centers/hubs for less vehicle travel;
- Provide a Farmer's Market;
- Ensure the safety of area businesses;
- Provide incentives for redevelopment of commercial properties;
- Limit the expansion of large car dealerships within the community; and
- Link the West Ashley Greenway to nearby neighborhood commercial areas through wayfinding signage.

A-4. Traffic and Transportation

The community identified the following regarding traffic and transportation:

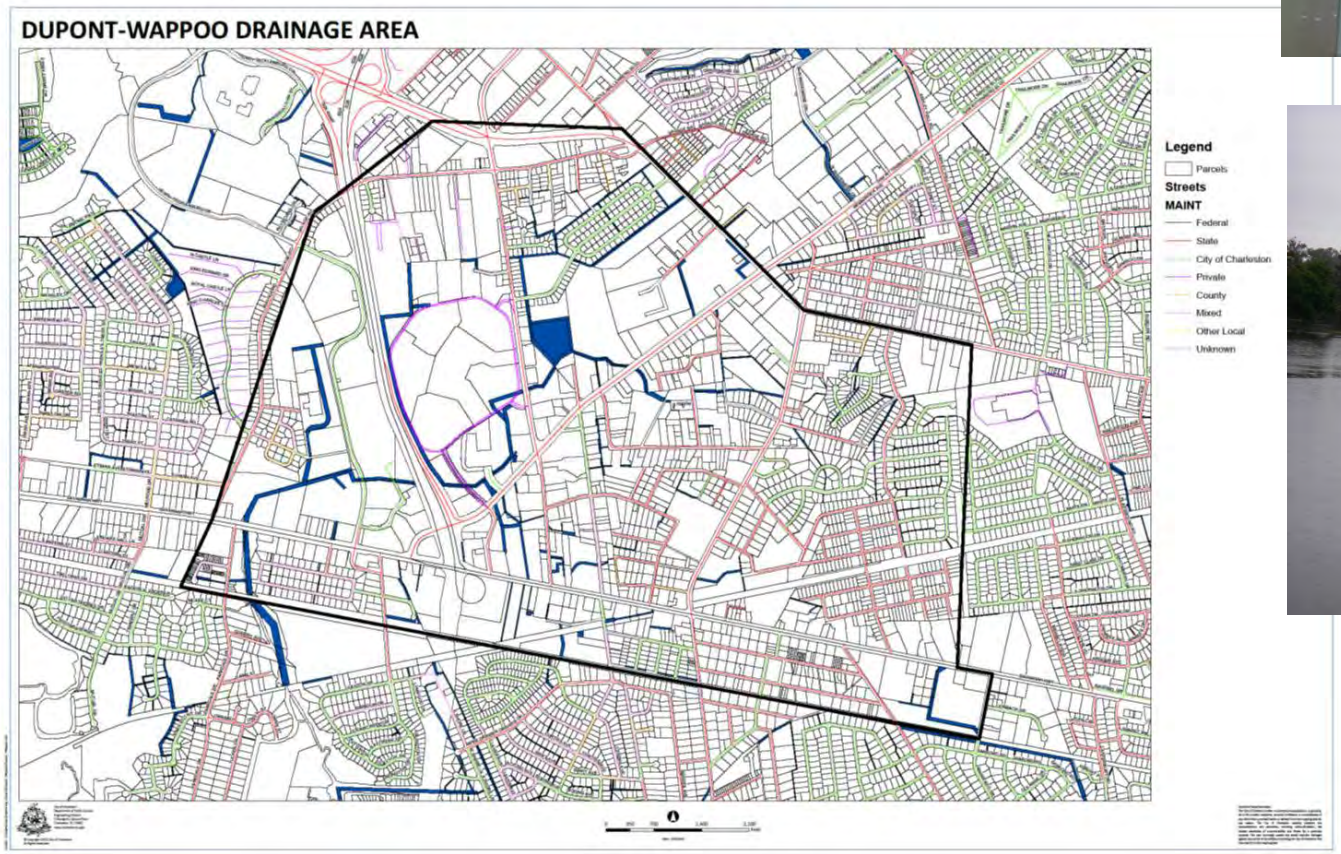
- Reduce traffic congestion on Savannah Highway;
- Provide street lights, street trees, and medians on Savannah Highway;
- Trim and prune trees along the streets;
- Improve pedestrian safety by installing crosswalks at intersections and by providing more sidewalks (Wappoo Rd to Edgewater Bridge, and Pebble, Elsey, Dulsey, DuPont, Stinson, and Orleans Rd);
- Beautify the Wappoo Road/Savannah Highway intersection;
- Provide a park and ride location in the area;
- Provide safe bus stop locations and safe routes to bus stops (sidewalks) located on DuPont Rd for childrens' safety;
- Connect the West Ashley Bikeway and West Ashley Greenway; and
- Improve signal synchronization along Savannah Highway.

Intersection of Wappoo Road and Savannah Highway

A-5. Drainage and Stormwater

The major items the community identified regarding drainage and stormwater included:

- Conduct an area-wide drainage study;
- Turn stormwater facilities into amenities;
- Provide incentives for green infrastructure/stormwater facilities;
- Create stormwater demonstration projects;
- Use the Half Cent Sales Tax to fund regional stormwater improvements; and
- Require on-site drainage improvements or fee-in-lieu-of options.



A-6. Streetscape/Beautification

The community identified the following regarding streetscape/beautification needs:

- Bury power lines;
- Request SCDOT to maintain the right-of-way, especially near I-526;
- Install safe pedestrian-scale lighting;
- Create safe, handicap accessible pedestrian/bicycle access (sidewalks) and crossings; and
- Add landscaping and trees along streets.

PARKERS FERRY COMMUNITY PLAN

*A **collaborative planning effort** to preserve the cultural and natural resources of the historic Parkers Ferry community*

Adopted December 15, 2016

CHARLESTON COUNTY
SOUTH CAROLINA

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3. Plan Implementation Strategies	9
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B. List of Community Needs	B-1

1. Plan Overview

Charleston County as a whole is currently experiencing unprecedented growth. Areas long defined as rural are increasingly being subjected to development pressure as this growth continues. This is especially true of the westernmost reaches of the County, an area that is currently characterized by large undeveloped tracts of land and small, historic rural communities, some of which are Parkers Ferry, Wiltown, Jericho, Osborne, and Adams Run.

Historically, many small neighborhood businesses existed in the Parkers Ferry Community. There are very few neighborhood businesses existing today partially due to current zoning regulations that prohibit them; however, the community wants to see small neighborhood businesses and employment opportunities established in the area.

Over the past decade, WestRock (formerly MeadWestvaco) completed a master planned development for approximately 14,500 acres of land in the western part of Charleston County (known as the Spring Grove Development). As part of this effort, a community meeting was held in December 2012 at the Wiltown Community Center. At this meeting, representatives from WestRock presented the proposed plans for the Spring Grove Development, which included large amounts of residential, commercial, and industrial uses (to be developed over a fifty-year timeframe). Local residents at the meeting were concerned about the development's potential negative impacts on the existing communities; however, they also viewed the development as an opportunity to bring more services and employment to the area.

As a result of these issues, County Council Member Anna Johnson coordinated with area residents and the Charleston County Zoning and Planning Department to embark on a planning process to establish a community plan for the Parkers Ferry area.

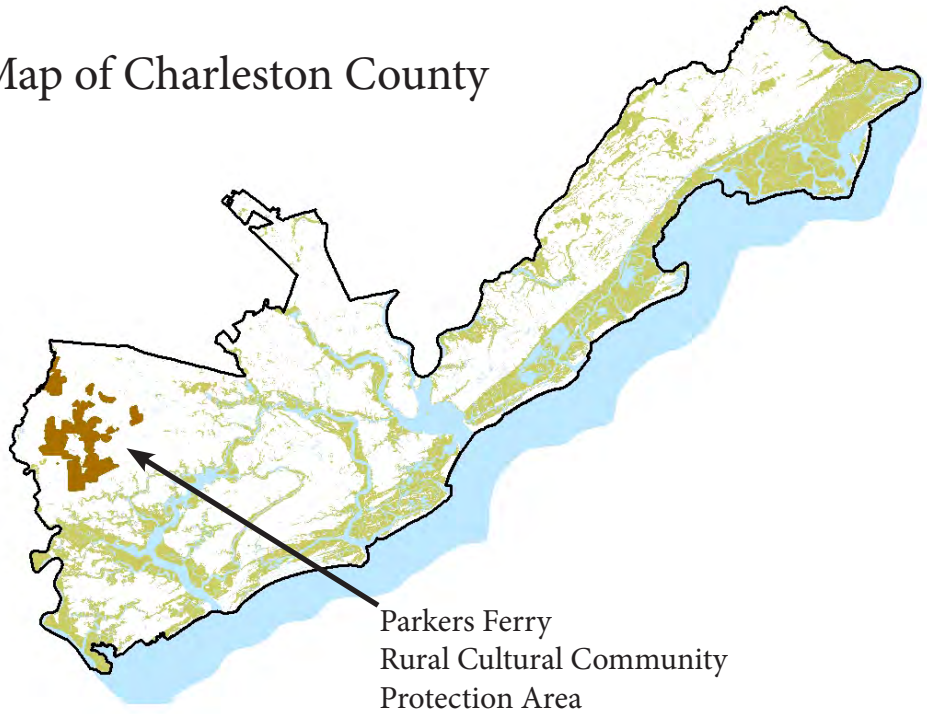
When contemplating the Parkers Ferry Community Plan (the Plan) initially, a few of the primary objectives identified by the community were to preserve and enhance the cultural and community heritage of the area and provide flexibility in zoning regulations to allow for a more efficient rural land use pattern that would allow new development to occur in similar ways as it had historically in the community.

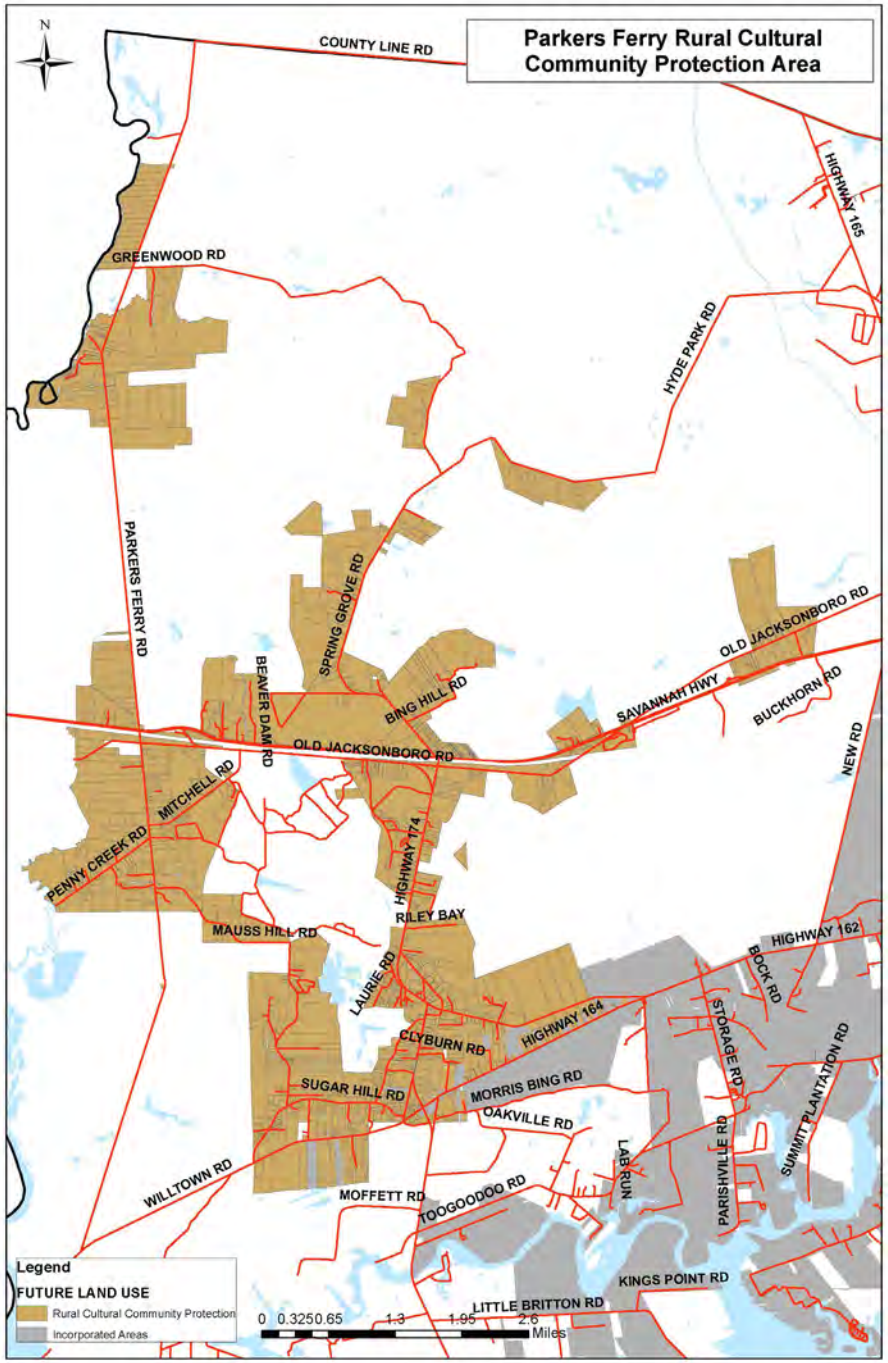
U.S. Post Office, Adams Run, SC (July 2016)

Wiltown Community Center, Adams Run, SC (July 2016)

The Community Plan Area

During a community workshop in February 2013, residents of the community, Charleston County representatives, and other stakeholders worked together to identify the community boundaries. The community plan area was ultimately defined by a focus on settlement areas and pockets of small lots, purposefully excluding properties in conservation easements and large forestry and timber company land holdings (see the project area maps below and at right).





2. The Planning Process

The Plan is the culmination of an extended project timeline that can be described in three distinct phases (as shown below). Phase 1 of the project included three community meetings held in 2013 to identify the needs and visions of the community and discuss potential solutions. These meetings coincided with the Five-Year Review of the Charleston County Comprehensive Plan. In early 2015, Charleston County Council adopted the Comprehensive Plan Review, and it included a new future land use category called Rural Cultural Community Protection which was a result of the 2013 Parkers Ferry community meetings. Phase 2 of the project began once the Comprehensive Plan Review had been adopted, as these changes set the stage for creating the Plan and subsequent zoning ordinance changes. The focus of Phase 2 was on the development and adoption of the Plan and Zoning and Land Development Regulations Ordinance (ZLDR) amendments addressing the needs of the community. Phase 3 is the process of implementing the strategies included in the Plan, and this phase begins once County Council adopts the Plan. Each phase of the planning process is further described in the following pages.

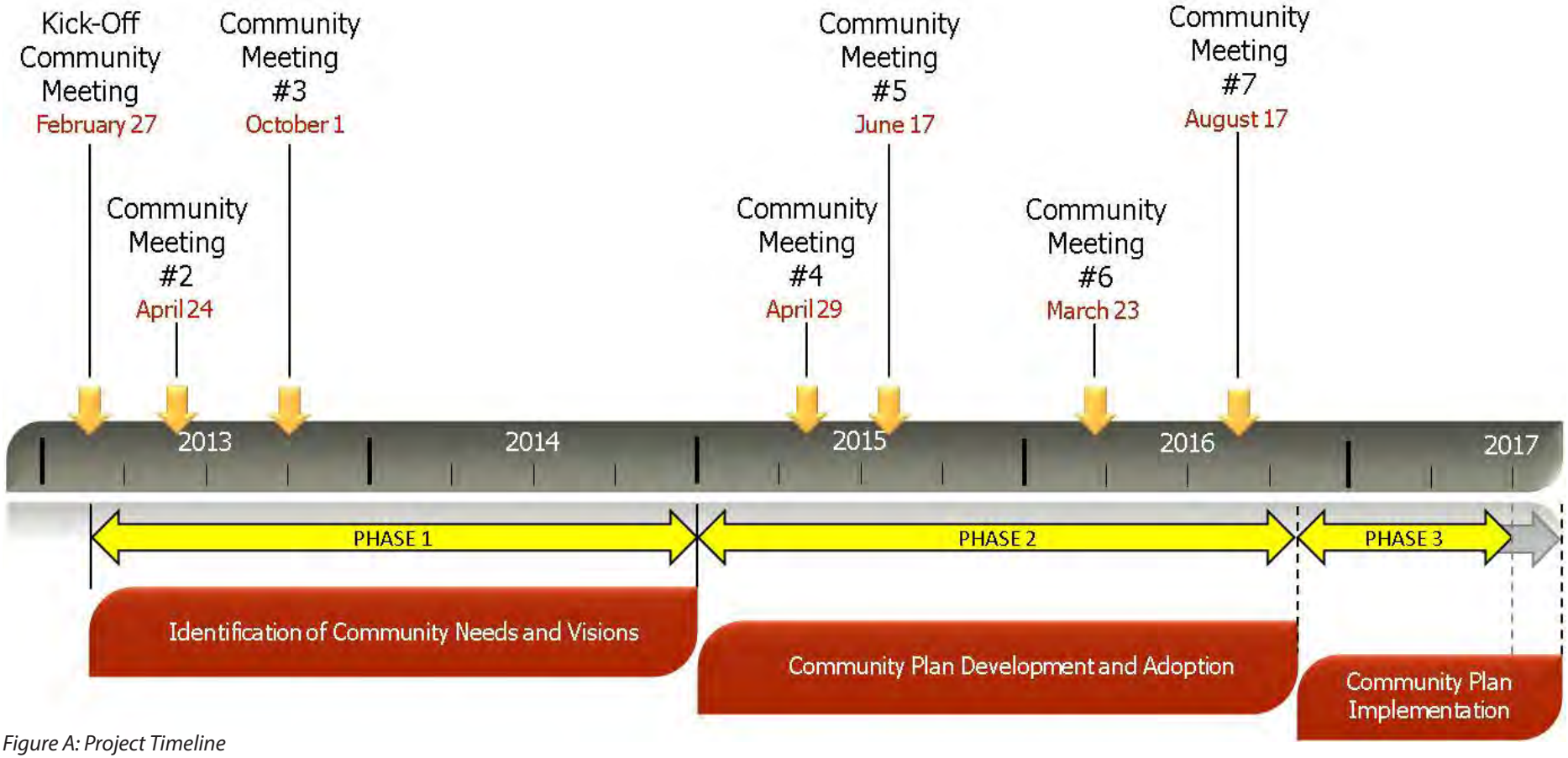


Figure A: Project Timeline

Phase 1 - Identification of Community Needs and Visions

The Plan began in 2013 with a series of three community meetings. During the first meeting in February, County Planning staff worked with community residents to identify geographic community boundaries and complete a community needs survey. The second meeting, held in April, included a discussion of the community needs survey results, emphasizing potential solutions, and also further refinement of the community boundaries. The complete results of the community needs survey are provided in Appendix A.

In October 2013, planning staff met with the community again to discuss solutions to the community needs identified in the previous meetings. At that time, staff also proposed a new future land use designation, Rural Cultural Community Protection, and educated the community about the Comprehensive Plan process to implement this new future land use designation that would set the groundwork for establishing customized zoning in the Parkers Ferry area to meet the needs of the residents.

Concurrent with these 2013 community meetings was the Five-Year Review of the Charleston County Comprehensive Plan. One primary purpose of the Comprehensive Plan Review was to update the future land use designations to reflect current demographic trends and community needs and desires. As a result of the meetings with the Parkers Ferry community, the new future land use designation, Rural Cultural Community Protection, was adopted by Charleston County Council as part of the Five-Year Review in January 2015. The Review also identified the Parkers Ferry Community Plan as a priority planning project, with the goal of implementing the new future land use designation by creating an overlay zoning district that is customized to meet the needs of the community.

Parkers Ferry Community Meeting, February 27, 2013

Early in the planning process, three Focus Areas were identified to address the community's issues, concerns and vision:

1. Preservation of the Cultural Heritage of the Community;

2. Increased flexibility to subdivide and develop property; and

3. Improved access to public services and employment/training opportunities.

Phase 2 - Community Plan Development and Adoption

Parkers Ferry Community meetings resumed after County Council's adoption of the Comprehensive Plan Five-Year Review. In 2015, meetings were held in April and June. The primary task during the April meeting was a review and update of the list of community needs and desires, and a discussion on how the creation of a community plan can address these needs. Each community need fell under one of five broad categories:

- Planning and zoning;
- Employment and economic development;
- Public services;
- Public facilities; and
- Community needs.

During the June 2015 meeting, planning staff gathered feedback from the community regarding the types and locations of uses (residential, office, business, etc.) desired within the community, as well as subdivision options. This feedback was critical for understanding the planning and zoning needs. Representatives from the Charleston County Public Works Department also attended the meeting to give updates on road and drainage projects in the community.

In March 2016, a community meeting was held to provide updates on County projects in the area administered by the Public Works and Transportation Development Departments (see Figure B). Planning updates included information on the recently approved Spring Grove Development and proposed zoning solutions, which included a discussion of a new overlay zoning district.

In August 2016, another community meeting was held to present the Plan to the residents and gather feedback. *(Note: the plan adoption process, which will require a recommendation of approval by the planning commission, at least one public hearing, and adoption by county council will be incorporated upon final approval.)*

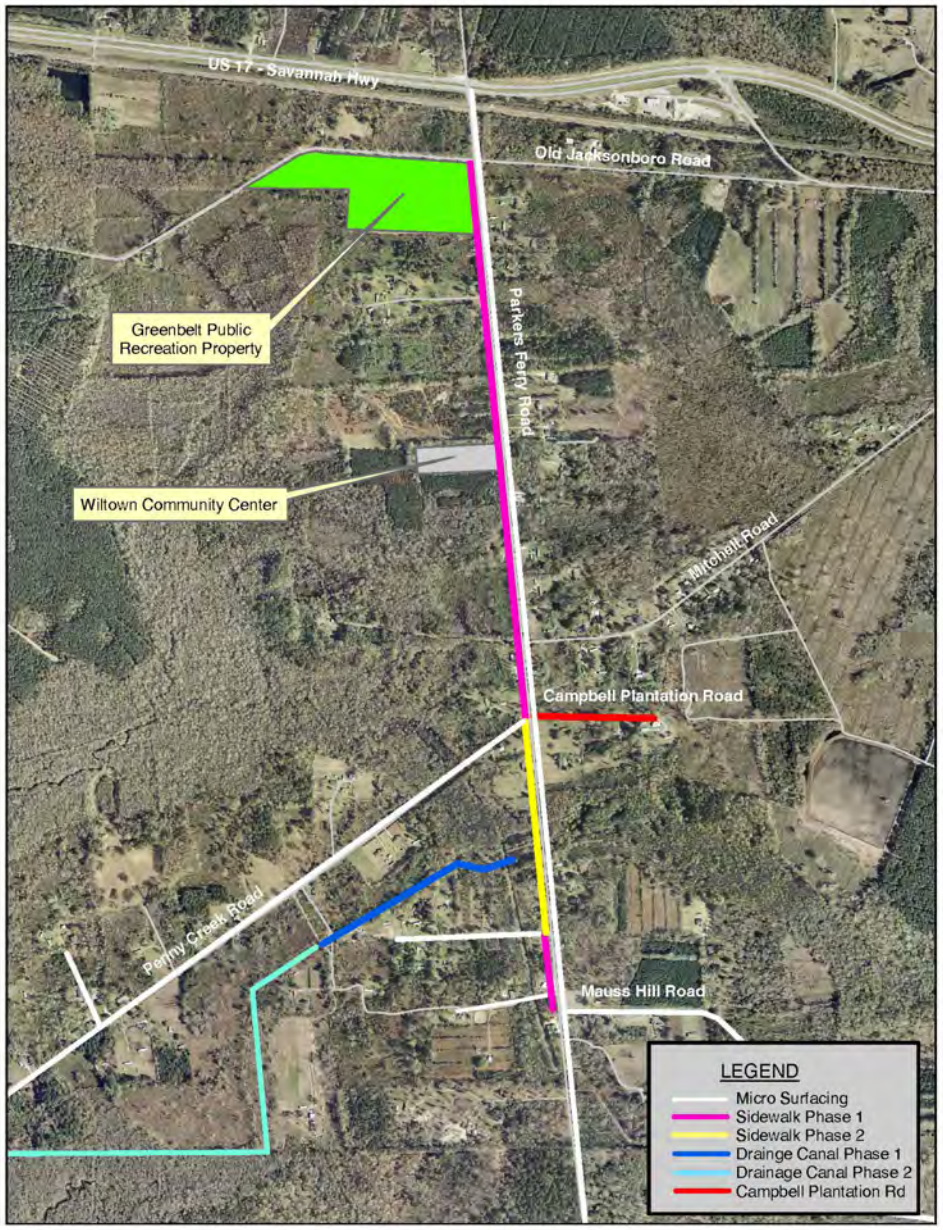
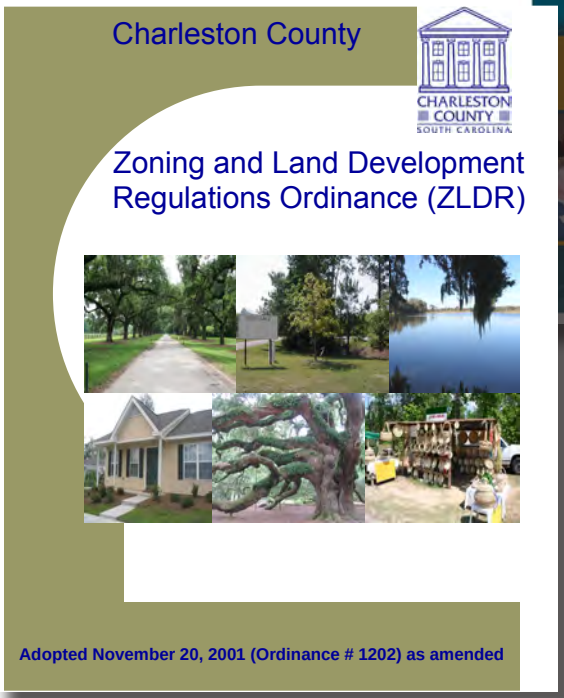


Figure B: Public Works and Transportation Development Projects, 2016

Phase 3 - Community Plan Implementation

Once the Parkers Ferry Community Plan is adopted by County Council, the next step is to implement the strategies contained in the Plan. The strategies included on pages 9 and 10 were developed in coordination with area residents to address the issues identified in the Community Needs Survey and assist the community in achieving its vision for the future.

The first strategies are to evaluate and update the Community Plan on a consistent basis and work with the community to develop amendments to the Charleston County Zoning and Land Development Regulations Ordinance (ZLDR) to address the planning and zoning needs of the community. Once the ZLDR is amended, the remaining strategies should be prioritized and the community should engage the appropriate parties to address those strategies.



3. Plan Implementation Strategies

Listed below are the recommended implementation strategies to address the issues identified by the community and achieve their vision for the area.

1. **Evaluate and update the Community Plan, as needed, with community input.**

2. **Planning and Zoning Strategies** to allow more flexibility to subdivide property; allow commercial uses and preserve natural and cultural resources.

   Strategy 2.1: Adopt amendments to the Charleston County Zoning and Land Development Regulations Ordinance (ZLDR), including but not limited to an overlay zoning district, as applicable (a draft overlay zoning district map is included on page 11).
   Strategy 2.2: Monitor and evaluate the updated zoning ordinance and amend as needed.

3. **Employment and Economic Development Strategies** to increase employment opportunities for local residents; encourage local retail and personal services; and improve educational and/or workforce training opportunities to build a local employment base.

   Strategy 3.1: Investigate methods to incentivize new development or redevelopment in identified commercial nodes.
   Strategy 3.2: Identify and pursue grant opportunities that encourage economic investment in the area.
   Strategy 3.3: Collaborate with SCWorks, Trident Technical College, and local satellite campuses to expand educational and workforce training programs in the area.
   Strategy 3.4: Coordinate with the Charleston County Procurement Department, SCORE, Charleston Metro Chamber of Commerce, and similar organizations to find ways to support entrepreneurs and small businesses establishing in the community.
   Strategy 3.5: Explore options for establishing a business incubator to support local entrepreneurs and small business start-ups.

4. **Public Works and Transportation Strategies** to address drainage issues; road and ditch maintenance; and improved transportation options.

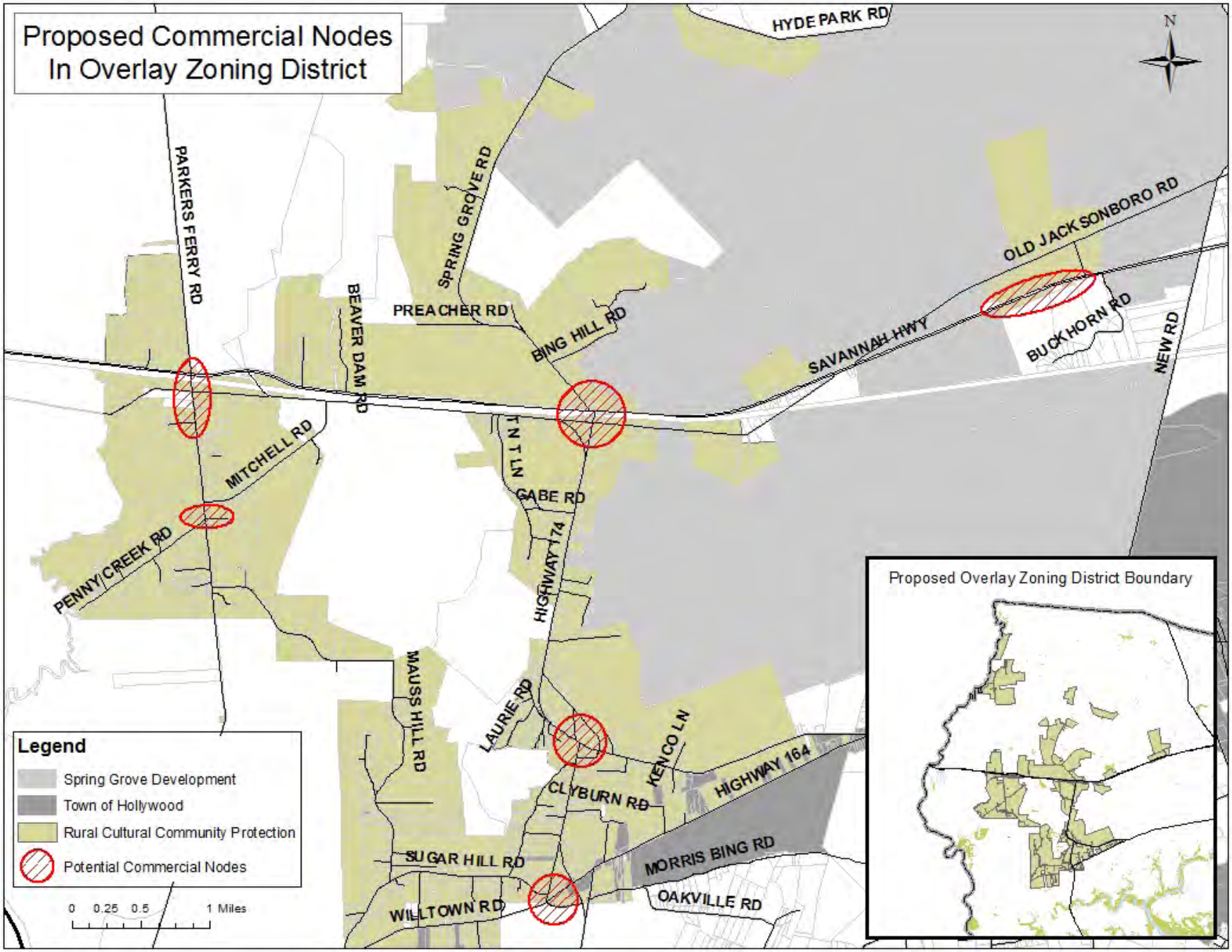
   Strategy 4.1: Explore the possibility and need of a drainage study of the Parkers Ferry Community Plan area, including implementing any strategies recommended for drainage improvements in the area.
   Strategy 4.2: Work with TriCounty Link in their review of the rural transit system.
   Strategy 4.3: Coordinate with Charleston County Transportion Development Department, Charleston County Public Works Department, and the South Carolina Department of Transportation (SCDOT) to receive updates on Parkers Ferry Area projects.
   Strategy 4.4: Investigate potential funding sources such as the Rural Transportation Alternatives Program (RTAP) grants for future public works and transportation projects.
   Strategy 4.5: Coordinate with Berkeley Charleston Dorchester Council of Governments (BCDCOG) regarding the Regional Bicycle Pedestrian Plan Update to continue expanding transportation and recreational options for residents.

5. **Public Service Strategies** to improve public safety services; address inadequate well and septic systems; increase public community facilities (parks, libraries, schools, recreational facilities, etc.); and improve street lighting.

   Strategy 5.1: Pursue funding opportunities to improve the 21-acre property purchased by the Wiltown Improvement Organization using Greenbelt funds (located near the intersection of Old Jacksonboro Road and Parkers Ferry Road).
   Strategy 5.2: Invite government agencies to the Wiltown Community Center to discuss expansion of services in the area (e.g., Charleston County School District; Charleston County Public Library; Charleston County Park and Recreation Commission; Charleston County Sheriff's Office; etc.).
   Strategy 5.3: Explore opportunities for street beautification such as additional street lights.
   Strategy 5.4: Coordinate with South Carolina Department of Health and Environmental Control (SCDHEC) and Charleston County Community Services Department to assist citizens with maintaining and upgrading well and septic systems.

6. **Community Specific Strategies** addressing housing affordability and Heirs' property preservation; improving services for senior citizens and youth; implementing community-driven crime watch programs; and mitigating potential tax implications from the Spring Grove Development.

   Strategy 6.1: Coordinate with Trident Habitat for Humanity, SC Community Loan Fund, and similar organizations to address housing affordability and rehabilitation of existing housing.
   Strategy 6.2: Coordinate with roadway beautification organizations such as Palmetto Pride/Adopt-a-Highway and SC Scenic Byway.
   Strategy 6.3: Explore partnerships with local non-profits such as Lowcountry Local First, Charleston County School District Office of Adult Education/High School Diploma and GED Program, Charleston Area Senior Citizens (CASC), Inc., and Lowcountry Senior Center to expand services for residents, particularly senior citizens and area youth.
   Strategy 6.4: Continue building a relationship with The Center for Heirs' Property Preservation to educate area residents on the issue.


Proposed Commercial Nodes
In Overlay Zoning District
HYDE PARK RD
N
PARKERS FERRY RD
SPRING GROVE RD
OLD JACKSONBORO RD
BEAVER DAM RD
PREACHER RD
BING HILL RD
SAVANNAH HWY
BUCKHORN RD
NEW RD
MITCHELL RD
T N T LN
GABE RD
PENNY CREEK RD
HIGHWAY 174
MAUSS HILL RD
LAURIE RD
KENCO LN
HIGHWAY 164
CLYBURN RD
SUGAR HILL RD
MORRIS BING RD
WILLTOWN RD
OAKVILLE RD
Legend
Spring Grove Development
Town of Hollywood
Rural Cultural Community Protection
Potential Commercial Nodes
0 0.25 0.5 1 Miles
Proposed Overlay Zoning District Boundary

Appendix A -Community Needs Survey Results

At the February 2013 community meeting, a community needs survey was distributed to meeting attendees. All 53 attendees completed the survey. The results have been summarized on the following pages.

Questionnaire Results **Parkers Ferry Community Meeting (February 2013)**

Total number of meeting attendees: 53
Total number of completed questionnaires: 53
Completion rate: 100%

**Note: Respondents often selected more than one answer, resulting in over 100% of responses.*

Question 1: What community do you represent?*		No. of responses
Parkers Ferry	64.2%	34
Adams Run/Wiltown	35.9%	19
Osborne	9.4%	5

**53 citizens responded to this question.*

Question 2: How long have you lived in this community?*		No. of responses
41+ years	52.8%	28
0-5 years	13.2%	7
21-30 years	13.2%	7
11-20 years	7.5%	4
31-40 years	7.5%	4
6-10 years	5.7%	3
Average length of time based on responses:	36 years	

**53 citizens responded to this question.*

Question 3: What do you think is most important about your community?*		No. of responses
History and culture	82.6%	38
Community character	34.8%	16

Other responses:

- Potential for development, parks/recreation, public services
- Small town (country appeal), peacefulness of country-settings
- Hunting, fishing, church, community
- Environment and playgrounds
- Family
- Small family-oriented area
- Natural resources/wildlife

**46 citizens responded to this question.*

Page 1

Appendix A -Community Needs Survey Results

Question 4: What issues are you most concerned about regarding your community?*		No. of responses
Road and drainage issues	84.6%	44
Ability to subdivide property	78.9%	41
Access to public services	77.0%	40
Access to retail services	75.0%	39
Access to medical services	73.1%	38
Land ownership and heirs' property issues	69.2%	36
Lack of water and sewer service	67.3%	35
Local employment opportunities	59.6%	31

Other responses:

- Faster internet service
- DHEC rules and regulations regarding well/septic tanks, soil testing
- Additional mobile homes (Charleston County rules and regulations)
- Increase historic settlement patterns
- History
- Lack of community involvement
- Lack of drainage from property
- Difficult to get property approval to build home
- Taxes
- Fire house
- Hang out places
- Ditch drainage
- Environment
- More streetlights on all roads to churches

**52 citizens responded to this question.*

Question 5: What would you like to see occur in your community in the future?*		No. of responses
Public services such as parks, libraries, etc.	83.0%	44
Medical facilities	77.4%	41
General stores	71.7%	38
Gas stations, banks, etc.	67.9%	36
Day care facilities	54.7%	29
Farmers' markets	41.5%	22
Agriculture/forestry	20.8%	11
No change; community remains as is	7.6%	4

Other responses:

- Police station
- Water & sewer
- Public transportation (bus system)
- Senior citizen center
- Open up more along Hwy 17 for commercial development
- Fire station
- Streetlights
- Post office
- Jobs
- Educational facilities
- Recreational facilities
- Special events
- Environmental management (litter control, ditch maintenance, etc.)
- Community meeting with DHEC
- Playground for kids

**53 citizens responded to this question.*

Question 6: Would you like to see more employment opportunities in your community?*		No. of responses
Yes	96.2%	50
No	3.9%	2

**52 citizens responded to this question.*

Appendix A -Community Needs Survey Results

Question 7: If yes, what types of employment opportunities would you prefer?*		No. of responses
Professional services	71.7%	33
Trades	63.0%	29
Light manufacturing	56.5%	26
Technology	54.4%	25
Retail	54.4%	25
Hospitality and tourism	30.4%	14
Agriculture and forestry	23.9%	11
Other responses: • Social lounge • General store • Gas station		

**46 citizens responded to this question.*

Question 8: What planning solutions do you think would be most beneficial to your community?*		No. of responses
Village-style development based on historic settlement patterns	51.1%	24
Regulations that promote the establishment of services and employment opportunities for local residents	74.5%	35
Other responses: • Water and sewer services • Public transportation • One-stop/general center/a combination of stores, movie theater, gas station, etc., fast food or restaurant, central location		

**47 citizens responded to this question.*

Question 9: Additional comments and questions*
Please find grants so we can get water and sewer into the Parkers Ferry area, if not the sewer, please help us with the water system
I would like to see a safe playground equipped with sports activities for children, swings, basketball court, swimming pools, etc.
Why don't we have internet service yet?
Better maintenance of highway, grass cutting, ditch grass cutting, last 4-5 years ditch cutting has stopped
Zoning, internet, cable services, etc. Soil testing, putting septic system in, rules, etc.
I would like to have a copy of this
Get East Edisto going ASAP
How do you plan to achieve these goals that are being suggested? Yes, I think Parkers Ferry is wonderful, but we do need more resources here. I remember when we had three stores on Hwy 17. Yes, I would like a copy of presentation.
I would like to have a copy of the presentation along with the maps.
Folks out here need jobs, put PowerPoint online
I want to know more about heirs' property issues
I'd like a copy of the maps
Please give me the ability to subdivide your property for more than 80 acres and 2 years
Please give the ability to subdivide your other property
Desire a hard copy of map
When things come, will taxes go up? I would like to have a copy, will you send me contact information?
Social lounge, special events, somewhere to have social club gathering. I would like to have a copy of the two maps at this meeting.
We need a change in the zoning law. It will give the community more right to their land.
Can we start a litter group or club that goes around picking up trash?
About trading, will you please send the information so I can take to my church? Will you please send me a copy of the map? Mail anything that you have contact information.
The zoning of the area changed
I would like to see our community zoned so that businesses may become a part of our community. In its present state as zoned, we are unable to open or bring any new businesses to the area. I would like to open up my own health agency, but I would have to do it in another area.
I would like to see the 21 acres of land the community has acquired developed into a recreational park. More activities for our youth.
Septic tank system
Septic tank system
Will taxes go up with all the changes that will be made?
What about a 24 hour gas station with a McDonald's with grocery store? Caution light at 17S and Parkers Ferry Road. At night it's so dark.
I would like to see more of the tax dollars working for the community.
I would like the community to grow but without the cost of taxes increasing. Most people can't pay the taxes they have now. And to add water and sewer bills to it will not help the community. Yes, I would like a copy of this map and presentation. Soil testing land that's no good won't pass DHEC.
I want to see these issues brought up and walk on in the not too distant future by County Council.

**30 citizens provided additional comments and questions.*

Appendix B - List of Community Needs

The following community needs were identified by the public during community meetings and as a result of the Community Needs Survey:

Planning, Zoning and Subdivision

- Preservation of the cultural heritage of the community
- Increased flexibility to subdivide and develop property
- Continue agriculture and forestry uses
- Protection of natural resources

Scenic View on Parkers Ferry Road

Grace Chapel Baptist Church, Adams Run, SC

L. Jay's Barbershop and Convenience Store (Closed), Adams Run, SC

BJ's 99 Cent Store (Closed), Adams Run, SC

Employment and Economic Development

- Allow retail services such as general stores, gas stations, restaurants, banks, pharmacies, farmers' markets, social lounges, special events, etc.
- Medical and hospital services
- More local employment opportunities:
  - Find ways to encourage economic development to increase local tax base
  - Emphasize hiring locally (a % of new hires should be from the community and training programs should be offered)
  - Recruit manufacturing businesses to the community
  - Support the establishment of more local businesses
- Explore grant opportunities for rural communities

Appendix B - List of Community Needs

The following community needs were identified by the public during community meetings and as a result of the Community Needs Survey:

Public Services

- Increased police patrols to reduce crime
- Improved roads and drainage, including maintenance and sidewalks
  - More street lights
  - Drainage Maintenance including Penny Creek drainage
  - Future meeting with Public Works
- Improved technology (cell, internet, power, natural gas, etc.)
- Improved public transportation
- Police/Fire/EMS station

Parkers Ferry Road Improvements

Wiltown Community Center, Adams Run, SC (July 2016)

Minnie Hughes Elementary School, Hollywood, SC

Public Facilities

- Community recreation center/senior's center
- Schools/training centers/educational programs
- Library
- Post office
- Improved drinking water quality
- Septic tank maintenance assistance

Appendix B - List of Community Needs

The following community needs were identified by the public during community meetings and as a result of the Community Needs Survey:

General Community Needs

- Homes that are affordable to community residents
  - Consider Habitat for Humanity as an opportunity
- Resolutions for land ownership and Heirs' property issues
- Protection against potential impacts of the Spring Grove Development such as increasing property taxes and traffic
- Consider tax/financial impacts of improvements/changes in the community on property owners

Residence on Sugar Hill Road

Residence on SC 174

Residence on Parkers Ferry Road