Comprehensive Plan Five-Year Review Draft
February 15, 2024

The following legend applies to the entirety of the draft document.

Legend	
Blue text	Proposed changes
~~Strikethrough text~~	Text proposed to be deleted


Comprehensive Plan
Guiding the Future for a lasting Lowcountry.
ADOPTED BY CHARLESTON COUNTY COUNCIL
October 9, 2018
Ordinance No. 2034 as amended


Comprehensive Plan
Guiding the Future for a lasting Lowcountry.
ADOPTED BY CHARLESTON COUNTY COUNCIL
~~October 9, 2018~~ Draft Five-Year Review - June 1, 2022
Ordinance No. 2034 as amended

ACKNOWLEDGEMENTS

The ***Charleston County Comprehensive Plan*** reflects a continued effort of citizens and County Officials 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.

CHARLESTON COUNTY COUNCIL

~~J. Elliott Summey~~ Herbert Ravenel Sass, III, Chair
~~Herbert Ravenel Sass, III~~ Jenny Costa Honeycutt, Vice-Chair
~~Henry E. Darby~~
~~Jenny Costa Honneycutt~~
Joseph Boykin ~~Anna B. Johnson~~
Henry E. Darby
Larry Kobrovsky
C. Brantley Moody
Kylon Jerome Middleton
Teddie E. Pryor, Sr.
~~Victor Rawl~~
~~Dickie Schweers~~
Robert L. Wehrman

CHARLESTON COUNTY PLANNING COMMISSION

~~Eric Meyer~~ Cindy M. Floyd, Chair
~~Cindy M. Floyd~~ Pete Paulatos, Vice-Chair
~~Bruce Miller~~
~~Kip Bowman~~
~~Sussan L. Chavis Kent Prause~~
Logan S. Davis
Marlena Davis
~~Anastasia Gandy~~
Warwick Jones
David P. Kent
Adam MacConnell
~~Pete Paulatos~~ Luke Morris
Kent Prause

CHARLESTON COUNTY ADMINISTRATION

Bill Tuten, County Administrator
Walter L. Smalls, Deputy Administrator for General Services
Corine Altenhein, Deputy Administrator for Finance
Jim Armstrong, Deputy Administrator for Public Services
Christine DuRant, Deputy Administrator for Community Services
Eric Watson, Deputy Adminstrator for Public Safety
Joel H. Evans, AICP, PLA, Zoning/Planning Director

Plan Adoption Date: November 18, 2008 by Ordinance No. 1567

DRAFT

Amended: December 22, 2009 by Ordinance No. 1622; October 11, 2011 by Ordinance No. 1694; February 23, 2012 by Ordinance No. 1720; May 8, 2012 by Ordinance No. 1722; January 6, 2015 by Ordinance No. 1835; November 19, 2015 by Ordinance No. 1879; March 22, 2016 by Ordinance No. 1890; November 1, 2016 by Ordinance No. 1919; December 15, 2016 by Ordinance No. 1921; June 6, 2017 by Ordinance Nos. 1934, 1937 and 1938; March 27, 2018 by Ordinance No. 2001; October 9, 2018 by Ordinance No. 2034; April 23, 2019 by Ordinance No. 2049; March 10, 2020 by Ordinance No. 2098; July 14, 2020 by Ordinance No. 2106; and September 22, 2020 by Ordinance Nos. 2116 and 2118; November 19, 2020 by Ordinance No. 2127; December 20, 2020 by Ordinance No. 2140; March 9, 2021 by Ordinance No. 2147.

Special thanks to all of the County departments and regional agencies who have participated in the reviews, updates, and amendments to the Comprehensive Plan. ~~2018 Ten-Year Update planning processes.~~

County Departments
Emergency Management
Facilities Management
Consolidated 9-1-1 Center
Economic Development
Public Works
Environmental Management
Community Development
Building Services
~~Transportation Development~~ Resilience Office

Sustainability Office

Geographic Information Systems

Photography Courtesy of:
Cathy Ruff, Director, Charleston County Greenbelt Program (Retired)
Emily Crow, McBride Dale Clarion *(consultant for 2008 Update)*

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
City of Charleston
Town of Mount Pleasant
City of North Charleston
Dorchester County
Berkeley County
Colleton County

INDEX OF MAPS

Map 3.1.1: Existing Land Use Map	3.1.2
Map 3.1.2: Growth Management Areas	3.1.6
Map 3.1.34: Future Land Use	3.1.7
Map 3.1.45: Urban/Suburban Future Land Use Detail	3.1.7
Map 3.1.56: Dorchester Road Corridor and Ashley River Scenic Corridor Overlay Zoning District	3.1.7
Map: 3.1.67: Folly Road Corridor Overlay Zoning District	3.1.7
Map: 3.1.78.A: Johns Island Maybank Highway Corridor Overlay Zoning District	3.1.7
Map: 3.1.78.B: Johns Island Maybank Highway Corridor Overlay Zoning District Infrastructure and Connectivity Map	3.1.7
Map: 3.1.89: Mount Pleasant Overlay Zoning District	3.1.7
Map: 3.1.910: University Boulevard Overlay Zoning District	3.1.7
Map 3.1.101: Highway 17 North Corridor Overlay Zoning District	3.1.7
Map 3.1.112: St. Andrews Area Overlay Zoning District	3.1.7
Map: 3.1.123: Ashley River Road Corridor Overlay Zoning District	3.1.7
Map 3.1.134: DuPont-Wappoo Area Overlay Zoning District	3.1.7
Map: 3.1.145: Parkers Ferry Community Overlay Zoning District	3.1.7
Map 3.1.156: Sol Legare Community Overlay Zoning District	3.1.7
Map 3.1.167: James Island Maybank Highway Overlay Zoning District	3.1.7
Map 3.1.178: Main Road Corridor Overlay Zoning District	3.1.7
Map 3.3.1: Charleston County FEMA Flood Hazard Areas ~~Zones, 2014~~	3.3.2
Map 3.3.2: Protected Lands, 202217	3.3.2
Map 3.4.1: Unincorporated Sites on the 1992 & 2016 Charleston Co. Historical and Architectural Survey	3.4.21
Map 3.4.2: Charleston County Designated Historic Sites	3.4.2
Map 3.6.1: Median Home Value by Block Group in Charleston County, 202211	3.6.2
Map 3.8.1: Water Service Areas~~, 2017~~	3.8.2
Map 3.8.2: Wastewater/Sewer Service Areas/Designated Management Agencies	3.8.2
Map 3.8.3: Fire Service Districts, 202217	3.8.2
Map 3.8.4: EMS Facilities, 202217	3.8.2
Map 3.8.5: General County Managed Facilities, 202217	3.8.2
Map 3.8.6: Libraries, 202217	3.8.2
Map 3.8.7: Charleston County Park & Recreation Commission Parks and Public Boat Landings, 202217	3.8.2
Map 3.8.8: Charleston County Public School Locations, 202217	3.8.2
Map 3.9.1: Major Planning Efforts~~, 2017~~	3.9.5
Map 3.10.1: Wind Energy Resource Map	3.10.2
Map 3.11.1: South Carolina River Basins ~~Watersheds (SCDNR)~~	3.11.2
Map 3.11.2: Charleston County HUC-~~8~~4 Watersheds	3.11.2
Map 3.11.3: Charleston County Storm Surge Map	3.11.2
Map 3.11.4: Charleston County FEMA Flood Hazard Areas ~~Map (2004)~~	3.11.2

DRAFT

DRAFT

INDEX OF TABLES

Table 3.1.1: Future Land Use Residential Densities	3.1.7
Table 3.4.1. Type Distribution of Historic and Architectural Sites in Charleston County	3.4.2
Table 3.4.2: Charleston County Historic Properties and Districts	3.4.2
Table 3.5.1: Median Household Income, Charleston County, 1990-2021~~15~~	3.5.2
Table 3.6.1: Income Necessary to Afford Average-Priced Homes, 2021~~12~~	3.6.2
Table 3.8.1: Continuing Education Institutions	3.8.2
Table 3.9.1: ~~Project Statuses for 2013-2014 Five-Year Review~~ Priority Recommendations (2023 - 2028)	3.9.5
~~Table 3.9.2: 2018-2023 Priority Recommendations~~	~~3.9.5~~

DRAFT

INDEX OF FIGURES

Figure 3.1.1: Existing Land Use Pie Chart	3.1.2
Figure 3.1.2: Future Land Use Pie Chart	3.1.6
Figure 3.2.1: Regional (MSA), State, and National Unemployment Rates (201~~00~~-202~~15~~)	3.2.2
Figure 3.2.2: Regional (MSA), State, and National Population Increases (201~~00~~-202~~15~~)	3.2.2
Figure 3.2.3: Regional (MSA), State, and National Workforce Growth Rates (201~~00~~-202~~15~~)	3.2.2
Figure 3.2.4: Growth in Charleston's Economic Sectors (2005~~0~~-202~~15~~)	3.2.2
Figure 3.2.5: Wage Growth in the Region, State, and Nation (2000-202~~15~~)	3.2.2
Figure 3.2.6: Per Capita Income Ranking of Charleston Co. compared to other SC Counties (2005~~0~~-202~~15~~)	3.2.2
Figure 3.2.7: Unemployment Rates in Charleston Co. and Comparitive Metro Areas (April 2022 ~~December 2015~~) & Historical Unemployment Rate (2000-2022)	3.2.2
Figure 3.2.8: Median Wages for Different Levels of Experience by Occupational Field, Charleston Metropolitan Statistical Area (MSA), (202~~15~~)	3.2.2
Figure 3.2.9: Cost of Living Comparison (2021~~16~~)	3.2.2
Figure 3.2.10: Wage Comparisons (202~~15~~)	3.2.2
Figure 3.5.1: Countywide Population Trends and Projections, ~~1970-2030~~ 2010-2035	3.5.2
Figure 3.5.2: Charleston County Annual Estimate of Resident Population	3.5.2
Figure 3.5.3: Tri-County Populations, ~~1990-2030~~ 2005-2035	3.5.2
Figure 3.5.4: Municipal Populations, ~~1980-2015~~ 1990-2020	3.5.2
Figure 3.5.5: Charleston County Land Area, ~~2016~~ 2022	3.5.2
Figure 3.5.6: Municipal Growth of Largest Three Municipalities (2008-2022)	3.5.2
Figure 3.5.7: Charleston County Age Profile (2010-2021)	3.5.2
Figure 3.5.8: Charleston County Racial Profile (2010-2021)	3.5.2
Figure 3.5.9: Hispanic Population in Charleston County, 201~~00~~-2021~~15~~	3.5.2
Figure 3.5.10: Charleston County Educational Attainment (Over 25 Years of Age), 2021~~15~~	3.5.2
Figure 3.5.11: Average Household Size, 198~~70~~-2021~~15~~	3.5.2
Figure 3.5.12: Household Composition, 2021~~15~~	3.5.2
Figure 3.5.13: Charleston County Income Characteristics, ~~1970-2015~~ 2000-2021	3.5.2
Figure 3.5.14: Median Household Income, ~~1990-2015~~ 2000-2021	3.5.2
Figure 3.5.15: Distribution of Household Income, Charleston County, 201~~00~~-2021~~15~~	3.5.2
Figure 3.5.16: Poverty Levels by Geographic Area, 2021~~15~~	3.5.2
Figure 3.5.17: Commuter-Adjusted Population, 2021~~15~~	3.5.2
Figure 3.6.1: Total Housing Units by County, 1990-2021~~15~~	3.6.2
Figure 3.6.2: Housing Type, 2021~~15~~	3.6.2
Figure 3.6.3: Housing Tenure in Charleston County, 1990-2021~~15~~	3.6.2
Figure 3.6.4: Housing Tenure, 2021~~15~~	3.6.2
Figure 3.6.5: Household Income Relative to Median Home Value, 2021~~15~~	3.6.2
Figure 3.6.6: Proportion of Homeowners and Renters ~~s~~Spending ~~m~~More ~~t~~Than 30% of Monthly Income on Housing Costs by County, 2021~~15~~	3.6.2

DRAFT

Figure 3.6.7: Median Home Sales Prices by County, 2011-2021~~15~~	3.6.2
Figure 3.6.8A: ~~Wage Versus Home Price Comparison~~ Annual Income Needed for Homeownership Versus Actual Annual Income, 2023	3.6.2
Figure 3.6.8B: Annual Income Needed for Rental Versus Actual Annual Income, 2023	3.6.2
Figure 3.6.9: Public Transportation Accessibility in Region, 2010	3.6.2
Figure 3.6.10: Single-Person Households by County, 2000-2021~~15~~	3.6.2
Figure 3.6.11: Housing Size by Bedroom Count, 2021~~15~~	3.6.2
Figure 3.7.~~12~~: Charleston International Airport Passenger Growth	3.7.2
Figure 3.10.1: U.S. Energy Consumption by Source, 2022	3.10.2
Figure 3.10.2: SC Energy Consumption by Source, 2019	3.10.2
Figure 3.10.3: SC Energy Demand By Sector, 2020	3.10.2
Figure 3.10.4: SC Electricity Generation by ProRata Share, 2019	3.10.2
Figure 3.10.5: Charleston County Electricity Consumption By Source, 2020	3.10.2
Figure 3.10.6: Charleston County Greenhouse Gas Emissions	3.10.2
Figure 3.10.7~~6~~: Sustainable Development	3.10.2
Figure 3.11.1: NOAA Sea Level Rise Predictions	3.11.2
Figure 3.11.2: NOAA Sea Level Rise Maps	3.11.2

DRAFT

INDEX OF REFERENCE BOXES

Reference Box 3.2.1: Regulatory Incentives and Grants 3.2.2
~~*Reference Box 3.6.1: How Housing Matters*~~ ~~3.6.2~~

DRAFT

ACRONYM TABLE

Air Installation Compatibility Use Zoning	(AICUZ)
Americans with Disabilities Act	(ADA)
Area Median Income	(AMI)
Ashepoo, Combahee, and Edisto Basin Project	(ACE)
Base Realignment and Closure Commission	(BRAC)
Berkeley Charleston Dorchester Council of Governments	(BCDCOG)
British Thermal Units	(BTUs)
Bureau of Air Quality	(BAQ)
Bus Rapid Transit	(BRT)
Capacity Use Area	(CUA)
Capital Improvements Plan	(CIP)
Capital Investment Grant	(CIG)
Center for Neighborhood Technology	(CNT)
Centers for Disease Control and Prevention	(CDC)
Charleston Area Regional Transportation Authoirty	(CARTA)
Charleston Area Transportation Study	(CHATS)
Charleston County Emergency Medical Service	(CCEMS)
Charleston County Park and Recreation Commission	(CCPRC)
Charleston County Public Library	(CCPL)
Charleston County School District	(CCSD)
Charleston County Transportation Commitee	(CCTC)
Charleston Naval Complex	(CNC)
Charleston Regional Development Alliance	(CRDA)
Charleston Trident Association of Realtors	(CTAR)
Childhood Development	(CD)
Community Development Block Grants	(CDBG)
Community Emergency Response Training	(CERT)
Community Rating System	(CRS)
Community Wildfire Protection Plan	(CWPP)

Computer Aided Disppatch	(CAD)
Continuity of Operations Program	(COOP)
Cooper, Ashley, Wando, and Stono Basin Project	(CAWS)
County Transportation Committee	(CTC)
Department of Alcohol and Other Drug Abuse Services	(DAODAS)
Department of Energy	(DOE)
Department of Natural Resources	(DNR)
Developments of County Significance	(DCS)
Emergency Management Accreditation Program	(EMAP)
Emergency Management Department	(EMD)
Emergency Medical Services	(EMS)
Emergency Operation Plan	(EOP)
Emergency Operations Center	(EOC)
Energy Information Administration	(EIA)
Environmental Protection Agency	(EPA)
Federal Emergency Management Agency	(FEMA)
Federal Highway Administration	(FHWA)
Federal Transit Administration	(FTA)
Fee-in-lieu of taxes	(FILOT)
Flood Insurance Rate Map	(FIRM)
Flood Mitigtion Assistance	(FMA)
Georgraphic Information Systems	(GIS)
Gross Domestic Product	(GDP)
Hazard Mitigation Grant Program	(HMGP)
High Capacity Transit	(HCT)
Housing + Transportation	(H+T)
Incumbent Worker Training	(IWT)
Insurance Services Office	(ISO)
International Building Code	(IBC)
International Energy Conservation Code	(IECC)
International Panel on Climate Change	(IPCC)
International Residential Code	(IRC)

Job Development Credit	(JDC)
Leadership in Energy and Environmental Design	(LEED)
Limit of Moderate Wave Action	(LiMWA)
Long-Range Transportation Plan	(LRTP)
Low to Moderate Income	(LMI)
Lowcountry Rapid Transit	(LCRT)
Material Recovery Facility	(MRF)
Maximum Extent Practicable	(MEP)
Median Household Income	(MHI)
Medical University of South Carolina	(MUSC)
Metric tons of carbon dioxide emissions	(mtCO2e)
Metropolitan Planning Organization	(MPO)
Metropolitan Statistical Area	(MSA)
Multimodal Transportaion Plan	(MTP)
Municipal Solid Waste	(MSW)
National Center of Coastal Ocean Science	(NCCOS)
National Flood Insurance Program	(NFIP)
National Incident Management System	(NIMS)
National Oceanic and Atmospheric Administration	(NOAA)
National Pollutant Discharge Elimination System	(NPDES)
National Register of Historic Places	(NRHP)
National Renewable Energy Laboratory	(NREL)
National Resources Conservation Service	(NRCS)
National Weather Service	(NWS)
Naval Base Terminal	(NBT)
Naval Information Warfare Center	(NIWC)
Norfolk Southern	(NS)
Ntional Ambient Air Quality Standards	(NAAQS)
Office of Ocean & Coastal Resource Manangement	(OCRM)
Original Equipment Manufacturers	(OEMs)
Palmetto Railways Intermodal Container Transfer Facility	(ICTF)
Photovoltaic	(PV)

Property Assessed Clean Energy	(PACE)
Regional Transit Framework Plan	(RTFP)
Register of Deeds	(ROD)
Rural Transportation Improvement Plan	(RTIP)
Sea, Lake, and Overland Surges from Hurricanes	(SLOSH)
Seven Mile Community Action Group for Encouragement	(CAGE)
Small Municpal Separate Storm Sewer System	(SMS4)
Solar Energy Industries Association	(SEIA)
South Carolina Community Loan Find	(CLF)
South Carolina Department of Health and Enviromental Control	(SCDHEC)
South Carolina Department of Natural Resources	(SCDNR)
South Carolina Department of Transportation	(SCDOT)
South Carolina Infrastructure Bank	(SIB)
South Carolina Office of Resilience	(SCOR)
South Carolina Port Authority	(SCPA)
South Carolina Priority Investment Act	(The Act)
South Carolina State Ports Authority	(SCSPA)
Special Flood Hazard Area	(SFHA)
Stormwater Management Plan	(SWMP)
The American Rescue Plan Act	(ARPA)
The South Carolina Department of Archives and History	(SCDAH)
The South Carolina State Historic Preservation Office	(SHPO)
Transit Oriented Design	(TOD)
Transportation Improvement Plan	(TIP)
Twenty-foot Equivalent Units	(TEUs)
U.S Department of Housing and Urban Development	(HUD)
U.S. Army Corps of Engineers	(USACE)
U.S. Global Change Research Program	(USGCRP)
United States Geological Survey	(USGS)
Urban Growth Boundary	(UGB)
Urban/Suburban Area Cultural Community Protection	(USCCP)
Vechical Miles Traveled	(VMTs)

Voluntary Agricultural and Forestal Areas	(VAFA)
Water Quality Management Plan	(WQM Plan)
Watershed Water Quality Assessment	(WWQA)
Workforce Investment Act	(WIA)
Zoning and Land Development Regulations Ordinance	(ZLDR)

DRAFT

PART 1: INTRODUCTION AND BACKGROUND

Contents:

CHAPTER 1.1 INTRODUCTION
CHAPTER 1.2 PLANNING 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. Senator Tim Scott Former Charleston County Council Chairman~~

DRAFT

CHAPTER 1.1 INTRODUCTION

Contents:

OVERVIEW
GUIDE TO THE COMPREHENSIVE PLAN

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 overarching 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*~~,~~ and the subsequent ~~*2003/2004 Comprehensive Plan Review, 2008 Comprehensive Plan Update,* and *2013-2014 Comprehensive Plan Review*~~ reviews and updates 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 (UGB) 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

DRAFT

and located near existing infrastructure while preserving and protecting the Rural Area for future generations.

7. 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~~ consideration into all development processes combined with broad public participation in decision-~~-~~making is important for **achieving resilient ~~and 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 County Comprehensive Plan will guide public decision-making affecting the quality of life in Charleston County ~~through the year~~ ~~2023~~ for the next five to ten years. 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.

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 landowners 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:*** T~~t~~he comprehensive, overarching statement of the desired future of the County. The ultimate set of ideals to which the County should aspire.
- ***Goal:*** A~~a~~ statement of desired end-state or target. Tied very closely to the Vision 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~~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.

DRAFT

- ***Initiative or Action Item:*** ~~a~~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 next. 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 overarching statement of what is important and what the County desires now and in the future.
- ***CHAPTER 2.2 GOALS*** is the ~~ten~~ eleven specific targets for the elements of the Plan, which tie the specific strategies for each element to the Vision Statement.

DRAFT

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. Community planning projects undertaken by the County, such as adopted community plans and overlay zoning districts, are referenced in this Element.
- ***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.



Coordination with both the large and small municipalities in the County is important in the long-term success of this 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, including the two Half-Cent Sales Tax programs.

DRAFT

- ***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 AND SUSTAINABILITY ELEMENT*** identifies steps that need to be taken to prepare for a changing style of living through conservation and renewable energy.
- ***CHAPTER 3.11 RESILIENCE ELEMENT*** takes a big picture approach towards risk mitigation, identifying strategies the government, private sector, and residents can implement to improve resilience.

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. Community plans created with neighborhoods throughout Charleston County are located in this section.



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

CHAPTER 1.2 PLANNING BACKGROUND

Contents:

AUTHORITY FOR THE COMPREHENSIVE PLAN
PLANNING IN CHARLESTON COUNTY
INFLUENCING TRENDS
THE PLANNING PROCESS

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 South Carolina Priority Investment Act* thereby amending sections of the *Comprehensive Planning Enabling Act* (the '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. The Act was amended again in 2020 to require a resilience element that considers the impact of flooding, high water, and natural hazards on individuals, communities, institutions, businesses, economic development, public infrastructure and facilities, and public health, safety, and welfare.

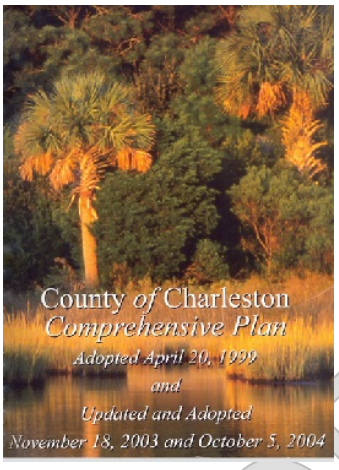
DRAFT

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 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 Plan was subsequently reviewed in 2003, updated in 2008, and reviewed again in 2013-2014~~ The first Five-Year Review was adopted in 2003 and the first Ten-Year Update was adopted in 2008. The next Five-Year Review was adopted in 2013 and the subsequent Ten-Year Update was adopted in 2018. This Plan is a result of the 2023 Five-Year Review. ~~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.~~





DRAFT

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~~takes a very comprehensive approach to updating, amending, and reviewing the Plan including extensive public participation and full Planning Commission involvement.

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 Zoning and Planning Department, the *Zoning and Land Development Regulations Ordinance*, the Half Cent Sales Tax Programs, including the *Greenbelt 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.

DRAFT





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

During the *2008 Ten-Year Update*, a set of technical research documents that focused on the historic and anticipated future trends in population, housing, and non-residential growth were completed and served as the basis for the current Plan. The analyses were split into: 1) a demand based analysis *(The Demand Analysis)* which looked 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 reviewed 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 provided a guide for where the County was heading under current policy and trends at theat time.

~~Since that time, during the *2013/2014 Five-Year Review* and *2018 Ten-Year Update*~~ During subsequent reviews and updates of the Plan, demographic trend data from the ~~2010~~ most recent U.S. Census, ~~five-year estimates from the American Community Survey, among other sources~~ and other applicable data sources~~,~~ ha~~ves~~ been utilized to understand the existing and potential future conditions of the County. This information is included in PART 3, Comprehensive Plan eElements. The majority of the data is contained in the Housing and Population Elements.

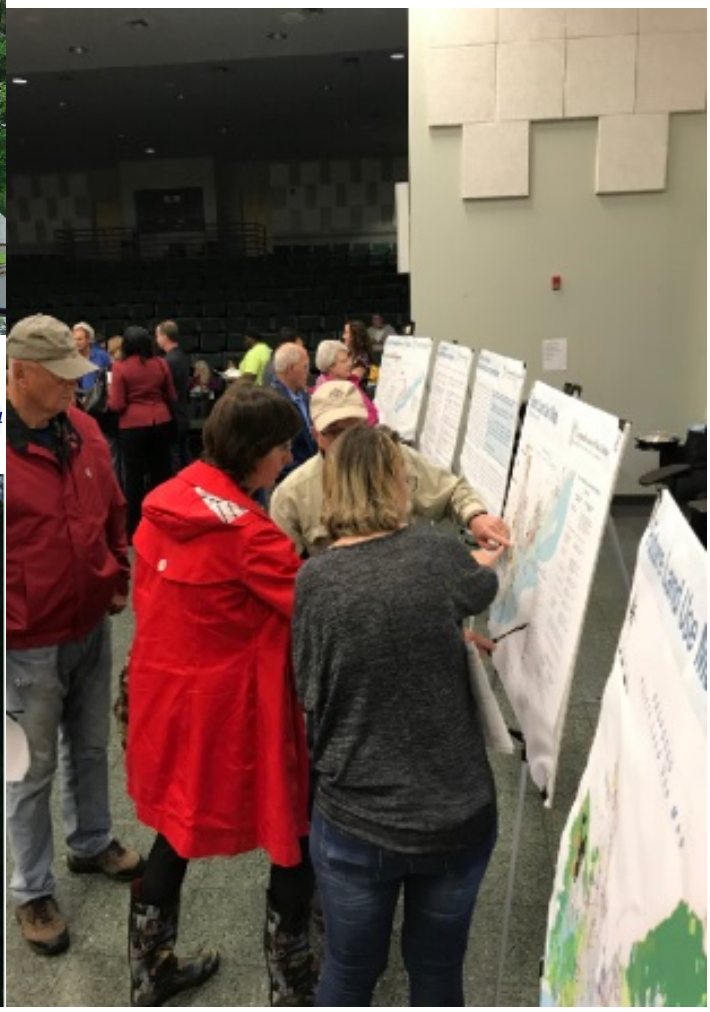
DRAFT



~~Demand for housing in the unincorporated County is mostly for single-family homes. However, accessory Access Aunits~~ Accessory dwelling 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.



Public participation is key to ~~io~~ updating the Comprehensive Plan.

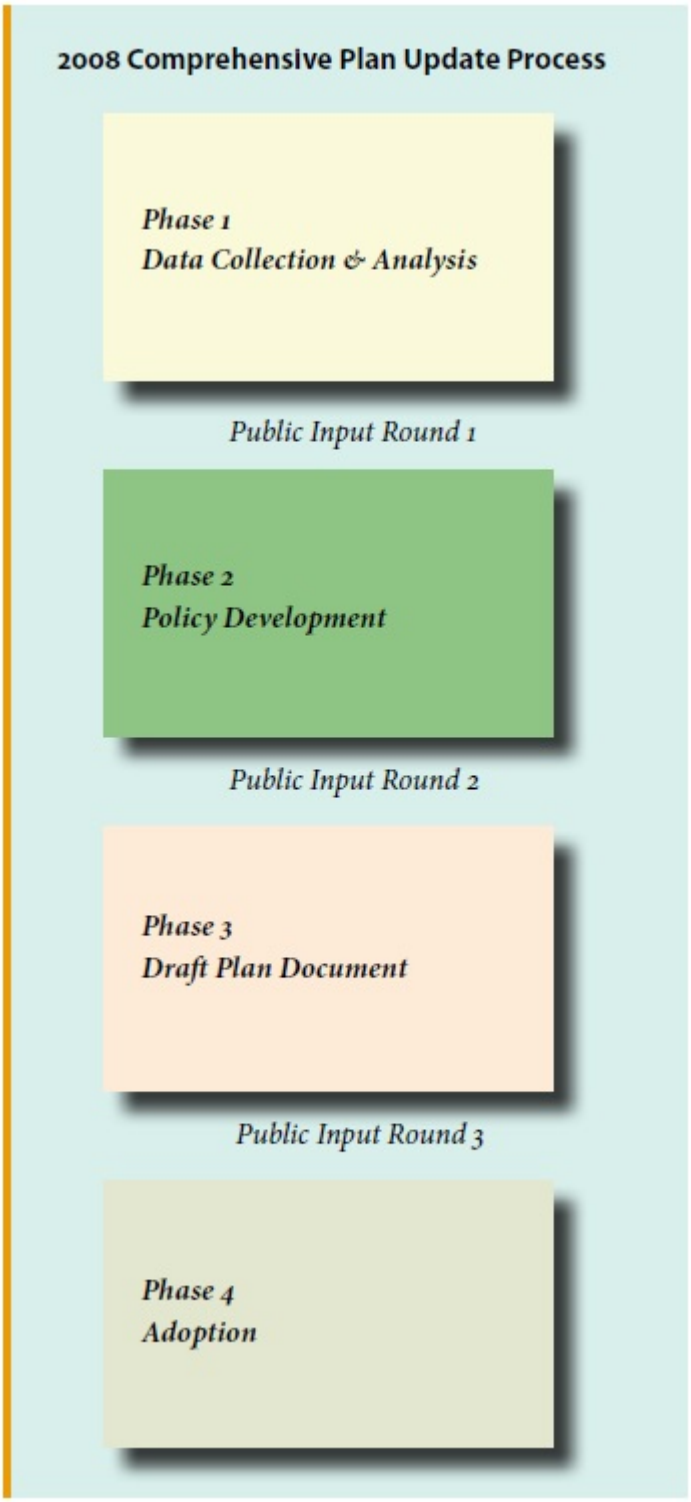
---

[1] Both documents are available in their entirety at the Charleston County Zoning and Planning Department.

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

DRAFT

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.

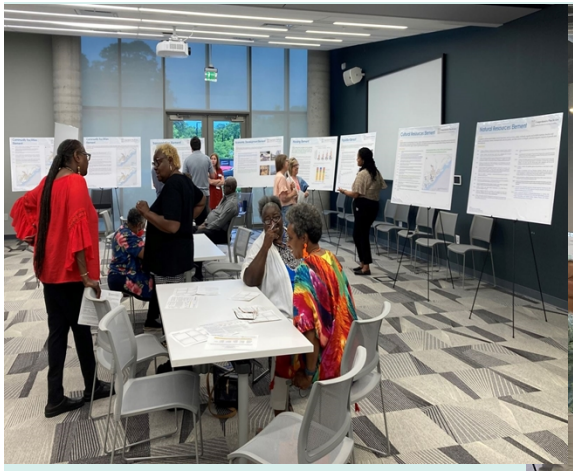
In Phase four, following the recommendation by Planning Commission, through a resolution, the Plan was forwarded to County Council, which held a public hearing. County Council considered public comments on the Plan and then adopted the updated *Charleston County Comprehensive Plan* by ordinance.

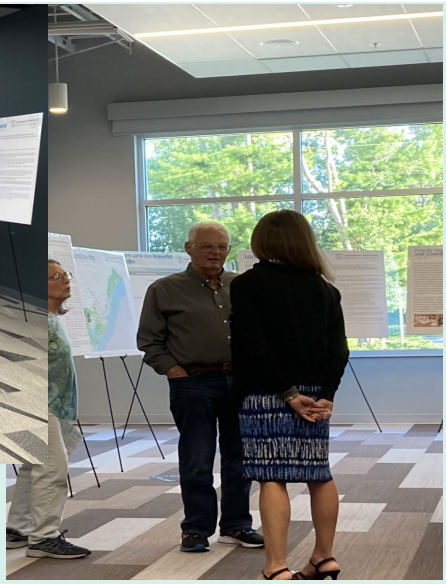
DRAFT

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 Planning 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 on January 6, 2015.

During Plan updates and reviews, public workshops are held in varying locations at different times to be most accessible for citizens. For those who cannot attend workshops, the information is available on the Charleston County website, where citizens can submit comments electronically.

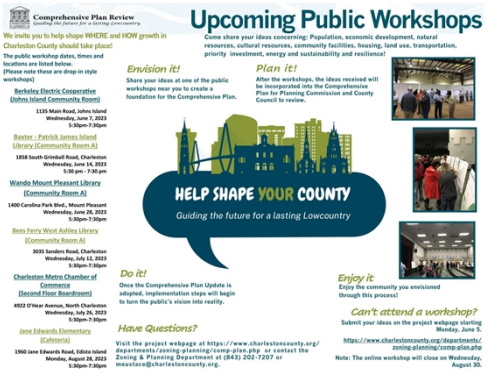






A second Ten-Year Update ~~was begun~~ commenced in 2017. The Planning Commission formed subcommittees to focus on each of the ~~ten~~ Plan e~~E~~lements. The subcommittees met throughout 2017, and their findings were presented at subsequent Planning Commission meetings. Public comments were heard during these meetings. The Planning Commission completed its initial review of the Plan elements in January 2018, and the proposed amendments were presented to the public in March 2018. Seven public workshops were held in different areas of the County, with 265 attendees. Citizens were asked to comment during the workshops; alternatively, a webpage and online form was also set up to allow citizens to submit comments electronically. The majority of comments (46) were provided during the workshops. Letters and emails were also submitted with suggestions. All of the public comments were provided to the Planning Commission and County Council and were considered in the adoption process. A public comment summary report is also included in PART 4, Additional Resources and References. Amendments to the Comprehensive Plan as part of the *2018 Ten-Year Update* were adopted by County Council on October 9, 2018.

The 2023 Five-Year Review began in March 2022 when staff began gathering data and working with applicable County departments and outside agencies to update the Plan. The main objective of this Five-Year Review included: updating all demographics and existing conditions information; reviewing and updating the goal, needs, and strategies of each element; addressing resilience in the applicable elements; incorporating sustainability into the Energy Element; and updating the Annual Work Program. A survey to obtain public comments regarding the existing Comprehensive Plan Vision, Goals, and Strategies was launched on November 21, 2022. This input received was incorporated into the first draft of the amendments to the Plan, which were presented to the Planning Commission beginning in February 2023. The Planning Commission completed its initial review of the Plan in April 2023 and that draft was presented to the public at public workshops (both in-person and virtual). Six public workshops were held at various locations around the County between June and August 2023, and an online forum was also offered. The input received at the workshops was incorporated into the final draft of the Plan, which was presented to the Planning Commission on December 11, 2023. The Planning Commission recommended that County Council approve the Plan on December 11, 2023, and County Council held a public hearing on February 13, 2024. The 2023 Comprehensive Plan Five-Year Review was adopted by County Council on [***add date here***].



Pictured above is the flier used to advertise the public workshops held for the ~~2018 Ten-Year Update~~2023 Five-Year Review.

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 subsequent reviews and updates. 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 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.

PART 2: VISION

Contents:

CHAPTER 2.1 VISION STATEMENT
CHAPTER 2.2 GOALS

DRAFT

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 vision for the County which respects the natural environment and traditional lifestyles and 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, without compromising traditional values and settlement patterns, and always respecting the rights of the individual, including private property rights.*~~

~~*Historically an agrarian community, 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. . ."*~~

~~*Beaches, waterways, natural beauty, and historic resources encourage recreational activities and tourism. These features contribute to the quality of life; therefore, the County should ensure that they are not lost.*~~

~~*The economic base of the County is shifting; as a community we should encourage diversification and growth. Regionally, major employers are the port, tourism, the medical industry, the government and military, agriculture, and increasingly manufacturing, specifically high-tech 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 healthy 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.*~~

Charleston County will promote and protect the quality of life for all residents by preserving and protecting our natural, cultural, and historical resources, prioritizing resilience and sustainability, ensuring that existing and future development is coordinated with transportation and other community facilities on the local and regional level, addressing housing affordability issues, and maintaining the location of the Urban Growth Boundary (UGB).



The Angel Oak on Johns Island.

DR

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.

DRAFT

2.2.1: Land Use Element Goal

~~Accommodate~~ Protect our cultural and natural resources, and rural residential and agricultural communities while accommodating smart growth that respects the unique character and landscape of the County, promotes sustainable economic opportunity, fosters resilience, respects private property rights, ~~respects private property rights ,~~ and is tightly coordinated with transportation infrastructure planning and with the provision of other community facilities.~~,~~ ~~but 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

To preserve, enhance, and revitalize natural resources, such as rivers, creeks, fresh and saltwater wetlands, aquatic and wildlife habitats, beaches and dunes, groundwater, forests, farmland soils, and air quality, and take actions to mitigate potential negative impacts of growth and development.

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~~ Charleston County will strive to accommodate 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~~

2.2.6: Housing Element Goal

~~Quality housing that is affordable will be encouraged~~ Charleston County will prioritize the development of quality, diverse housing with efficient transit connectivity that is affordable for people of all ages, incomes, and physical abilities, with special emphasis for those earning less than 120% of the Area Median Income.

2.2.7: Transportation Element Goal

A public transportation system that is coordinated with land use patterns and community character through a high level of interaction with the community, and includes a diversity of transit options, prioritizes pedestrian infrastructure, and is accessible and efficient for all residents. The level of service should support economic development and a high quality of life for all income levels.

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 linked to land use planning and development decisions to ensure capacity for expected growth.

2.2.9: Priority Investment, Implementation, and Coordination Element Goal

Public infrastructure and planning projects ~~will~~ shall be prioritized and implemented through active and open coordination with the community as well as with adjacent and relevant jurisdictions and agencies.

2.2.10: Energy and Sustainability Element Goal

~~Promote~~ Charleston County will emphasize and invest in the use of alternative energy sources and energy conservation measures~~, and the reduction of greenhouse gas emissions~~ that benefit our communities and reflect our responsibility to steward our natural resources with future generations in mind.

2.2.11: Resilience Element Goal

residents who earn less than 120% of the Area Median Income.

Charleston County will prioritize resilience, including resilience to stormwater events and rising sea levels and protection of natural defenses such as wetlands, woodlands, and floodplains, in all County plans, policies, and regulations to ensure the long-term survival of the community.

DRAFT

CHAPTER 3.1 LAND USE ELEMENT

Contents:

3.1.1: OVERVIEW
3.1.2: EXISTING LAND USE
3.1.3: GENERAL LAND USE POLICIES
3.1.4: FUTURE LAND USE PLAN APPROACH
3.1.5: GROWTH MANAGEMENT
3.1.6: MAJOR PLANNING EFFORTS AND PROJECTS
3.1.7: FUTURE LAND USE RECOMMENDATIONS

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.

Element Goal

~~Accommodate~~ Protect our cultural and natural resources, and rural residential and agricultural communities while accommodating smart growth that respects the unique character and landscape of the County, promotes sustainable economic opportunity, fosters resilience, ~~respects private property rights,~~ respects private property rights and is tightly coordinated with **transportation infrastructure planning and with the provision of other community facilities.~~, but protects cultural and natural resources~~.**

DRAFT



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.

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 overarching goals supported by a series of strategies and recommendations to promote implementation and action.

DRAFT

> **Purpose and Intent**
> *The following land use information, recommendations, and strategies reinforce the Urban Growth Boundary (UGB), 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 (UGB)

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 2003 *Five-Year Review* of the Plan, 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.

During the 2013-2014 *Five-Year Review*, the County reviewed and revised the location of the County's Urban Growth Boundary 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. 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.

DRAFT

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 Aarea 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 previously existed 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, which they have done. The Urban Growth Boundaries adopted by the County and Town now match.

3.1.2: EXISTING LAND USE

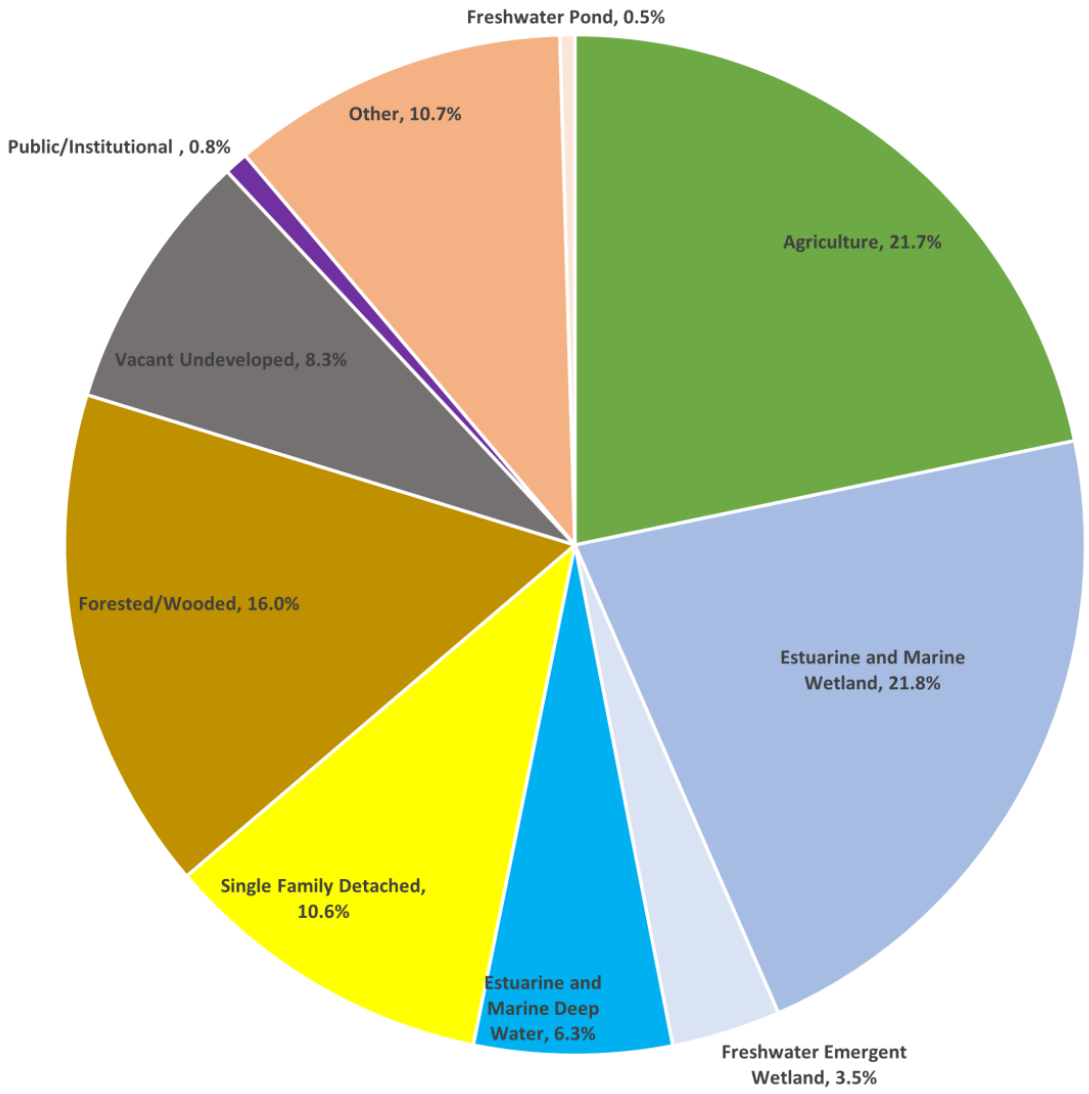
Inventory of Existing Conditions

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 (as part of the 2013-2014 Five-Year Review) utilizing Geographic Information Systems (GIS) technology, current County records, and 2012 oblique aerial images (Pictometry). The existing land use inventory has been updated using a similar methodology as part of each ten-year update and five-year review since the 2013-2014 Five-Year Review. ~~In 2017, as part of the *Ten-Year Update*, another existing land use inventory was conducted using a similar methodology as was used in 2013.~~ 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~~ 34 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~~ Approximately ~~50~~ 32 percent of the land area in the ~~unincorporated~~ County contains wetlands, marsh, and other water features, and an additional ~~18~~37.7 percent is forestland or in agricultural or silvicultural use.

DRAFT

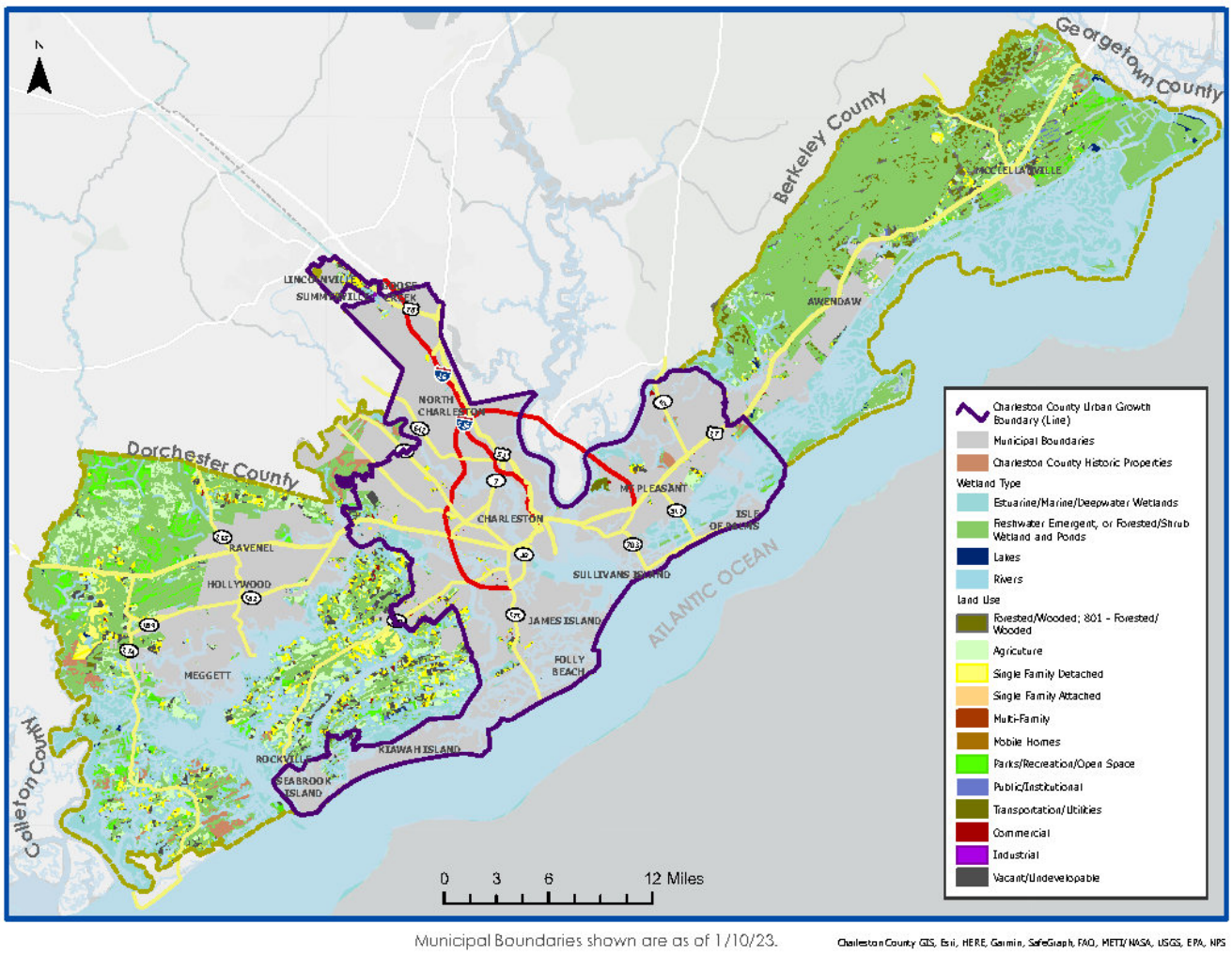
Figure 3.1.1: Existing Land Use Pie Chart



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

Sources: Charleston County Tax Assessor data, GIS data, and oblique aerial images (Pictometry), 20~~17~~22.

Map 3.1.1: Existing Land Use Map



Note: Municipal boundaries shown are as of December 1, 2022 ~~March 16, 2018.~~

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

Protect our cultural and natural resources, and rural residential and agricultural communities while accommodating smart ~~Accommodate~~ growth that respects the unique character and landscape of the County, promotes sustainable economic opportunity, fosters resilience, ~~respects private property rights,~~ respects private property rights, and is tightly coordinated with transportation infrastructure planning and with the provision of other community facilities., ~~but 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 (UGB) through interjurisdictional coordination;
- Preserving the rural character of the County;
- Encouraging compact growth where infrastructure already exists;
- Adapting land use planning and zoning regulations to water systems; and
- Providing guidance for the location, character, and intensity of land uses.

DRAFT

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.

LU1. Continue to p~~P~~rotect and enhance the environmental quality of natural resources and continue to require restrictive development standards along the OCRM Critical Line to protect water quality, wildlife habitat, and scenic vistas.

LU2. Continue to t~~I~~mplement design character that enhances the quality of development along commercial corridors, and establish scenic corridors and areas of environmental and cultural significance. Provide vegetated buffers of fifty feet or more between roads and structures where development occurs along or near designated scenic roads.

LU3. Continue to ~~F~~foster the rural character of land outside the U~~rban~~ G~~rowth~~ B~~oundary~~ by:

- Encouraging lower density development;
- Establishing 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;
- Maintaining or enhancing the visual identity of existing scenic roads;
- Maintaining 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; and
- Maintaining the overall pattern of very low levels of human influence.

LU4. Continue to cC~~o~~ordinate radial (grid system) land use patterns with flood elevation, transportation, housing, employment and retail development to encourage compact growth in already developed areas that are not susceptible to flooding, and infill existing vacant sites inside the U~~rban~~ G~~rowth~~ B~~oundary~~ requiring pedestrian connectivity between communities and local amenities, and ensuring that the infrastructure required to support development, including public transportation systems, is in place prior to development approvals.

LU5. Reinforce the location of the U~~rban~~ G~~rowth~~ B~~oundary~~ and establish criteria to change its location through coordination with all municipalities ~~the Cities of Charleston and North Charleston, the Town of Mount Pleasant,~~ and service providers.

LU6. Continue the Comprehensive Plan implementation initiatives adopted by County Council.

LU7. Ensure developers contribute a fair share to the costs of services associated with development.

LU8. Require that any application affecting County resources be reviewed by the County for consistency with the adopted Future Land Use Plan.

LU9. Continue innovative planning and zoning techniques such as Clustering or Conservation Design and Form-based Zoning District regulations.

LU10. Continue to ~~A~~allow density bonuses beyond the maximum density of the recommended future land

use designation when affordable and/or workforce housing units are included in proposed developments, especially within the Urban/LU4Suburban Area, provided there is no negative effect on the existing community.

LU11. Near the outer edge of the Urban/Suburban Area, provide transitional areas consisting of lower intensity uses to gradually progress into the adjacent Rural Area.

LU12. Ensure development transitions appropriately from residential uses to non-residential uses through similar scale of buildings, architectural styles, and orientation of buildings and parking lots.

LU13. Continue to ~~W~~work with historic African American communities and adjacent jurisdictions, when applicable, to create zoning regulations that preserve the unique development patterns and cultural history.

LU14. Continue to work with residents, stakeholders, and adjacent jurisdictions, when applicable, to implement community plans and corridor management plans adopted as part of this Plan.

LU15. Continue to ~~E~~encourage and support safe pedestrian and bikeway linkages.

LU16. Continue to ~~R~~require 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).

LU17. Coordinate with Joint Base Charleston, the City of North Charleston, and BCDCOG to implement recommendations and guidelines for zoning identified in the *Air Installation Compatibility Use Zoning* (AICUZ) Study prepared by the Air Force in 2004 (as amended), as applicable.

LU18. Continue to c~~C~~oordinate with the BCDCOG and municipalities to identify locations for Transit-Oriented Design (TOD) along the proposed Lowcountry Rapid Transit (LCRT) route and incentivize the development of affordable and workforce housing and employment centers in these areas.

LU19. Promote planning and zoning policies that adapt land development to water systems, including the use of green infrastructure (e.g., bioswales, porous pavements, rain gardens, etc.), in landscaping practices and stormwater management.

LU20. Investigate the feasibility of limiting development in areas prone to flooding.

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 adhering to the Urban Growth Boundary (UGB). 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*.

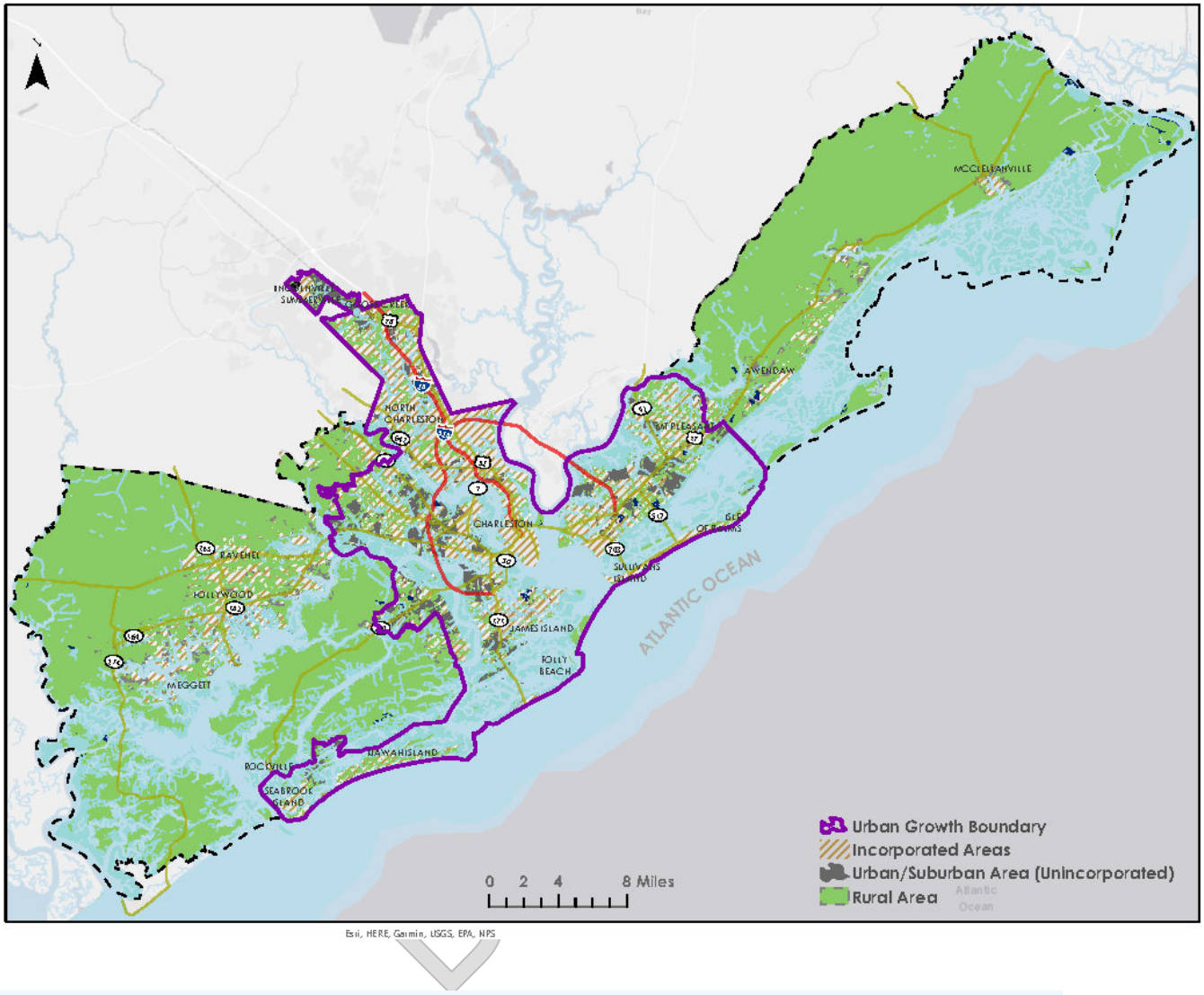
3.1.5: GROWTH MANAGEMENT

One of the growth management tools implemented in this Plan is the Urban Growth Boundary (UGB), which clearly defines two distinct Growth Management Areas: the Rural Area and the Urban/Suburban Area. The U~~rban~~ G~~rowth~~ B~~oundary~~ 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.

The City of Charleston and the Town of Mount Pleasant have both adopted Urban Growth Boundaries, as well; however, the location~~s~~ of th~~os~~e U~~rban~~ G~~rowth~~ B~~oundar ies~~ adopted by the City of Charleston varies ~~vary~~ slightly from the location of the U~~rban~~ G~~rowth~~ B~~oundary~~ 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*.

Map 3.1.2: Growth Management Areas

DRAFT



~~Note: Municipal boundaries shown are as of December 8, 2017.~~ Map dated March 14, 2023

3.1.6: MAJOR PLANNING EFFORTS AND PROJECTS

With each Review and Update of this Plan, County Council adopts Priority Recommendations, which consist of major planning efforts and projects that the County should undertake over the next five years. These specialized initiatives include projects in both the Rural and Urban/Suburban Areas of the County and often include multi-jurisdictional coordination. *CHAPTER 3.9, PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION ELEMENT* ~~further~~ details the major planning efforts and projects adopted as part of this Plan ~~the 2018 Ten-Year Update~~.

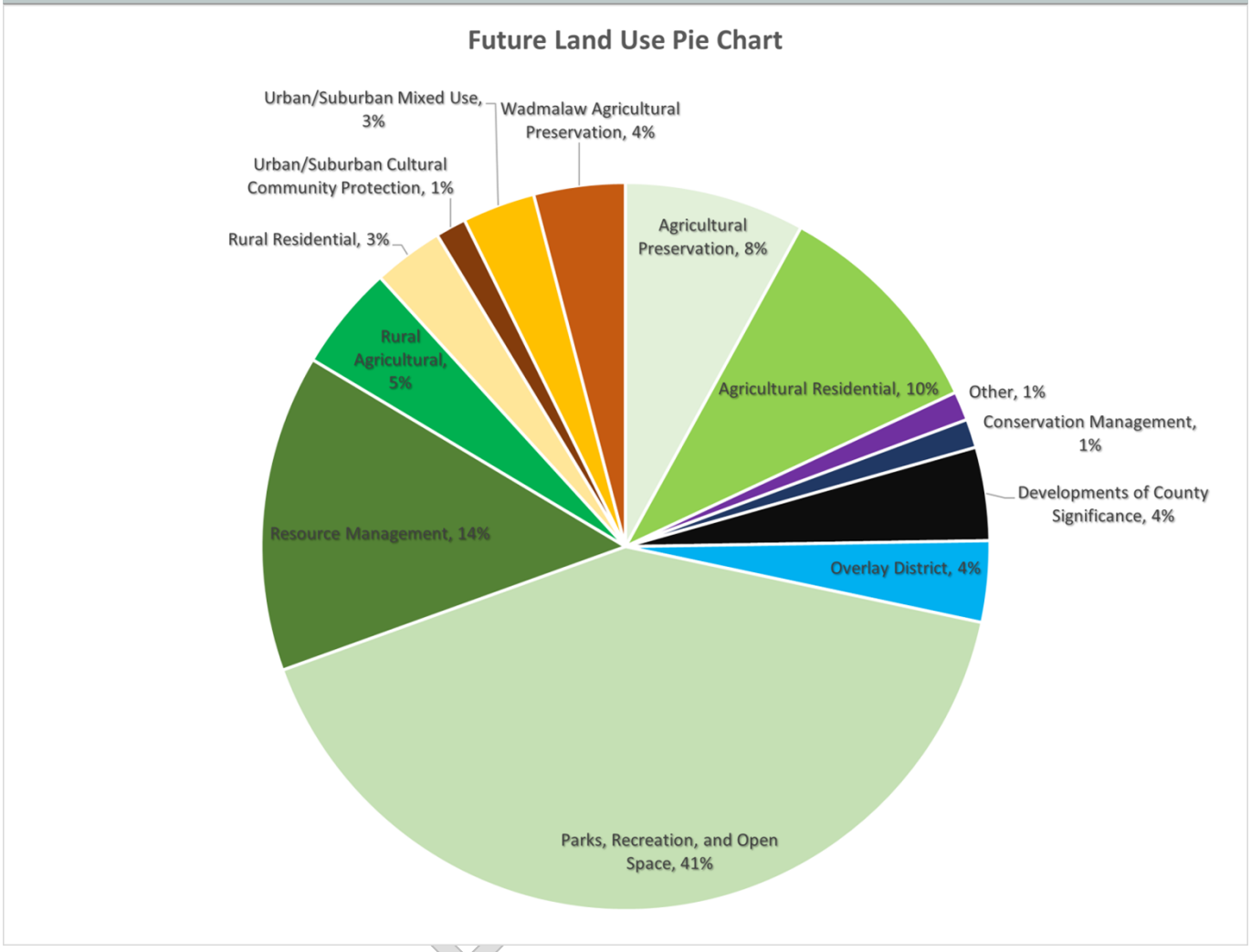
As shown in Chapter 3.9, ~~S~~several projects were adopted as part of the 2018 Ten-Year Update ~~2013-2014 Five-Year Review~~ Annual Work Plan. The following projects have been accomplished: ZLDR Comprehensive Review (adopted in 2021); adoption of overlay zoning districts for several historic African American Communities; adoption of an updated Historic Preservation Ordinance and the subsequent designation of several properties and communities on the Charleston County Historic Designation list; and continued implementation of several community planning efforts including the Parkers Ferry Community Plan, Sol Legare Community Plan, DuPont-Wappoo Community Plan, and ReThink Folly Road Plan. ~~Adoption of a Development of County Significance, Development Agreement, and Form-Based Zoning District for the Spring Grove Development; DuPont | Wappoo Community Plan and Overlay Zoning District; Parkers Ferry Community Plan and Overlay Zoning District; and Charleston County Historic Resources Survey Update. See *CHAPTER 3.9* for more information about these completed projects.~~

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.

DRAFT

Figure 3.1.2: Future Land Use Pie Chart



Pie chart dated March 14, 2023

Note: "Other" includes Industrial, Commercial, Rural Industrial, Rural Commercial, Rural Economic Development, Rural Cultural Community Protection, Civic/Institutional, and Office. These Future Land Use categories equate to less than 1% of the total unincorporated acreage.

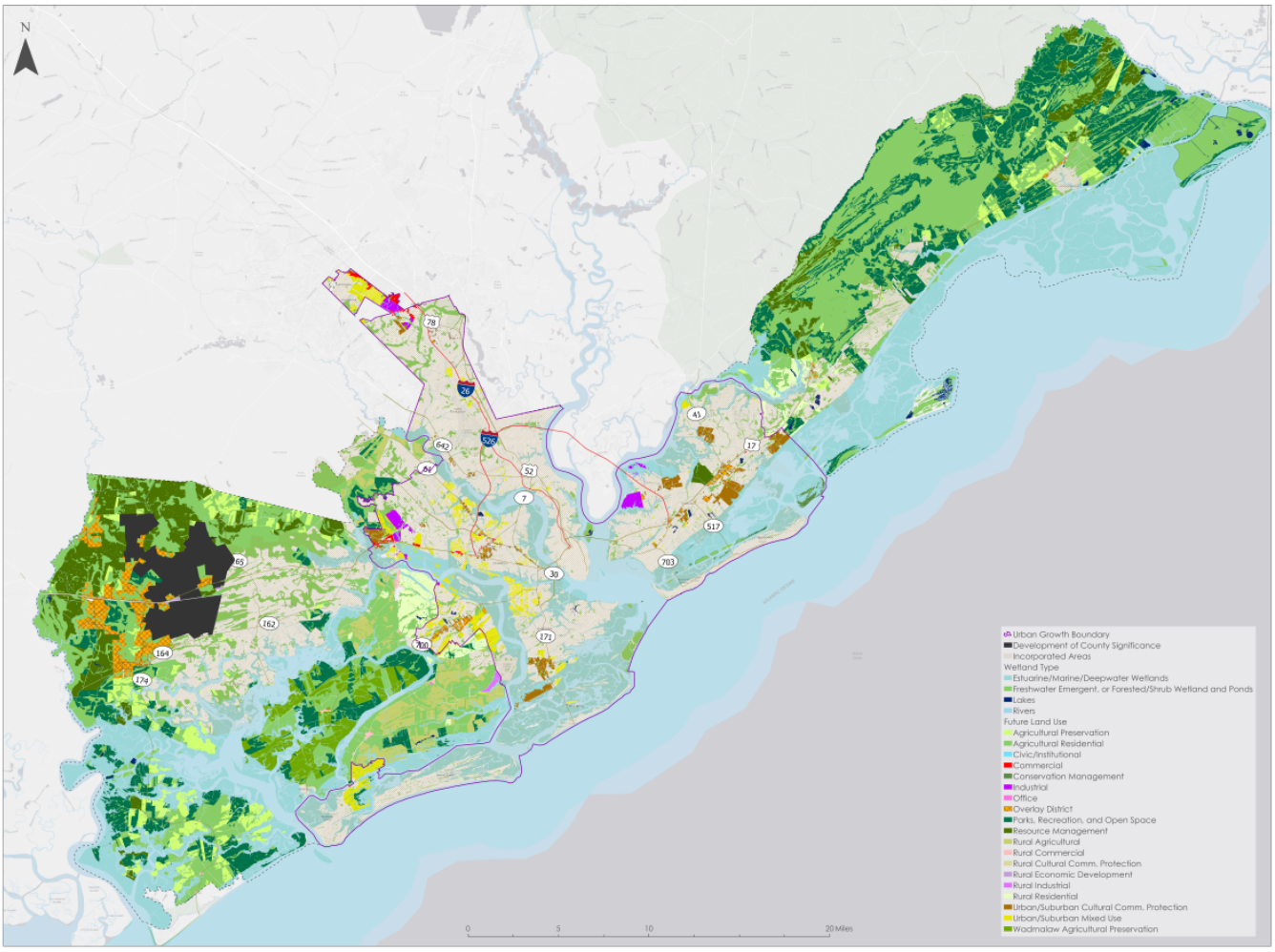
Table 3.1.1: Future Land Use Residential Densities

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~~***

Table 3.1.1: Future Land Use Residential Densities		
Future Land Use Categories		**Residential Density Guidelines**
	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**
Form-Based Zoning Districts	**All Future Land Use Categories**	**See CHAPTER 3.1.7.C, ~~Form-Based Zoning District~~ Developments of County Significance**
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~~.~~*		

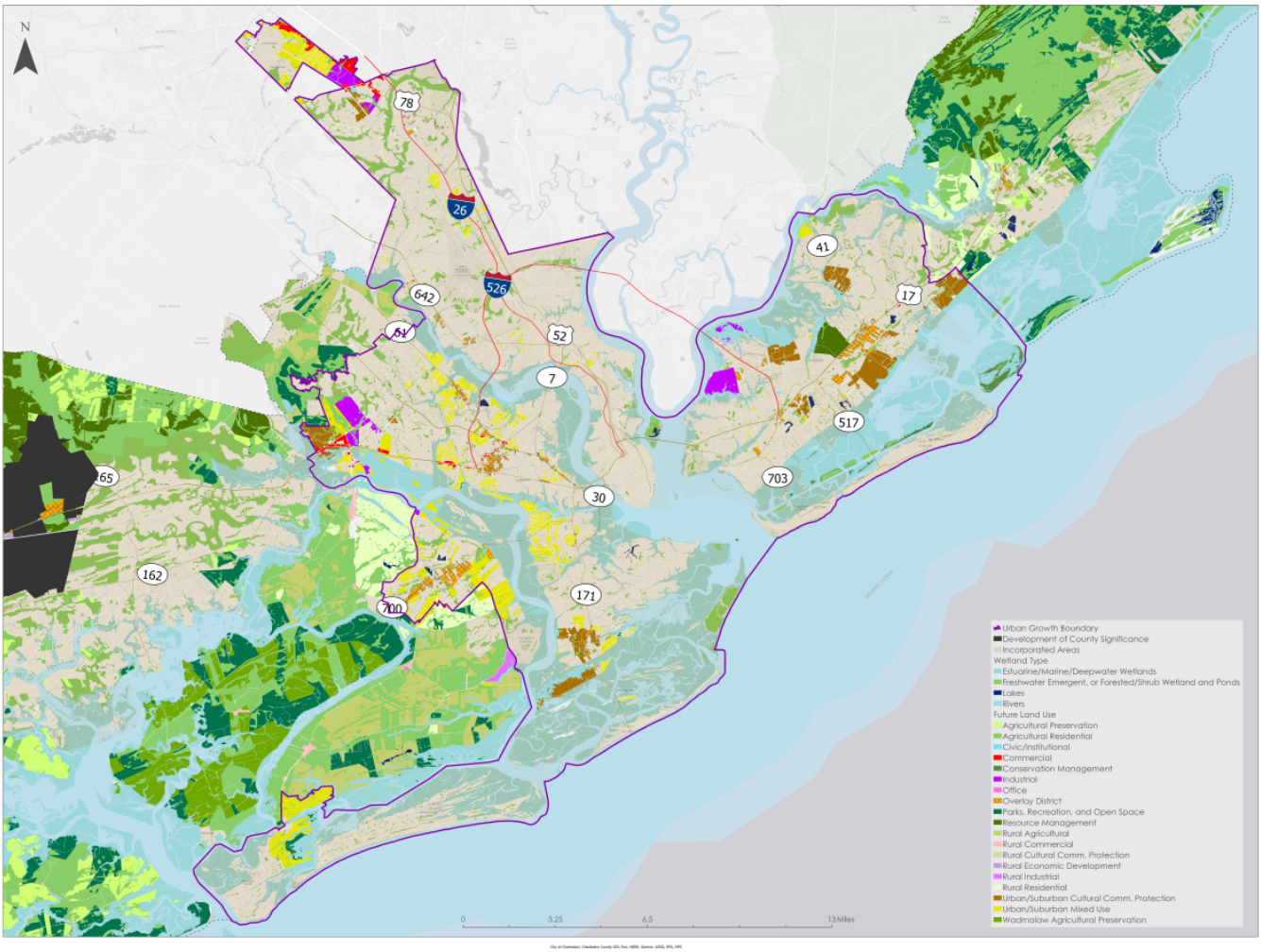
DRAFT

Map 3.1.3: Future Land Use



Map dated ~~March 14~~ June 22, 2023

Map 3.1.4: Urban/Suburban Future Land Use Detail



Map dated ~~March 14~~ June 22, 2023

A. Rural Area Future Land Use Categories

The Rural Area is located outside of the Urban Growth Boundary (UGB) and is identified by 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.

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 following future land use categories apply in the Rural Area of the County and reinforce the goals of this Plan, which include but are not limited to:

- Protecting and maintaining the natural environment;
- Promoting agri-business and agri-tourism;
- Designating prominant ~~te~~ locations with good access and visibility from major roads for civic or community-oriented uses such as churches and schools;
- Promoting infill of undeveloped portions of existing Settlement Areas to continue to define the edge between the Settlement Areas and the surrounding rural landscape; and
- Maintaining the low-density qualities of large portions of the County to preserve the character and culture of the Lowcountry.

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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan and that do not threaten the natural resources this category is intended to protect should be permitted to ensure sufficient provision of services.

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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan and that do not threaten the natural resources this category is intended to protect should be permitted to ensure sufficient provision of services.

Wadmalaw Island Agricultural Preservation

DRAFT

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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

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~~ is ~~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 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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

Rural Agriculture

The intent for this area is to retain the viability of agriculture while accommodating low levels of population growth. Density~~ies~~ is ~~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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

DRAFT

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 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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services. This designation should not apply to parcels that are 50 acres in size or larger as of October 9, 2018 and 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.

DRAFT

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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

Rural Industrial

The Rural Industrial areas are designated to accommodate low impact industrial uses. Noxious activities 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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

DRAFT







B. Urban/Suburban Area Future Land Use Categories

The Urban/Suburban Area is located within the Urban Growth Boundary (UGB) 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 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 following future land use categories apply in the Urban/Suburban Area of the County and reinforce the goals of this Plan, which include but are not limited to:

- Providing 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;
- Focusing development activities on infill, redevelopment, and intensification of existing and surrounding uses;
- Promoting 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;
- Promoting alternative forms of transportation; and
- Protecting natural resources.

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. Charleston County's historic African American communities date back to the post Civil War era when black freedmen and women began establishing their own political and economic independence. These communities, many of which are located in the county's unincorporated areas, have seen significant changes to their built environments as a result of demolition, redevelopment, or destruction from natural disasters. Due to this, a large portion of the late 19th- and early 20th-century historic fabric has had to be replaced. This includes homes, businesses, churches, institutional buildings (such schoolhouses and lodges), sheds used for agriculture, and other structures. Even though some of these communities have unofficial beginnings, their parcels' linear size, shape, and cadastral patterns are frequently visually striking and, in certain situations, may be the most significant features. It is these patterns of development that should be protected.

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. Many of these communities were recognized in the 2016 Charleston County Historic Resources Survey Update as eligible or potentially eligible for the National Register of Historic Places (NRHP) due to their unique development patterns and significance to post-Reconstruction Era and Civil Rights history.

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, and urban agriculture should be recognized and promoted. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services. 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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services. This category is intended to allow for growth to occur within the U~~rban G~~rowth B~~oundary~~ by allowing urban and suburban mixed uses and affordable/workforce housing in the Urban/Suburban Area, where appropriate, 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. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

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. Impacts on local street systems and land use patterns shall be minimized through quality site design, provision of public transit access, and the design of local road connections. Appropriate public services and facilities that are consistent with the goals and strategies of this Plan should be permitted to ensure sufficient provision of services.

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, and public services and 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. Impacts on local street systems and land use patterns shall be minimized through quality site design, provision of public transit access, and the design of local road connections.

C. Developments of County Significance

DRAFT

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 establishes protocol for submission requirements and review of Developments of County Significance.

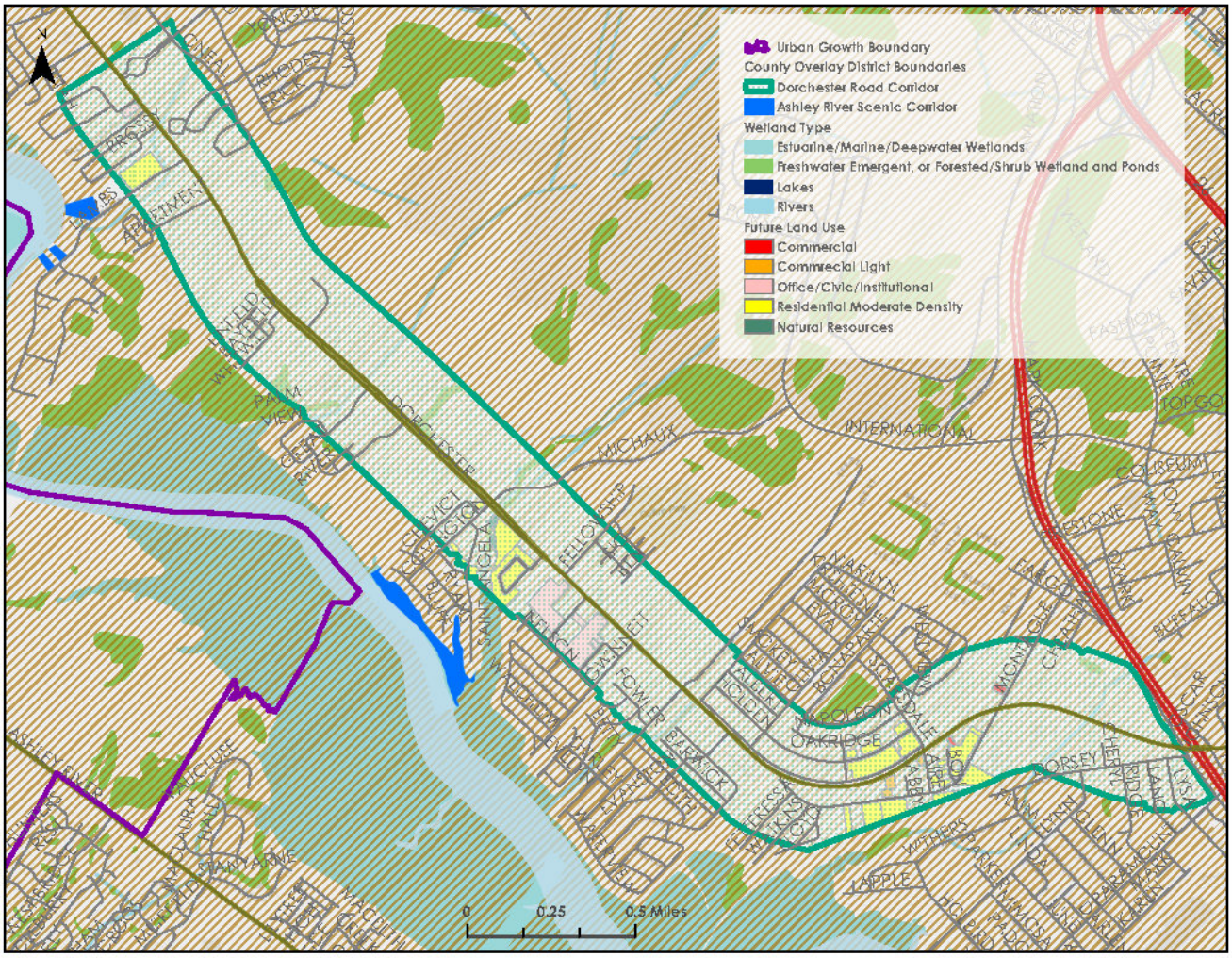
All DCS applications shall require that 75 percent of the land included in the application be either private land permanently restricted by deed restriction or conservation easement to clustered or unclustered rural densities, or other areas proposed for private and/or public ownership (e.g., parks, 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.

D. Overlay Districts

An overlay district is a geographic district layered on top of another existing zoning district, or districts, that implements additional regulations or relaxes existing regulations. Charleston County utilizes overlay districts to ensure consistency between the land use, zoning, and land development regulations of the County and adjacent municipalities in specific areas. The County also utilizes overlay districts to protect historic communities and sensitive environmental features, and to address the concerns and needs of particular communities. Overlay districts are developed based on extensive public input and in coordination with applicable municipalities.

The overlay district maps below show the future land use recommendations for the overlay districts adopted by the County. The zoning and land development regulations and zoning map(s) for each overlay district can be found in the Charleston County Zoning and Land Development Regulations (ZLDR) Ordinance.

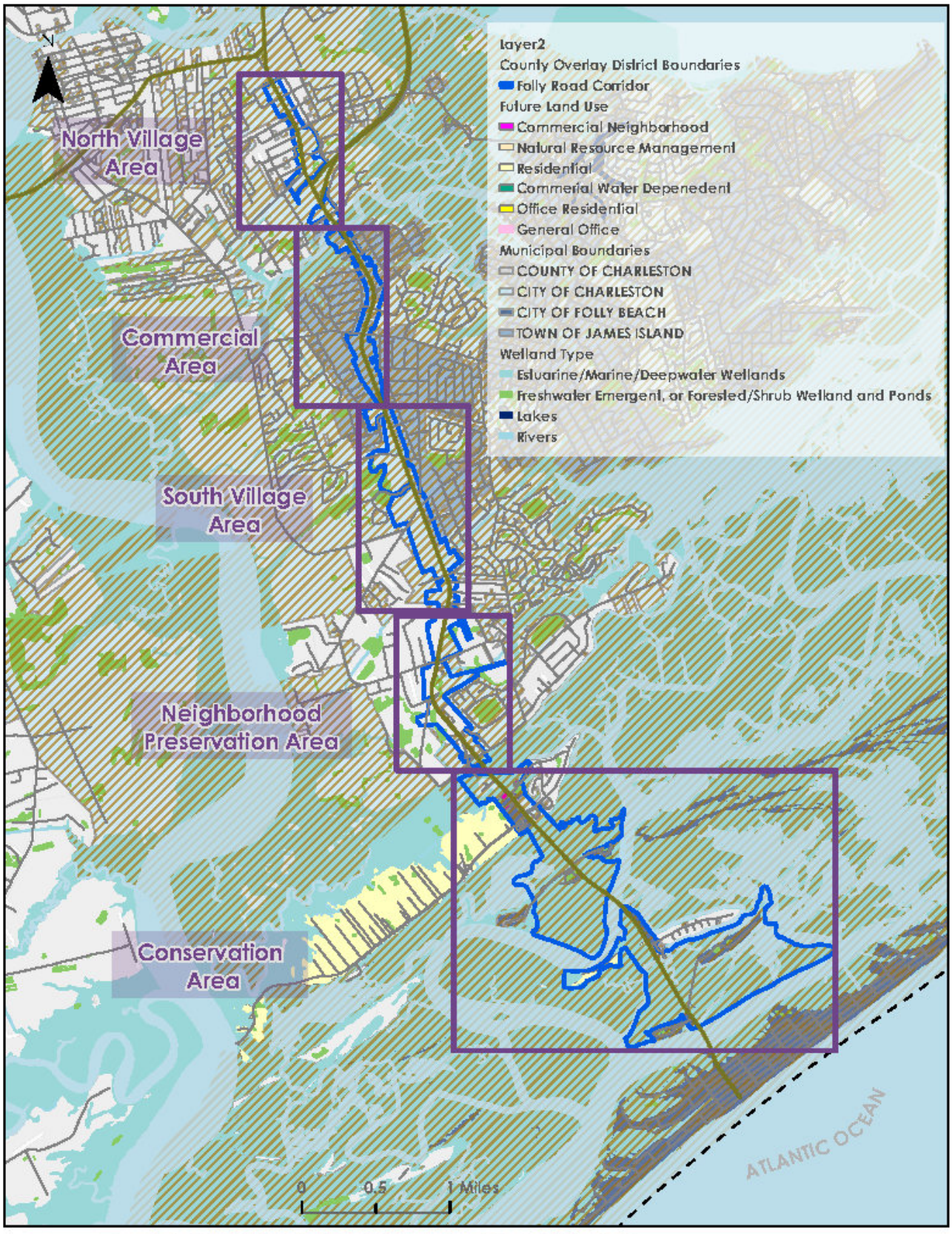
Map 3.1.5: Dorchester Road Corridor and Ashley River Scenic Corridor Overlay Zoning District



Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 22, 2023

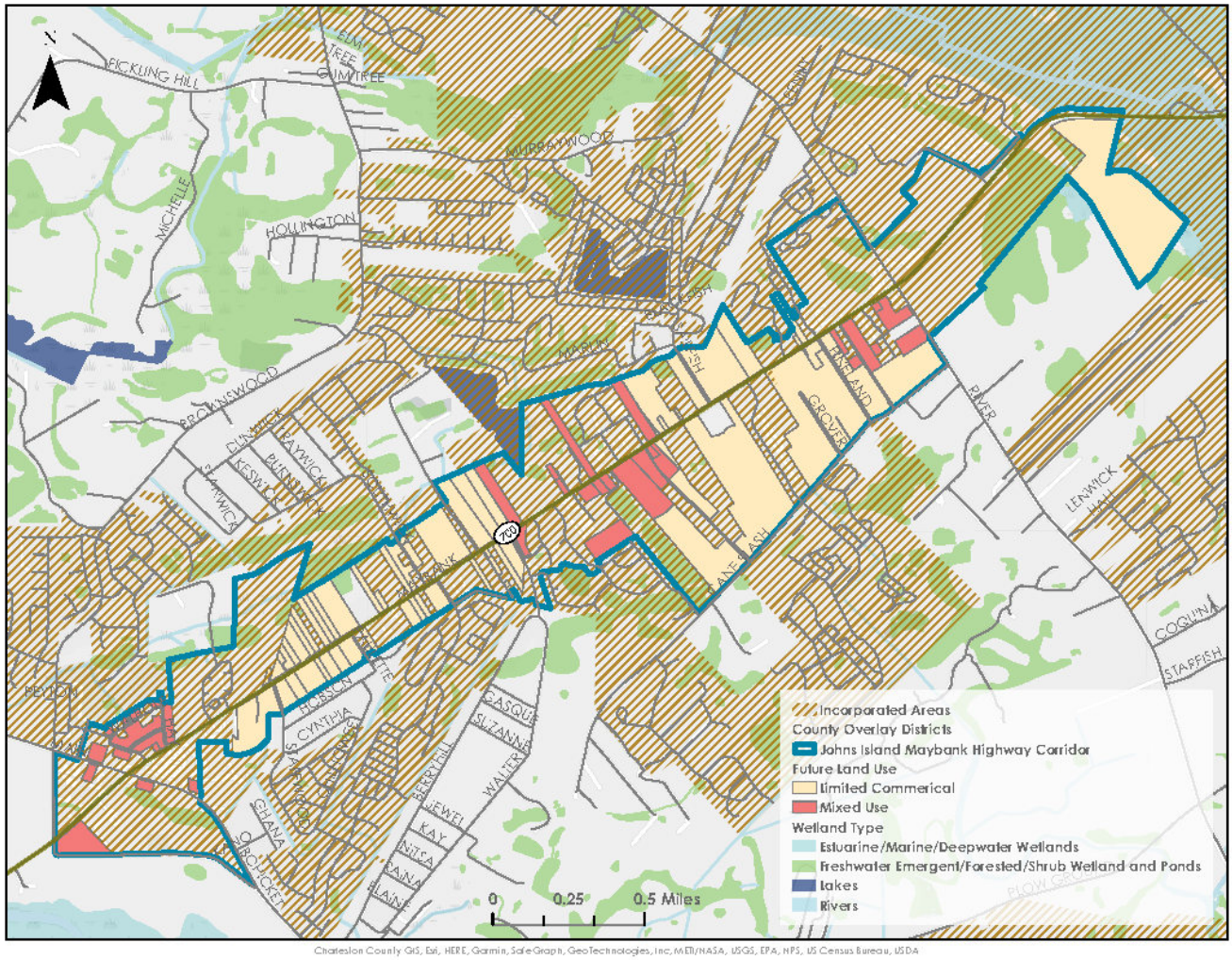
Map: 3.1.6: Folly Road Corridor Overlay Zoning District

DRAFT


North Village Area
Commercial Area
South Village Area
Neighborhood Preservation Area
Conservation Area
layer2
County Overlay District Boundaries
Folly Road Corridor
Future Land Use
Commercial Neighborhood
Natural Resource Management
Residential
Commerial Water Depenedent
Office Residential
General Office
Municipal Boundaries
COUNTY OF CHARLESTON
CITY OF CHARLESTON
CITY OF FOLLY BEACH
TOWN OF JAMES ISLAND
Welland Type
Estuarine/Marine/Deepwater Wetlands
Freshwater Emergent, or Forested/Shrub Wetland and Ponds
Lakes
Rivers
ATLANTIC OCEAN
0
0.5
1 Miles
Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 22, 2023

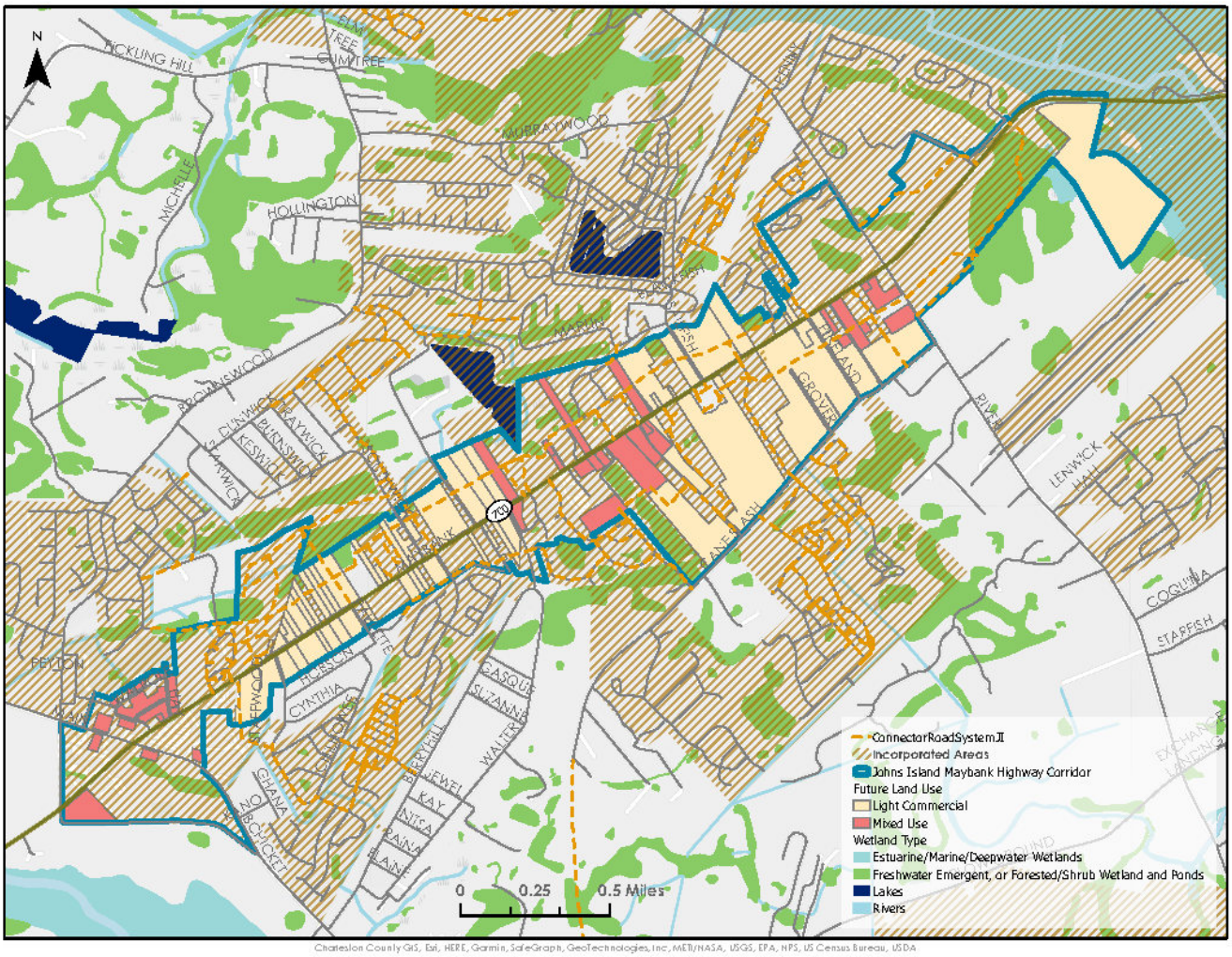
Map: 3.1.7.A: Johns Island Maybank Highway Corridor Overlay Zoning District



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

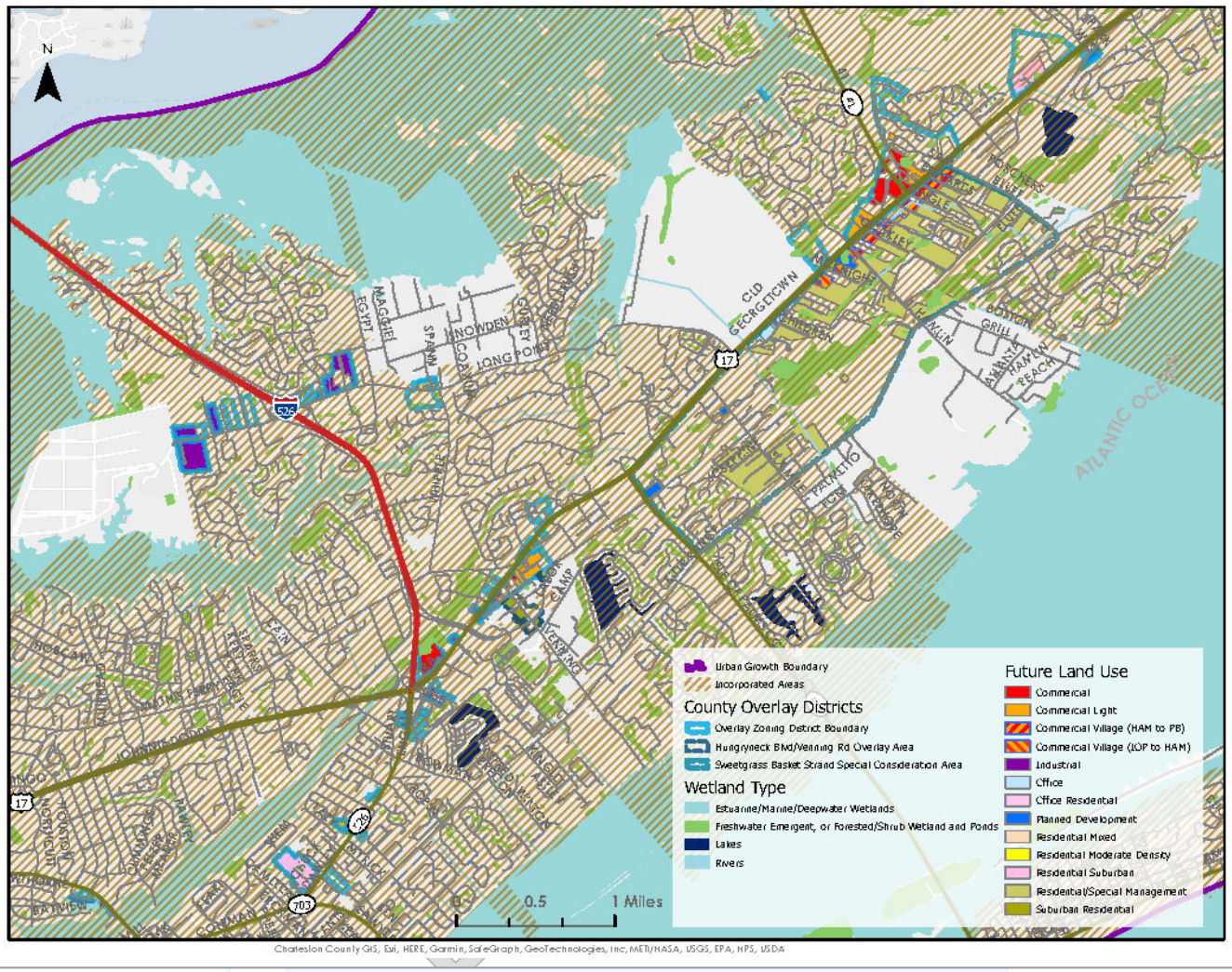
Map dated March 16, 2023

Map: 3.1.7.B: Johns Island Maybank Highway Corridor Overlay Zoning District Infrastructure and Connectivity Map



Map dated March 24, 2023

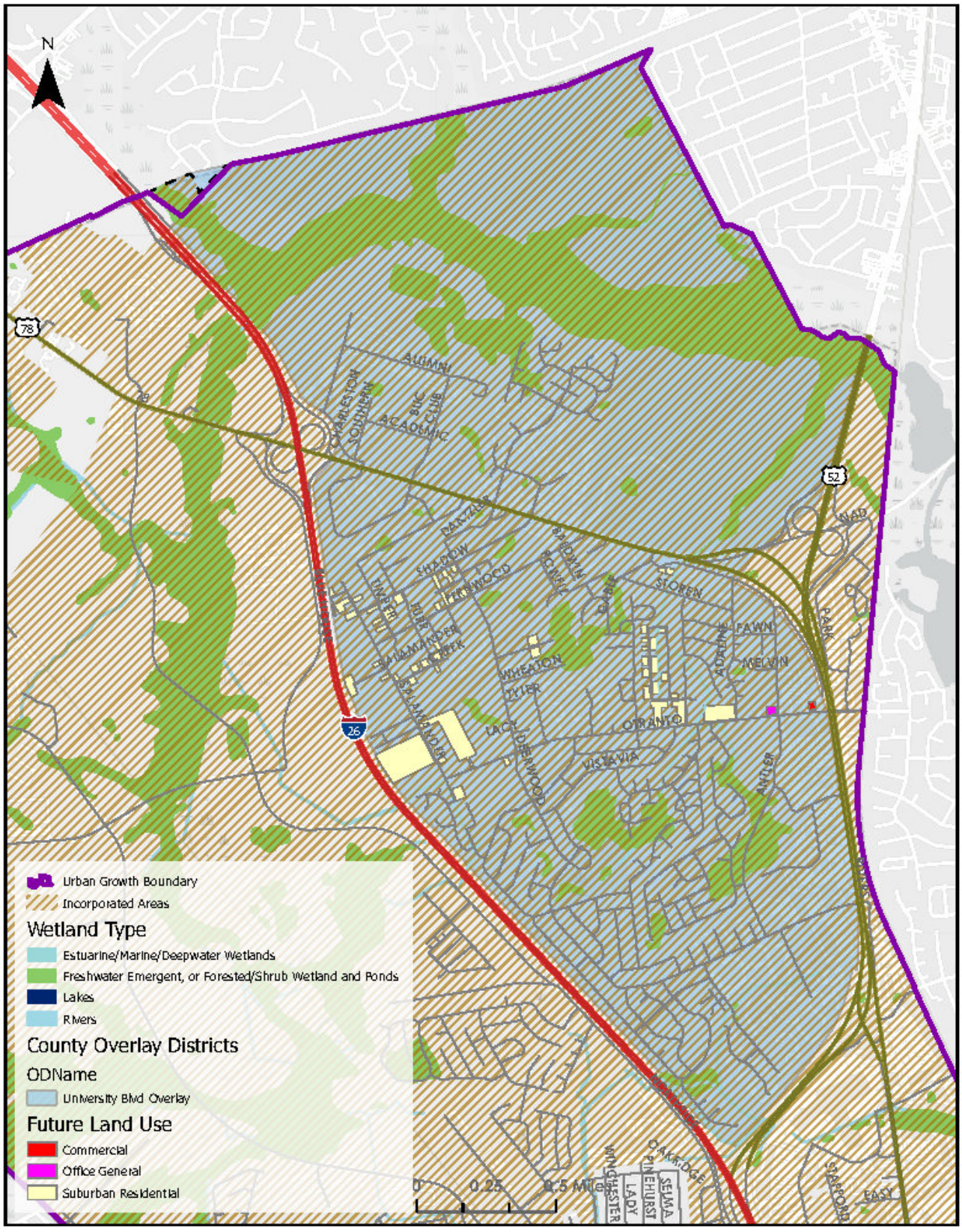
Map: 3.1.8: Mount Pleasant Overlay Zoning District



Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 23, 2023

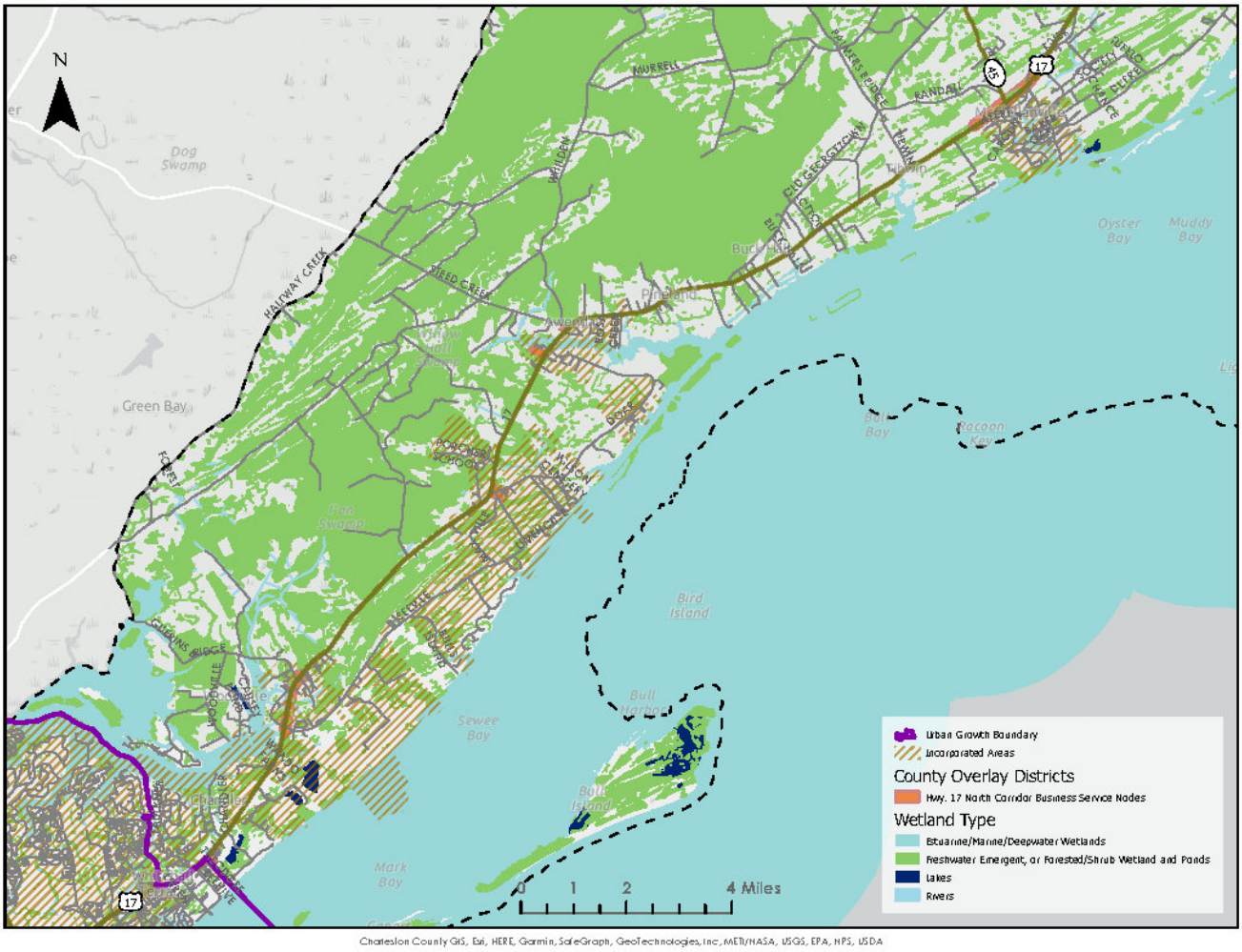
Map: 3.1.9: University Boulevard Overlay Zoning District

DRAFT


N
Urban Growth Boundary
Incorporated Areas
Wetland Type
Estuarine/Marine/Deepwater Wetlands
Freshwater Emergent, or Forested/Shrub Wetland and Ponds
Lakes
Rivers
County Overlay Districts
ODName
University Blvd Overlay
Future Land Use
Commercial
Office General
Suburban Residential
0 0.25 0.5 Miles
78
26
52
Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 23, 2023

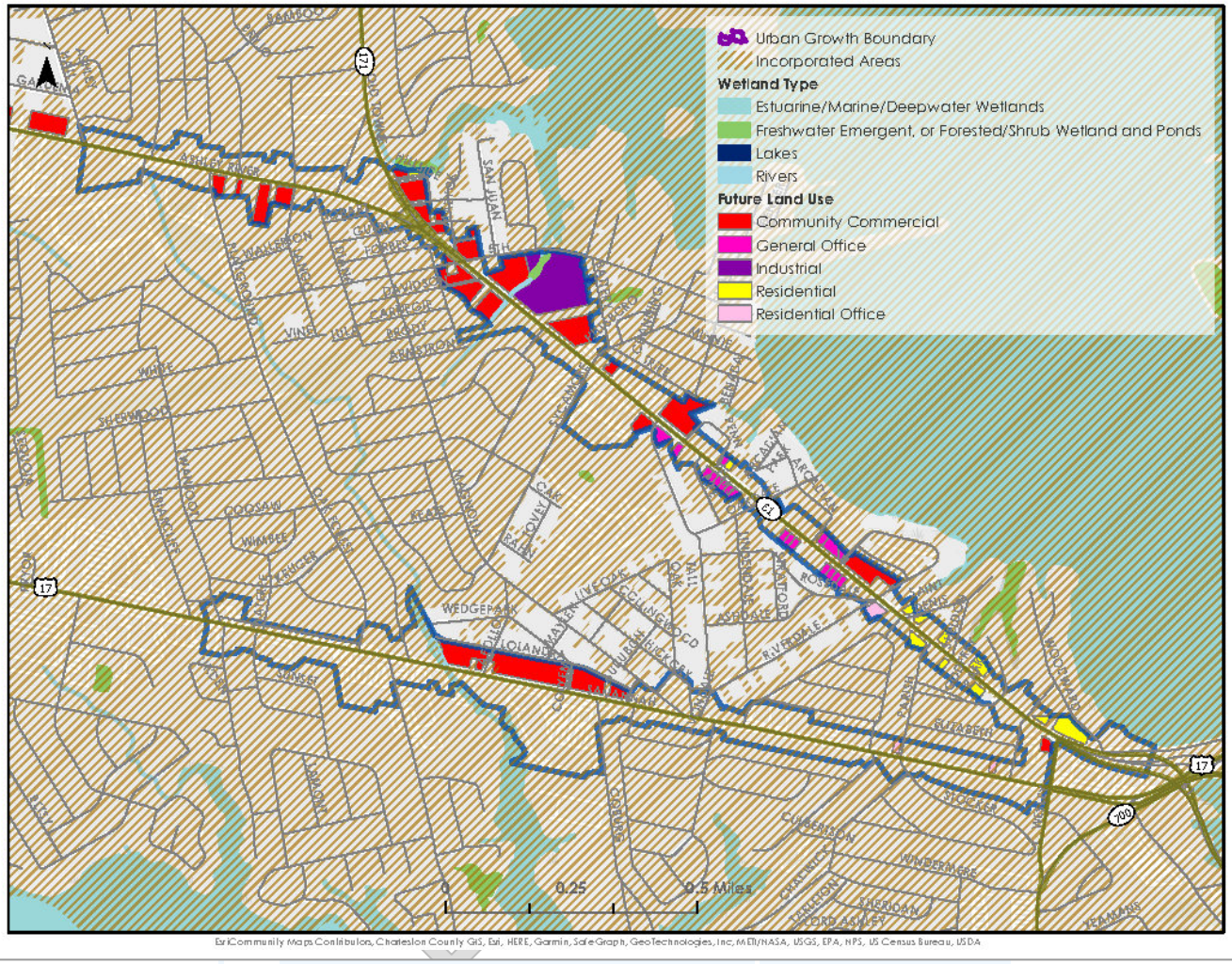
Map: 3.1.10: Highway 17 North Corridor Overlay Zoning District



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

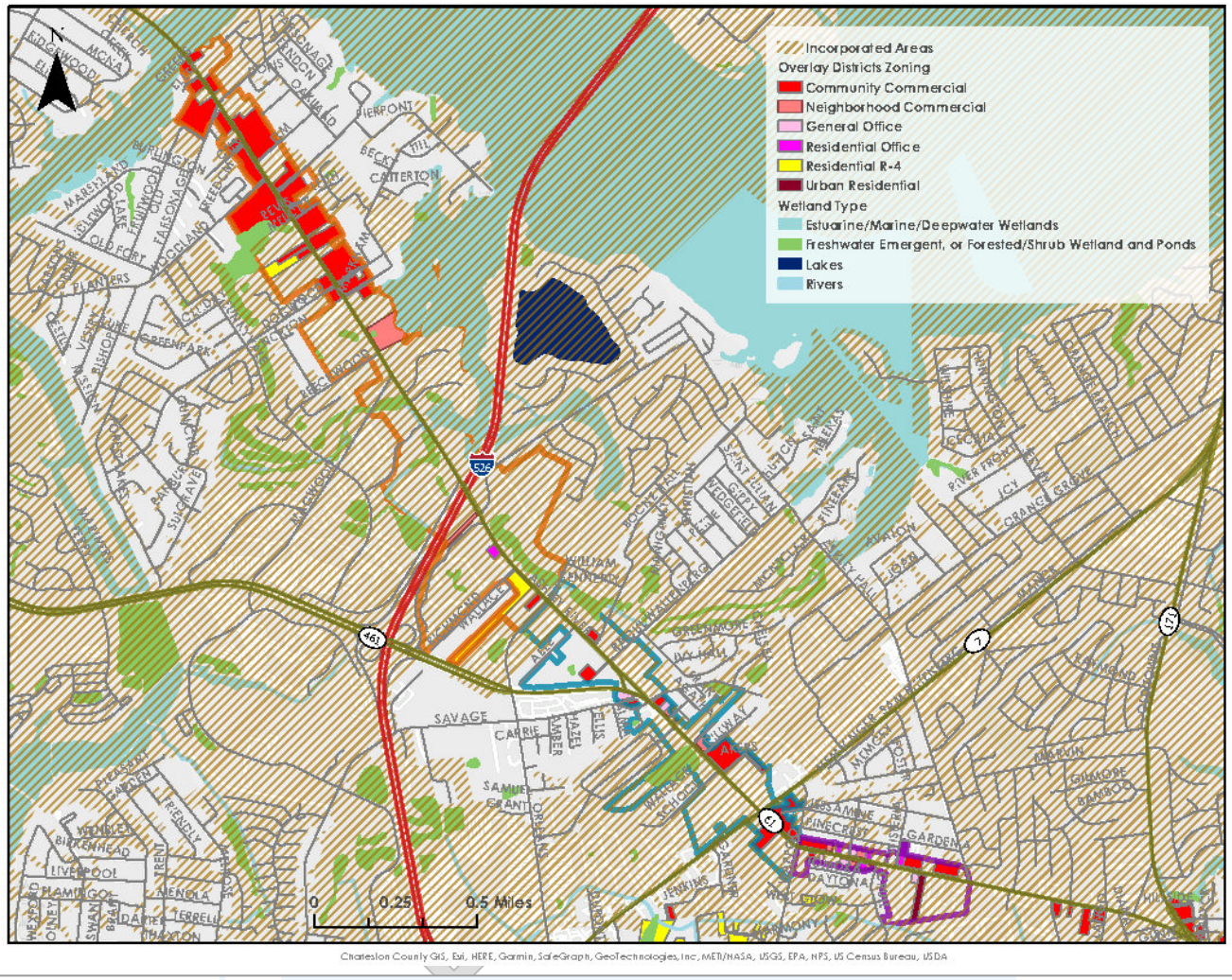
Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 23, 2023

Map: 3.1.11: St. Andrews Area Overlay Zoning District



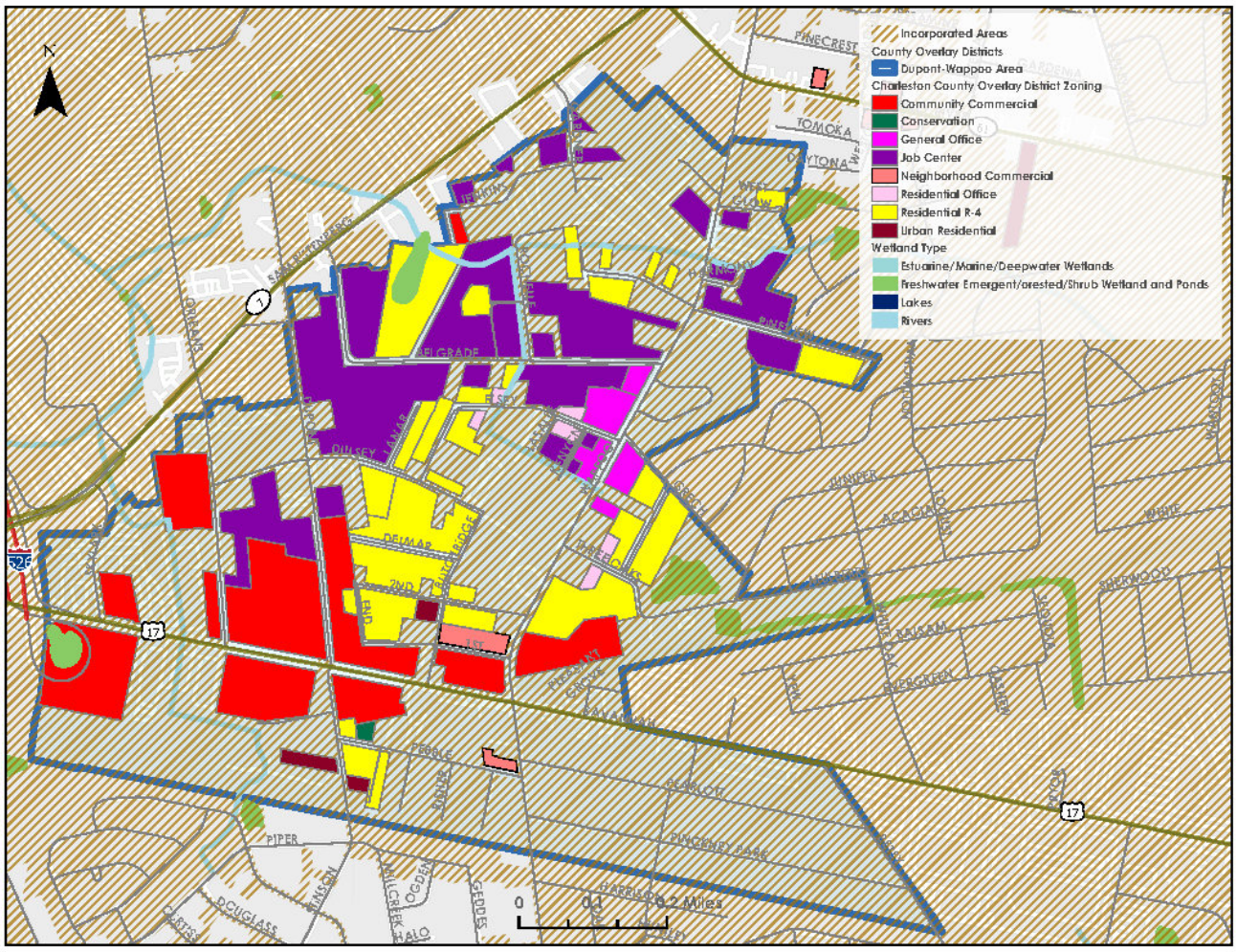
Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 24, 2023

Map: 3.1.12: Ashley River Road Corridor Overlay Zoning District



Note: ~~Municipal boundaries shown are as of Feb. 25, 2014~~ Map dated March 29, 2023

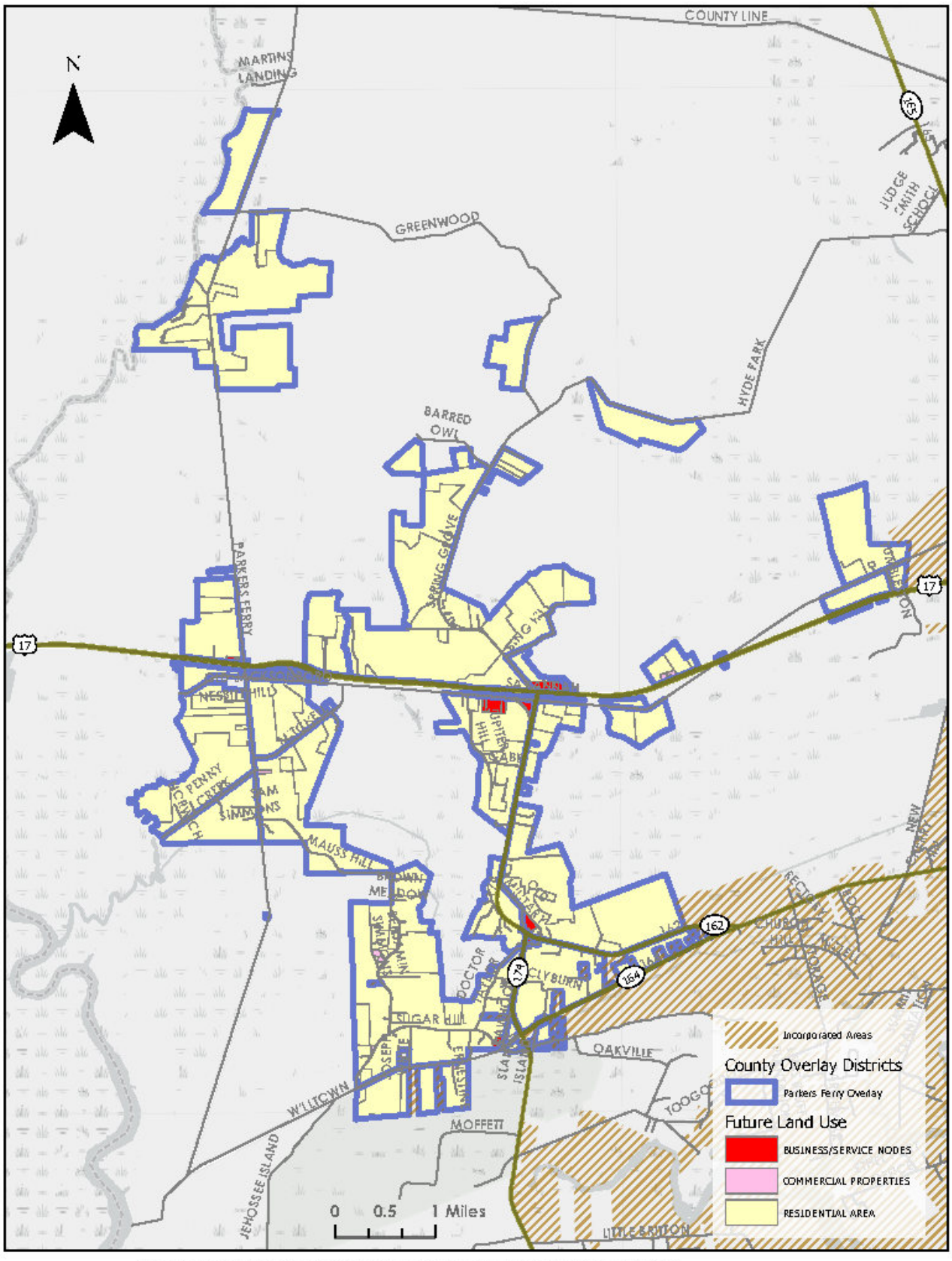
Map: 3.1.13: DuPont-Wappoo Area Overlay Zoning District



Map dated March 29, 2023

Map: 3.1.14: Parkers Ferry Community Overlay Zoning District

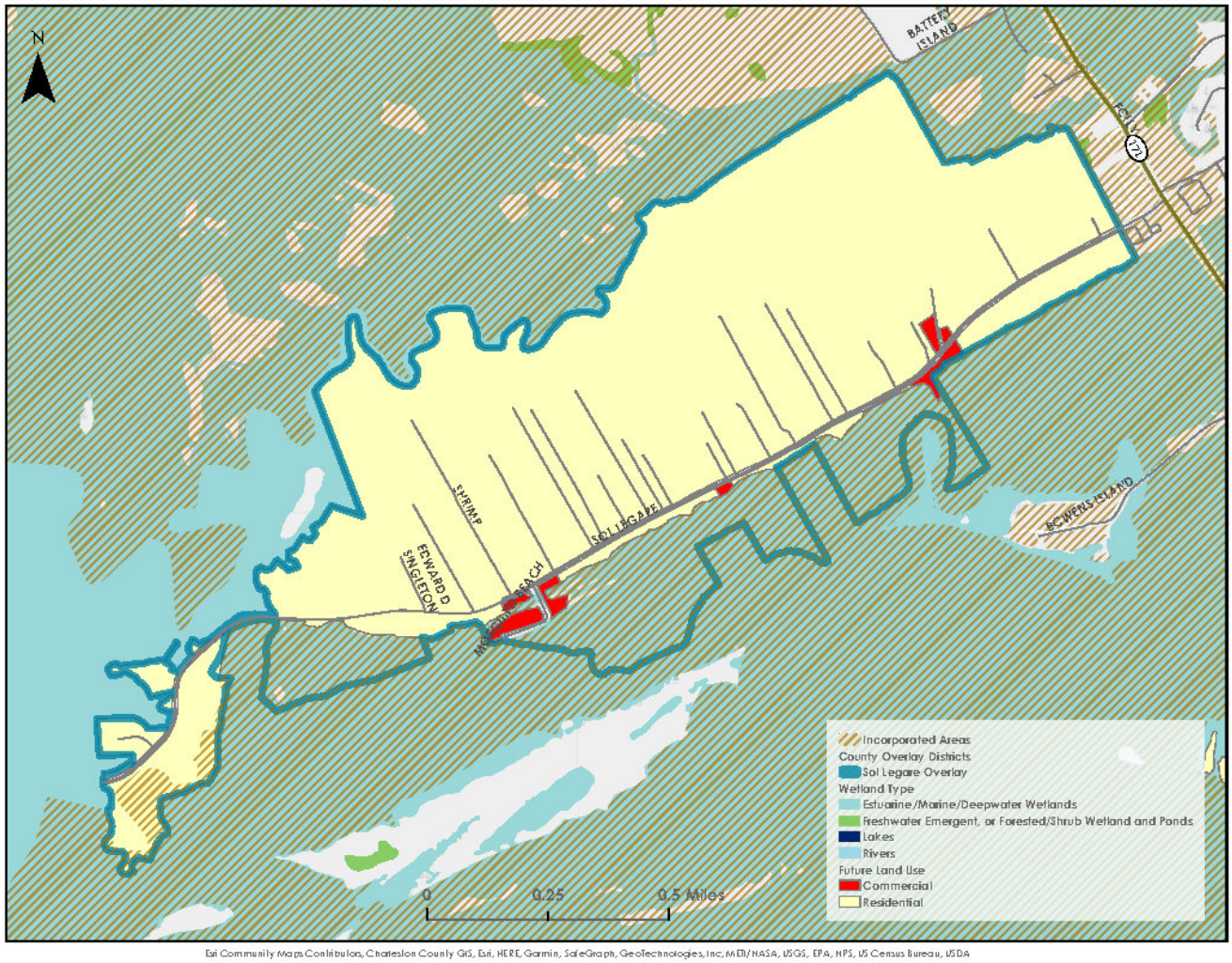
DRAFT



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

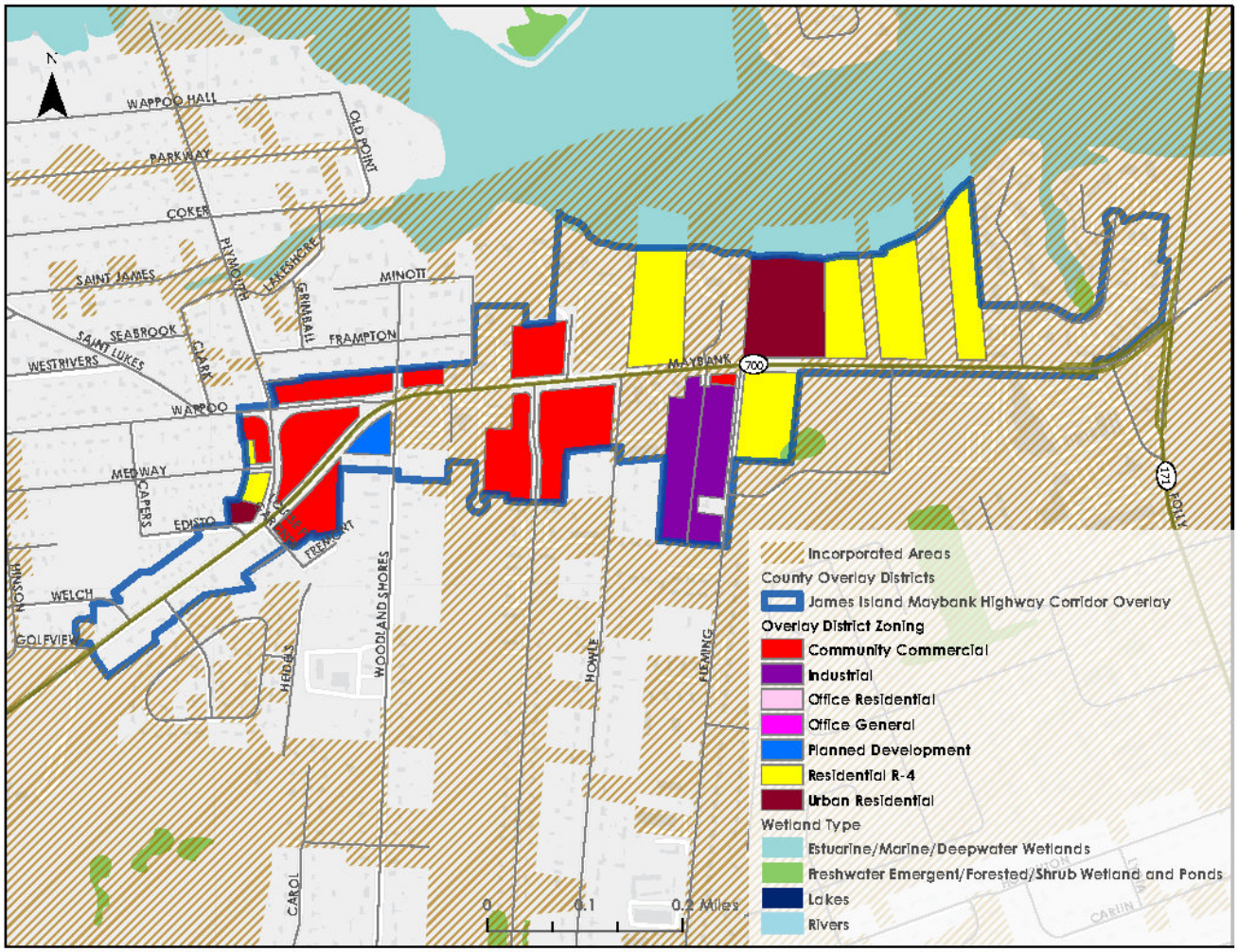
Map dated March 16, 2023

Map: 3.1.15: Sol Legare Community Overlay Zoning District



Map dated March 24, 2023

Map: 3.1.16: James Island Maybank Highway Corridor Overlay Zoning District

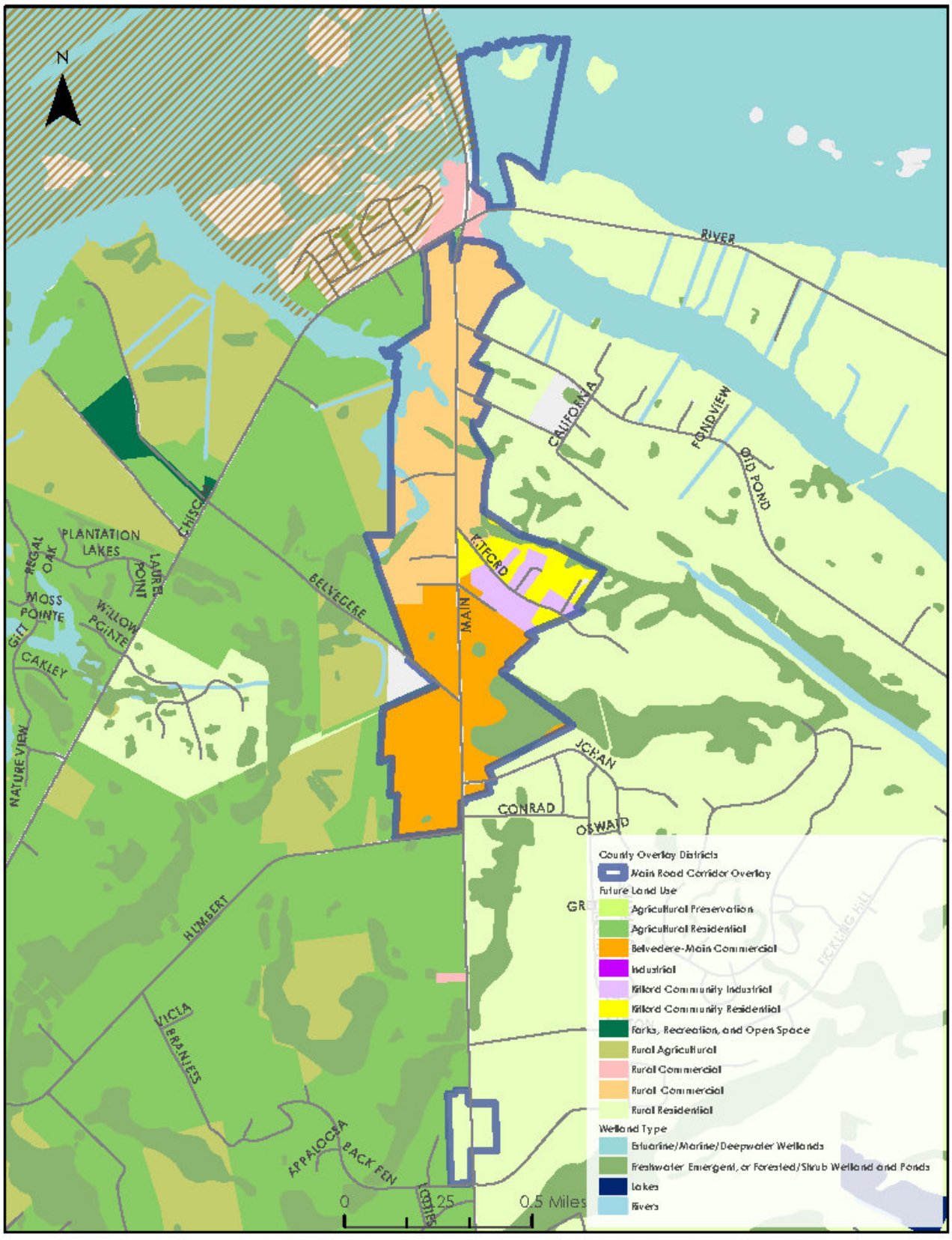


Esri Community Maps Contributors, City of Charleston, Charleston County GIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Map dated March 29, 2023

Map: 3.1.17: Main Road Corridor Overlay Zoning District

DRAFT



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Map dated March 29, 2023

DRAFT

CHAPTER 3.2 ECONOMIC DEVELOPMENT ELEMENT

Contents:

3.2.1: OVERVIEW
3.2.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.2.3: ECONOMIC DEVELOPMENT ELEMENT GOAL
3.2.4: ECONOMIC DEVELOPMENT ELEMENT STRATEGIES AND TIME FRAMES

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 has an active Economic Development Department which liaises with the State, surrounding counties, and other entities. It has played a ~~large~~ largely significant role in attracting industries and commerce to the County.

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.

DRAFT

Purpose and Intent

Economic development is an essential ~~important~~ component of the Comprehensive Plan to tie business and employment growth recommendations ~~for business and employment growth~~ with the land use, transportation, and housing recommendations. The strategies for economic development should foster a stable and competitive business climate to draw business to the region and support the economic viability of existing industries. The strategies are also intended to encourage business start-ups, small business enterprises, minority-owned businesses, high-technology and knowledge-based businesses, and attract new targeted industry sectors. The Economic Development Department will continue to promote the development of a trained quality workforce, evaluate development opportunities, and support the other recommendations of this Comprehensive Plan.

3.2.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Introduction

In 2022~~2017~~, the Charleston regional economy can aptly be described as 'transcendent.' Developments since the turn of the decade 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. Since ~~Beginning with~~ the closure of the Naval Complex in Charleston by the 1993 Base Realignment and Closure (BRAC) Commission, Berkeley, Charleston, and Dorchester (tri-county) governments and business leaders have mounted a robust campaign of economic recruitment, tourism promotion, and growth of the federal government presence.

Several significant ~~major~~ milestones since 2017~~2010~~ have included:

- Growth of the advanced manufacturing sector ~~as~~ with two significant ~~announcements~~ plans were made by Original Equipment Manufacturers (OEMs): The Boeing Company consolidating production of 787 jets at its facility in North Charleston, SC, and Mercedes-Benz Vans ~~announcing its~~ plans to produce the eSprinter 2.0 at its plant in Palmetto Commerce Park ~~will be producing the eSprinter 2.0~~;
- ~~Establishment of six Boeing facilities and business units: Boeing Final Assembly and delivery site for the 787 Dreamliner, Boeing Interior Responsibility Center, two Centers for Excellence Information Technology and Engineering, Boeing Research & Technology Center, and Propulsion South Carolina;~~
- Presence of the Naval Information Warfare Center (NIWC) ~~Space and Air Warfare Systems (SPAWAR)~~ , along with various other Navy and Air Force commands attached to Joint Base Charleston;
- Port-related volume growth and the execution of a multi-year capital investment plan including harbor deepening, terminal construction and improvements;
- Growth of the medical sector;
- Growth of the information technology / software sector;
- ~~Additional air~~ Nonstop air service ~~to~~ to 50 cities from legacy and lower-cost carriers and completion of a significant renovation of the Charleston International Airport terminal and parking garage; ~~from Southwest and JetBlue as well as the completion of a four-year long major renovation of the Charleston International Airport;~~
- Addition of the South Carolina Aeronautical Training Center at Trident Technical College campus, featuring two hanger bays and 31 specialty-labs; ~~Clemson University Drive Train Test Facility, an anchor for the wind energy and power systems sector, and The Zucker Family Graduate Education Center, a major support to the state's engineering landscape;~~ and
- Growth of the Charleston tourism sector, anchored by a burgeoning culinary scene, world-class hotels and resorts, year-round arts and cultural festivals such as Spoleto Festival USA, outdoor recreation, and signature athletic events like Credit One Charleston and the Cooper River Bridge Run. ~~the annual Volvo Car Open.~~

DRAFT

The unprecedented diversity now evident in the Charleston economy has caused the region to ~~be a~~ standout ~~performer~~ in comparison with the state and nation, with the region's unemployment rate remaining favorable, 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, the 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~~ magnetic calling cards.

Charleston County Economic Development Mission

Created in 1993, the ~~The~~ Charleston County Economic Development Department is dedicated to recruiting new business, growing existing industry, and improving the Charleston business climate. This mission was fine-tuned in 2019 with the adoption of a strategic operations plan that focuses on advancing economic growth and shared prosperity in Charleston County through: ~~was created in 1993 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.

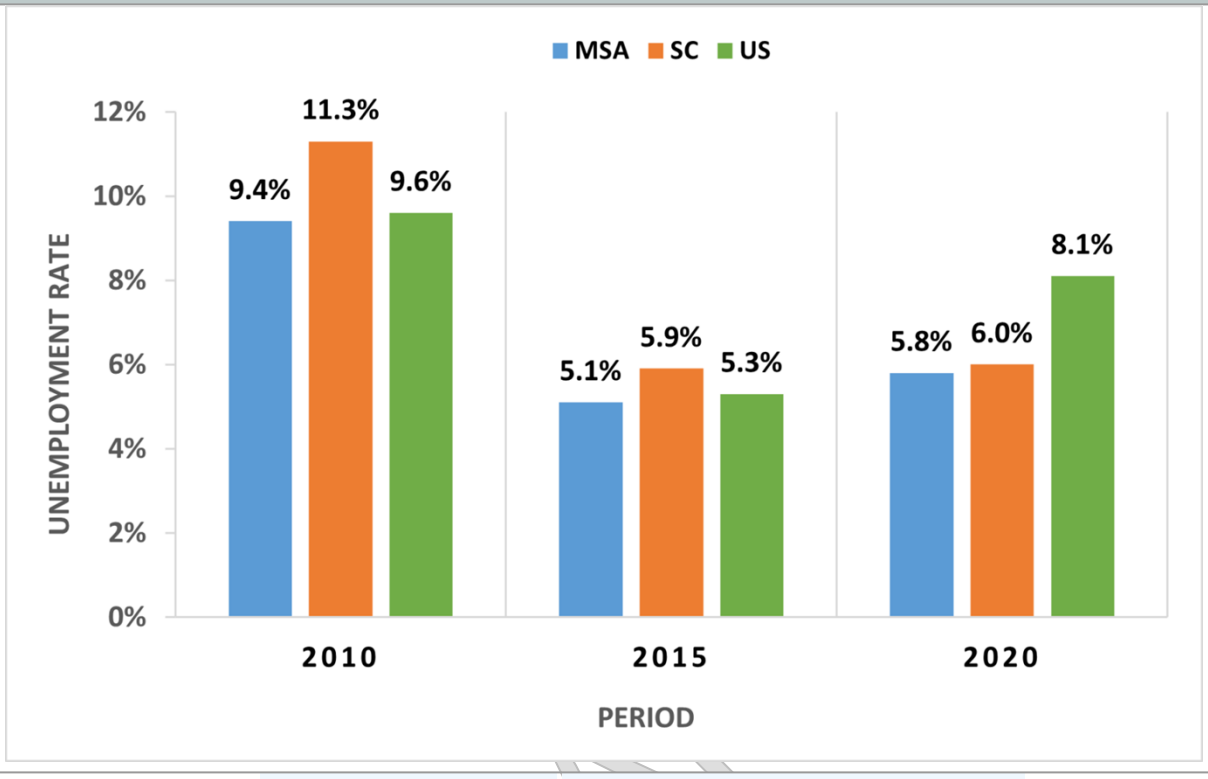
'Primary' employers include manufacturers, research and development operations, corporate headquarters, ~~large~~ extensive distribution facilities, defense contractors, biotechnology firms, and information technology companies. The basic premise is that when recruiting or facilitating an expansion by 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 attracting significant ~~the attraction of large levels of~~ capital investment, which translates into an enhanced level of public revenues available to provide public services.

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, with a reputation for financial stability and integrity. Amidst the COVID-19 pandemic ~~turbulence of the Great Recession~~, Charleston County retained its AAA credit rating with all three of the major rating agencies.

DRAFT

Figure 3.2.1: Regional (MSA), State, and National Unemployment Rates (2010 - 2020)

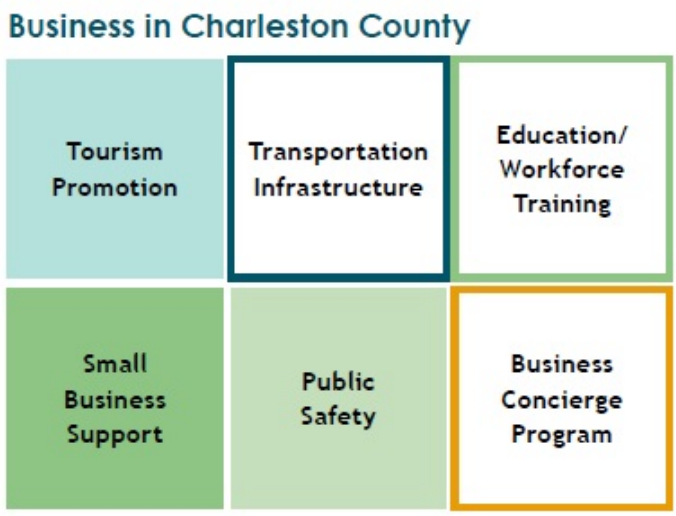


Source: U.S. Bureau of Labor Statistics ~~S.C. Department of Employment and Workforce~~.

Charleston County services, policies, and practices encourage economic growth in a variety of ways, including but not limited to:

- Tourism Promotion by contributing significant funds to the Charleston Area Convention and Visitors Bureau and through accommodations fees to support area attractions.
- Improving Transportation Infrastructure by enacting the "Half Cent Sales Tax," funding and managing local road improvements, and supporting the Charleston Area Regional Transit Authority (CARTA) and Lowcountry Rapid Transit.
- Supporting Education and Workforce Training by funding local workforce initiatives administered by the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG), Metro Chamber of Commerce, and Trident Technical College, and providing critical connections and support to workforce development allies.
- Providing Public Safety Services through Emergency Medical Services (EMS), Consolidated 9-1-1 Center, Sheriff 's Office, and Emergency Management.
- Encouraging Small Business Procurement and Mentoring through targeted procurement towards local businesses and assisting local ~~businesses~~ companies with ~~the~~ bidding ~~process~~.
- Providing a Business Concierge Program through the Economic Development Department to provide "service after the sale" by cementing the relationship with a new company through the cost-free offering of a vast array of business assistance, beginning with start-up processes such as

permitting and meeting workforce needs to providing support for networking, supply chain needs, and future expansion.



~~*Charleston County Consolidated 9-1-1 Center and Emergency Operations Center*~~

Key Economic Development Allies

The Economic Development Department works with several local and state agencies and non-profit entities, such as the South Carolina Department of Commerce, area municipalities, Charleston Regional Development Alliance, BCDCOG, Metro Chamber of Commerce, workforce development organizations, industry sector allies and area utilities to round out the overall regional service offering to businesses.

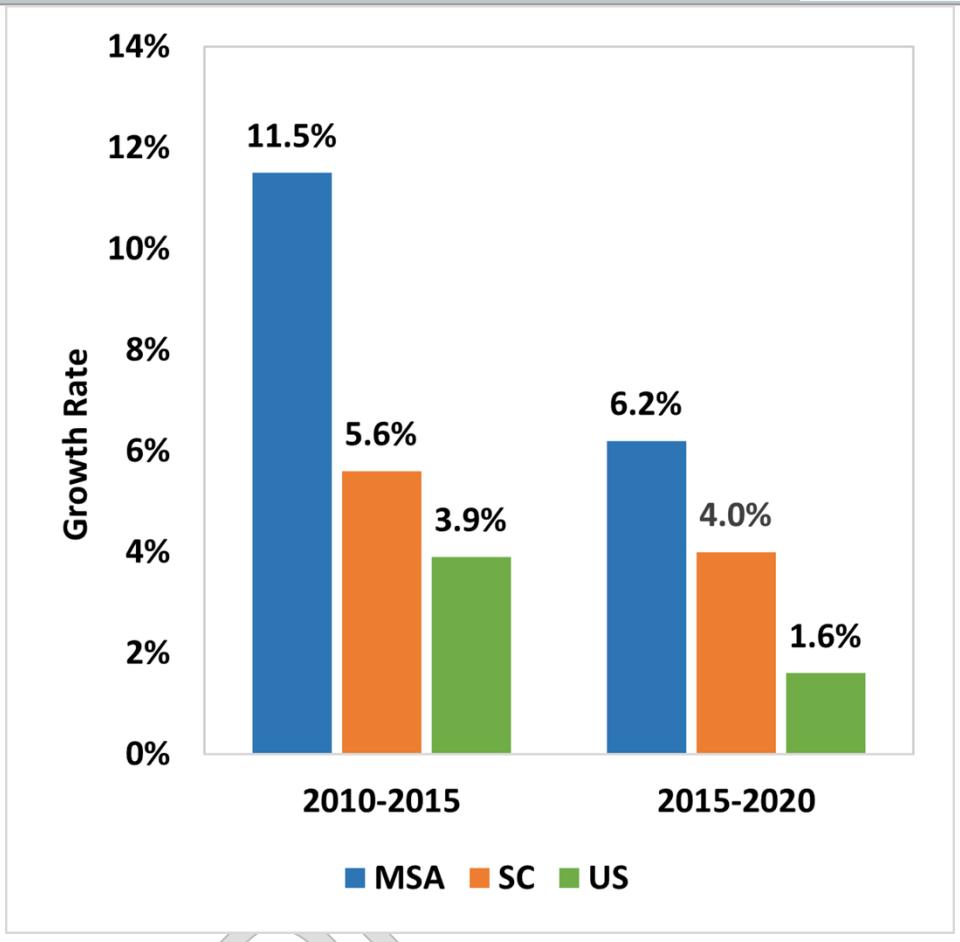
Economic Diversification

Growth of the Charleston Area

The population for the Charleston region in 2020 was 819,705, representing a 23% increase since 2010. ~~In 2015, the population for the Charleston region grew 2.4 percent, landing at close to 745,000 residents. According to the US Census Bureau, the metro area was among the top 20 fastest growing metro areas in the nation when considering population growth between July 1, 2014 and July 1, 2015. Since the turn of the century, the region has gained nearly 200,000 residents a 36 percent increase during the period of July 1, 2000 to July 1, 2015. Roughly 40 percent of this population growth occurred during the years 2010 to 2015.~~ Similar to the general population growth, the area workforce grew ~~at a fast pace~~ quickly. On average, the civilian labor force grew ~~4.5 times~~ about four times faster than the US average from 2010 to 2020. ~~2015~~ (see *Figure 3.2.3*).

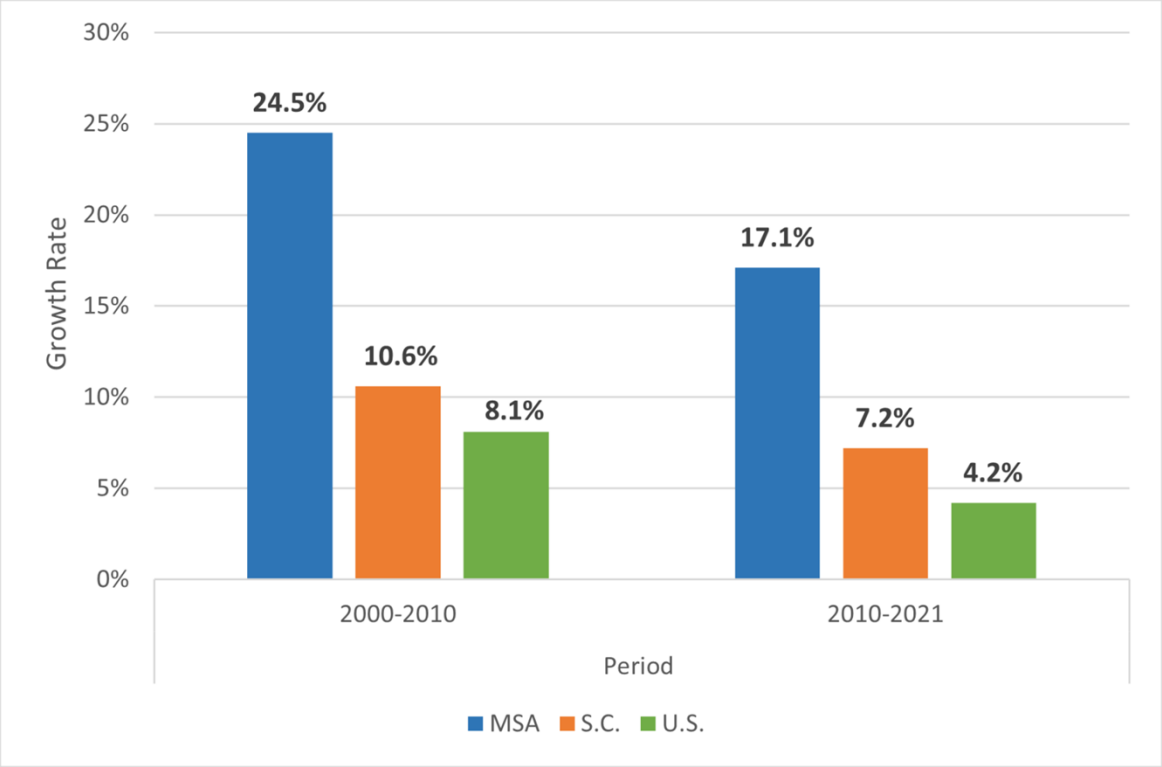
DRAFT

Figure 3.2.2: Regional (MSA), State, and National Population Increases (~~2000 2015~~ 2010 - 2020)



Source: U.S. Census Bureau.

Figure 3.2.3: Regional (MSA), State, and National Workforce Growth Rates (2000 202015)



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

DRAFT

Overall Economic Performance



The Port of Charleston

Since the inception of the Economic Development Department in 1993, business recruitment, retention, and expansion results within Charleston County have been phenomenal. Many of the most significant ~~largest~~ feats occurred within the past ten years, ~~which~~ marketing ~~d~~ the arrival and expansion of ~~by~~ The Boeing Company and the expansion of Mercedes-Benz Sprinter Vans.

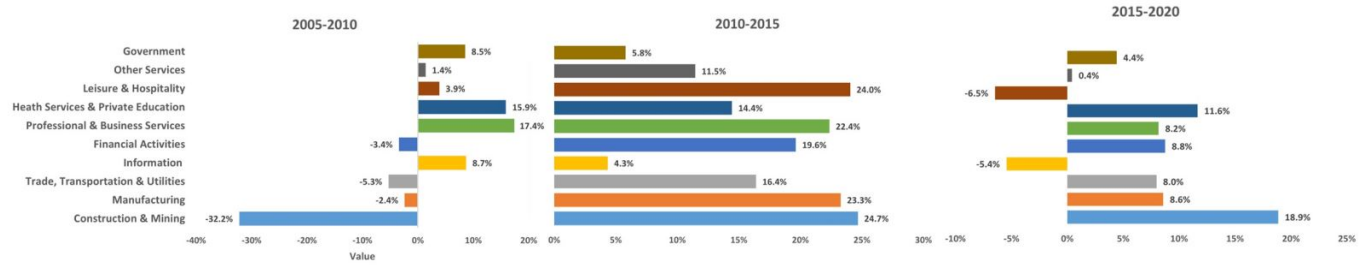
According to the S.C. Department of Commerce, from 1993 through the close of ~~2015~~ 2021, businesses in Charleston County had invested some $6.~~71~~ billion and created ~~nearly 30,000~~ more than 38,000 jobs within its boundaries. In 2021~~2015~~, Charleston County was the top county in the state for job creation and ranked in the 'Top Ten' counties for capital investment made by a wide range of companies. ~~2021 was a record-breaking year and represented a diverse company list of announcements reflective of the region's~~

~~economy. placed among the 'Top Ten' counties in South Carolina for capital investment for the 18th time and for the 15th time in 23 years for job creation. Those figures climbed higher in 2016, with an additional capital investment of $41.3 million and more than 1,100 new jobs.~~

During the five years after the Great Recession (2010 - 2015), many sectors experienced double-digit growth, as shown in Figure 3.2.4. The construction sector had a resounding recovery in residential and commercial development growth, but was plagued by a worker shortage. From 2015 to 2020, growth was substantial in many sectors, particularly construction and health services. With the onset of the COVID-19 pandemic in 2020, certain sectors, most notably the leisure and hospitality sector (6.55 contraction), took a hard hit.

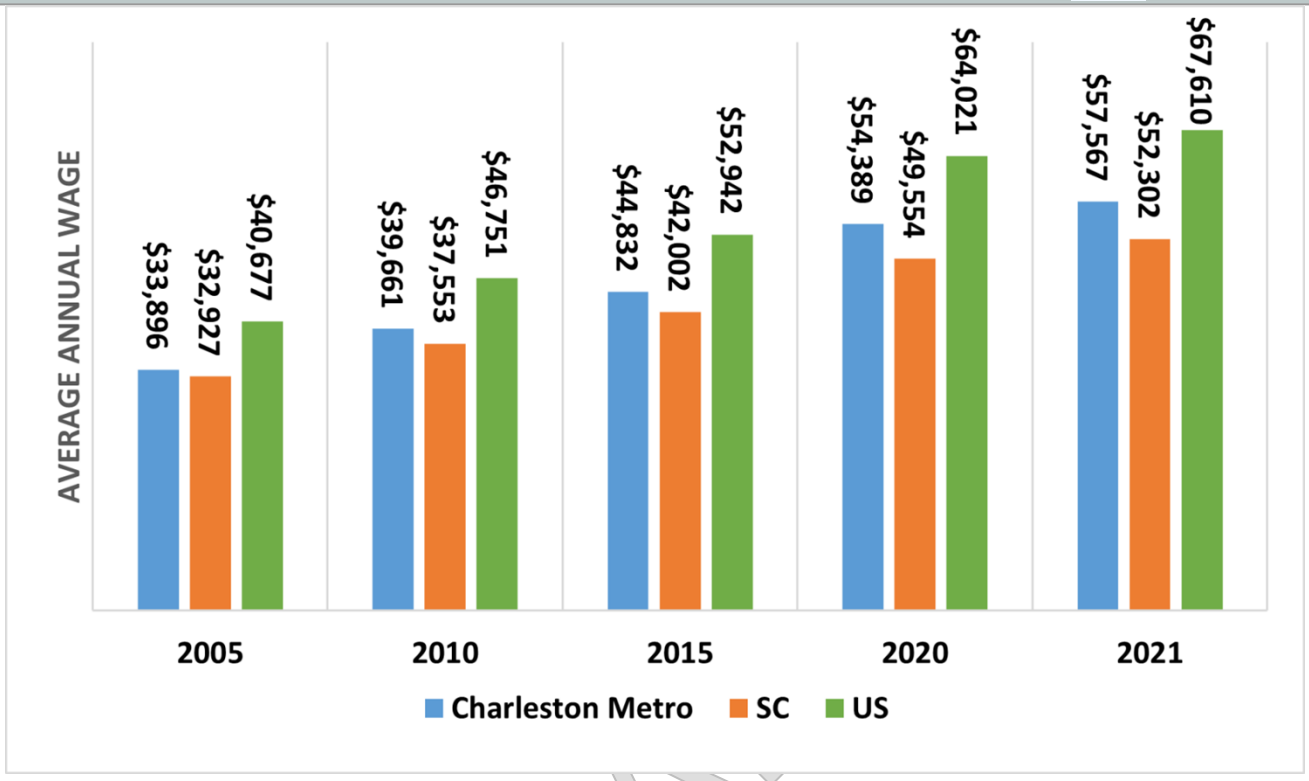
~~The past decade (2000-2010) was a roller-coaster ride for those employed in most of Charleston's economic sectors, particularly construction and manufacturing. From 2000 through 2005, all sectors expanded, with the exception of manufacturing, as shown in *Figure 3.2.4*. Once the Great Recession set in, contraction occurred in financial activities, manufacturing and trade, transportation, and utilities. The most spectacular contraction (35 percent) occurred in construction, due to the nationwide burst of the housing bubble, and the near collapse of the nation's banking and financial sector. Within the region, only health services and private education, government, leisure and hospitality,~~

Figure 3.2.4: Growth in Charleston's Economic Sectors (~~2000 2015~~ ~~2005- 2020~~)



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

Figure 3.2.5: Wage Growth in the Region, State, and Nation (2000 20~~15~~21~~)~~



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

Unemployment Rates, Average Wages, and Per Capita Income

From 2010 to 2020, the average wage in the Charleston region rose 42 percent from $39,661 to $54,389. The Charleston regional average wage continued to exceed that of South Carolina but continue to trail average U.S. wages, as shown in Figure 3.2.5. Preliminary data for 2021 has Charleston regional wages almost 15% behind U.S. wages. ~~1995, shortly after the inception of the county economic development mission, through 2015, the average wage in the Charleston region rose 93 percent from $22,568 to $43,560. By 2005 the Charleston regional average wage had surpassed that of South Carolina, and as of 2015 the gap has grown further to be about seven percent higher. Regional wages continue to trail average U.S. wages, but have narrowed the gap to represent 90 percent in 2015, as shown in Figure 3.2.5.~~ To compare wages by occupation, *Figure 3.2.8* has been included and demonstrates the median wages based on level of job experience (entry-level, median, and experienced).

Per capita income is a different and more inclusive measure than average wages; it includes ~~not only~~ wages and ~~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. ~~In 2015, it ascended to first place, posting a per capita income of $46,484 (see *Figure 3.2.6*). Recent growth trends suggest that Charleston County will maintain the top position.~~

In 2010, the County ascended to first place, posting a per capita income of $42,250 (see figure 3.2.6), and had maintained the top position posting a per capita income of $66,656 in 2020.

~~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.~~

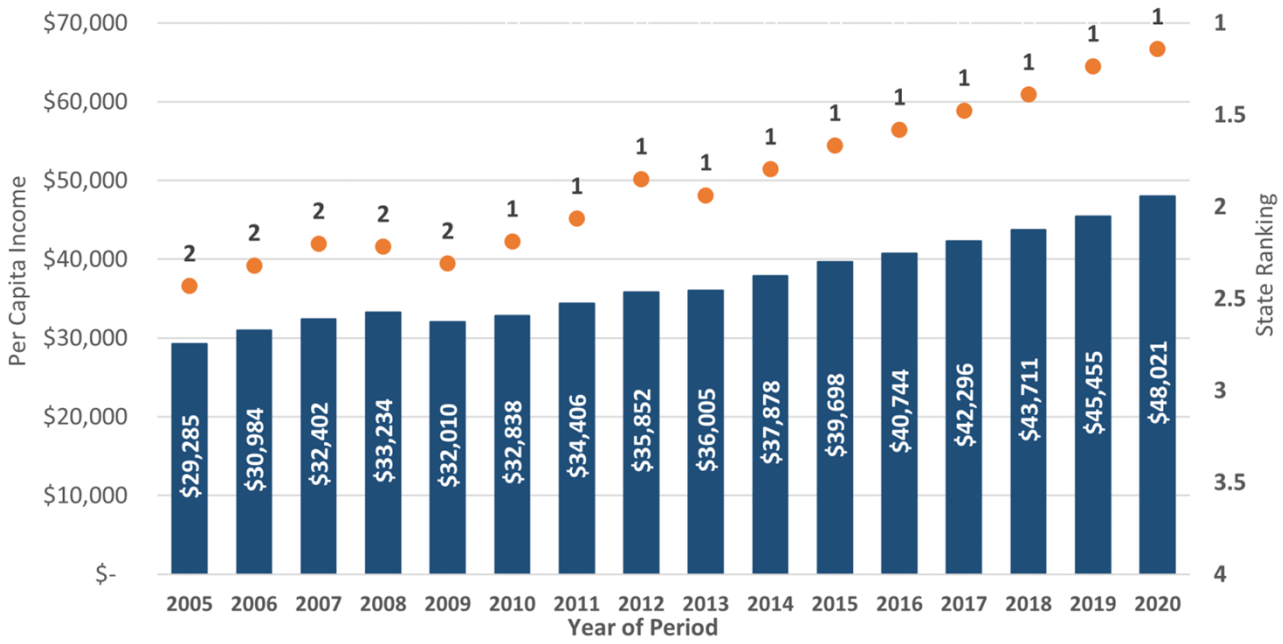
At the height of the recession in 2010, the Charleston region spiked to 9.3 percent unemployment, which was similar to the ~~again similar to the~~ national ~~trend~~ level (9.6 percent), but much lower than the state unemployment rate ~~S.C.~~ (11.2 percent). ~~In 2012, amidst a still tepid recovery, 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~~. As the recovery matured, the Charleston region experienced a significant improvement with the unemployment rate dropping to 1.5~~5.3~~ percent (September 2019) before the height of the COVID-19 pandemic when it was 11 percent (April 2020). The region rebounded quickly and experienced low unemployment numbers in 2022. *Figure 3.2.7* shows the exact unemployment rates for the Charleston region and comparative metro areas,- as well as the historical unemployment rate.

~~Economic Sector Composition~~

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

- ~~Employment in the Construction and Leisure and Hospitality sectors grew more than 20 percentage points during the first half of the decade. Many of these new jobs reflect the recovery in the housing market and increased recognition of the Charleston region as a standout travel destination. Manufacturing job growth was positive with the increased presence of original equipment manufacturers such as Boeing.~~
- ~~Employment in the Leisure and Hospitality sector grew by 23.4 percent from 2010 to 2015, 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.~~
- ~~Several new hotels are under way in downtown Charleston, as well as a growing convention trade at the Convention Center in North Charleston.~~

Figure 3.2.6: Per Capita Income Ranking of Charleston County Compared to Other SC Counties (~~2000 2015~~2005-2020~~)~~



Sources: S.C. Department of Commerce and US Department of Labor, Bureau of Labor Statistics. Note: The Blue bars in the chart represent South Carolina's per capita income for each indicated year. The orange circles in the chart illustrate Charleston County's per capita income for each indicated year; the number above ~~below~~ each orange circle indicates Charleston County's per capita income ranking among SC Counties for that year. The Department of Labor per capita income relates personal income to measures of production, including GDP, and is considered an indicator of consumer spending.

Figure 3.2.7: Unemployment Rates in Charleston County and Comparative Metro Areas (April 2022 ~~December 2015~~) & Historical Unemployment Rate (2000-202215~~)~~

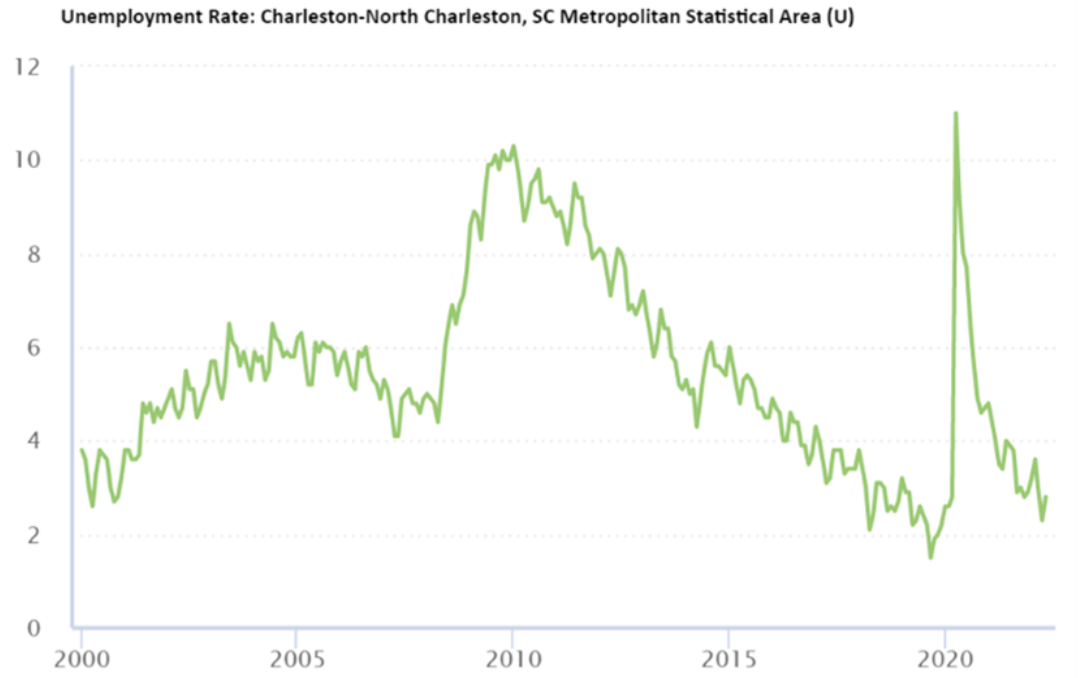
Metro Area	Labor Force	Employment	Unemployment	Unemployment Rate
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	~~2,608,301~~ 3,383,737	~~2,503,699~~ 3,282, 257	101,480 ~~4,602~~	34.0%
Boston-Cambridge-Newton ~~Nashua~~, MA-NH MSA	2,~~619,817~~711,349	2,~~513,928~~631,509	~~105,889~~79,840	4.02.9%
Wichita, KS MSA	314~~,255~~8,703	301~~,586~~10,329	~~12,669~~8,734	4.0~~-~~2.6%
Orlando-Kissimmee-Sanford, FL MSA	1,~~230,194~~378,970	1,~~176,170~~342,736	~~54,024~~36,234	4.4~~-~~2.6%
New York-Newark-Jersey City, NY-NJ-PA MSA	~~10,117,972~~9,595,956	9,~~667,143~~186,026	4~~50,829~~09,930	4.~~5~~3%

Figure 3.2.7: Unemployment Rates in Charleston County and Comparative Metro Areas (April 2022 ~~December 2015~~) & Historical Unemployment Rate (2000-202215)				
Metro Area	**Labor Force**	**Employment**	**Unemployment**	**Unemployment Rate**
Charleston-N Charleston SC MSA	**407,340 ~~359,430~~**	**397, 760~~43,150~~**	**~~16,280~~9,580**	**~~4.5~~ 2.4%**
Jacksonville, FL MSA	~~727,592~~ 819,513	~~694,899~~ 801,293	~~32,693~~ 18, 220	~~4.5~~ 2.2%
Durham-Chapel Hill, NC MSA	~~280,802~~351, 322	341,538 ~~267,931~~	~~12,871~~ 9,784	~~4.6~~ 2.8%
Greenville-Anderson~~-Mauldin~~, SC MSA	~~416,386~~ 441,621	~~397,320~~ 431,532	~~19,066~~ 10,089	~~4.6~~ 2.3%
San Diego-Chula Vista-Carlsbad, CA MSA	1,5~~68,308~~75,086	1,~~493,296~~527, 467	~~75,012~~ 47,619	~~4.8~~3.0%
Atlanta-Sandy Springs-Alpharetta ~~Roswell~~ GA MSA	~~2,854,426~~3, 200,031	~~2,716,023~~3,122,644	~~138,403~~ 77,387	~~4.8~~2.4%
Charlotte-Concord-Gastonia, NC-SC MSA	1,~~241,056~~41 5,031	1,~~180,108~~369, 223	~~60,948~~ 45,808	~~4.9~~3.2%
Savannah, GA MSA	~~177,052~~ 200,607	1~~68,410~~95,805	~~8,642~~ 4,802	~~4.9~~2.4%
Seattle-Tacoma-Bellevue, WA MSA	~~1,983,893~~ 2, 237, 705	~~1,884,635~~2,179,428	~~99,258~~ 58,277	~~5.0~~ 2.6 %
Huntsville, AL MSA	2~~10,345~~ 43, 587	~~199,598~~239, 639	~~10,747~~3,948	~~5.1~~1.6%

DRAFT

Figure 3.2.7: Unemployment Rates in Charleston County and Comparative Metro Areas (April 2022 ~~December 2015~~) & Historical Unemployment Rate (2000-2022~~15~~)

Metro Area	Labor Force	Employment	Unemployment	Unemployment Rate



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

Recent Economic Indicators

The recent economic indicators for the Charleston region highlight ~~shine light on~~ significant economic engines. The Port of Charleston continues to trend ~~in a~~ positively, ~~direction,~~ increasing its annual tonnage during the fiscal year 2021 ~~2015~~ to 2.5~~1.9~~ million twenty-foot equivalent units (TEUs). The port is experiencing record-breaking volume as the global pandemic impacted consumers' buying habits, shifting from services and travel to retail and home goods. ~~has returned to its pre-recession volume levels (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, driven by pandemic-induced changes to housing needs and preferences~~.~~ The 24,294 ~~16,218~~ sales registered during ~~2015~~2021 represented a strong seller's market. ~~steady progress~~. ~~Likewise, the~~ The median value of a home in 2021 was ~~during 2015~~ was $350,000, representing a 16.7% increase from the prior year. ~~$243,200~~. ~~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 100 percent during the past decade, from $12.9 billion in 2001 to $26.6 billion in 2015. 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.~~ Retail sales have steadily declined since reaching a peak in 2016 at $36.2 billion, but remain relatively strong due to the visitor industry and air travel. According to the SC Department of Revenue, the Charleston region collected $27 billion in retail sales.

Priority Industries and Local Advantages

The Charleston region has for many years been anchored by five ~~four~~ economic engines: the Port of Charleston; the medical sector; the military; the manufacturing sector; and the tourism industry. These engines remain very viable today, in part due to the concentration of higher education institutions in the area, as described below, but are now augmented by several recent 'game changers.'

The Port of Charleston

The Port of Charleston serves every key ocean carrier, offering service to about 150 countries spread across every continent, generating a $63.4 billion economic impact ~~over $40 billion in revenue~~ for South Carolina. This is a massive draw for exporting manufacturers, and many of those ~~huge draw for exporting manufacturers, and many of those located~~ across the Southeast utilize the Port. It is recognized for its world-class intermodal facilities and industry-leading efficiency.

The South Carolina Port Authority (SCPA) has recently invested $2 billion in infrastructure projects. A priority project is the Charleston Harbor Deepening, yielding the deepest harbor on the East Coast. ~~priority project is Charleston's Post -45 Harbor Deepening~~. According to the SCPA, "The 52- foot depth enables mega container ships to call on the Port of Charleston any time, any tide. The Charleston Harbor Deepening Project is crucial to SC Ports remaining globally competitive as record cargo volumes, and bigger ships continue to flow through the Port of Charleston. The deepening project is projected to be completed by 2022. ~~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 52 feet will open the port to handling larger post-Panamax container ships 24 hours a day.~~" ~~The deepening is projected to be completed by 2020. Now under construction,~~ ~~the~~ Phase I of the Hugh Leatherman, Sr. Terminal ~~is slated for completion by 2019~~ opened in March 2021, making history as the nation's newest container terminal in over 10 years. At completion, the terminal is expected to double Charleston's total container capacity. The new terminal, coupled with multiple rail enhancements, including the planned Navy Base Intermodal Transfer Facility, will help to augment the success of the new port terminal. ~~. This facility is designed 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 Charleston cruise ~~industry~~ market was suspended from March 2020 to January 2022 due to the COVID-19 pandemic. The cruise business has an estimated $131 million annual impact on the Charleston market, according to a 2016 report by the Cruise Lines International Association. Carnival Cruise offers cruises between Charleston and ports in the Bahamas, Bermuda, and the Caribbean, ranging from two to 10 days. In the previous fiscal year, with service suspension in March 2020, the SCPA saw 217,673 cruise passengers. ~~is another facet that is in demand. In 2015 Charleston handled 96 port calls from 22 cruise ships. Between port of call and embarkations, passenger counts exceeded 201,000 in 2015.~~

The Medical & Live Sciences Sector

~~The Medical University of South Carolina (MUSC) is a major employer in Charleston County, along with the Roper/St. Francis, Columbia/HCA, Tenet Healthcare hospital systems. Along with several pharmaceutical operations, these employers drive the growing Charleston medical sector. With its growing medical research activity, MUSC is a catalyst for medical discoveries and has erected the Research Innovation Center in downtown Charleston, which provides space for entrepreneurs to develop their science for commercial application.~~ The state's teaching hospital anchors the health care industry, the Medical University of South Carolina (MUSC), which attracted more then $284 million in research funding in the fiscal year 2019. Most of the medical industry employment currently exists in Charleston's seven area hospitals - five private regional hospitals, MUSC, and the Ralph H. Johnson VA Medical Center. Charleston is garnering international recognition as an emerging biomedical market. The Medical University of South Carolina's world-class research is key to this region becoming a globally competitive location for biomedical business and talent. Charleston is home to more than 75 medical device and pharmaceutical manufacturers, research laboratories, and service companies. Furthermore, the Foundation for Research Development is paving the way for investors, industry, and entrepreneurs to collaborate. WestEdge, a proposed 60-acre planned development near MUSC, is touted as a 'Discovery District,' providing opportunities for collaboration between the Medical University and private industry. The 160,000 square foot office building at 22 WestEdge opened in 2020.

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. Joint Base Charleston remains the single largest employer in the region, employing 22,000 uniformed, civilian, and reservist personnel located within the Naval Weapons Station, the Navy Nuclear Power Training School, and Naval Information Warfare Center (NIWC). Joint Base Charleston is home to the 437th Airlift Wing and its squadrons of C-17 transport planes, the 628th Air Base Wing, and the 315th Airlift Wing (the reserve unit). These planes play a vital role in carrying supplies to active-duty troops stationed all over the world.

Naval Information Warfare Center (NIWC) is one of the Navy's only two cyber mission engineering centers. ~~Over 23,000 local jobs are provided by the 457th Airlift Command adjacent to the 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 and Department of State.~~

~~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 ground forces in Afghanistan.~~ The facility employs more than 4,900 employees, including civil servants and military personnel - of those, almost 3,200 reside in the region. Meanwhile, the importance of Charleston to the Coast Guard and its mission continues to grow, as plans see a "super base" supporting five National Security Cutters by 2024. ~~over 2,600 Civil Service employees with an average salary of $87,000 and supports an estimated 100 defense contractors operating in the region, which employ an estimated 12,000 employees. Overall, SPAWAR supports over 31,000 jobs in South Carolina who contribute over $1.7 billion in annual labor income. SPAWAR's estimated impact on South Carolina's economy is estimated at $3.7 billion.~~



Medical University of South Carolina (MUSC)

Manufacturing Sector

The aerospace and automotive sectors are the foundation for the region's advanced manufacturing industry. The Boeing Company and Mercedes-Benz Vans employ more than 7, 300 people in the area. Local operations for the two OEMs (Original Equipment Manufacturers) support multiple tier one and tier two aerospace and automotive suppliers. Since its landing in 2011, The Boeing Company has opened six facilities and business units in Charleston County. The ~~Boeing~~ South Carolina site exclusively builds all three versions of the 787 jet. The automotive sector has settled into a new realm in the region with the completion of the Mercedes-Benz Vans' 1.1 million square foot Sprinter Van manufacturing facility in Palmetto Commerce Park. More than 1,700 people have been hired to run the expanded facility. In April 2021, Mercedes-Benz Vans announced that it would build its next-generation eSprinter ~~e~~van in three locations worldwide, with the North Charleston plant being one of the locations.

The Tourism Industry

After shrinking by a third during the first year of the COVID-19 pandemic, the tourism industry regained footing and exceeded $10 billion in economic impact for the first time in 2021. Overall visitation was slightly lower then the pre-pandemic level in 2019, with 7.23 million in 2021. Hotel room rates are reaching record highs, with an average daily rate of $167, compared to $155 in 2019. ~~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 hotel room rates during 2009-10, but this was a 'blip' on an otherwise favorable radar. Hoteliers have seen the occupancy rate bounce back and continually post new records. In 2015 the average room rate moved to $143.75, surpassing historical averages.~~ The forecast by the College of Charleston Office of Tourism Analysis ~~Management~~ is for continued good fortune, as group and conference travel returns, special events occur, and Charleston international Airport adds new flights. ~~stability in occupancy and growth in average daily rates during 2016 and 2017. 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 4,000 new rooms.~~

Higher Education Institutions

A significant local advantage that attracts economic development in the region is the concentration of higher education institutions, many of which are public (e.g., The Citadel, College of Charleston, Medical University of South Carolina and Trident Technical College). The four largest public institutions alone employ approximately 28,000 faculty members, staff, and medical professionals and educate approximately 38,170 students, according to 2020 data on CharlestonRegionalData.com. The economic activity generated by these institutions, along with their contributions to the local employee base and opportunities for workforce training, assist in the attraction and retention of new industries and businesses. In addition to the four public institutions, more than two dozen private colleges and universities contribute to the local economy. ~~A significant local advantage that attracts economic development in the region is the concentration of higher education institutions, many of which are public (e.g. The Citadel, College of Charleston, Medical University of South Carolina, and Trident Technical College). The four largest public institutions alone employ approximately 16,000 faculty members, staff, and medical professionals and educate approximately 33,000 students, according to a 2012 report by the Charleston Regional Development Alliance (CRDA). The CRDA analyzed the economic impact of these four public institutions on the regional economy, and found that they, along with associated activities, generate an annual economic impact of $4.4 billion in business activity, 41,000 jobs, and $2.1 billion in labor income. The economic activity generated by these institutions, along with their contributions to the local employee base and opportunities for workforce training, assist in the attraction and retention of new industries and businesses. In addition to the four public institutions, there are more than two dozen private colleges and universities who also contribute to the local economy.~~

Recent Economic 'Game Changers'

Several developments ~~occurring~~ in the Charleston economy during the past five years have created business advantages for the region as described below.

Discount Air Carriers

Air traffic at the Charleston International Airport quickly returned to record-breaking volume since the first year of the COVID-19 pandemic. The number of travelers passing through the Charleston International Airport climbed above 4 million in 2021 with a higher number expected for 2022. The airport has been ~~has increased 69 percent since 2010,~~ energized in recent years by by introducing discount air carriers such as Breeze Airways and Sun Country Airlines and adding multiple seasonal nonstop flights, reaching a total of 50 nonstop destinations in 2022. ~~the introduction of discount air carriers Southwest and JetBlue, a vibrant tourism industry, and growth in aerospace manufacturing.~~

~~The Aerospace Sector~~

~~With the announcement that Boeing had selected North Charleston as its second 787 Assembly site in 2009, the economic landscape of the Charleston region was transformed, as Boeing's influence has led to substantial growth in the aerospace sector locally. Since 2009, Boeing has opened six facilities and business units and expanded the 787 program to include the 787-9 and 787-10. Boeing's workforce of 7,600 employees continues to make an imprint in the Charleston Technology sector. The company opened two Centers of Excellence IT and Engineering and a new Boeing research and technology center. Over 1,500 positions will be staffed by high tech knowledge workers, further complementing the homegrown technology and aerospace sector growth the Charleston area has been experiencing.~~

~~The increased growth in not only the aerospace but also the automotive industries have increased the need for specialized training facilities that can equip the existing workforce with the right skill set. Trident Technical College is constructing the SC Aeronautical Training Center for this purpose. The $79.3 million, 224,000-square-foot new facility, funded by federal, state, local, and private sources, is expected to be completed in 2019. The facility will train students in subjects including aircraft assembly/maintenance, composite materials, avionics, mechatronics, robotics/automation, and additive manufacturing.~~

~~Clemson University Energy Innovation Facility~~

DRAFT

~~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 drivetrain systems for wind turbines with 7.5 MW and a 15 MW test bay. This technology will pave the way for future energy innovation.~~



The Boeing Company, North Charleston, SC

~~The Zucker Family Graduate Center is a new addition to the CURI campus. The $21.5 million, 70,000 square foot, state-of-the-art facility, opened in the fall of 2016. The center is anticipated to contribute greatly to the state's engineering landscape, as it allows industry representatives the opportunity to engage and collaborate with faculty, students, and researchers.~~



Clemson University Energy Innovation Facility

Technology Sector Growth

"Home-grown" information technology and high tech firms have experienced exponential growth ~~over the years~~. The Charleston area also hosts numerous firms included in the Inc. 5000 list of "America's Fastest-Growing Private Companies." ~~fastest-growing companies.~~ Charleston County's continued support of the Charleston Digital Corridor has been beneficial in showcasing firms where tech talent can thrive and has been instrumental in helping establish the Charleston region as a technology center. The Charleston Digital Corridor recently opened its third "Flagship" facility, a tech-focused incubator. The operation is housed in the new Charleston Tech Center, a 92,000-square-foot Class A office tower created to bring together tech companies in all phases of development. The popularity of annual events like DIG South, which draws the brightest tech minds from all over the country to the area for a time of idea generation and collaboration, represents an undeniable expansion in entrepreneurial resources and interest in Charleston County's high-tech sector. ~~Additionally, incubator facilities or Flagships have been established to provide co-working space for emerging knowledge-based companies.~~

~~***Automotive Sector Growth***~~

DRAFT

~~The landscape of the local automotive industry is being transformed; Mercedes-Benz is expanding its existing facility in Charleston County to transition from an assembly operation to complete manufacturing; and Volvo is building its first plant in the US in Berkeley County. These two projects represent about $1 billion in capital investment and more than 3,300 additional jobs in the region. The expansion has also increased interest of various key auto suppliers.~~

Recent Accolades

The number and diversity of accolades garnered by the Charleston County area are a continuing testament to its status as a "boom town." These include everything from manufacturing growth to entrepreneurial success, to being a ~~and from~~ leading visitor destination to an award-winning culinary town. Some recent accolades and rankings received in 2021 ~~2015~~ include being recognized as:

- ~~2nd~~1st in the State for Job Creation;
- ~~2nd~~9th ~~-~~in the State for Capital Investment;
- 2nd Best Small City in the US by Conde Nast Traveler;
- Best US City by Travel + Leisure and; ~~and~~
- South's Best City by Southern Living Magazine ~~The #1 Travel Destination in North America (as determined by *Travel + Leisure*)~~.

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) and ongoing operating costs (lease, electricity, wages) are very attractive. *Figure 3.2.8* demonstrates the region's wages and *Figure 3.2.9* demonstrates the cost of living comparison against similar metro areas.

Figure 3.2.8: Median Wages for Different Levels of Experience by Occupational Field, Charleston Metropolitan Statistical Area (MSA), (202015)

Occupational Field	Median Wage for Entry Level	Median Wage for Median Level	Median Wage for Experienced Level
Architecture and Engineering	$48,800 ~~44,430~~	$77,200 ~~2,030~~	$~~88,470~~98, 500
Arts, Design, Entertainment, Sports, and Media	$2~~3,110~~5, 800	$ 47, 500 ~~37,110~~	$66,800 ~~53,020~~
Building and Grounds Cleaning and Maintenance	$19, 600 ~~6,880~~	$26, 300~~1,230~~	$33, 500 ~~26,960~~
Business and Financial Operations	$~~43~~6,100	$67, 400 ~~59,360~~	$89, 400 ~~79,240~~
Community and Social Services	$29, 700 ~~8,060~~	$4~~1,560~~6, 000	$63, 000~~54,070~~
Computer and Mathematical	$4~~4,960~~6, 500	$7~~1,910~~8, 400	$99, 200 ~~89,840~~
Construction and Extraction	$29, 300 ~~3,930~~	$41, 400 ~~35,890~~	$~~46,510~~55, 200

Figure 3.2.8: Median Wages for Different Levels of Experience by Occupational Field, Charleston Metropolitan Statistical Area (MSA), (202015)			
Occupational Field	**Median Wage for Entry Level**	**Median Wage for Median Level**	**Median Wage for Experienced Level**
Education, Training, and Library	$25, 500 ~~24,210~~	$48, 500 ~~7,210~~	$63, 500 ~~1,640~~
Farming, Fishing, and Forestry	$21, 700 ~~22,380~~	$32, 600 ~~1,830~~	$42, 700 ~~39,910~~
Food Preparation and Serving Related	$17,400 ~~000~~	$21, 600 ~~19,140~~	$24~~,390~~28, 800
Healthcare Practitioners and Technical	$~~36,590~~40, 500	$65, 700 ~~60,730~~	$106, 900 ~~88,770~~
Healthcare Support	$22, 400 ~~19,720~~	$30, 700 ~~26,820~~	$37, 600~~2,830~~
Installation, Maintenance, and Repair	$30, 200 ~~26,780~~	$47, 200 ~~1,950~~	$53~~,300~~8, 600
Legal	$30, 100 ~~3,390~~	$ 57, 700 ~~49,610~~	$113, 400 ~~81,430~~
Life, Physical, and Social Science	$38~~2~~,900	$63, 700 ~~55,580~~	$86, 100 ~~75,230~~
Management	$58, 800 ~~47,630~~	$103, 600 ~~86,340~~	$149,000 ~~23,450~~
Office and Administrative Support	$21~~,700~~5, 300	$37,000 ~~1,820~~	$41~~,590~~6, 500
Personal Care and Service	$17~~,000~~8, 100	$25, 300 ~~0,380~~	$~~27,290~~39, 100
Production	$24~~,460~~6, 800	$~~37,960~~41, 100	$~~49,270~~54, 500
Protective Service	$25, 400 ~~2,150~~	$40, 800 ~~35,500~~	$~~45,300~~53, 200
Sales and Related	$~~17,030~~20, 600	$~~22,400~~29, 500	$50, 200 ~~39,140~~
Transportation and Material Moving	$~~19,500~~20 ,900	$~~29,490~~30, 200	$40~~,980~~1, 200
Source: Bureau of Labor Statistics, SC Department of Employment and Workforce.			

Figure 3.2.9: Cost of Living Comparison (2021)						
State	**Urban Area**	**Composite Index**	**Housing**	**Utilities**	**Transportation**	**Home Price**
New York	New York (Manhattan) NY	240.0	528.6	101.5	127.2	$2,324,171
District of Columbia	Washington-Arlington-Alexandria DC-VA	154.6	257.9	109.6	103.1	$1,033,401
Washington	Seattle WA	151.9	213.3	108.2	137.9	$830,897

Figure 3.2.9: Cost of Living Comparison (2021)						
State	Urban Area	Composite Index	Housing	Utilities	Transportation	Home Price
Massachusetts	Boston MA	150.0	225.1	125.1	107.0	$799,756
California	San Diego CA	145.7	220.9	121.8	136.8	$879,988
North Carolina	Durham-Chapel Hill NC	105.9	121.3	89.7	96.9	$507,366
Georgia	Atlanta GA	104.3	110.8	84.1	100.3	$437,523
Texas	Austin TX	101.3	113.3	95.8	88.6	$444,711
South Carolina	**Charleston-N Charleston SC**	**99.8**	**100.7**	**118.5**	**94.8**	**$373,955**
Florida	Orlando FL	98.0	94.4	95.4	100.3	$384,122
North Carolina	Charlotte NC	96.4	83.5	93.5	96.2	$278,617
Tennessee	Nashville-Murfreesboro TN	96.1	93.3	93.8	99.3	$384,134
Florida	Jacksonville FL	94.1	87.4	97.2	86.4	$307,441
South Carolina	Greenville SC	91.0	71.7	93.8	97.6	$266,710
Kansas	Wichita KS	89.8	68.1	98.6	95.5	$264,886
Alabama	Huntsville AL	88.6	68.2	95.8	89.3	$278,366
Georgia	Savannah GA	88.1	66.0	93.1	96.5	$235,172
Source: Cost of Living Index, 2021 C2ER.org						

DRAFT

~~Figure 3.2.9: Cost of Living Comparison (2016)~~						
~~State~~	~~Urban Area~~	~~Composite Index~~	~~Housing~~	~~Utilities~~	~~Transportation~~	~~Home Price~~
~~New York~~	~~New York (Manhattan) NY~~	~~227.8~~	~~464.5~~	~~127.3~~	~~133.7~~	~~$1,621,965~~
~~District of Columbia~~	~~Washington-Arlington-Alexandria DC-VA~~	~~149.0~~	~~233.8~~	~~118.9~~	~~104.3~~	~~$795,377~~

Figure 3.2.9: Cost of Living Comparison (2016)						
State	Urban Area	Composite Index	Housing	Utilities	Transportation	Home Price
Massachusetts	Boston MA	147.9	200.8	158.2	112.6	$576,189
Washington	Seattle WA	144.9	179.2	123.2	138.8	$563,432
California	San Diego CA	144.2	234.8	112.8	131.5	$784,742
South Carolina	**Charleston-N Charleston SC**	**103.9**	**97.7**	**123.9**	**93.1**	**$291,158**
Georgia	Atlanta GA	98.7	88.3	103.5	101.8	$268,462
Florida	Jacksonville FL	95.7	84.9	110.3	100.3	$242,605
North Carolina	Charlotte NC	94.7	84.9	92.1	96.9	$252,972
Florida	Orlando FL	94.1	90.1	98.0	98.1	$276,812
South Carolina	Greenville SC	93.6	78.2	100.4	92.9	$233,855
Georgia	Fayetteville-Fayette County GA	93.1	78.2	83.1	90.8	$225,198
Alabama	Huntsville AL	92.1	69.3	102.9	95.1	$214,739
Kansas	Wichita KS	91.7	70.4	110.2	101.4	$231,316
Georgia	Savannah GA	90.3	66.03	110.6	97.8	$202,006
North Carolina	Durham NC	88.4	71.9	88.7	100.8	$220,407
Source: Cost of Living Index, 2016 C2ER.org.						

The state and local tax climate provides a competitive advantage, as South Carolina features one of the lowest corporate income taxes in the nation (five percent before credits and incentives) and Charleston's sales and use tax is 8.5 percent.

Additionally, South Carolina has enacted a variety of financial incentives for businesses to promote the creation of new jobs and leverage new capital investment. These incentives 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. *Reference Box 3.2.1: Regulatory Incentives and Grants* further details these programs. Lastly, several support programs are available to businesses to recruit and train their workforce. Several workforce training programs exist, including, but not limited to ReadySC, a statewide workforce training program that offers customized recruitment, assessment, training development, management, and implementation services to businesses relocating to or expanding in South Carolina; and SC Works Trident, under the Federal Workforce Investment Act (WIA), offers 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.

Figure 3.2.10: Wage Comparisons (202015)

Area Name	Hourly Mean Wage	Annual Mean Wage
Washington-Arlington-Alexandria, DC-VA-MD-WV	$35.701.69	$74,20065,915
Boston-Cambridge-Nashua, MA-NH	$29.8434.53	$62,06771,800
New York-Newark-Jersey City, NY-NJ-PA	$28.8434.03	$59,98770,700
Seattle-Tacoma-Bellevue, WA	$28.334.69	$72,10059,051
Durham-Chapel Hill, NC MSA	$29.4627.39	$56,97161,300
San Diego-Carlsbad, CA MSA	$26.0630.69	$63, 80054,205
Huntsville, AL MSA	$26.735.30	$52,6245,600
Atlanta-Sandy Springs-Roswell, GA MA	$23.766.39	$49,42154,900
Charlotte-Concord-Gastonia, NC-SC MSA	$23.2525.85	$48,36053,700
Charleston-N Charleston SC MSA	$20.944.23	$43,55550, 400
Jacksonville, FL MSA	$20.894.01	$49,9003,451
Savannah, GA MSA	$20.772.57	$43,2026,900
Wichita, KS MSA	$20.383.15	$42,3908,100
Orlando-Kissimmee-Sanford, FL MSA	$19.9323.19	$41,4548,200
Greenville-Anderson-Mauldin, SC MSA	$19.7222.66	$41,01887,100

Source: U.S. Department of Labor, Bureau of Labor Statistics.
**Note: Annual wages have been calculated by multiplying the ~~c~~ r 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.*

Reference Box 3.2.1: Regulatory Incentives and Grants

Statutory Incentives

These require no negotiation with state or local governments and are claimed automatically by a company when statutory requirements are met. The SC Department of Revenue administers these incentives, which include: five-year property tax abatement; sales tax exemptions; jobs tax credit; corporate headquarters credit; and research and development credit.

Discretionary Incentives

These 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. They ~~and~~ are typically driven by the meeting of specific ~~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~~ that 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. This~~,~~ ~~an~~ incentive which derives from a portion of the state's employee tax withholding. After the S.C. Coordinating Council approves 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 every quarter ~~on a quarterly basis~~ over 10 years. ~~a ten-year period~~.

Grants

These 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. They ~~and~~ are typically driven by the meeting of specific ~~certain~~ capital investment, job creation, or average annual salary benchmarks. Examples of grants include: Set-Aside grants; Closing Fund grants; ED Fund grants; and Utility Tax Credit (UTC) grants.

3.2.3: ECONOMIC DEVELOPMENT ELEMENT GOAL

Economic Development Element Needs

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

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.

- A unified economic development vision for the Charleston Region;
- Fostering a stable and competitive business climate;
- Encouraging connected, equitable strategies to help foster economic success for all businesses; 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

DRAFT

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.

ED1. Continue to ~~E~~encourage and support local and regional initiatives and strategies (such as One Region: Opportunity for All) to maintain and improve the business climate.

ED2. Continue to encourage and support Charleston County Economic Development's Strategic Plan and its core business recruitment and expansion programs, industrial and office product development, workforce development, and foster a robust innovation and entrepreneurship ecosystem.

ED3. Continue to ~~E~~encourage mixed-use developments with employment opportunities in proximity to neighborhoods and public transportation.

ED4. Continue to encourage and s~~S~~upport incentives for underutilized commercial centers for redevelopment and re-use that allow for mixtures of residential and non-residential uses.

ED5. Continue to ~~E~~encourage agri-tourism, ecotourism, and other employment opportunities in the Rural Area.

ED6. Continue to ~~P~~promote the preservation and creation of high quality, affordable housing to attract and retain businesses.

ED7. Continue to promote the development and maintenance of all infrastructure that supports economic development activities through capital improvement plans and coordinated priority investment.

ED8. Continue to ~~E~~encourage cooperation with other jurisdictions and agencies to further regional economic development.

ED9. Encourage the recruitment of businesses and industries that pay the wages necessary to afford housing, and train residents to obtain higher paying jobs through coordination with the Charleston Regional Development Alliance (CRDA), SCWorks - Trident, and local Economic Development Departments.

ED10. Support multi-county industrial parks, tax increment financing districts, and other economic development tools to provide funding for development of affordable and workforce housing.

CHAPTER 3.3 NATURAL RESOURCES ELEMENT

Contents:

3.3.1: OVERVIEW
3.3.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.3.3: NATURAL RESOURCES ELEMENT GOAL
3.3.4: NATURAL RESOURCES ELEMENT STRATEGIES AND TIME FRAMES

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.

Element Goal

To preserve, enhance, and revitalize natural resources, such as rivers, creeks, fresh and saltwater wetlands, aquatic and wildlife habitat, beaches and dunes, groundwater, forests, farmland soils, and air quality and take actions to mitigate potential negative impacts of growth and development.

DRAFT

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, renamed as the Energy and Sustainability Element with the adoption of the Five-Year Review of the Plan in [add date here]. The Energy and Sustainability Element ~~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.



DRAFT

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 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 67 percent of the County is in a FEMA flood hazard area.~~ The buildable portions of the Special Flood Hazard Area cover 45% of the County as of the 2021 FEMA map update. 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 2017, preliminary flood maps produced through a partnership between Charleston County Government, the South Carolina Department of Natural Resources (SCDNR), and FEMA were shared with the public for commenting. Charleston County Building Inspection Services carried out a public information campaign to answer citizens' questions about the preliminary maps. ~~The maps are subject to review and approval by FEMA, and they are currently scheduled to be implemented in December 2018 (subject to change).~~ The newest maps were approved and adopted by Charleston County on January 29, 2021.

DRAFT

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). The Homeowner Flood Insurance Affordability Act of 2014 modifies provisions of the Biggert-Waters Act and additional program changes to aspects of the 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*, a community-wide effort consisting of input from 31 local jurisdictions that was originally adopted in 1999. These jurisdictions include 16 local government entities working alongside major stakeholders in the community, including private, non-profit, and state organizations, in addition to smaller community commissions and districts. The combined effort of all of these jurisdictions composes a regional, multi-jurisdictional mitigation plan that takes into account all visions of what concentrated efforts should be placed on specific hazards and mitigation measures. The Hazard Mitigation Plan is updated annually to address specific needs and changes in the area, and it is adopted by all participating jurisdictions on a five-year cycle. The latest Plan was adopted by County Council in ~~2017~~ July 2022.

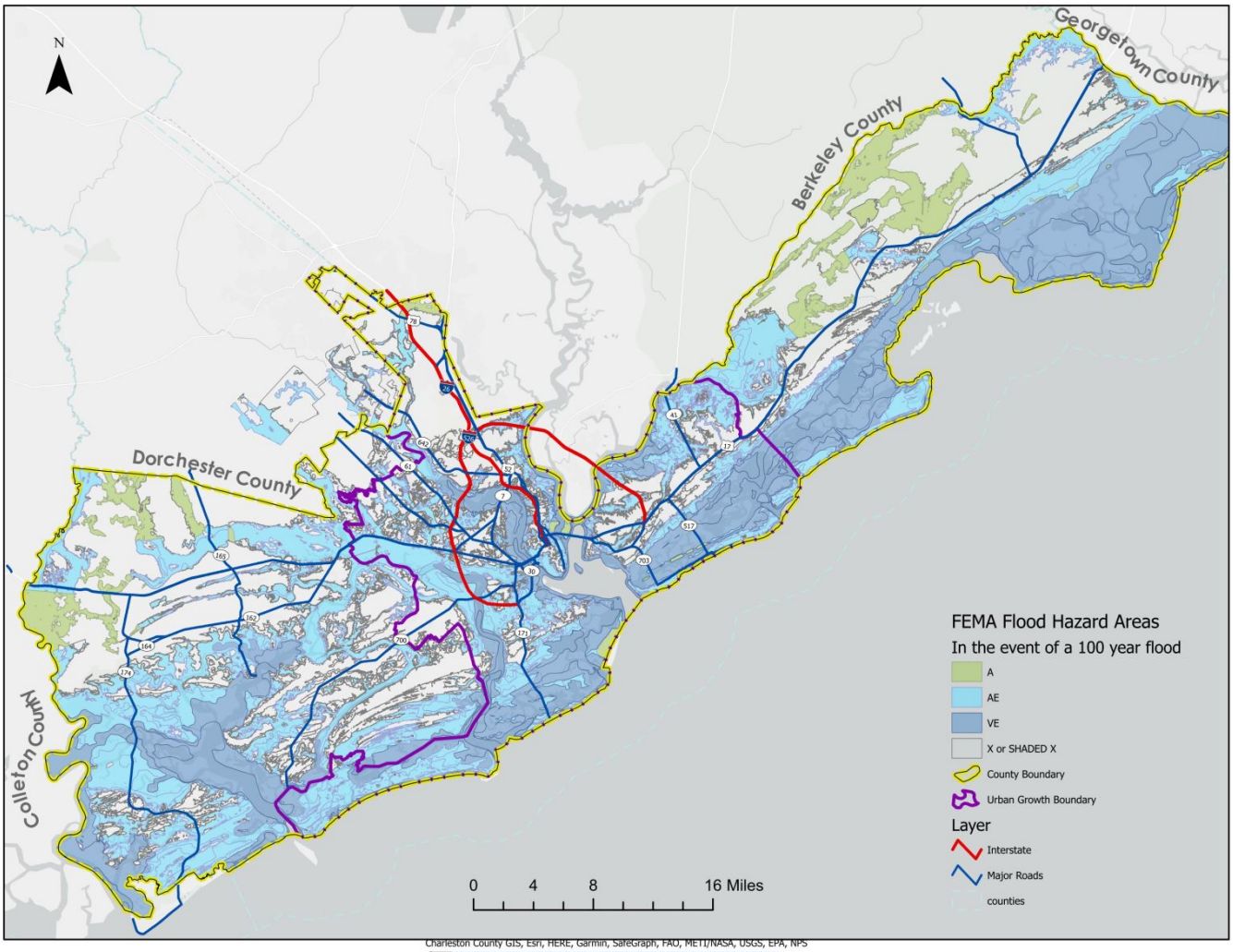
Critical Areas

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. The *Charleston County Zoning and Land Development Regulations Ordinance* (ZLDR) includes waterfront development standards to protect these important areas.

~~**Map 3.3.1: Federal Emergency Management Agency (FEMA) Flood Maps, 2014**~~

Map 3.3.1 Charleston County FEMA Flood Hazard Areas

DRAFT



Map dated January 27, 2023

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

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 3.3.2: Protected Lands demonstrates conserved lands that are part of the County parks system, Greenbelt Program, or protected privately or by federal or state government.

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.

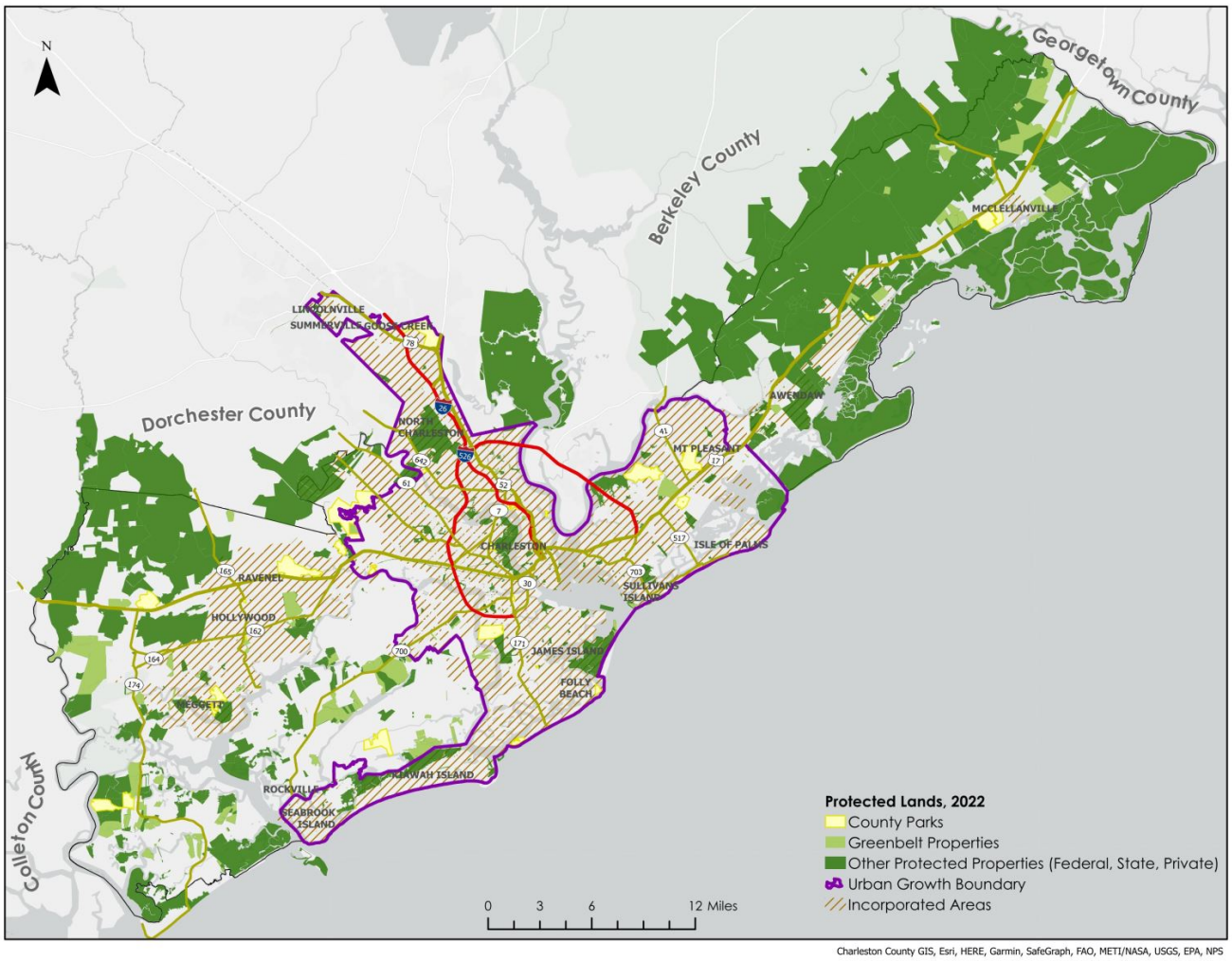
There are generally three types of impacts on aquatic habitats associated with human activities: physical destruction or alteration of habitat, changes to water quality, and general disruption of normal feeding and breeding behavior caused by human disturbance. In addition to activities that affect habitat 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

DRAFT

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.

Map 3.3.2: Protected Lands, 202217



Map dated January 27, 2023

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. There are several properties protected as bird sanctuaries and other wildlife protection refuges, including, but not limited to:

- Bird Key Stono Seabird Sanctuary;
- Crab Bank Seabird Sanctuary;
- Deveaux Bank Seabird Sanctuary;
- Cape Romain National Wildlife Refuge;
- Francis Marion National Forest;
- Botany Bay Preserve;
- Dungannon Plantation; and
- Santee Coastal Reserve.

High Water Impacts

As mentioned previously, Charleston County is home to large amounts of water resources and is bordered by several bodies of water. As land development alters the topography and weather patterns change and result in higher average rainfalls, the impacts of high water from tidal changes and flooding are more evident than in years past. In the City of Charleston alone, the number of days with tidal flood events has grown from an average of two days in the 1970s to an average of 11 days in 2014. This is forecasted to grow to be an average of 180 days by the 2040s. *(Source: City of Charleston Sea Level Rise Strategy).* A 2020 study sponsored by the National Center for Coastal Ocean Science (NCCOS) created a high tide flooding forecast for the historic peninsula section of the City of Charleston. In 1950, Charleston experienced flooding about two days per year (total of 4 hours). By 2014, there were 25 days a year with flooding episodes (total of 42 hours). The study forecasts that by 2051, the City will suffer 60 flood event days annually, or 103 hours of flooding. The areas already suffering flood events are predicted to be most affected by the flooding. *(Source: Morris, J. & Renken, K. (2020) Past, present, and future nuisance flooding on the Charleston peninsula PLoS ONE 15(9): e0238770. https://doi.org/10.1371/journal.pone.0238770).*

Several County policies are in place to protect and manage our water resources and mitigate the impacts of high water, including the Stormwater Management Plan, Beachfront Management Plan, Hazard Mitigation Plan, and Floodplain Management Program. The County Greenbelt Program prioritizes conserving properties in flood zones. In 2020, the County also adopted a Resilience Element as part of this Plan and hired a Resilience Officer to prioritize resilience in County plans, policies and regulations. More information on the County's resilience program and efforts can be found Chapter 3.11, Resilience Element. These policy decisions are mindful of the impacts of our water resources and help drive sustainable development.

DRAFT

~~In t~~The City of Charleston has~~, they have~~ focused on addressing high water impacts as a result of rising sea levels, with the adoption of ~~a~~ the 2019 Flooding and Sea Level Rise Strategy, which outlines initiatives to strengthen the City's capacity to deal with flooding and sea level rise problems. While the Strategy was adopted by the City of Charleston, the impacts extend ~~are~~ beyond the City limits and suggested strategies will impact citizens in all parts of Charleston County. The Strategy suggests making preparations for a sea level increase of 2.0 to 3.0 feet during the following fifty years. The City will evaluate its planning assumptions when sea level rise predictions made by scientists vary. Many of the suggested actions have already been taken or are currently being worked on. Over the upcoming years, it will be necessary to assess and prioritize others, especially those that require special support. The Strategy was drafted with assistance from the Resiliency and Sustainability Advisory Committee, an organization that advises the City council on resilience and sustainability issues and reviews recommendations that the council may take into consideration. *(Source: Flooding & Sea Level Rise Strategy | Charleston, SC - Official Website (charleston-sc.gov*).

Concurrent with the City's efforts, a regional steering group, the Charleston Resilience Network (CRN), has formed and is comprised of volunteers from public and private sector stakeholder organizations. The CRN is focused on resilience of communities, critical infrastructure, and socioeconomic continuity to episodic natural disasters and chronic coastal hazards. The coordination occurring through the CRN is valuable to addressing the impacts of high water and flooding in the Charleston region.

The City of Charleston, along with the Historic Charleston Foundation, launched Dutch Dialogues Charleston in January 2019 with experts from the Netherlands. Dutch Dialogues was a collaborative exercise to imbue the City's response to flood threats in a way that delivers purpose and standard of living benefits for all citizens. The Dutch are experts at water adaptation due to their long history of living near the water. Although flooding cannot be "fixed," as the Dutch have discovered, the risk can be diminished. Their strategy mixes urban landscape design and integrated planning. The Dutch Dialogues brought a comprehensive strategy to the collective management of water. A 'Living With Water' future was imagined through a joint effort between local teams in Charleston and national and international water specialists. Charleston will gain both immediately and in the long run from this innovative way of looking at water, land, and people. The City of Charleston is in the process of implementing the findings of the Dutch Dialogues in their zoning, land development, and stormwater ordinances. (*Source: City of Charleston Dutch Dialogues webpage - www.charleston-sc.gov/1974/Dutch-Dialogues*).

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 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

DRAFT

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 having occurred ~~occurring~~ on prime farmland previously used by many generations of farmers for production of crops and livestock.

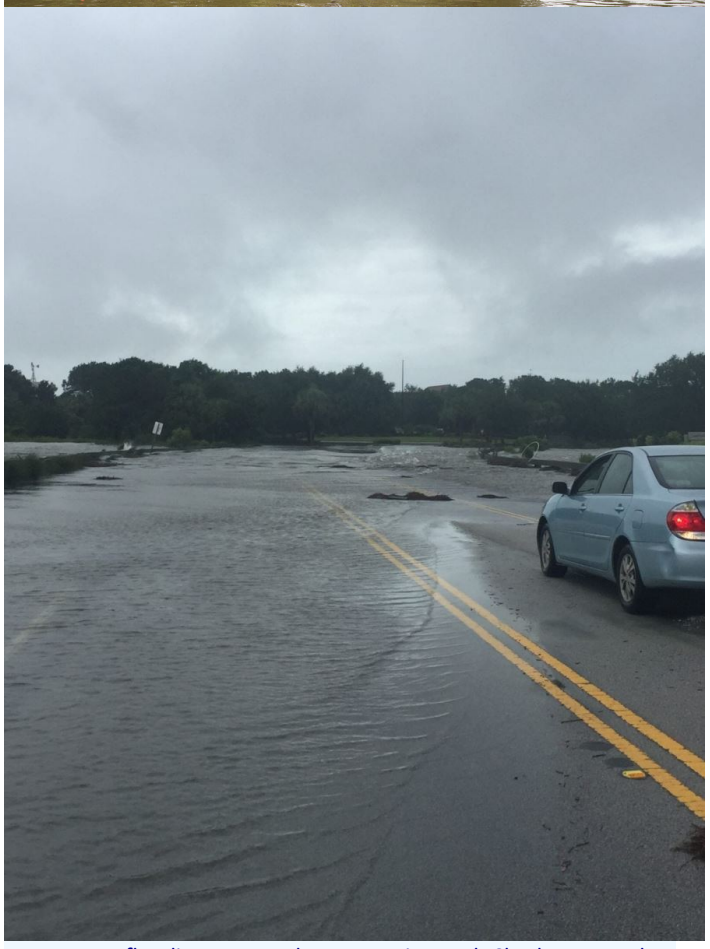
With the adoption of the *1999 Comprehensive Plan* and subsequent updates, the County has shifted significant focus on the preservation of farmland resources both through the land use plan recommendations and the current *Zoning and Land Development Regulations Ordinance*. Agriculture and timbering activities 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 increasing 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







DRAFT

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.

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 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~~2~~ years.



The manner in which forest land is managed has a direct influence on water quality, wetlands functionality, wildlife habitat, air quality, and scenic resources, as well as the land's long-term productive capabilities. In ~~2012~~ 2017, the Francis Marion National Forest ~~began updating their *National Forest Land and Resource Management Plan* to comply with 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~~ published their revised *Land and Resource Management Plan*. The amended document 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 wasis 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 wasis an extremely effective advocate for preservation of agriculture and forestry in South Carolina, facilitating the flow of information and ideas between farmers, foresters, nonprofit 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.

The Committee's biggest successes included working with the State to establish an Agritourism and Tourist-Oriented Directional Signage Program and advocating for Voluntary Agricultural and Forestal Areas (VAFA) to conserve, protect, and maintain Charleston County's agribusiness land and facilities for the production of food and other agricultural products; reduce the lossst of agribusiness resources by limiting the circumstances under which agricultural and forestry facilities and operations may be considered; and prevent the loss of agribusiness caused by common law nuisance actions resulting from nonagricultural land uses expanding into rural and agricultural areas. While Charleston County has not adopted a VAFA ordinance and the Committee has been disbanded, several groups including farmers, conservationists, and planners continue to advocate for the program.

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. As demand for groundwater grows, 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 SCDHEC and 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 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.

DRAFT

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 ~~EP~~EPAA. ~~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]~~ In 2012, the EPA Office of Air Quality Planning and Standards launched the Advance Program to replace the EAP. The EPA, state and local governments, tribes, and other groups are working together in a voluntary effort to address ground-level ozone and particle pollution in attainment regions.

Protecting our Natural Resources

DRAFT

Charleston County is fortunate to have an active conservation community, comprised of public, private, and non-profit organizations and private landowners. These groups and individuals work together to ensure the County's natural resources are preserved for future generations, and as a result of their work, Charleston County has the highest percentage of land permanently protected out of all South Carolina counties. According to The Nature Conservancy, Charleston County has 254,985.9 square acres of protected lands (2023).

Recognizing the need for the County to play a more active role in conservation, County leaders proposed a Half Cent Transportation Sales Tax referendum that included funding for greenbelts. In 2004, Charleston County voters approved the referendum, and the Charleston County Greenbelt Program was created. This program set a goal to protect 40,000 acres through the purchase of land and conservation easements. Land acquisitions began in 2007 and since that time County Council has awarded $13~~42~~ million in greenbelt funds to protect over 2~~41~~,000 acres. Of that total, $114 million was spent to purchase ~~9,300~~ 9,463 acres for public parks and greenspaces. The protected lands include: ~~8,200~~ 14,543 acres of rural lands; ~~4,400~~ 5,489 acres within the Francis Marion National Forest; ~~5,000~~ 9,177 acres of wetlands; ~~4,850~~ 5,933 acres for regional County parks; and ~~550~~ 1,583 acres of urban lands and corridors. Greenbelt funding from the 2004 Sales Tax is nearly exhausted. County voters approved an additional Half Cent Transportation Sales Tax in 2016 with $210 million allocated for greenbelts. The table below illustrates the Greenbelt Lands protected and what percentage of the conservation goal for each category has been achieved.

Greenbelt Component	Goal	2017 Inventory	Since 2017	Total Acres Protected	% of Goal
Rural Lands	16,240	11,397	3,146	14,543	90%
National Forest	10,275	11,438	1,186	12,624	123%
Wetlands	5,610	7,900	1,277	9,177	164%
Urban Lands	2,000	666	917	1,583	79%
Corridors	1,200	155	2	157	13%
County Parks	4,675	5,933	0	5,933	127%
Total	**40,000**	**37,489**	**6,528**	**44,017**	**110%**

Note:
- 2017 inventory includes Greenbelt Lands and Partner-protected lands
- Lands Protected Since 2017 includes only Greenbelt Lands

[1] Information obtained from EPA.

[2] Information obtained from BCDCOG.

3.3.3: NATURAL RESOURCES ELEMENT GOAL

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.

To preserve, enhance, and revitalize natural resources, such as rivers, creeks, fresh and saltwater wetlands, aquatic and wildlife habitat, beaches and dunes, groundwater, forests, farmland soils, and air quality and take actions to mitigate potential negative impacts of growth and development.

3.3.4: NATURAL RESOURCES ELEMENT STRATEGIES AND TIME FRAMES

DRAFT

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.

NR1. Continue to ~~M~~maintain the *Zoning and Land Development Regulations Ordinance* (ZLDR) to ensure that natural resources are protected prior to, during, and after development activities.

NR2. Continue to ~~P~~protect critical natural resource areas by designating them for very low intensity uses in the future land use recommendations and the ZLDR.

NR3. Continue to ~~P~~promote sustainable, low impact development practices including but not limited to stormwater management, green infrastructure, maintenance of vegetative cover, Critical Line buffers and setbacks, and conservation set-asides in development plans and the ZLDR.

NR4. Continue to ~~C~~concentrate high intensity development in the Urban/Suburban Area where public facilities and infrastructure exist and low intensity development in the Rural Area to protect sensitive and unique natural resources.

NR5. Continue to ~~S~~support the ~~as amended~~ *Comprehensive Greenbelt Plan*, as amended, 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.

NR6. Explore the feasibility of establishing a public/private/multi-jurisdictional transfer of development rights program.

NR7. Incorporate standards into the ZLDR to protect rural residents from the danger of wildfires.

NR8. Promote best management practices, including prescribed burning where appropriate, in forest maintenance, timber harvesting and agricultural production.

NR9. Support local agricultural and timber operations through tax relief initiatives.~~, and explore adopting a Voluntary Agricultural and Forestal Areas (VAFA) program..~~

NR10. Continue to ~~P~~protect water quality through implementation of the NPDES Phase II Stormwater Management Program.

NR11. Continue to ~~S~~support the BCDCOG and SCDHEC as they implement the Trident Area Groundwater Management Plan and consider integrating groundwater usage assessments into the review and approval process for large development plans.

NR12. Continue to ~~E~~encourage sustainable landscaping that includes attractive environments that are in balance with the local climate and more efficient ~~minimize the~~ use of fertilizers and pesticides, while at the same time conserving water.

NR13. Continue to ~~I~~implement the *Charleston C~~o~~ounty Local Comprehensive Beach Management Plan*.

NR14. As recommended in the *Charleston Regional Hazard Mitigation Plan*, expand the *Community Wildfire*

Protection Plan (CWPP) created for the Awendaw Fire District area in the northeastern part of the County to be a county-wide plan.

NR15. Continue to ~~I~~investigate programs such as Septic Maintenance Programs to protect water quality and provide clean and safe sewage systems to communities in the Rural Area, and educate residents in the Rural Area about well and septic system maintenance and the cost and implications of extending public water and sewer systems to rural areas.

NR16. Continue to w~~W~~ork with applicable agencies and jurisdictions to meet federal air quality standards.

NR17. Continue to coordinate with the Charleston Resilience Network, the City of Charleston, Sea Grant Consortium, NOAA, South Carolina Aquarium, and other public and private organizations to develop policies that encourage resiliency towards the impacts of flooding and high water, including creating a Green Infrastructure Plan.

NR18. Continue participation in FEMA's Community Rating System (CRS) to reduce flood risk in Charleston County and decrease flood insurance costs.

NR19. ~~Create a new element of this Plan that explains high water impacts and identifies a goal, needs, and strategies to ensure Charleston County is resilient to flooding and high water impacts in the future.~~

NR20. Encourage local, sustainable agriculture through regulatory incentives, tax relief initiatives, partnerships with other agencies to provide education and technical support, and other programs and initiatives.

NR21. Create a county-wide approach to reducing light pollution by working with adjacent jurisdictions to implement policies that limit light pollution, promote energy conservation, and regulate outdoor lighting fixtures, and educate residents regarding the benefits of such changes.

NR22. Improve connections to the water by way of additional public boat landings and docks to promote individual, commercial, and recreational transportation opportunities.

CHAPTER 3.4 CULTURAL RESOURCES ELEMENT

Contents:

3.4.1: OVERVIEW
3.4.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.4.3: CULTURAL RESOURCES ELEMENT GOAL
3.4.4: CULTURAL RESOURCES ELEMENT STRATEGIES AND TIME FRAMES

3.4.1: OVERVIEW

Charleston County encompasses an area richly endowed with a legacy of historic properties, scenic roadways, and historic rural landscapes. In recent years, citizens, as well as many historic preservation professionals, have raised concerns that these resources are threatened by the changing character of the community. Efforts by public-private partnerships such as that to preserve the Morris Island Lighthouse, are important 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. 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 activities and~~ historic communities ~~lifestyles~~.

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.

DRAFT

Purpose and Intent

The primary purpose of the Cultural Resources Element is to protect and preserve the significant historic and archaeological resources and cultural heritage of the County. It also aims to increase public awareness of the historic character of the County and preserve the heritage and economic benefits. It also seeks to encourage public and private partnerships to advance its purpose.

3.4.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

There is a strong community composed of a number of organizations that have committed to preserving cultural and historic resources in the County. Much of the responsibility for protecting these resources lies with the agencies listed below:

- The State Historic Preservation Office;
- The Office of Ocean and Coastal Resource Management;
- The Edisto Island Open Land Trust;
- The Lowcountry 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. Charleston County is fortunate to not only have several preservation-minded local and state organizations, but also a number of museums that raise awareness of the area's rich history, including the new International African-American Museum, coming in ~~2020~~ 2023.

1989 and 1992 Historic and Architectural Resource Inventories in Charleston County

Between 1989 and 1992, two 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, 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 including 201 sites on James Island and 129 sites on Johns Island. In 1992, Charleston County organized a public-private partnership to conduct an additional survey designed to include areas not previously surveyed, and to consolidate findings of prior studies that had looked at specific sites within those areas. Concurrent with the 1992 survey, the County partnered to conduct an archaeological 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, 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.

The 1989 and 1992 ~~surveys~~ projects surveyed approximately 1,170 historic and architectural sites 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). Surveyed sites include those developed 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.

DRAFT

Almost two-thirds of the historic sites surveyed 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. 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 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.

133 sites identified in the 1992 survey located within the unincorporated areas of Charleston County are either nominated to the National Register of Historic Places (NRHP), 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 to compile documentation required by the State Historic Preservation Office.



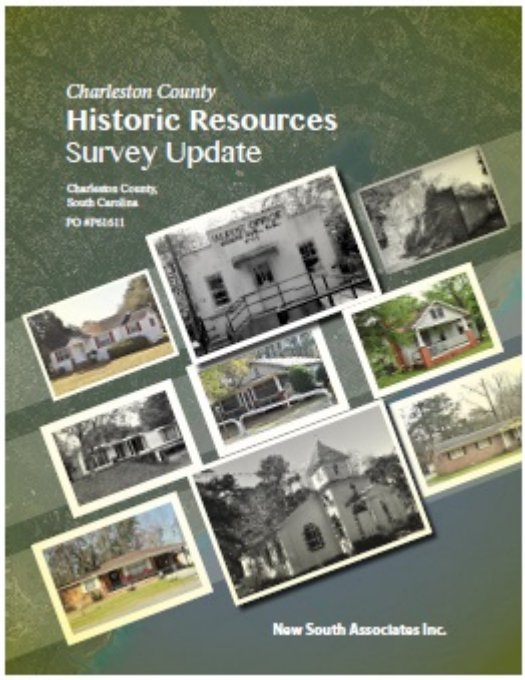




2016 Charleston County Historical and Architectural Resources Survey Update

Recognizing that more than 20 years had passed since the last County-wide survey, Charleston County applied for and was awarded a Federal Historic Preservation Grant to partially fund an update to the 1989 and 1992 surveys. The survey update project began in November 2015, when New South Associates, Inc. was hired to carry out the technical survey work, and the survey was completed in September 2016. Historic resources dating between 1940 and 1975 within unincorporated Charleston County were the focus of the project, and 1,319 resources were documented.

To begin the survey update project, a public workshop was held to refine the survey project area. During this public workshop, it became evident that many of the resources that exist in the unincorporated areas of the County are significant to African-American history and the Civil Rights Movement. Several members of historic African-American settlement communities from all areas of Charleston County participated in the project. In the end, approximately ten percent of the total area surveyed was in African-American settlement communities.



Of the 1,319 resources surveyed, the vast majority (1,183 sites or 90 percent) are residential or domestic (such as out-buildings, employee quarters, etc.) sites. Forty-nine sites are commercial; 47 sites are religious; 15 sites are funerary/cemeteries; seven~~7~~ sites are entertainment/ recreation; five sites are civic/social; five are agricultural; and five are education or government.

Two individual properties are identified as eligible for the NRHP: the Elliott Constantine House in Riverland Terrace ~~(pictured at right)~~ is an example of the International style of architecture and the Tobin-Boyd school in the Red Top community is a late example of a segregated African-American school.

The most significant survey finding was the documentation of a corridor of African-American Settlement Communities, which is a unique cultural resource that represents the Gullah people, their culture, and the communities they established during the Reconstruction Era. ~~In addition to these two properties, the African-American settlement communities that span the County are noted as a significant cultural group resource. Specifically,~~ F~~f~~our of the communities, Phillips, Scanlonville, Snowden, and Sol Legare, were designated as ~~are~~ eligible for the NRHP for their significance in community planning and development and ~~black~~ ethnic heritage. Several of the other communities may be eligible, as well; however, more research is necessary.

This project won two major awards for furthering preservation in South Carolina:

- The 2017 Preservation Service Award from the South Carolina Department of Archives and History (SCDAH), SCDAH Foundation, and Palmetto Trust for Historic Preservation; and
- The 2018 Robert N.S. and Patti Foos Whitelaw Founders Award from the Historic Charleston Foundation.

Mapping Historic Resources

Resources surveyed during 2016 Survey Update Project



Elliott Constantine House in Riverland Terrace



Residence in Phillips Community

DRAFT



Backman's Seafood Shop in Sol Legare Community

In 2014, the County utilized improved mapping technology to spatially display many of the 1992 survey sites. Not all sites can be mapped as some survey cards lack 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) were able to be ~~can be~~ mapped. Of the 623 sites, 412 sites (66 percent) are located in unincorporated Charleston County. Upon completion of the 2016 Survey Update, the newly surveyed resources were added to the 1992 data to spatially display the historic resources surveyed in unincorporated Charleston County (see Map 3.4.1). *Table 3.4.1* also summarizes the types of historic resources surveyed in the three County-wide surveys.

National Register of Historic Places (NRHP)

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~~January 2023, 1~~83~~35 NRHP listings ~~(including 167 sites and 16 historic districts)~~ existed in Charleston County (including incorporated and unincorporated areas). In 2013, one of the unincorporated NRHP sites, Point of Pines Plantation Slave Cabin on Edisto Island, was delisted from the NRHP when it was dismantled and sent to Washington, D.C. The slave cabin has been reassembled and featured in the National Museum of African American History and Culture in the nation's capital.

Threats to Historic and Cultural Resources in Charleston County

Charleston County has experienced unprecedented growth over the past few decades as detailed in the Population Element. ~~From 2000 to 2010 2020, the County's population increased by 13 percent from 309,969 to 350,209 residents (U.S. Census Bureau).~~ As more and more people move to Charleston County, the need for new development to house and employ these residents threatens existing historical and cultural resources. Prior to 2018, t~~T~~he *Charleston County Zoning and Land Development Regulations Ordinance* (ZLDR) had ~~currently has~~ a weak historic preservation ordinance that protecteds only properties listed on the NRHP. As a result, locally significant historical and cultural resources were ~~are~~ often threatened or destroyed by new development. ~~The lack of a mechanism to locally designate and protect properties means many significant structures are at risk of being destroyed by encroaching development and redevelopment.~~

DRAFT

The County has taken ~~is taking~~ steps to protect local historic and cultural resources. Completing the 2016 Survey Update provided insight into the resources in the unincorporated County and serveds as an impetus for strengthening the County's historic preservation ordinance. The County's Planning Commission established a Historic Preservation Subcommittee to update the County's historic preservation regulations. The Committee worked with a consultant to develop a new historic preservation ordinance, which was adopted by County Council in 2018.

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

Type	Number of Sites	Percent Total
Residences	1,936	77.7%
Cemeteries	150	6.0%
Roads and Landings	36	1.4%
Church Buildings	84	3.4%
Stores and Commercial Buildings	85	3.4%
Agricultural Buildings	33	1.3%
Railroad Lines and Structures	19	0.8%
Domestic Outbuildings	28	1.1%
Designed Landscapes	20	0.8%
Ruins and Building Sites	16	0.6%
Schools	18	0.7%
Bridges and Bridge Sites	11	0.4%
Canals	7	0.3%
Pecan Orchards and Groves	7	0.3%
Entertainment/Recreation	7	0.3%
Civic/Social	5	0.2%
Windmills	3	0.1%
Oyster Factories	3	0.1%
Cotton Gins	4	0.2%
Fire Towers	3	0.1%
Other	18	0.7%
Total	2,493	100.0%

Source: Charleston County Historic and Architectural Surveys, 1989, 1992, and 2016

2018 Historic Preservation Ordinance

The Charleston County Historic Preservation Ordinance was adopted on August 21, 2018. The Ordinance, which is located in the County's Code of Ordinances and is not part of the *Zoning and Land Development Regulations Ordinance*, accomplishes the following:

- Sets up a Historic Preservation Commission;
- Creates a path for communities or properties to be designated as historic on the local (County) level;
- Adopts all National Register of Historic Places (NRHP) listed properties as part of the County historic designation list;-
- Provides a layer of protection for historic properties and districts by requiring public review by the Historic Preservation Commission prior to permitting or other approvals; and
- Creates a process by which proposed changes to County-designated and NRHP-listed historic properties and districts can be reviewed and determined by the public and the Commission.

Historic Preservation Commission

The Historic Preservation Commission was formed in late 2018 to implement the Historic Preservation Ordinance that was adopted in 2018. ~~They~~ It met for the first time on February 19, 2019. The Historic Preservation Commission acts in a review and recommending capacity for designations and removal of historic properties and districts. The Commission also reviews proposed National Register of Historic Places (NRHP) nominations and has final decision making authority on Certificates of Historic Appropriateness.

Since its inception, the Commission has reviewed six applications to designate historic properties and districts on the County level and over fifty requests for Certificates of Historic Appropriateness.

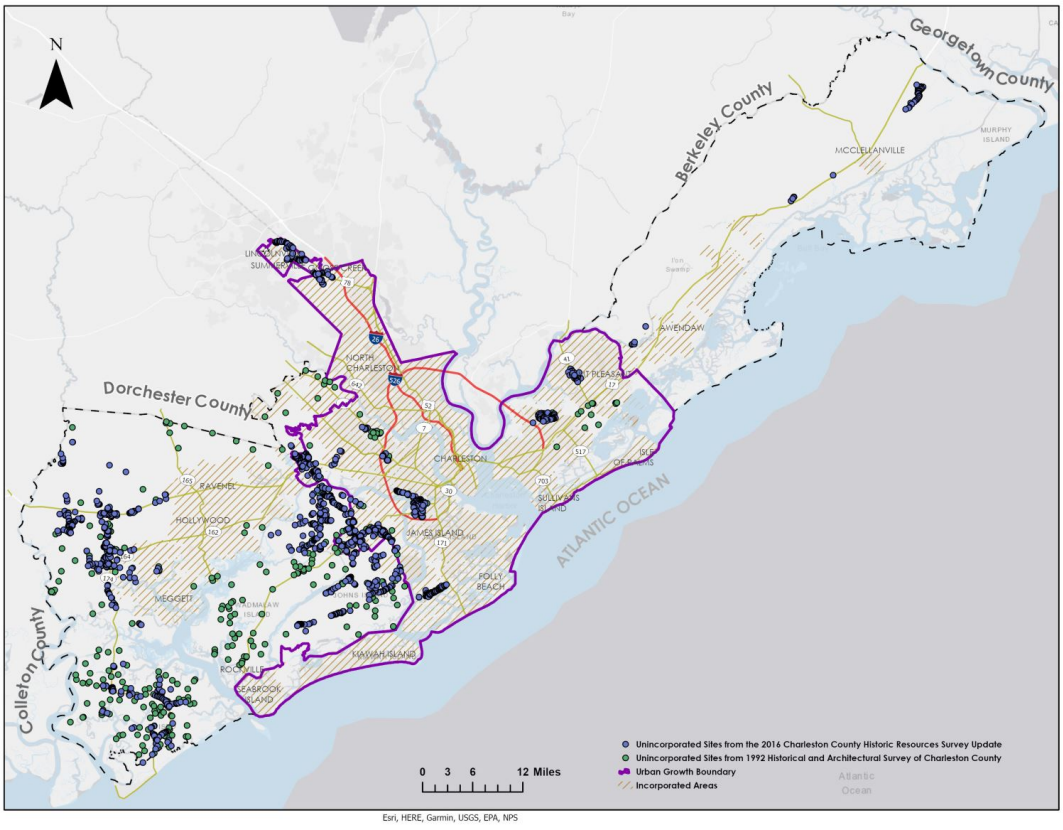
The process to designate a property or district as historic is voluntary, community-driven, and requires approval from County Council. Council has approved three individual properties and three districts as historic, shown in Table 3.4.2. The approved historic properties/districts span the breadth of the County, with current representation in the West Ashley, Johns Island, James Island, and East Cooper areas. All three historic properties are religious institutions. Additionally, the three approved historic districts are all African-American Settlement Areas.

Table 3.4.2 Charleston County Historic Properties and Districts [1]

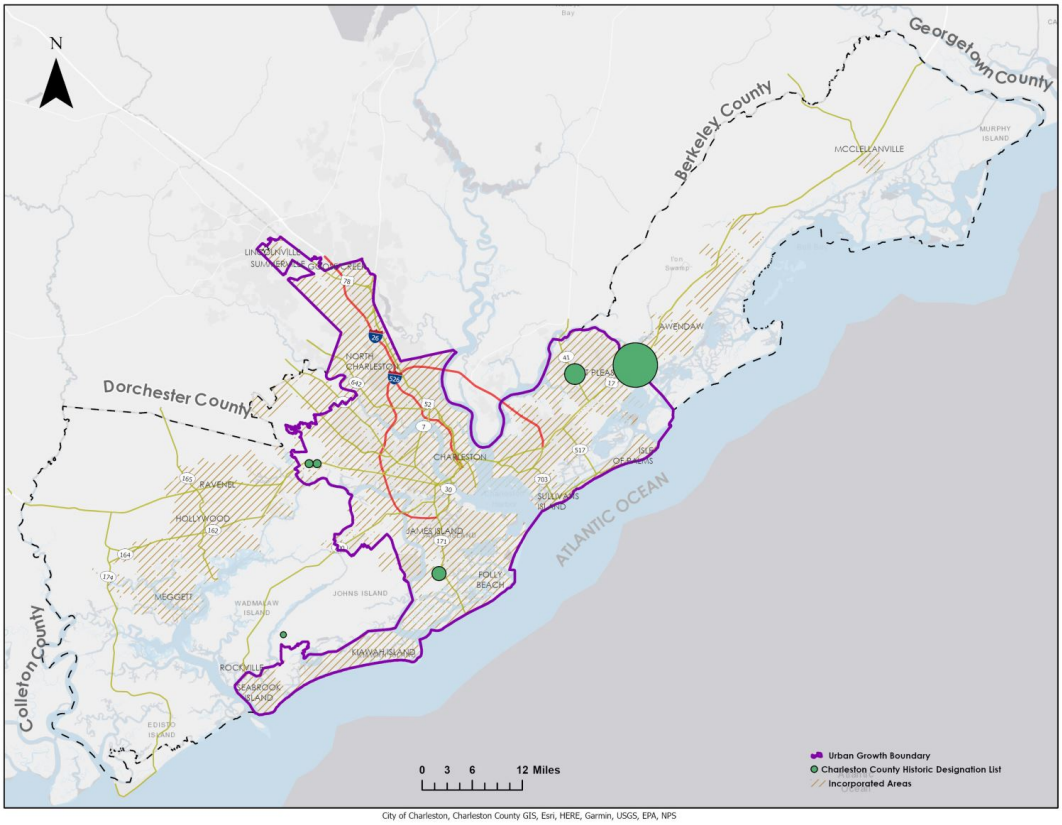
Resource Type	Name	Area of County
Property	Hebron Center [2]	Johns Island
District	Phillips Community [2]	Mt. Pleasant
Property	Saint Mark Union Methodist Episcopal Church [2]	Red Top
Property	Bethel African Methodist Episcopal Church	Red Top
District	Beefield Community	James Island
District	Ten Mile Community [2]	Awendaw

Table 3.4.2 Charleston County Historic Properties and Districts [1]		
Resource Type	**Name**	**Area of County**
[1] This table does not include properties listed only on the National Register of Historic Places. [2] Mentioned in the 2016 Charleston County Historical and Architectural Resources Survey Update.		

Map 3.4.1: Unincorporated Sites on the 1992 & 2016 Charleston County Historical and Architectural Survey[2]



Map 3.4.2: Charleston County Designated Historic Sites



Historic Preservation Planning Efforts

DRAFT





DR

Many efforts are underway to preserve the historical and cultural resources in Charleston County, keeping with the vision of this Plan set forth in 1999. In April 2014, the Charleston County Planning Commission established a Historic Preservation Committee to assist in updating the *Zoning and Land Development Regulations Ordinance* (ZLDR) to better enhance and protect the County's natural resources; to carry out the strategies set forth in this Element; and to identify new ways to promote historic preservation in the unincorporated parts of Charleston County.



The Committee's first project was to apply for and accept a Federal Historic Preservation Grant to partially fund an update to the 1989 and 1992 historic surveys. The Committee worked closely with New South Associates, Inc. (the consultant hired to carry out the technical work) and County staff to successfully complete the survey update. Beginning in 2017, the Committee is working to implement recommendations contained in the survey update. First, the Committee is working with a consultant hired to update the ZLDR to clarify and strengthen the historic preservation ordinance. Once this ordinance is adopted, the Committee may pursue becoming a Certified Local Government (CLG), if the County meets all of the eligibility requirements. Becoming a CLG allows the County to work more closely with the State Historic Preservation Office (SHPO), obtain technical assistance from SHPO and partners, and apply for grants only available to CLGs.

As the Committee begins planning efforts, community input and collaboration is vital. During the survey update project in 2016, several community members participated in the process. Specifically, many members of the historic African-American communities featured in the study attended the public meetings and met individually with New South Associates, Inc. and County staff members. Members of the Snowden, Phillips, Scanlonville, and Cainhoy Huger communities in the East Cooper area of Charleston County (and Berkeley County, where Cainhoy Huger is located) have created a non-profit organization, the African-American Settlement Communities Heritage Commission. This Commission has requested to collaborate with the Historic Preservation Committee on future preservation efforts and would like to serve as an advisory board for development and redevelopment occurring in and around their communities. The Commission's main goal is to preserve and protect the heritage and unique settlement patterns of African-American communities.

W. Gresham Meggett School Oral History Project

In June of 2018 the Charleston County Zoning and Planning Department secured an African American Civil Rights Grant from the U.S. Department of the Interior and the National Park Service to fund an oral history project focused on the W. Gresham Meggett School on James Island. New South Associates, LLC was awarded a contract to carry out the project work, which included interviewing alumni from the W. Gresham Meggett School, a South Carolina Equalization school that was recently listed on the National Register of Historic Places, conducting research, and compiling this information into a final report. The final report, A Journey to Equal Education: Stories from Historic African American Communities, shares the experiences of students on the cusp of desegregation of public schools in the 1950s and 1960s. The project concluded in the Spring of 2020, but the project website, interviews, full report, and transcripts are available online at *www.journeytoequaleducation.com*.

3.4.3: CULTURAL RESOURCES ELEMENT GOAL

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.

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.

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.

CR1. Continue to promote historic preservation and enhance the County's historic preservation ordinance.

CR2. Continue to ~~P~~pursue grant opportunities such as federal historic preservation grants to promote preservation of local historic communities, sites, and structures.

CR3. Continue to ~~W~~work with communities along the Gullah Geechee Corridor to ~~establish ways to~~ preserve the unique settlement patterns and community character, including historic property/district designations, community plans and overlay zoning districts.

CR4. Continue to ~~M~~maintain a database of archaeological resources, heritage corridors, and historic properties, roads, and landscapes.

CR5. Continue to ~~R~~require a historic and archaeological survey for all Planned Development and Form-Based Zoning District requests.

CR6. Continue to ~~M~~monitor inventories and studies conducted by other agencies which identify new or recently discovered historic or cultural resources.

CR7. Continue to ~~P~~protect rural historic landscapes by ensuring development is in character with inherent rural attributes.

CR8. Continue to ~~M~~maintain and update development standards that preserve scenic and historic roadways and vistas.

CR9. Continue to ~~Uutilize~~ coordinate with residents, adjacent jurisdictions, outside agencies, non-profit organizations, and others with expertise in historic preservation to implement planning, ~~and~~ zoning, and other techniques to protect historic communities and neighborhoods and other areas of cultural significance.

CR10. Consider tax relief initiatives to owners who rehabilitate historically significant property.

CR11. Encourage adaptive reuse and rehabilitation of older buildings that complement historic development patterns.

CR12. Continue to ~~I~~implement the recommendations identified in the *2016 Charleston County Historic Resources Survey Update*~~, including applying to become a Certified Local Government~~.

CR13. Continue to ~~E~~ensure protection of cultural resources by mitigating flood risks and high water impacts.

CR14. Coordinate with jurisdictions to pursue grant funding to complete a comprehensive study of historic land/places located in the unincorporated and incorporated areas of Charleston County.

CR15. Create a publicly accessible repository of all cultural and historic surveys completed by the County and for development projects within the County.

DRAFT

CHAPTER 3.5 POPULATION ELEMENT

Contents:

3.5.1: OVERVIEW
3.5.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.5.3: POPULATION ELEMENT GOAL
3.5.4: POPULATION ELEMENT STRATEGIES AND TIME FRAMES

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.

DRAFT

3.5.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Since the adoption of the Comprehensive Plan Update in 2008, changing conditions have greatly impacted the nation. 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. While the financial crisis affected all groups of people and all parts of the country, data since the crisis indicates much of the country is now experiencing a slow and steady economic recovery.

Element Goal

~~A~~ Charleston County will strive to accommodate 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 who earn less than 120% of the Area Median Income.

In 201~~5~~8, an update ~~a Five-Year review~~ of the Plan was completed and included data from the 2010 De~~i~~cennial Census and the 2007-2011 Five-Year Estimates from the American Community Survey. This data indicate~~s~~ large shifts in racial diversity and age trends at local, state, and national levels. ~~These demographic trends were~~ are further verified with the 2011-2015 American Community Survey data ~~used in this current update to the Comprehensive Plan and should be examined to better accommodate and plan for the needs and impacts of our current and future residents.~~

In 2023, a Five - Year review of the Plan was completed and included data from the 2020 Decennial Census, and the 2021 American Community Survey One-Year Estimates. Most of the data comes from the 2021 American Community Survey due to issues with the 2020 Census Data that stemmed from the Census occurring in the midst of the COVID-19 pandemic. Additional analysis data was pulled from Census Bureau Current Population Report *"Demographic Turning Points for the United States: Population Projections for 2020 to 2060", and* Census Bureau press release *"Growth in U.S. Population Shows Early Indication of Recovery Amid COVID-19 Pandemic".* This data indicates the southern region of the United States is recovering from the effects of COVID-19 and experiencing significant growth in population despite the trend ~~toward~~ of slowing population growth across the United States.

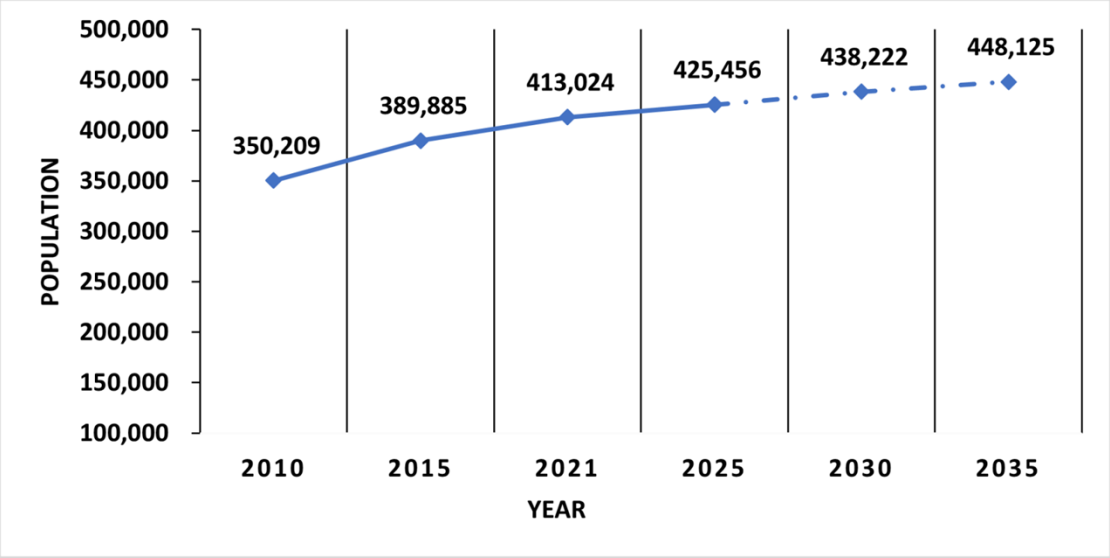
Population Estimates, Trends, and Forecasts

Since the 2018 update of the Comprehensive Plan, the COVID-19 pandemic occurred, and while not the only contributing factor, it has further emphasized the slowing population growth the United States has experienced in recent years. The slowest population growth the nation has experienced since it was founded occurred between 2020 and 2021 (0.1%); however, Census Bureau data show that the U.S. population increased by 0.4 percent in 2022.

Of all the regions in the United States, the South has consistently seen the highest ~~most~~ growth in recent decades. This past year (2022) was no exception, with the South being the fastest growing region, experiencing a population increase of 1.1%. Population growth in the Southeast has been more than twice as fast since 2001 as in the Northeast, a trend that is projected to continue~~. into the next decade.~~ Census Bureau reports indicate that this growth can be attributed to the increase in both total births and net international migration. While the U.S. Census Bureau does not provide population projections at the county level, the South Carolina Department of Revenue and Fiscal Affairs provides county population projections through the year 2035~~0~~, as shown in *Figure 3.5.1: Countywide Population Trends and Projections, 2010 - 2035 ~~1970 - 2030~~*. This chart shows that from 2010 ~~2000~~ to 2035 ~~2010~~, the population is projected to increase~~d~~ by 28 ~~13~~ percent (97,916 ~~40,240~~ new residents), and from 202~~010~~ to 203~~50~~, the County's population is projected to increase by ~~13.3~~ 9 percent to 448,125 ~~396,700~~ residents (38,707 ~~46,491~~ new residents). Figure 3.5.2, Charleston County Annual Estimates of Resident Population, shows the annual County population estimates from 2010 through 2019 for the unincorporated area of the county. ~~It should be noted that the U.S. Census Bureau does provide county population estimates, as shown in Figure 3.5.2, Charleston County Annual Estimates of Resident Population. These estimates differ greatly from the population projections shown in Figure 3.5.1, and the disparity is clearly illustrated by the U.S. Census Bureau estimate of 401,438 Charleston County residents for year 2017 compared to the South Carolina Department of Revenue and Fiscal Affairs estimate of 396,700 Charleston County residents for the year 2030.~~

DRAFT

Figure 3.5.1: Countywide Population Trends and Projections, ~~1970-2030~~ 2010 -2035

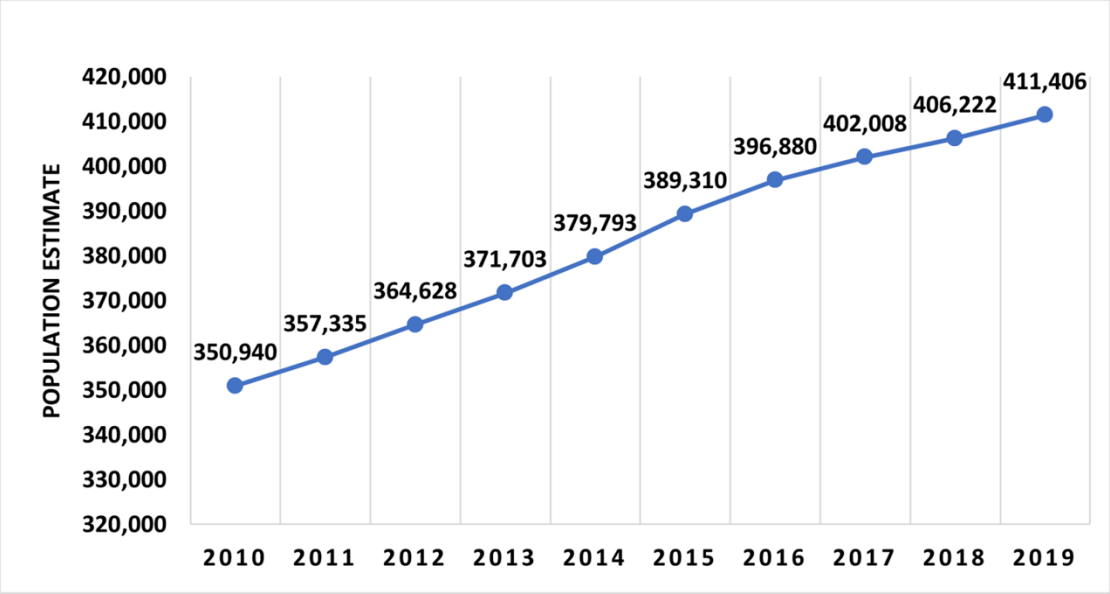


Sources: U.S. Census Bureau, 1970, 1980, 1990, 2000, 2010; American Community Survey One - Year Estimates 2015 , 2021; South Carolina Department of Revenue and Fiscal Affairs, South Carolina Population and Population Projections 2010 - 2035. ~~2000-2030~~.

Similar to Charleston County, Berkeley and Dorchester Counties' populations have continued to increase and are projected to increase into 2035~~0~~, as demonstrated in *Figure 3.5.3: Tri-County Populations, 2005 - 2035 ~~1990-2030~~*. It should be noted that data used in Figure 3.5.3, is pulled from the South Carolina Department of Revenue and Finance and 2021 data is unavailable; however Census Bureau data shows that the population for 2021 was 413, 024. *Figure 3.5.4: Municipal Populations, ~~2005~~1990 - 2020 ~~1980-2015~~*, shows the steady population growth that has occurred within the county's three largest municipalities over the last 30 years. The resulting annual growth rate from 2010 to 2020 for the City of Charleston, Town of Mt. Pleasant and City of North Charleston, is 16.3 ~~2.1~~ percent,36.7 ~~9.2~~ percent and 21.8 ~~1.7~~ percent, respectively.

DRAFT

Figure 3.5.2: Charleston County Annual Estimates of Resident Population



Sources: U.S. Census Bureau, Population Division.

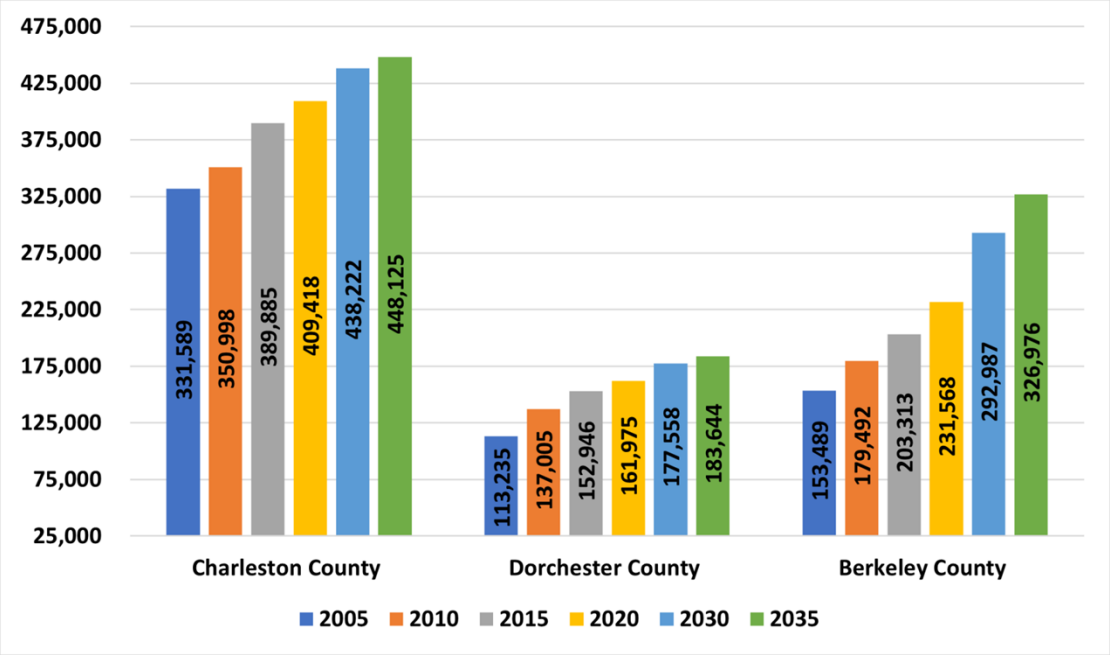
Municipal Growth Rates

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 3.5.5: Charleston County Land Area demonstrates the proportions of unincorporated and incorporated land in the County. As evidenced, 66 ~~68~~ percent of the County's land area (approximately 694 ~~708~~ square miles) is unincorporated, and the majority of the unincorporated portion is located in the Rural Area. *Figure 3.5.6: Municipal Growth* indicates the growth of municipalities as a result of annexation since 2008~~3~~. 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.

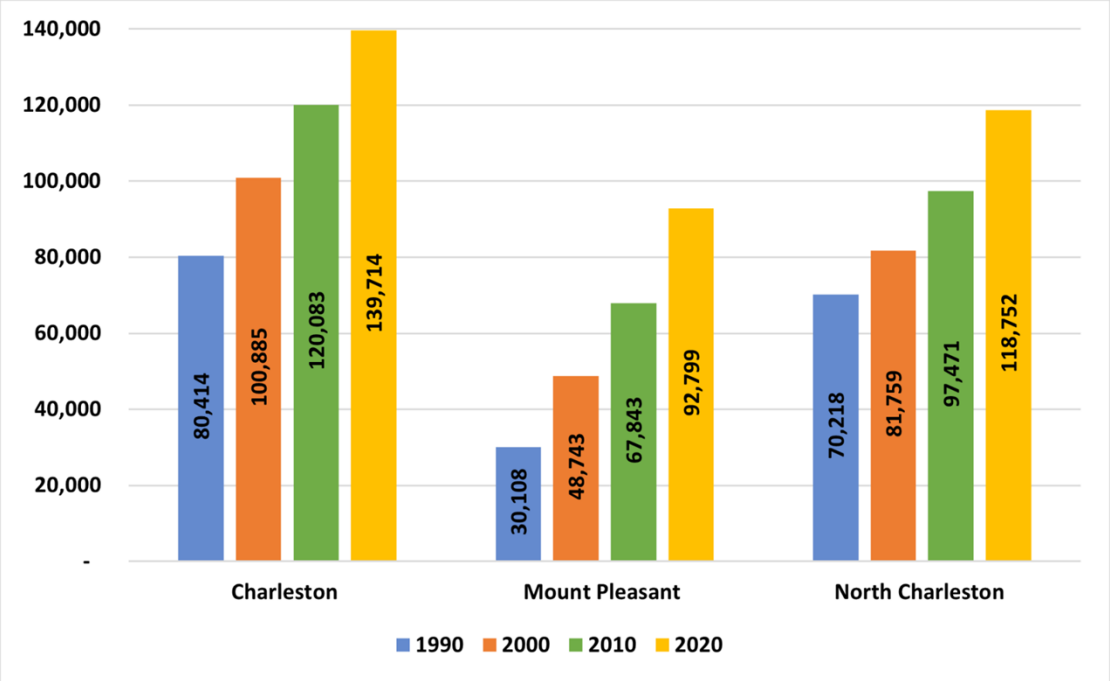
DRAFT

Figure 3.5.3: Tri-County Populations, 2005 - 2035 ~~2019~~90-~~2030~~



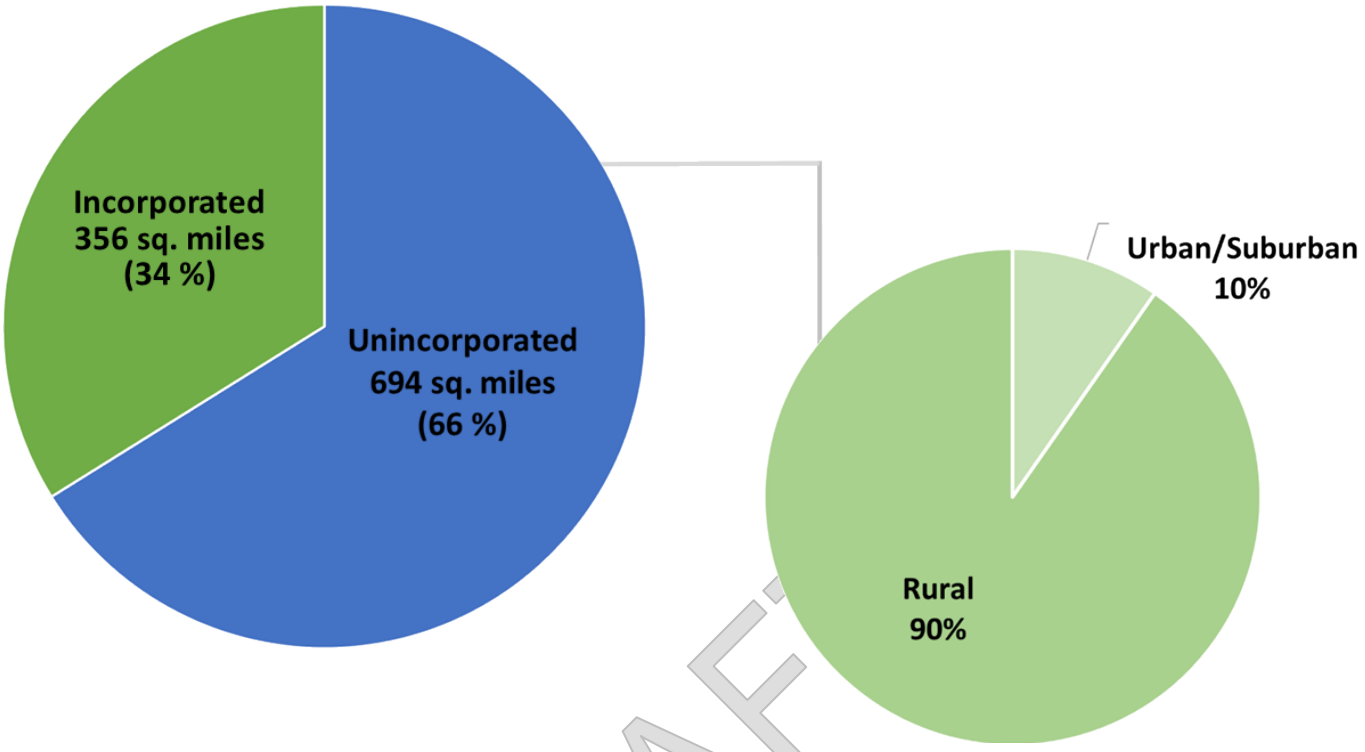
Sources: ~~U.S. Census Bureau, 1990, 2000, 2010;~~SOUTH CAROLINA REVENUE AND FISCAL AFFAIRS OFFICE ~~South Carolina Department of Health and Environmental Control Vital Records Department~~, Population Counts and Projections 2015 -2035. ~~2000 -2030.~~

Figure 3.5.4: Municipal Populations,1990 - 2020 ~~1980-2015~~



Sources: ~~U.S. Census Bureau, 1980, 1990, 2000, 2010,~~ South Carolina Revenue and Fiscal Affairs Office , 1990 - 2020 ~~2011-2015~~

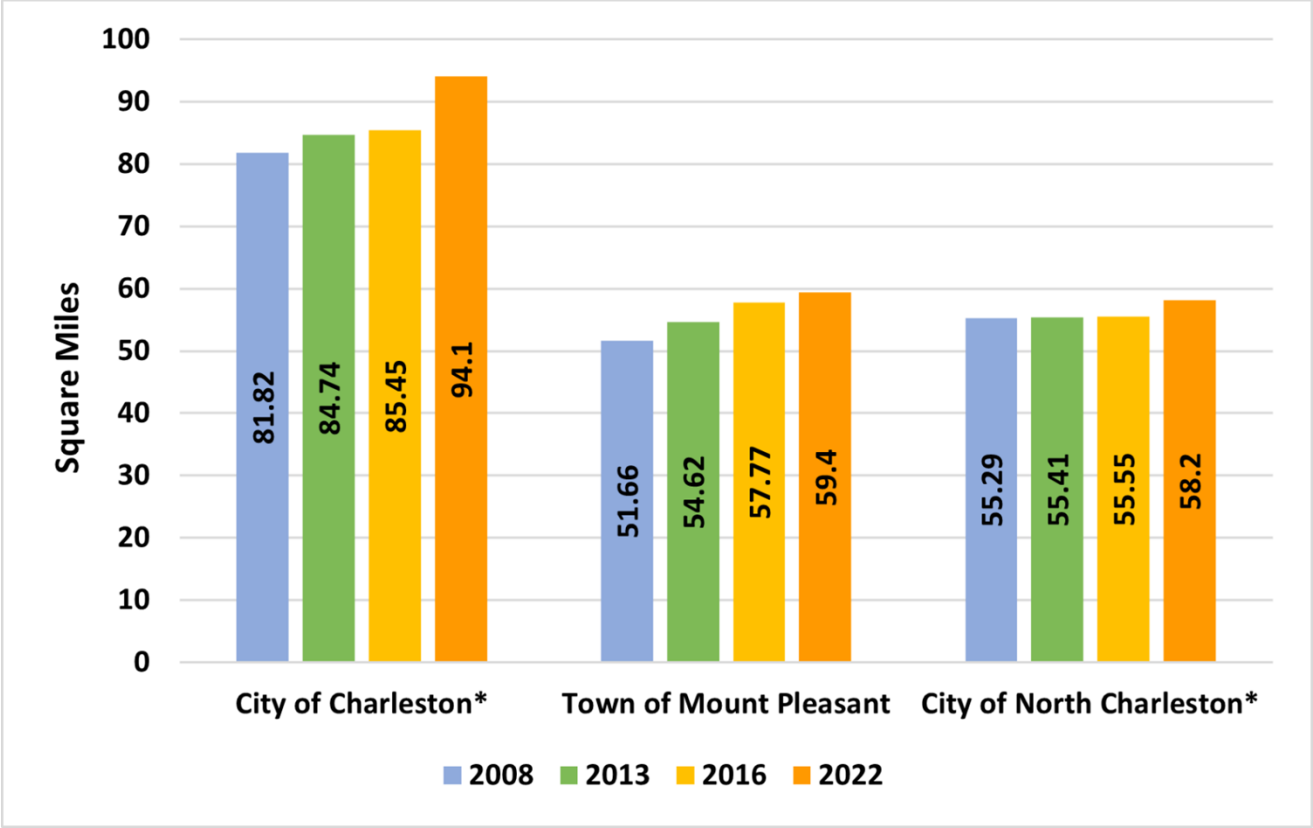
Figure 3.5.5: Charleston County Land Area, ~~2016~~ 2022



Source: Charleston County GIS data, ~~2016~~2022

DRAFT

Figure 3.5.6: Municipal Growth of Largest Three Municipalities (2008 - 2022)



Source: Charleston County GIS data, 2008, 2013, 2016 and 2022 ~~20222016~~
**Note: Municipal size is reflective of portions of jurisdictions located within Charleston County only.*

DRAFT

Population Composition

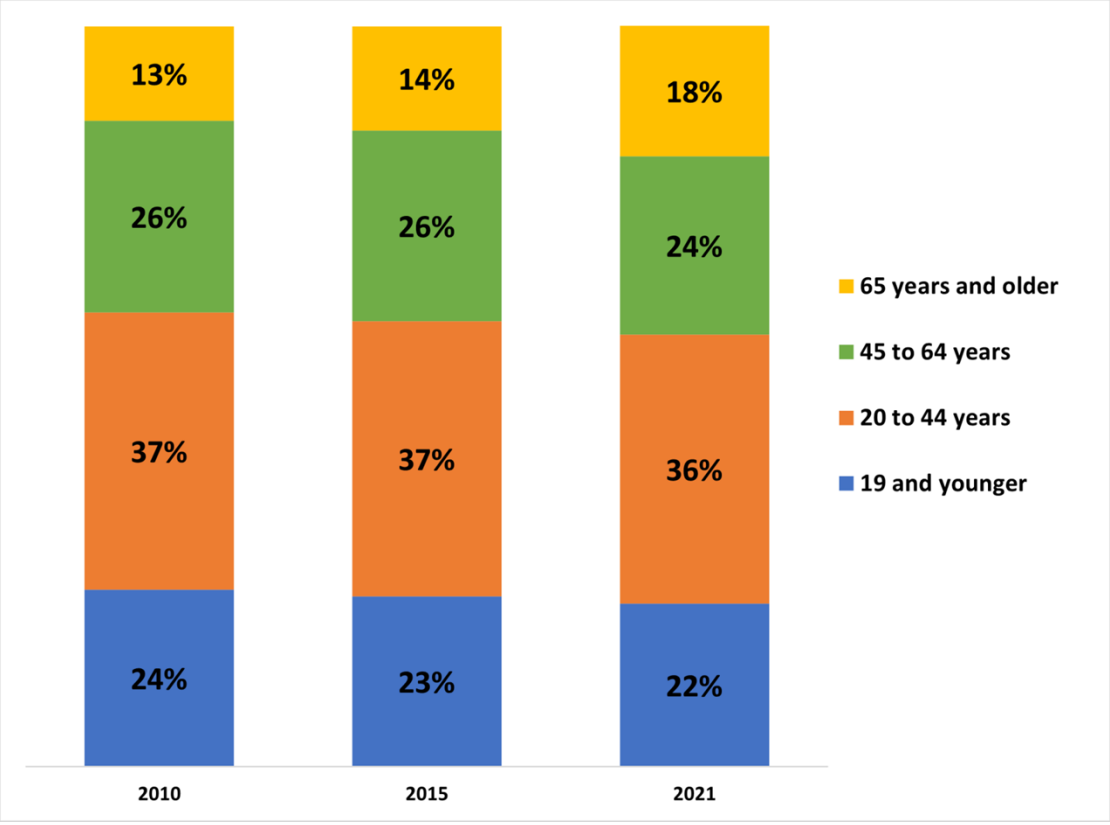
As reported in the 2015 Plan Update, ~~Recent~~ Census Bureau data revealed that the United States population was ~~is~~ diversifying in many ways. Racial and ethnic groups were ~~are~~ increasing; generational gaps were becoming ~~are~~ more prominent; and lifestyle changes were ~~are~~ resulting in more heterogeneous households. Since then, the world has experienced the COVID-19 pandemic. The Centers for Disease Control and Prevention (CDC) reports over 1.1 million deaths to date in the United States due to COVID-19, and South Carolina specifically has had over 19,000 deaths due to COVID-19. After reporting a historically low growth rate from 2020 to 2021, the United States is seeing the first signs of the population rebounding with an ~~population~~ increase of 0.4 percent in 2022. This increase is attributed to net international migration and an increase in total births from 2021. The southern region of the country was the fastest growing region, experiencing a population increase of 1.1 percent, largely due to domestic migration which brought more than 800,000 new residents to the region. ~~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 3.5.7: Charleston County Age Profile*. The County is also experiencing a decrease in the ~~population~~ percentage of residents under the age of 45. ~~From 2015 00 to 2020 15, the percentage of residents age 45 years and older increased only by one percent in total but from 34 percent in 2000 to 40 percent in 2015 (by 43,704 residents).~~ To plan for ~~an~~the 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 all residents ~~those on a fixed income~~ and located close to services will be crucial to serving this age group.

~~-~~As of 2021, 36 ~~In 2015, 37~~ percent (~~138,298~~ 149,796 residents) of the County's ~~population~~residents were ~~as~~ between the ages of 20 and 44 years compared to 37 percent in both 2010 and 2015. ~~-~~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.~~ ~~has different l~~Lifestyle preferences than those of older generations. ~~are distinct among younger residents , as~~ M~~m~~any prefer dense urban and suburban settings with opportunities for walkable communities and public transportation, which has implications for land use planning. Much of the overall population also now prefers to communicate in different ways. The County should continue to identify new mechanisms (such as social media outlets and innovative community workshops) to engage the overall population in the community planning process.

Figure 3.5.7: Charleston County Age Profile (2010 - 2021)



Sources: ~~U.S. Census Bureau, 2000, 2010~~; American Community Survey Five-Year Estimate, ~~2011-2015~~ 2010 - 2021

In 2021 ~~15~~, 22~~3~~ percent (~~85,824~~ 90,905 residents) of the County's population was under the age of 20 compared to 23 percent in 2015 and 24 percent in 2010. Educational and employment opportunities should continue to be available for the County's youth, as the County strives to retain its young residents. These opportunities need to reflect the changing dynamic that exists across many industries which is trending more to remote work and less need to report to a physical building for work. In addition, the cost of housing continues to be a major factor in younger residents opting to leave the area.

Racial Composition

Figure 3.5.8 displays the historic racial composition of the County. From 2010 ~~00~~ to 2021 ~~15~~, the percentage of the County's population in the African-American race category decreased by ~~six~~ seven percent~~.~~. ~~, t~~The percent of the County's population in the Asian, American Indian, Native Hawaiian, or other Pacific Islander race category increased by three percent between 2015 and 2021 after experiencing a slight decrease from 2010 to 2015. Census Bureau reports show that the increase in the Asian demographic is attributed to net international migration. ~~ies collectively remained about the same, and the multiracial category increased by one percent.~~ The percentage of the County's population in the White, non-Hispanic race category increased by one ~~five~~ percent from 201~~0~~0 to 2021 ~~15~~. It is worth noting that this demographic shift in the White, non-Hispanic race category does not parallel the national trend~~,~~ a nine percent decrease in this population from 2010 to 2020.

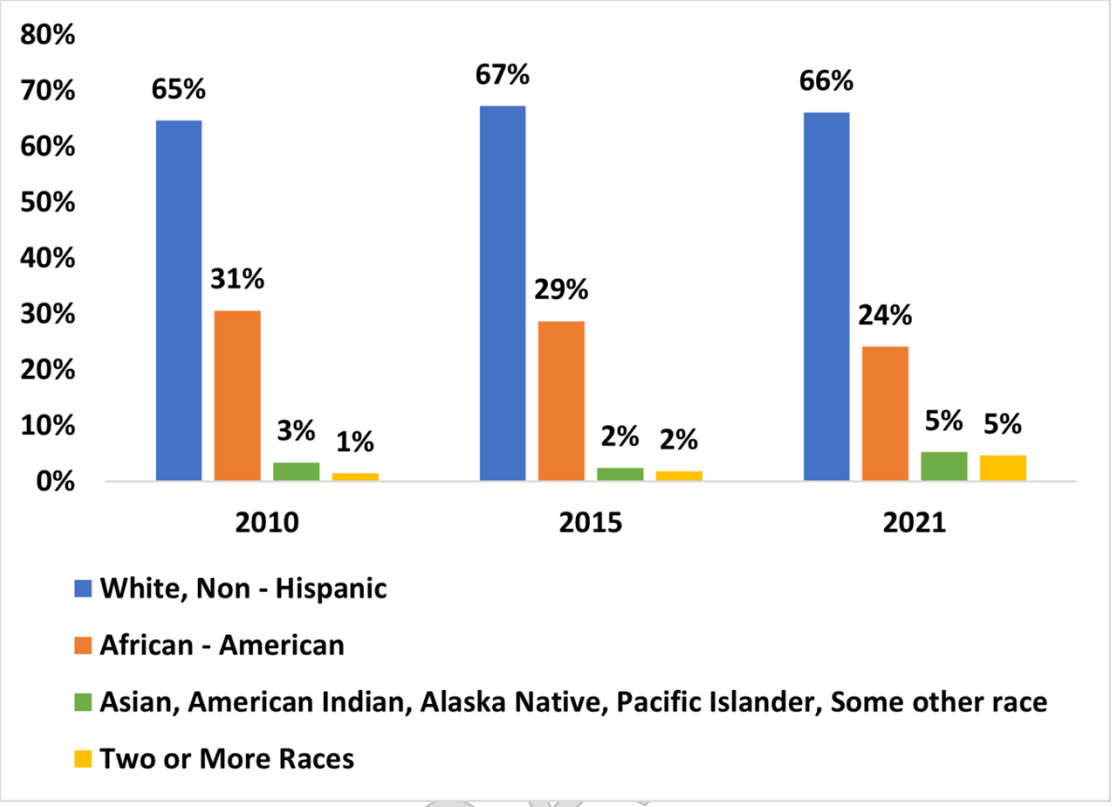
Figure 3.5.9 depicts the demographic shift in the Hispanic population. Minority populations, specifically the Hispanic population, are expected to increase more rapidly in future years due to higher birth rates among this group and declining birth rates among the White population. The U.S. Census Bureau predicts that by 2043 there will actually be no majority race in the United States. The older population will continue to be predominately non-Hispanic white~~—~~. ~~; however, by 2018 it is projected that minorities will make up more than half of the children under 18 in the United States.~~

Gender

Since the year 2000, the population of women has outnumbered the population of men in the County. In 2010, ~~In 2000 the county population contained 3.3 percent more females than males, and~~ this gap narrowed to 2.9 percent ~~in 2010~~ but increased to a four percent gap in 2015. ~~. According to the 2011-2015~~ Current American Community Survey data show that the male population accounts for 48 percent (199,068) of the population while women make up 52 percent (213,956) of the population. ~~, in 2015 females continued to outnumber males in the County, comprising approximately 52 percent of the population.~~

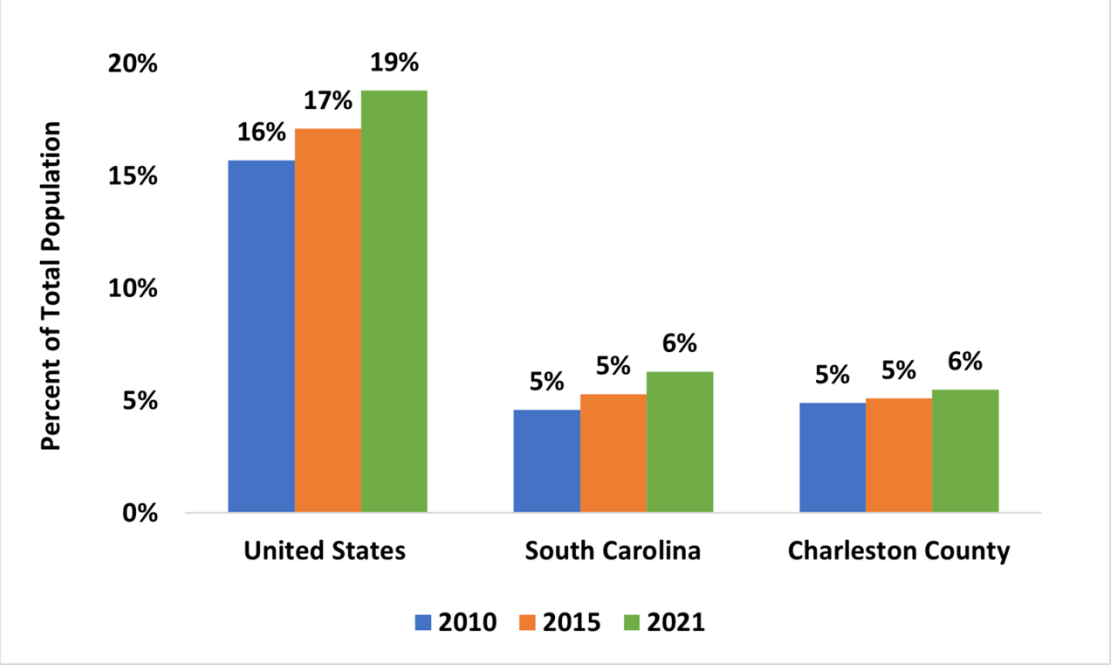
DRAFT

Figure 3.5.8: Charleston County Racial Profile, ~~2000-2015~~ 2010 - 2021



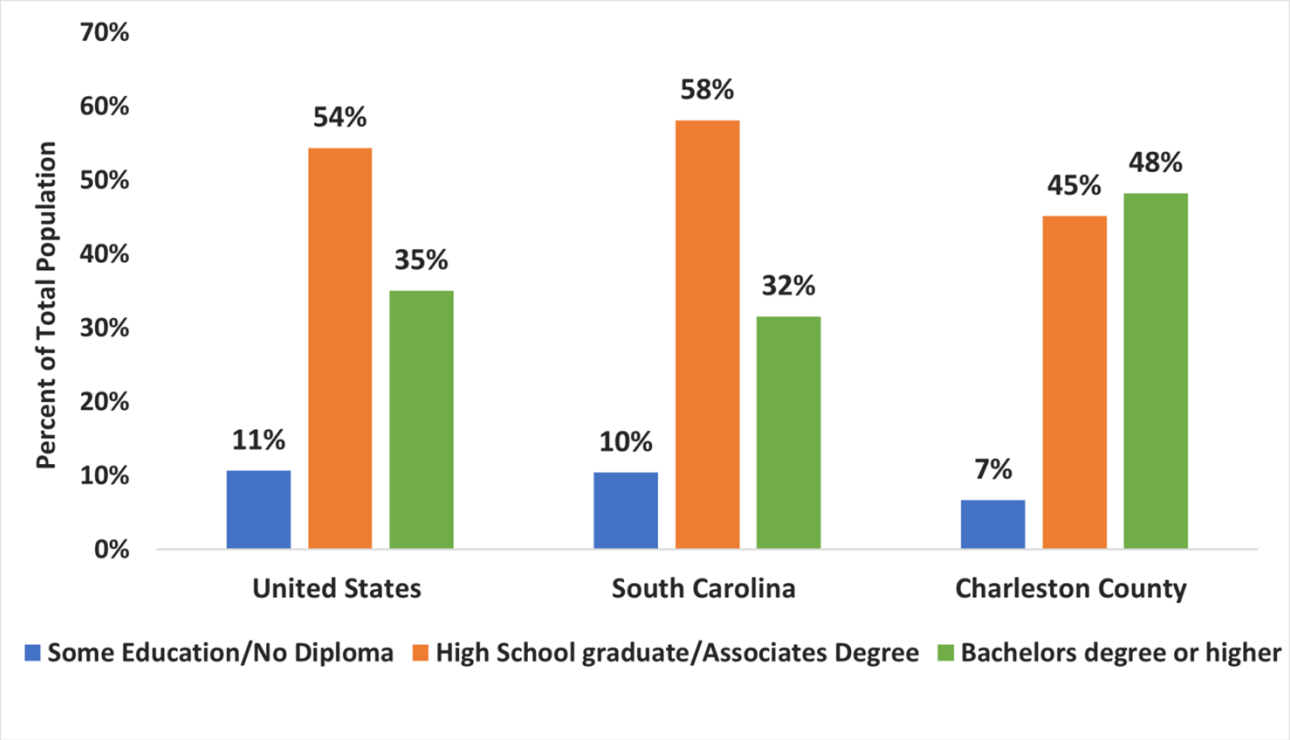
Sources: ~~U.S. Census Bureau, 2000, 2010~~; American Community Survey Five-Year Estimate, 2010 - 2021 ~~2011-2015~~

Figure 3.5.9: Hispanic Population in Charleston County, ~~2000-2015~~ 2010 - 2021



Source: American Community Survey Five-Year Estimate, ~~2011-2015~~2010 - 2021

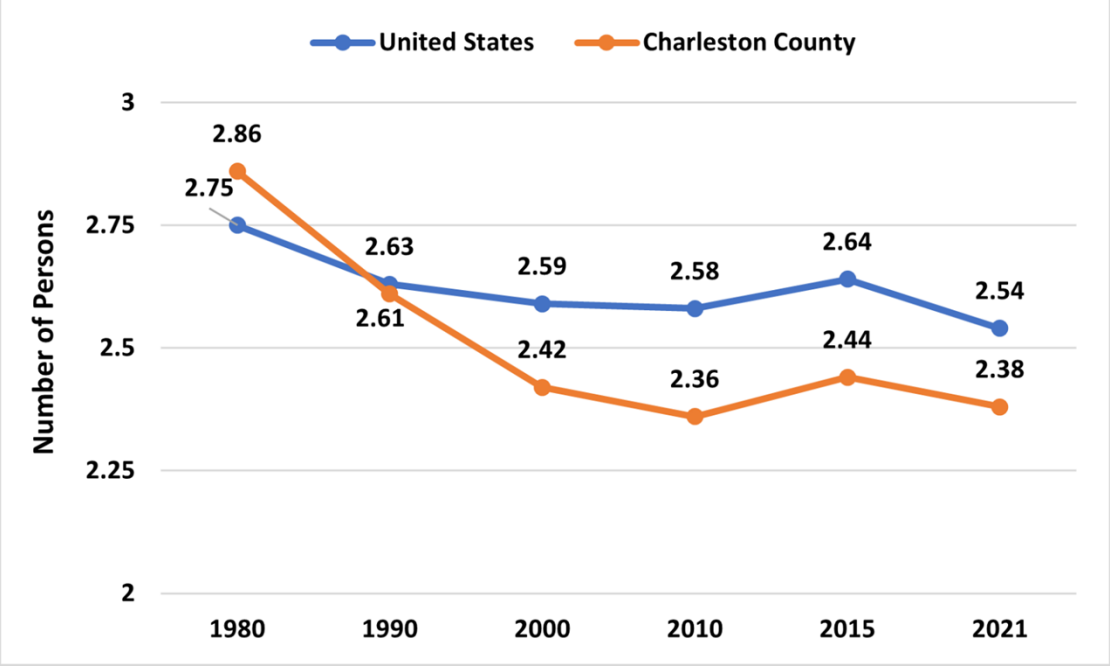
Figure 3.5.10: Charleston County Educational Attainment (Over 25 Years of Age), ~~2015~~ 2021



Sources: U.S. Census Bureau, 2000, 2010; American Community Survey Five-Year Estimate, 2021 ~~2011-2015~~

DRAFT

Figure 3.5.11: Average Household Size, 1980 - 2021 ~~1970-2015~~



Sources: U.S. Census Bureau, 1970-2010; American Community Survey One ~~Five~~-Year Estimate, 1980 - 2021 ~~2011-2015~~

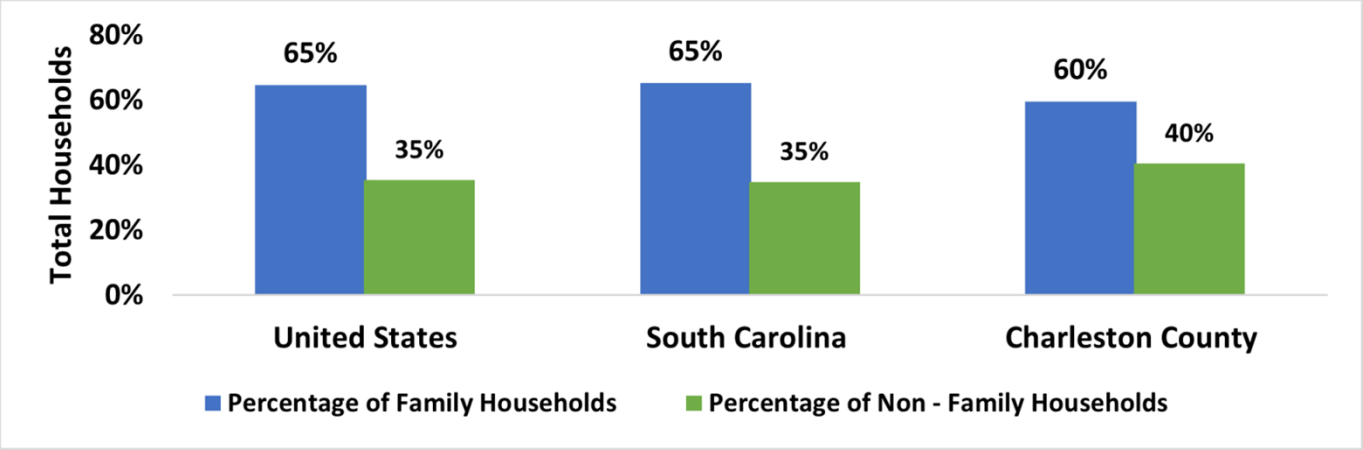
Education

The Charleston County population has generally achieved a higher level of education when compared to other counties in South Carolina. However, this is only accurate when comparing residents who have attained a Bachelors degree or higher. Approximately 48 percent of Charleston County residents have attained a Bachelors degree or higher compared to 32 percent of the state's population. ~~a Bachelors degree or higher~~. However, 58 percent of South Carolina residents have earned a high school diploma or an Associates degree compared to only 45 percent of the County's population. ~~In 2015, approximately 90 percent of the population in the County over 25 years of age were high school graduates while approximately 40 percent of the population in the County over 25 years of age held a bachelor's degree or higher, as illustrated in *Figure 3.5.10*.~~ 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 the region. It could also be due to the recent ~~.~~increase in ability to work remotely ~~due to~~ precipitated by the COVID-19 pandemic, which has allowed people from across the nation and world relocate. A significant proportion of the County's population is actively working towards meeting educational goals. In 2015, the total enrollment for all higher education institutions in the region was over 40,000 students. In addition, in 2015, the Charleston County School District enrolled nearly 50,000 students in public schools, with an additional 13,000 school-aged children in the County either attending private school or being home-schooled. For more enrollment figures, please see Table 3.8.1 in the Community Facilities Element.

Household Size & Composition

As reflected in Figure 3.5.11, while Charleston County's average household size showed ~~has shown~~ a consistent decrease from 1987~~7~~0 to 2010. The average household size in the County increased from 2.36 persons per household in 2010 to 2.44 persons per household in 2015, but decreased to 2.38 persons per household in 2020.~~, more recent data shows a slight rebound in household size~~ The average household size in the County remains below the national average, as it has since 1990. ~~In 2015 , the average household size had increased to 2.44 persons per household from 2.36 persons per household in 2010.~~ *Figure 3.5.12* shows that family households (defined as a married couple or single parent and at least one child) comprised approximately 60 ~~59~~ percent of the total households in 2021, lower than the percent of family households in both the nation and state. The remaining 40 ~~41~~ percent were non-family households, defined as single-person households or households of multiple unrelated individuals.

Figure 3.5.12: Household Composition, ~~2015~~ 2021



Source: American Community Survey Five-Year Estimate, 2021 ~~2011-2015~~

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.

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.~~ In 2020, the world suffered from the COVID-19 pandemic where unemployment reached record highs. However, data for 2021 indicate that Charleston County was showing signs of recovery and expansion since pre-pandemic numbers on multiple fronts. Current median household income in the County outpaces the United States by three percent and the State by 22 percent. To better understand the income levels of the County's residents, *Figure 3.5.13* illustrates the Median Household Income, Median Family Income, and Per Capita Personal Income. *Figure 3.5.14* compares the change in Median Household Income from 2000 to 2021 ~~1990 to 2015~~ for Charleston County, South Carolina, and the United States. ~~*Table 3.5.1* indicates the median household income for Charleston County adjusted for inflation.~~

Poverty Levels

In ~~2015~~ 2021, the poverty guideline for a family of three was $~~20,090~~21,960 as determined by the U.S. Department of Health and Human Services. Based on this guideline, ~~nearly 15~~ 10 percent of the families in Charleston County (~~approximately~~ 101,204 ~~21,758~~ families) had incomes below the poverty level, and nearly 1~~4~~ 7 percent of all people in Charleston County (~~approximately 64,139~~ 55,266 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 3.5.15* illustrates the income ranges of households in the County in ~~2000,~~ 2010~~, and~~ 2015~~, and~~ 2021 and indicates that income levels of County residents are increasing~~wages are growing in the County~~. The Charleston Regional Development Alliance (CRDA) reported in the ~~*2015*~~ *2020 - 2021 Economic Scorecard* that the region's real wages~~-~~ have grown 10 percent since 2005; ~~grew 32.3 percent from 2005 to 2015; however,~~ however, the region's wages are only 86 percent ~~only 85~~ percent of the national average wage. If the region's housing costs remain high,~~-~~ it will continue to be difficult for the County's residents to afford to rent or buy homes. *Figure 3.5.16: 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.

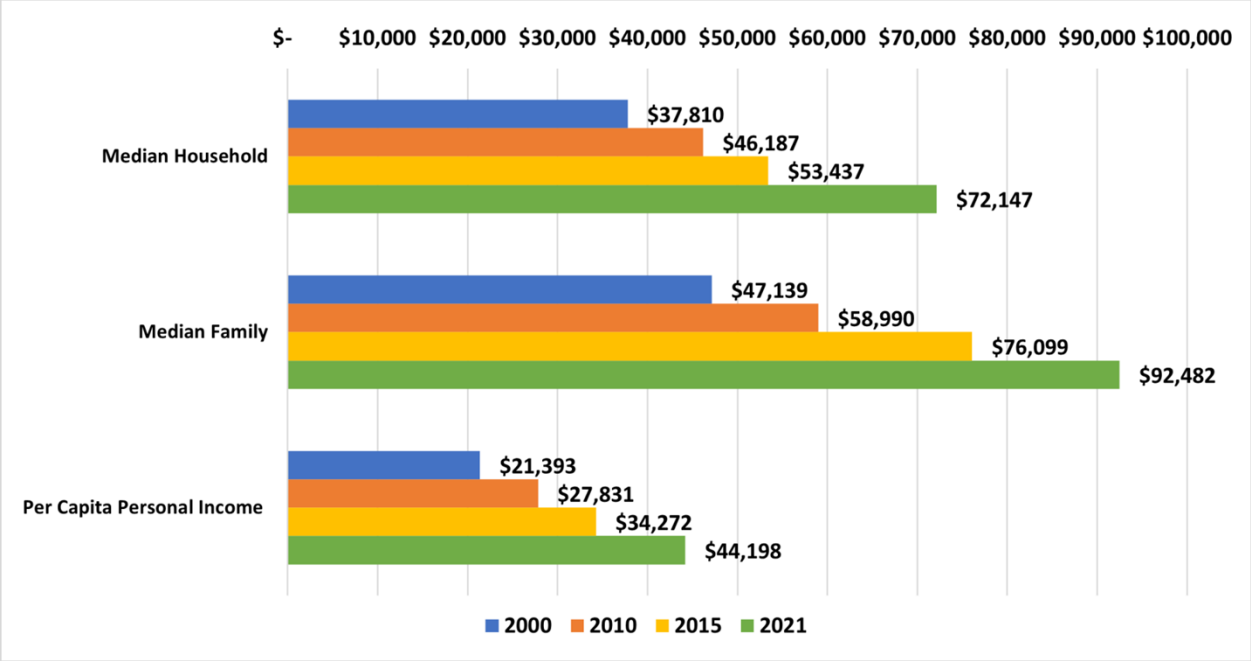
Table 3.5.1: Median Household Income, Charleston County, 1990-2021*~~15 (in 2015 Dollars)~~

	1990	2000	2010	2015	2021
Median Household Income	$ 26,875	$ 37,810	$ 46,187	$ 53,437	$72,147*
Inflation Adjusted (2015)	$ 48,736	$ 52,042	$ 50,203	$ 53,437	

Sources: U.S. Census Bureau, 1990, 2000, 2010; American Community Survey Five-Year Estimate, 2011-2015; ~~;~~ *The 2021 American Community Survey One - Year Estimate is adjusted in 2021 inflation dollars.

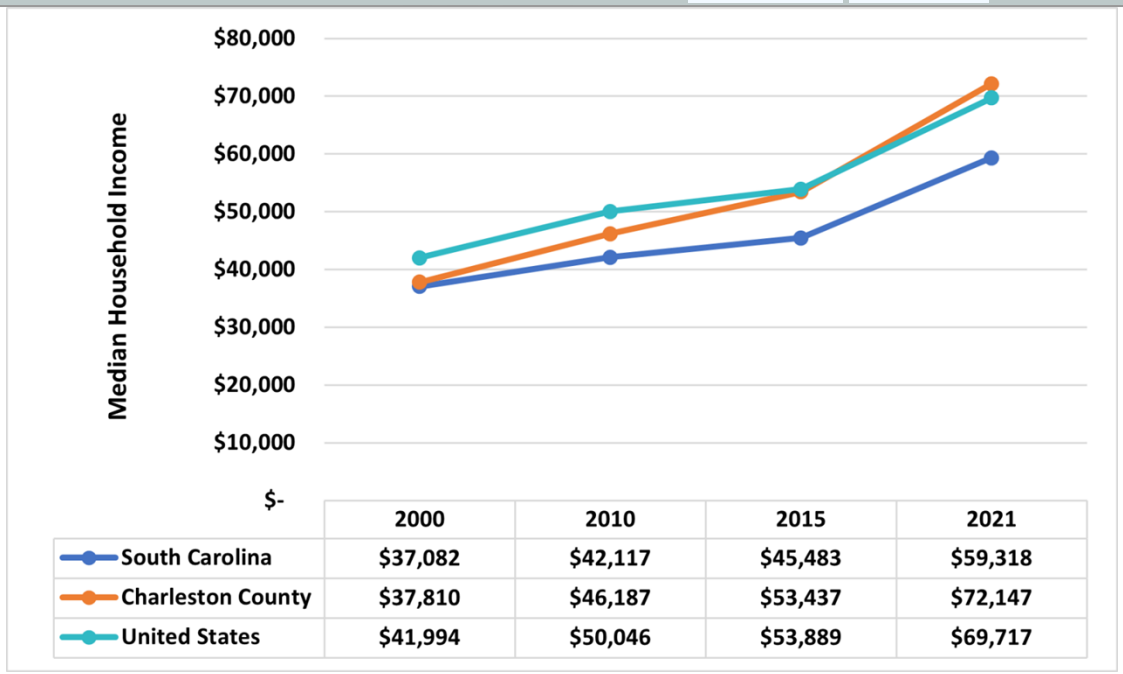
DRAFT

Figure 3.5.13: Charleston County Income Characteristics, 2000 - 2021 ~~1979-2015~~



Sources: ~~U.S. Census Bureau, 1979, 1990, 2000, 2010;~~ American Community Survey Five-Year Estimate, ~~2011-2015~~2000 -2021. Note: Household and family income includes the incomes of everyone in the household or family 15 years and older. The measurement for the Census Bureau's per capita personal income is based on household surveys. These figures for the years 2000, 2010, and 2015 have not been adjusted for inflation.

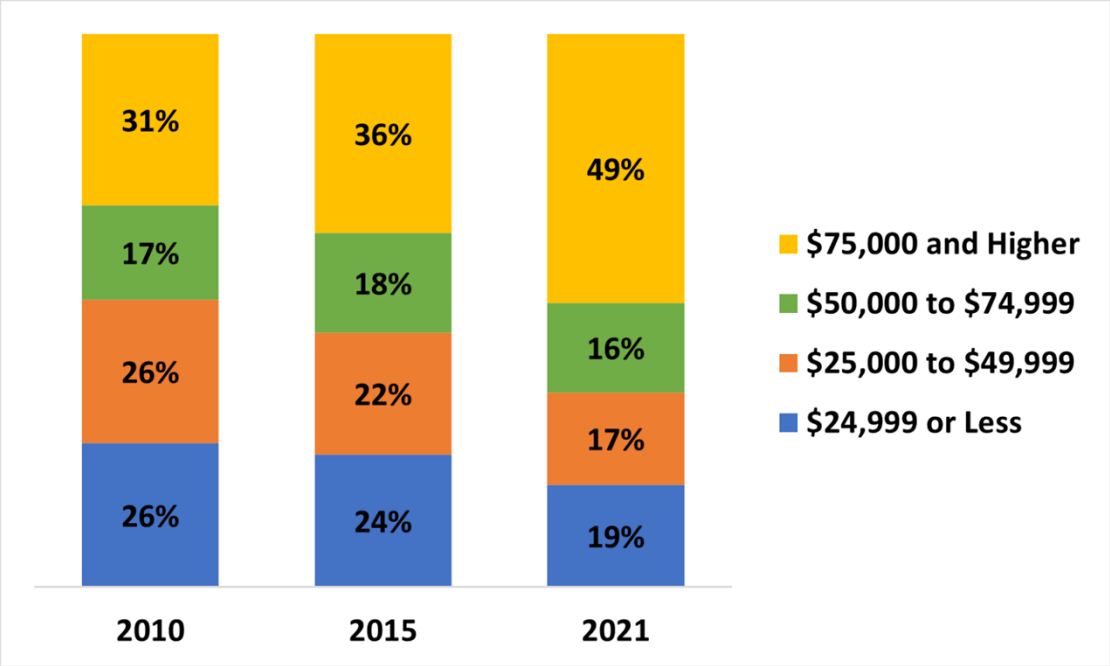
Figure 3.5.14: Median Household Income, 2000 - 2021 ~~1990-2015~~



	2000	2010	2015	2021
South Carolina	$37,082	$42,117	$45,483	$59,318
Charleston County	$37,810	$46,187	$53,437	$72,147
United States	$41,994	$50,046	$53,889	$69,717

Sources: ~~U.S. Census Bureau, 1990, 2000, 2010~~; American Community Survey Five-Year Estimate, 2011-2015. Figures for the years 2000, 2010 and 2015 are not adjusted for inflation. Figures for 2021 are in inflation - adjusted dollars. ~~These figures have not been adjusted for inflation.~~

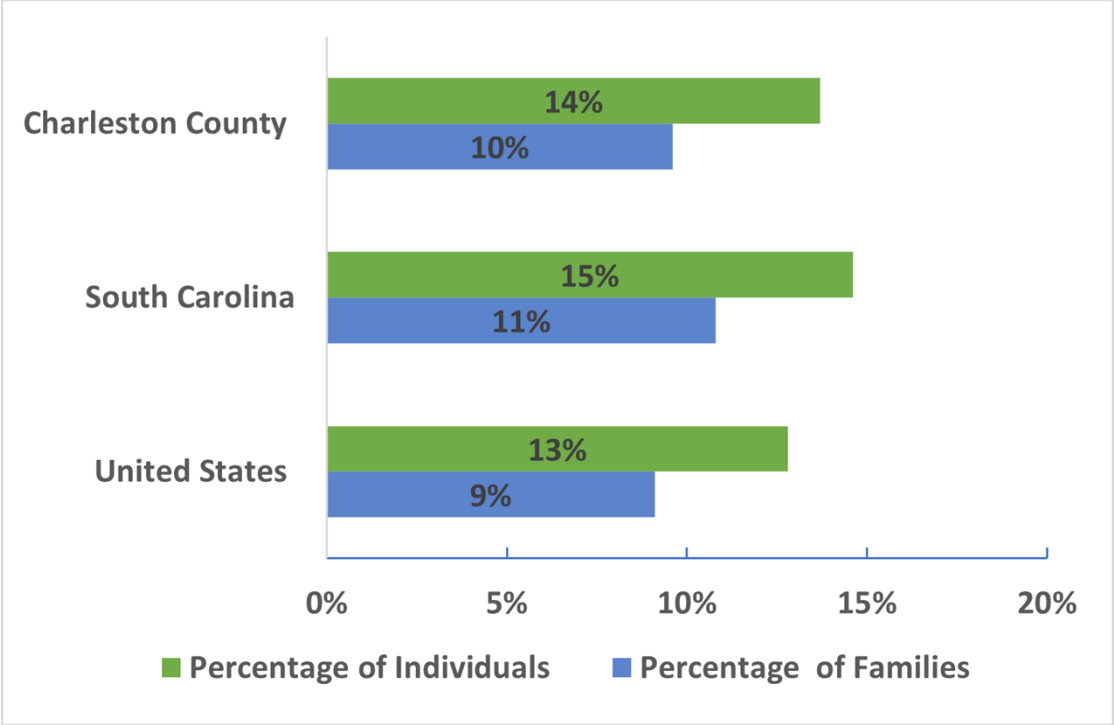
Figure 3.5.15: Distribution of Household Income, Charleston County, ~~2000 2015~~ 2010 - 2021



Sources: U.S. Census Bureau, 2000, 2010; American Community Survey Five-Year Estimate, ~~2011-2015~~2010 - 2021

DRAFT

Figure 3.5.16: Poverty Levels by Geographic Area,2021 ~~2015~~



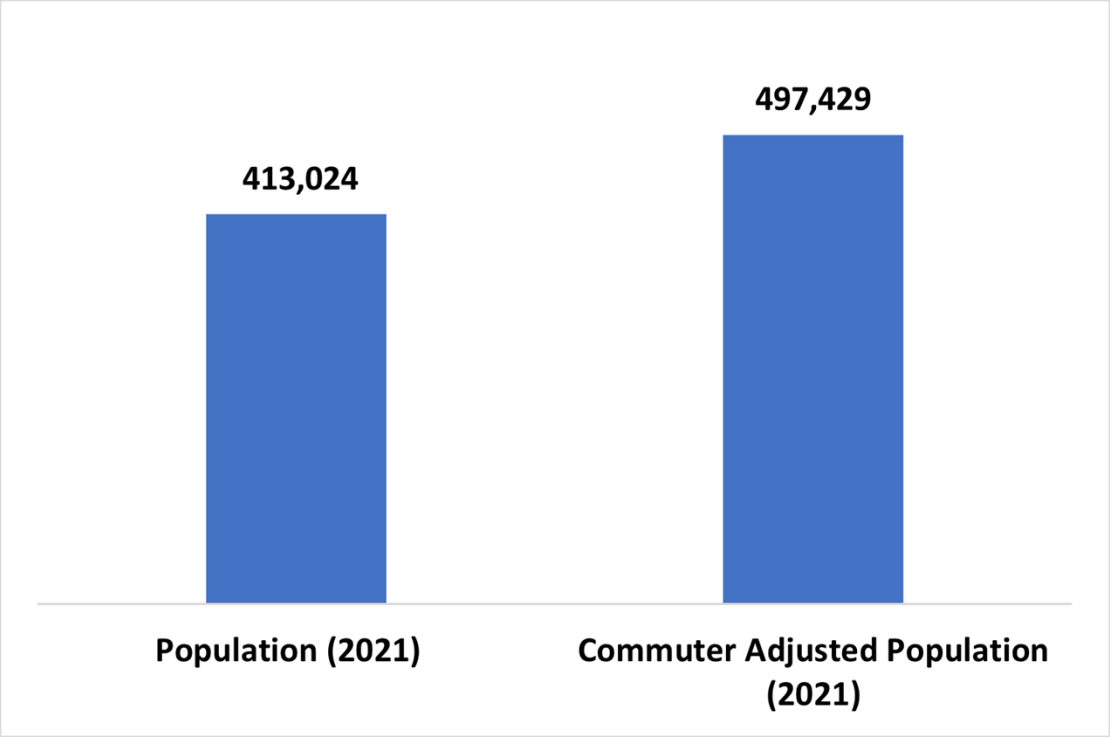
Source: American Community Survey Five-Year Estimate,2021 ~~2011-2015~~

Commuter-Adjusted and Transient Populations

Because the County not only serves residents, but also visitors (daily commuters, tourists and students), it is important to understand how the County's population is impacted by these populations. The concept of the commuter-adjusted population, also known as the "daytime population", refers to the number of people who are present in an area during typical business hours, and this is in contrast to the "resident" population, which refers to people who reside in a given area and are typically present during the evening and nighttime hours. Since this number is calculated based on commuting (Journey to Work) data collected by the census bureau, it only reflects the daily influx of workers into the County. *Figure 3.5.17: Commuter-Adjusted Population* shows that for 2021 ~~2015~~, Charleston County's daytime population of 497,429 ~~432,545~~ is 20 ~~nearly 16~~ percent higher than the "resident population", likely a reflection of the County's role as a major employment center for the region. ~~For example,~~ The Charleston Regional Development Agency's *2020-2021 ~~2016~~ Regional Economic Scorecard* found that more than 80 percent of commuters to the area travel alone, resulting in increased traffic and stress on transportation infrastructure. ~~notes a significant increase in STEM-intensive (Science Technology Engineering Mathematics) Advanced Industries occupations, with these technical jobs encompassing aerospace and automotive manufacturing, healthcare services and technologies, and information technology.~~

DRAFT

Figure 3.5.17: Commuter-Adjusted Population, 2021 ~~2015~~



Source: American Community Survey Five-Year Estimate, 2021 ~~2011-2015~~

DRAFT

In addition to the daytime population increase, Charleston County also has a large transient population. It is both a major tourist destination and home to many public and private higher education institutions. With regard to tourism, according to the College of Charleston Office of Tourism Analysis (2021), "Charleston tourism largely rebounded from the impacts of the COVID-19 pandemic particularly following the vaccine rollout in the spring,. . . the total economic impact of tourism reached an all time high, surpassing $10 billion for the first time, and hotel rates also reached record highs." In 2021, the Charleston area welcomed an estimated 7.23 million visitors, an increase over the 5.15 million visitors in 2015. ~~"In 2015, the Charleston area welcomed an estimated 5.15 million visitors."~~ These visitors, whether here for recreation or business, spent an average of $962 ~~211~~ per trip for each adult ~~visitor per day in 2015~~, resulting in a total economic impact of over $10.6 ~~3.7~~ billion. Charleston County not only hosts vacationers and businesspersons, but students from all over the world attend school at the more than two dozen college and university campuses in the Charleston region. These important statistics based on commuter-adjusted and transient populations are useful for transportation planning, emergency planning, and other policy-making.

3.5.3: POPULATION ELEMENT GOAL

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.

~~A~~ Charleston County will strive to accommodate 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 who earn less than 120% of the Area Median Income.

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.

P1. Continue to ~~M~~monitor population growth trends and demographic shifts to guide future updates to the *Comprehensive Plan* and to ensure the needs of the current population are being met.

P2. Develop land use strategies and implementation measures for more resilient communities.

P3. Continue to ~~S~~support a diverse population through land development regulations that accommodate a range of mixed housing types and sizes, transportation, and employment opportunities.

P4. 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.

P5. Continue to identify new mechanisms (such as social media outlets and innovative community workshops) to engage the citizens in the community planning process.

P6. Identify and implement initiatives to retain residents and employees including, but not limited to, ensuring diverse housing options that are affordable to residents and providing training and other workforce development opportunities.

CHAPTER 3.6 HOUSING ELEMENT

Contents:

3.6.1: OVERVIEW
3.6.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.6.3: HOUSING ELEMENT GOAL
3.6.4: HOUSING ELEMENT STRATEGIES AND TIME FRAMES

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 18 ~~13~~ percent (62, 815 ~~40,240~~ residents) from 350,209 ~~309,969~~ residents in 2010 ~~2000~~ to 413,024 ~~350,209~~ residents in 2021 ~~2010~~. By 2035 ~~2030~~, the South Carolina Department of Revenue and Fiscal Affairs predicts that the County will reach a population of 448,125 ~~396,700~~. This growth will require additional housing units that are diverse in type, size, and affordability.

Element Goal

~~Quality housing that is affordable will be encouraged~~ Charleston County will prioritize the development of quality, diverse housing with efficient transit connectivity that is affordable for people of all ages, incomes, and physical abilities with special emphasis for those earning less than 120% of the Area Median Income.

Purpose and Intent

Charleston County includes the housing element in the Comprehensive Plan to comply 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 the 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 Federal Community Development Block Grants, Federal HOME funding, 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 the *Consolidated Plan*, the County consults with agencies and organizations actively involved in public assisted housing, affordable housing development, and homelessness. In 2016, $206,424 was allocated for the creation of two affordable rental housing units in the Town of Hollywood and $76,141 was allocated for the rehabilitation of two rental units in the City of North Charleston. $85,000 was allocated for emergency repairs of 14 housing units in various parts of the County. The majority of funding ($466,214) was allocated to the Charleston County Well, Septic, and Infrastructure Program to improve 40 housing units; these upgrades allowed families to remain in safe, affordable housing.

In 2021, Charleston County established the Housing and Neighborhood Revitalization Department, which administers a range of programs and services with the objective of investing in affordable home opportunities and promoting the stability of Charleston County neighborhoods. The Department is currently working on the *Housing our Future* plan, which is Charleston County's first comprehensive plan for housing attainability. The plan includes months of research, analysis, and community conversations focused on capacity building, housing creation and preservation, housing stability, and homeownership. It also provides a clear understanding of the needs and challenges facing Charleston County. The plan provides a set of policies, programs, and capacity-building measures designed to help meet housing needs for years to come.

In addition to creating and implementing the *Housing our Future Plan and 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 Comprehensive Plan, including the Future Land Use Plan, promote mixed-use growth with a variety of housing types, including 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). CLF is a non-profit organization established to provide a dedicated ongoing source of funding for 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, how housing matters to various fields from banking to education to government, and focused on identifying possible solutions to housing problems in the region. Since 2013, housing summits have been held annually; in March 2017, a statewide housing summit was held in Columbia, SC.~~

Regional and County Housing Initiatives

In 2011, County Council requested that the Berkeley-Charleston-Dorchester Council of Governments (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. In 2014, County Council, along with all the other jurisdictions in the region, adopted the Regional Housing Needs Assessment, the goals of which included:

- Increasing the proportions of both owner- and renter-occupied housing in the region that are affordable to households earning below 120% of the median household income; and
- Increasing 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, and train residents to obtain higher paying jobs through coordination with the Charleston Regional Development Alliance (CRDA) and local Economic Development Departments.

In 2017, County Council established a Special Housing Committee to study, review, and evaluate housing matters and report to County Council. ~~address housing affordability issues in Charleston County. This Committee is, in part, utilizing the findings and strategies contain ed in the BCDCOG Housing Needs Assessment to address this complex issue.~~ In 2018, the Special Housing Committee created an Affordable Housing Task Force to make actionable and sustainable recommendations to the Special Housing Committee regarding affordable housing for those households with incomes at or below 120 percent of the Area Median Income. The Task Force members included representatives from hospital systems, the finance and employment sector, non-profit housing development and funding organizations, for profit housing groups, real estate, community development and faith based organizations, and regional coordination agencies. The Task Force met eight times between January 15, 2019 and the June 13, 2019 final report. The final recommendations of the Task Force were presented to the Special Housing Committee and were to be placed on a future Finance Committee meeting agenda.

The Task Force identified three key issues:

1. Scale of the need is huge: Affordability of housing in the County includes residents paying more than 30 percent of their incomes towards housing.

2. The overall supply of housing units must be increased to meet demand:

- 78,000 units are needed between now and 2030;

- 5,200 net new housing units per year; 2,600 of those should be affordable based on income level; and

- Also need to focus on maintaining, preserving, and rehabilitating existing affordable units.

3. One or more sustained sources of funding paired with policy changes will be needed to be successful.

The goal recommended by the Task Force was for the County to lead by example in addressing the affordability of housing through public investment, policy framework, and increased housing supply. The three strategies identified by the Task Force included:

- Greater sustained public investment in affordable housing;
- A policy framework that allows for affordable housing; and
- An increase in the supply of housing to meet the demand.

To implement these objectives, the Task Force recommended increasing property taxes by one mill beginning in Fiscal Year 2021, which would generate approximately $3.7 million annually, and dedicating $750,000 of this funding each year to grants for owner-occupied rehabilitation of affordable units in the form of in-house grants. The remainder of the funding was recommended to be granted to the South Carolina Community Loan Fund to use in their revolving loan fund program that funds new construction and rehabilitation of affordable units. The Task Force also recommended working with the Chamber of Commerce and CRDA to approach municipalities, the private sector, academic institutions, and existing businesses to contribute funds. The Task Force's recommendation included policy recommendations, as well.

On August 11, 2020, County Council voted to approve funding resolution referendum questions proposing a two-mill tax levy for 20 years to fund a Local Housing Trust Fund and proposing the issuance of general obligation bonds payable from the two-mill levy maturing over 20 years. Both questions on the referendum failed by small margins.

Since 2020, Charleston County has created the Housing and Neighborhood Revitalization Department as described above. The County has also implemented the policy recommendations of the Task Force by adopting amendments to the Zoning and Land Development Regulations Ordinance (ZLDR) and Fee Ordinance to incentivize development of affordable and workforce housing and remove zoning-related regulatory barriers to the development of such units.

~~**Regional Housing Needs**~~

~~In 2011, County Council requested that the Berkeley-Charleston-Dorchester Council of Governments (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:~~

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

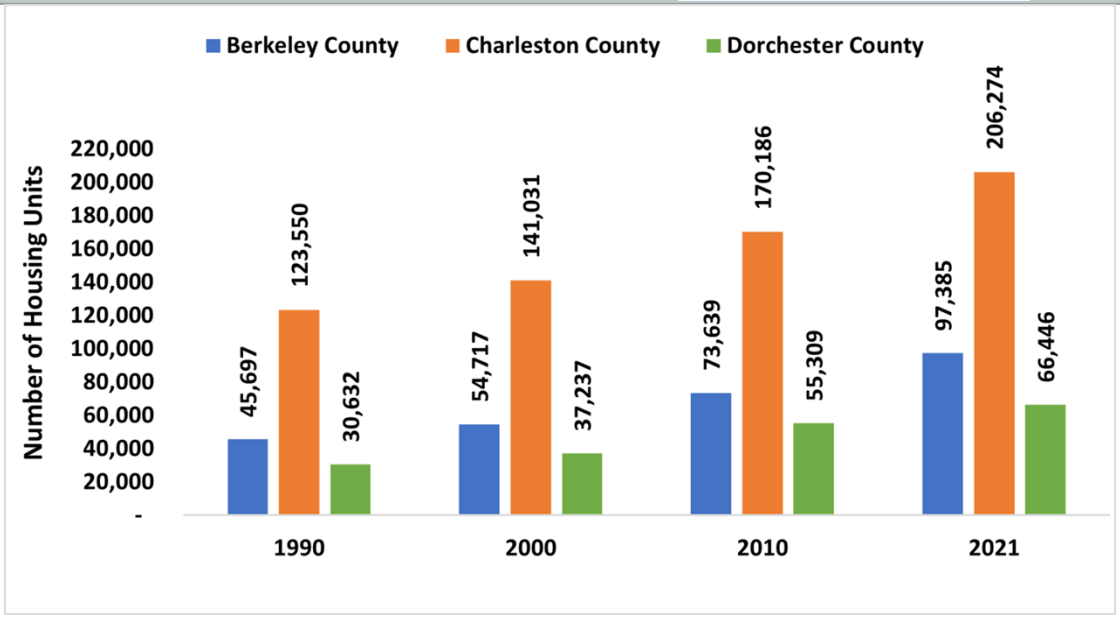
~~The Community Profile highlights the region's demographics. The Housing Market Analysis includes data on the existing housing inventory, housing market, future needs, and housing issues. Analysis of these two sections, as well as national and state demographic trends, was utilized to create the Issues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

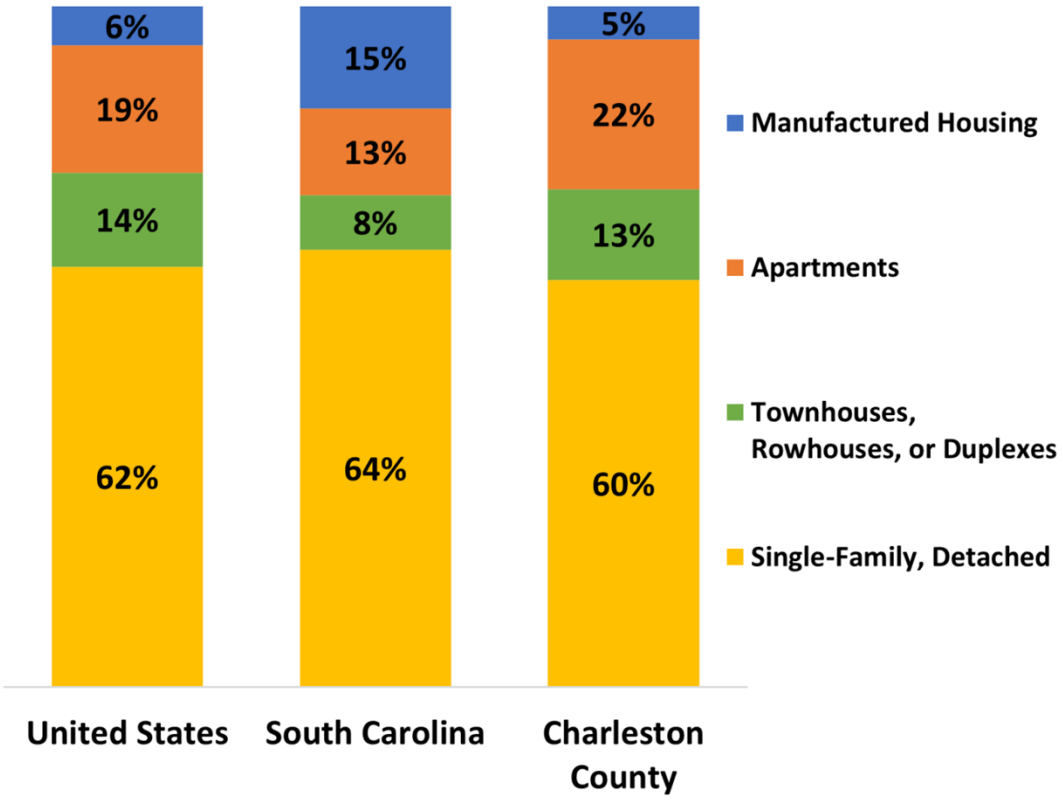
There were 36,088 housing units built in Charleston County between 2010 and 2021. This accounts for 56 percent of the region's development. ~~In 2015, Charleston County contained 57 percent (175,607 housing units) of the total 309,113 housing units in the region.~~ While the majority of the regional housing stock is in the County, development also has occurred ~~also has occurred~~ in Berkeley and Dorchester Counties. *Figure 3.6.1* indicates the growing number of housing units in the tri-county region.

Figure 3.6.1: Total Housing Units by County, ~~2000~~1990-2021 ~~1990-2015~~



Sources: U.S. Census Bureau, 1990-2000; American Community Survey Five-Year Estimates, 2007-2011 and 2011-2015; American Community Survey One-Year Estimates 2021

Figure 3.6.2: Housing Type, 2021 ~~15~~



~~S~~ource: American Community Survey Five-Year Estimate, 2011-2015; American Community Survey One-Year Estimates 2021

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 (60 ~~59~~ percent or ~~102,669~~ 123,289 homes) is 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 22 ~~25~~ percent of the housing units in the form of apartments and 13 ~~nine~~ 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 2021 ~~2015,~~ the percentage of owner-occupied housing units increased by 16 percent, with the majority of this growth occurring within the last 10 years, when the County experienced a 15 percent increase. ~~remained relatively constant; however,~~ Tthe percent of renter-occupied housing units decreased slightly over the same period of time and the percent of vacant units, which include seasonal homes (second homes and vacation rentals), has

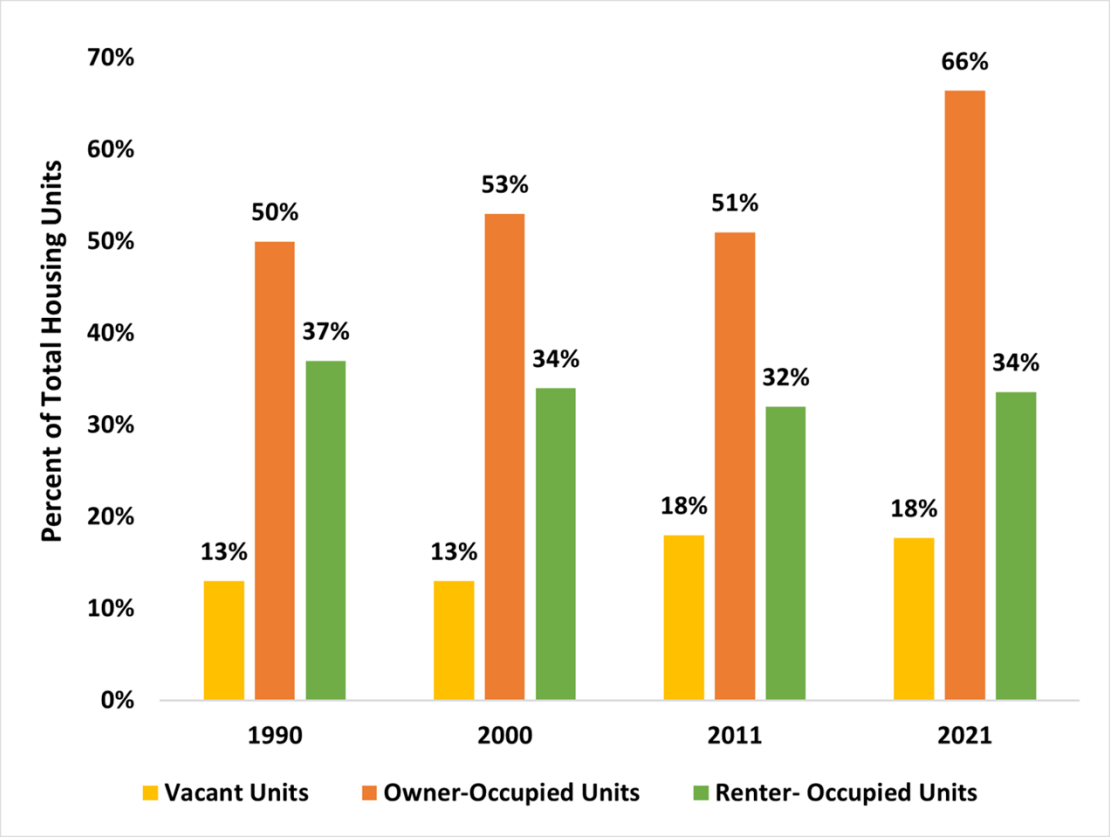
increased by five percent ~~slightly~~ since 1990.

Figure 3.6.4 compares the County's housing tenure to state and national trends. Since 2015, Charleston County has maintained a lower average percentage of owner-occupied units than both South Carolina and the United States. The percentage of vacant units is higher in the County than the state and nation, by four and eight percent, respectively. This could be due to the number of seasonal/vacation homes in the County. The percent of renter-occupied units in the County is higher than the state, but lower than the nation. ~~Renter- occupancy in the County is higher than both the state and country. In 2015, 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 2021 One-Year Estimates ~~2011-2015 Five-Year Estimates~~ indicates that 66 ~~56~~ percent (135,263 ~~97,705~~ 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.

DRAFT

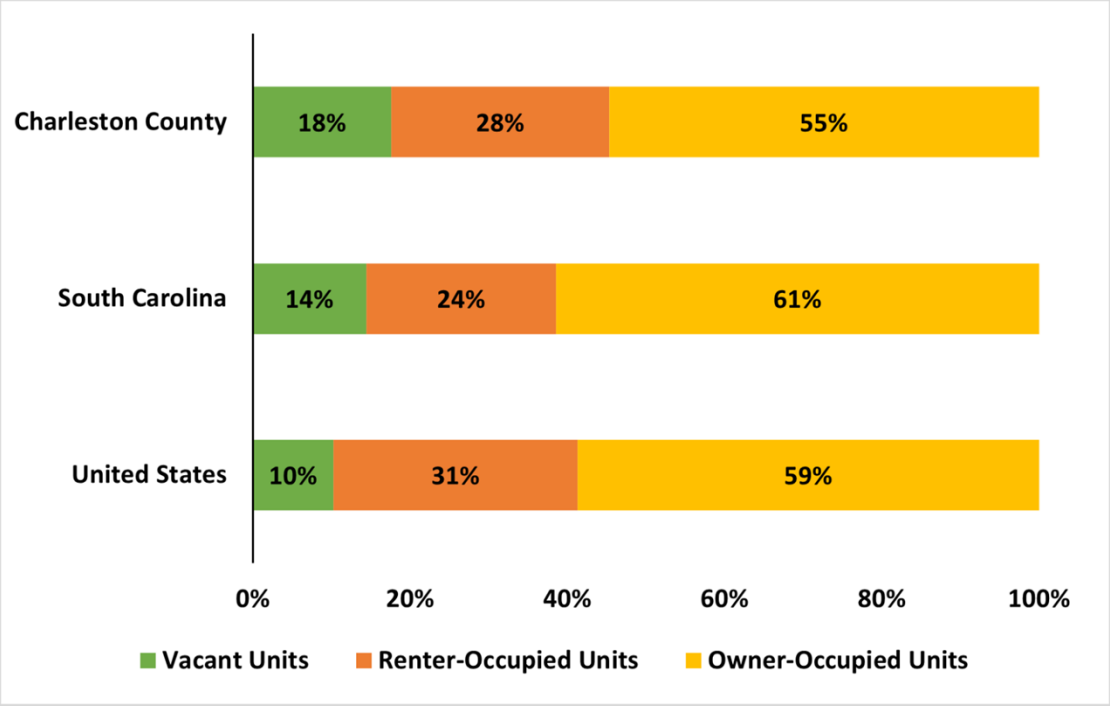
Figure 3.6.3: Housing Tenure in Charleston County, 1990 - 2021 ~~1990-2015~~



Sources: U.S. Census Bureau, 1990-2000; American Community Survey Five-Year Estimate, 20072011 and 2011-2015; American Community Survey One-Year Estimates 2021

DRAFT

Figure 3.6.4: Housing Tenure, 2021 ~~15~~



Source: American Community Survey Five-Year Estimate 2011-2015; American Community Survey One-Year Estimates 2021

Home values and median gross rent both tend to be higher in Charleston County, when compared to state and national figures. In 2021 ~~2015~~, the median home value of owner-occupied homes in the County (as reported to the Census) was $398,600 ~~243,200~~. This is much higher than the state median ($213,500 ~~139,900~~) and national median ($281,400 ~~178,600~~). *Map 3.6.1* demonstrates the median home value by Census block group for Charleston County in 2021 ~~11~~ ~~(which is the most recent spatial data available)~~. 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 ($72,147 ~~60,159~~) and homes that are not affordable to the same households. As demonstrated, many areas in the County were unaffordable to households earning less than $72,147 ~~60,159~~ in 2021 ~~11~~. This remains an issue as home prices have continued to grow at a much faster pace than the median household income. In 2021~~15~~, median gross rent in Charleston County was $1,346 ~~992~~, again higher than the state median ($976 ~~790~~) and national median ($1,191 ~~928~~).

Housing Affordability

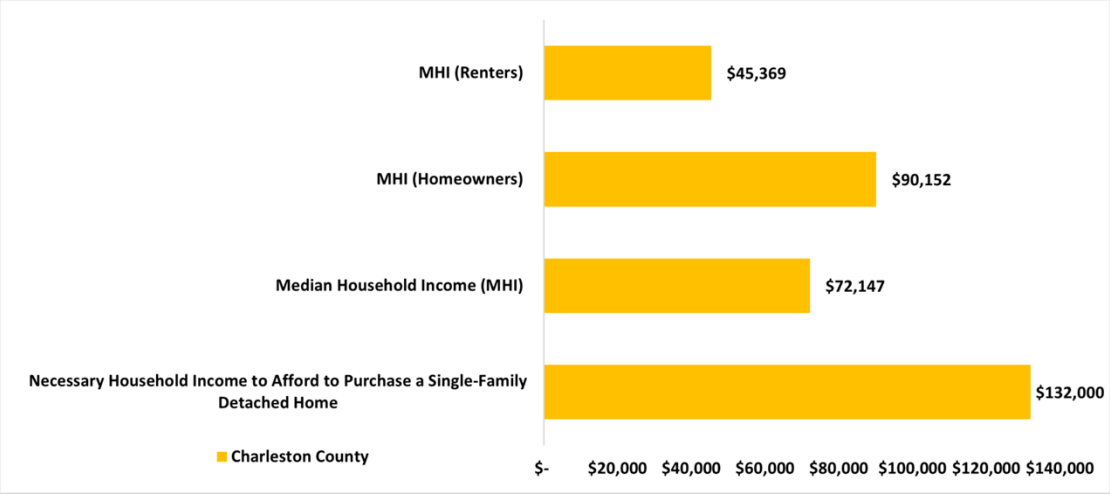
DRAFT

Housing affordability is a critical issue in the region as housing costs are consistently higher than surrounding areas and comparable metros; this is a particular concern 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 single-family detached home in Charleston County ($132,000 ~~81,067~~) compared to the actual median household incomes of all residents, homeowners, and renters in Charleston County ($72,147, $90,152, and $45,369 ~~$53,437, $71,353, and $33,938~~, respectively). As illustrated, the income necessary to afford to purchase a single-family detached home in Charleston County is 83 ~~35~~ percent ($59,853 ~~27,630~~) higher than the median household income earned in 2021 ~~15~~. According to Census data, renter-occupied households earn significantly less than owner-occupied households, which indicates a greater affordability issue for the renting population.

> ***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 US Department of Housing and Urban ~~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)

In 2021 ~~15~~, more than 50 percent of renters and about one-third of homeowners, ~~slightly more than one-third of homeowners and one-half of renters in Charleston County,~~ a total of 49,702 ~~50,890~~ households, were paying more than 30 percent of income on housing costs (see *Figure 3.6.6*). In the region, a total of 81,665 ~~85,438~~ households reported that they spend more than 30 percent of income on housing costs in 2021~~15~~.

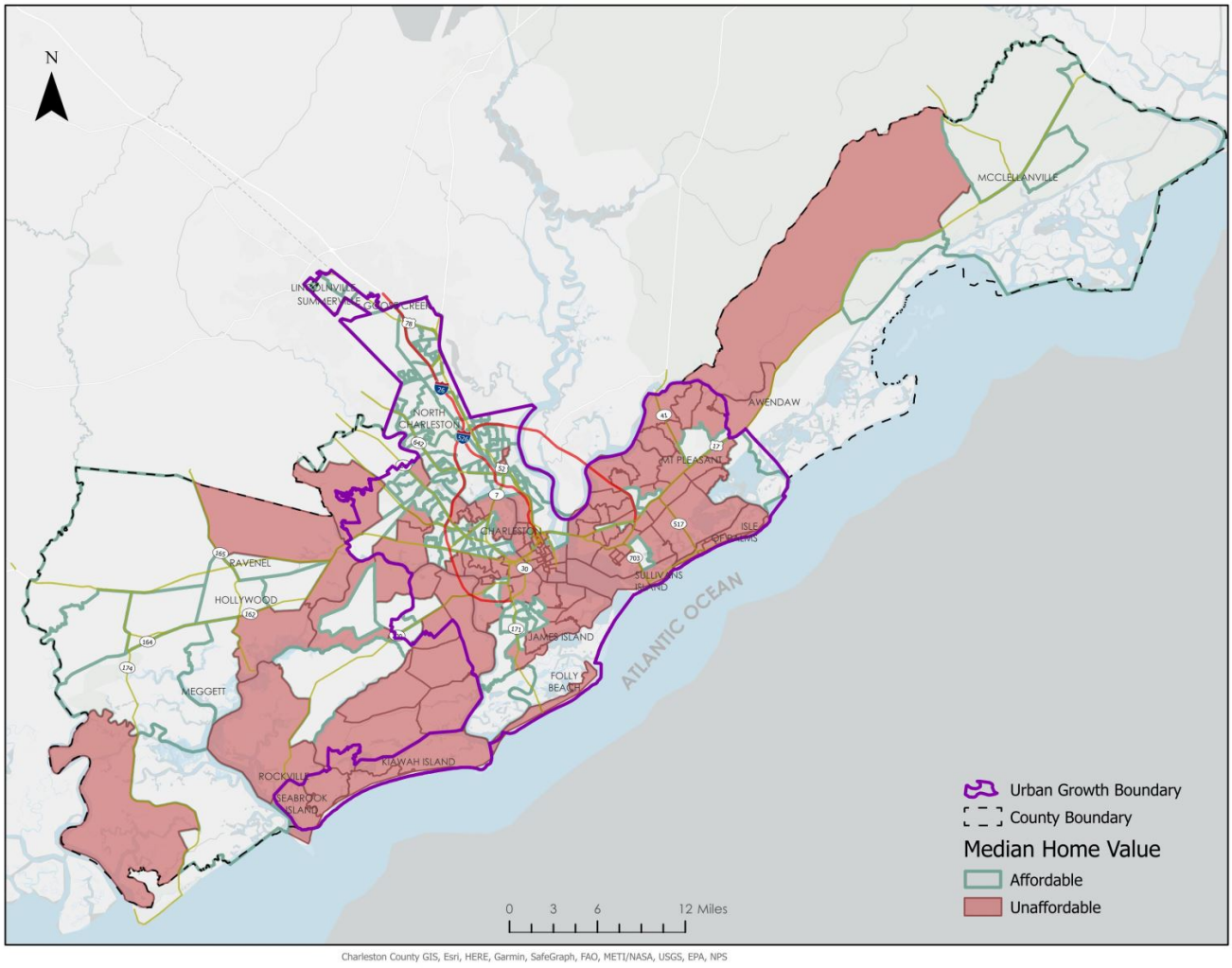
Figure 3.6.5: Household Income Relative to Median Home Value, 2021 ~~15~~



DRAFT

Note: Home Price is based on the Median Home Value in Charleston County is $243,200. Source: American Community Survey Five-Year Estimate, 2011-2015; American Community Survey One-Year Estimates 2021

Map 3.6.1: Median Home Value by Block Group in Charleston County, 202211



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

~~N~~ote: $60,159 is 120% of the median household income in Charleston County in 2011. Source: American Community Survey ~~Five-Year~~ Estimate, 2021 ~~2007-2011~~ Map dated January 27, 2023

~~**Housing Issues and Trends**~~

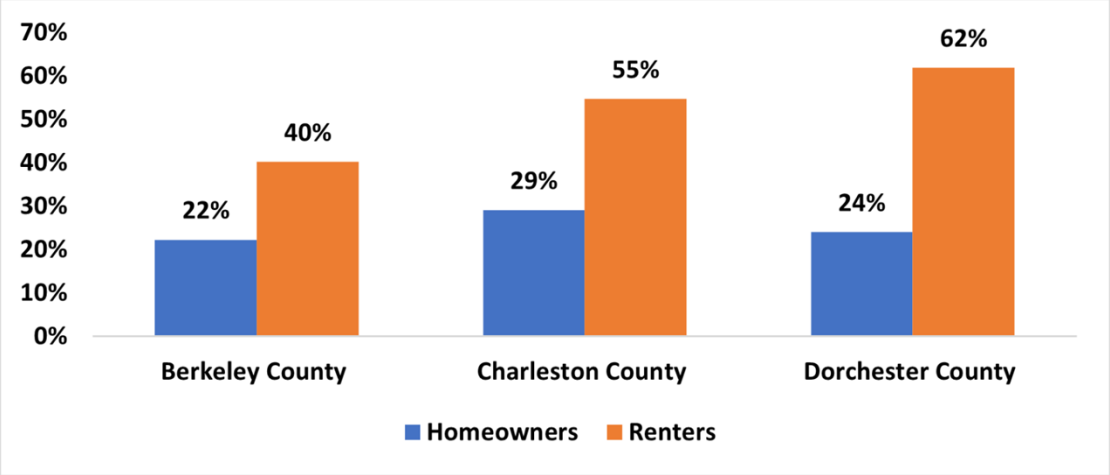
1. ~~Lack of affordability~~
2. ~~Housing located far from employment centers and public facilities~~
3. ~~Lack of diverse housing options~~
4. ~~Regulatory barriers~~
5. ~~Lack of an active partnership~~

As shown in *Figure 3.6.7*, Charleston County consistently had the highest median sales prices of homes in the region between 2011 and 2021 ~~2016~~, 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 2021 ~~12~~, 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, where home prices are very high. Berkeley County was also assessed with and without home sales on Daniel Island, where home prices are also very high.~~ The income necessary to afford the average-priced home in any area of the region is higher than both the regional median household income in 2011 ($51,332) and the median household income in Charleston County in 2011 ($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 *2016 Economic Scorecard*, published by the Charleston Regional Development Alliance (CRDA), while average wages in the Charleston region have continued to grow since 2005, the region's average wages are only 85 percent of the national average.~~ *Figure 3.6.8 A and B* provide~~s~~ an example of how residents employed as firefighters, teachers, and service workers are not earning enough to afford housing in the region.

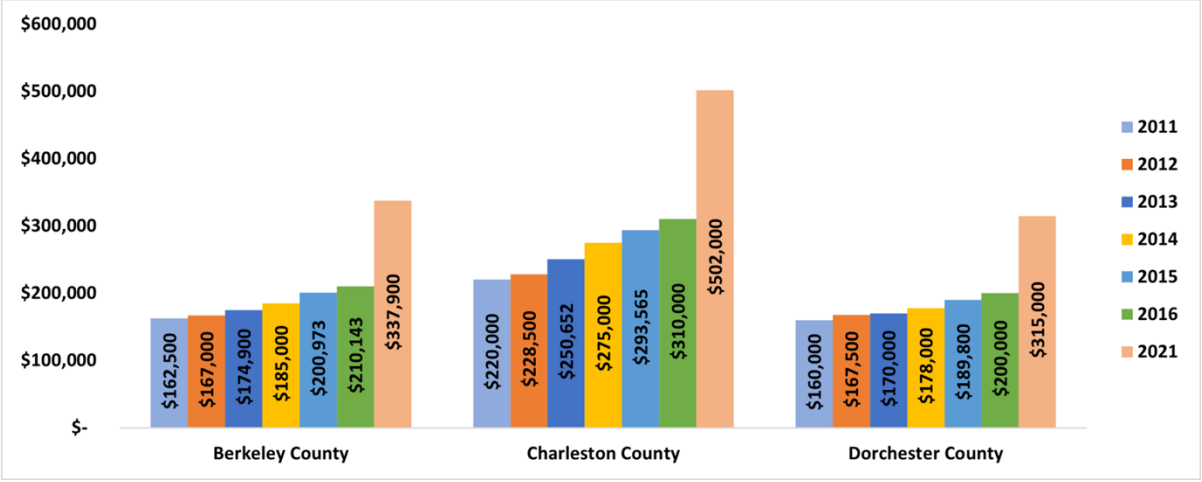
Figure 3.6.6: Proportion of Homeowners and Renters Spending More Than 30% of Monthly Income on Housing Costs by County, 2021 ~~15~~



Source: American Community Survey Five-Year Estimate, 2011-2015; American Community Survey One-Year Estimates 2021

DRAFT

Figure 3.6.7: Median Home Sales Prices by County, ~~2011-2016~~ 2011-2021



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

Location of Housing that is Affordable

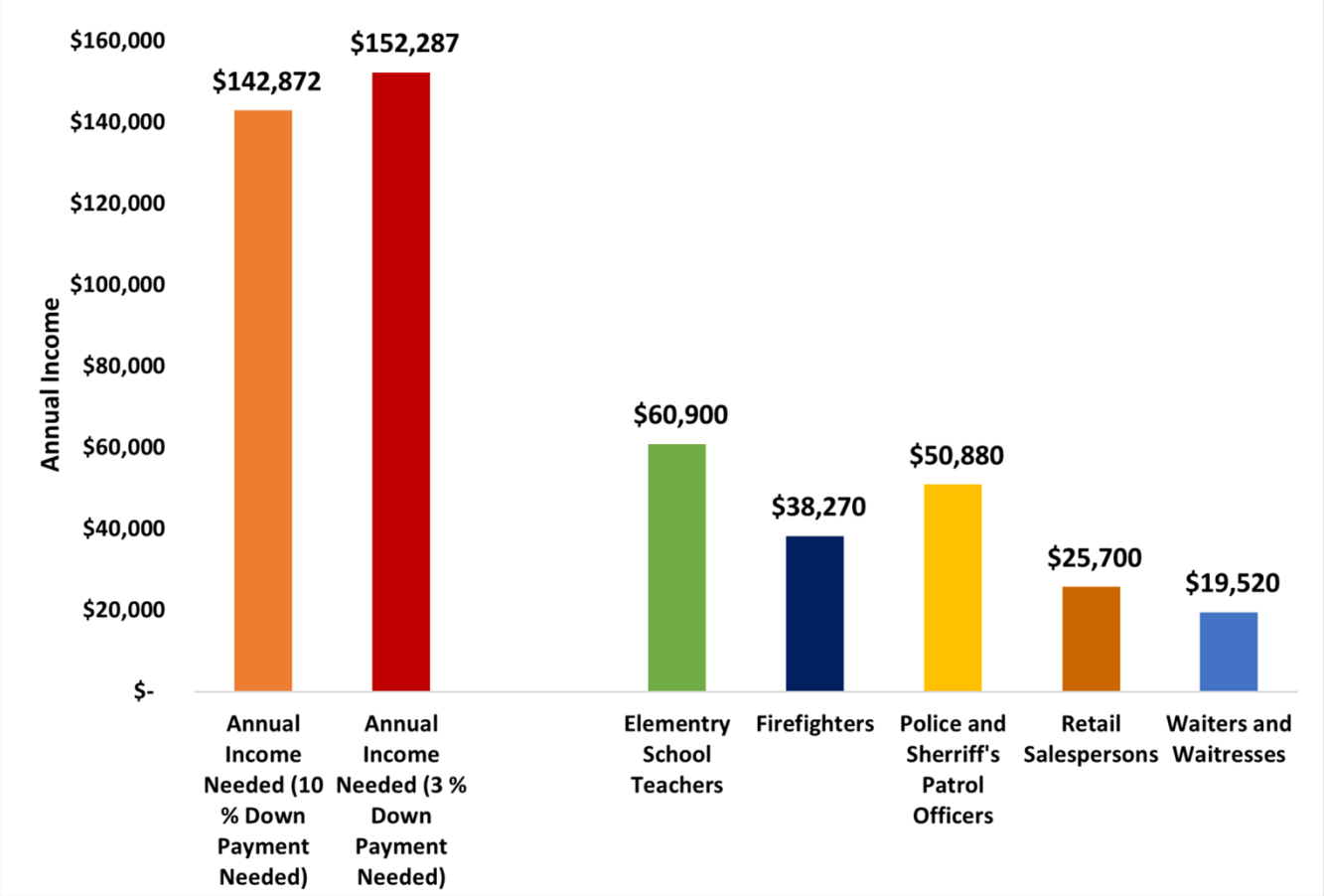
Much of the most affordably-priced housing is located in rural parts of the County, far from employment centers. This results in some residents driving further to find housing they can afford, which can increase living expenses by 15 percent or more depending on your location (according to the Center for Neighborhood Technology or CNT), increase traffic congestion, excessively burden transportation infrastructure, and negatively impact economic development and the quality of the environment.

CNT created the Housing + Transportation (H+T) Affordability Index, which analyzes transportation costs and factors them into overall housing costs. In suburban and rural communities located outside of expensive metro centers, housing prices are often lower; however, the transportation costs are higher, reducing, and sometimes even eliminating, the savings made possible by lower housing prices. In Charleston County, transportation costs are estimated to cost households approximately 21 4 percent of their annual income~~, by CNT. The BCDCOG report looked at public transportation accessibility in the region and found that O~~only 31 percent of residents (206,745 residents) in 2010 lived within one-quarter mile of a public transit stop (see *Figure 3.6.9*). When residents live further than one-quarter mile from public 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 commuting patterns 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. Nearly six percent of workers reported that they either walked or biked to work. The dependency on automobiles in the region is resulting in sprawling development, traffic congestion, and high costs for local governments and taxpayers to maintain the extensive road infrastructure system.

DRAFT

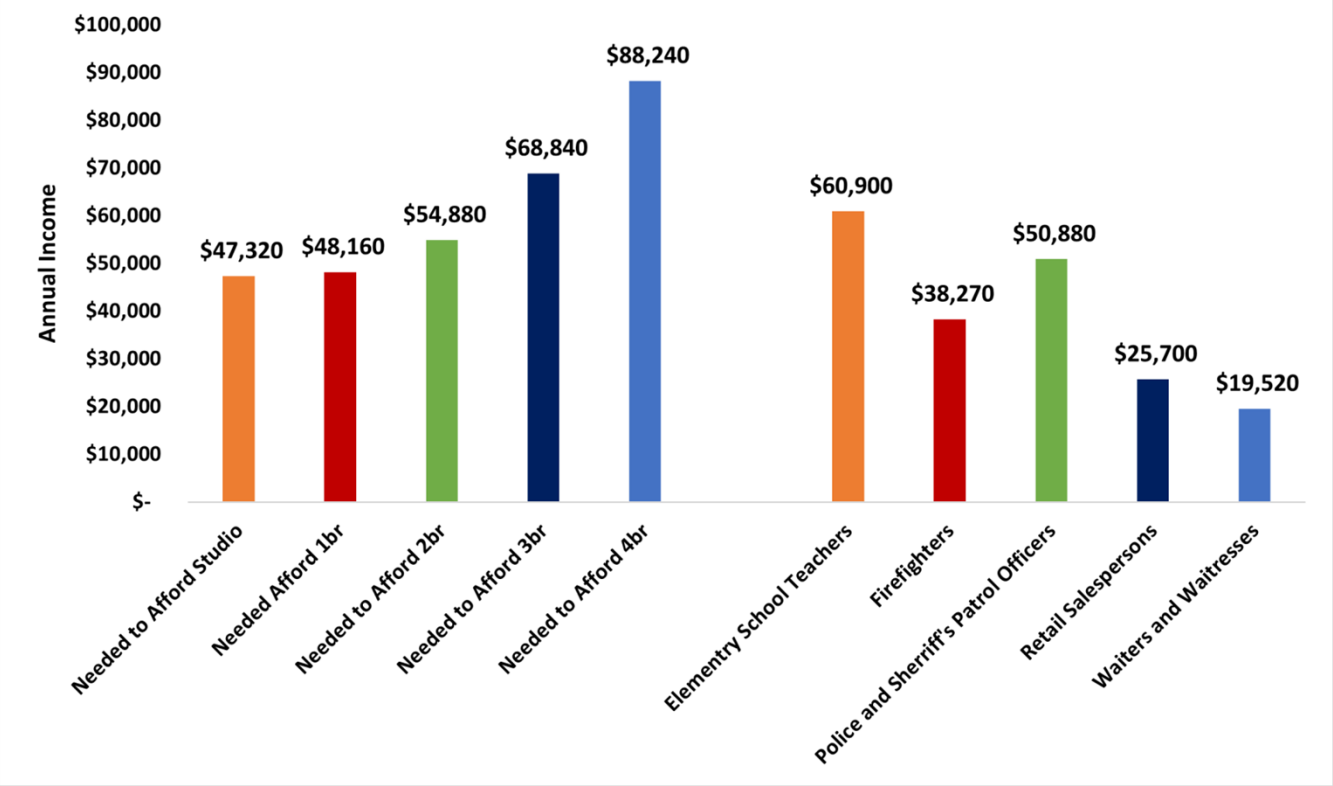
Housing that is affordable to residents should be encouraged in the Urban/-Suburban Area of Charleston County where public infrastructure, facilities, and employment exist. Encouraging infill development will increase the concentration of residents near existing public transportation stops, which could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

Figure 3.6.8 A: Annual Income Needed for Homeownership Versus Actual Annual Income, 2023 ~~Wage Versus Home Price Comparison~~



Source: Graphic made using Paycheck to Paycheck calculator by National Housing Conference, 2023 (Income needed for homeownership) ~~Graphic published in 2013 Economic Scorecard, Charleston Regional Development Alliance (CRDA).~~

Figure 3.6.8 B: Annual Income Needed for Rental Versus Actual Annual Income, 2023 ~~Wage Versus Home Price Comparison~~

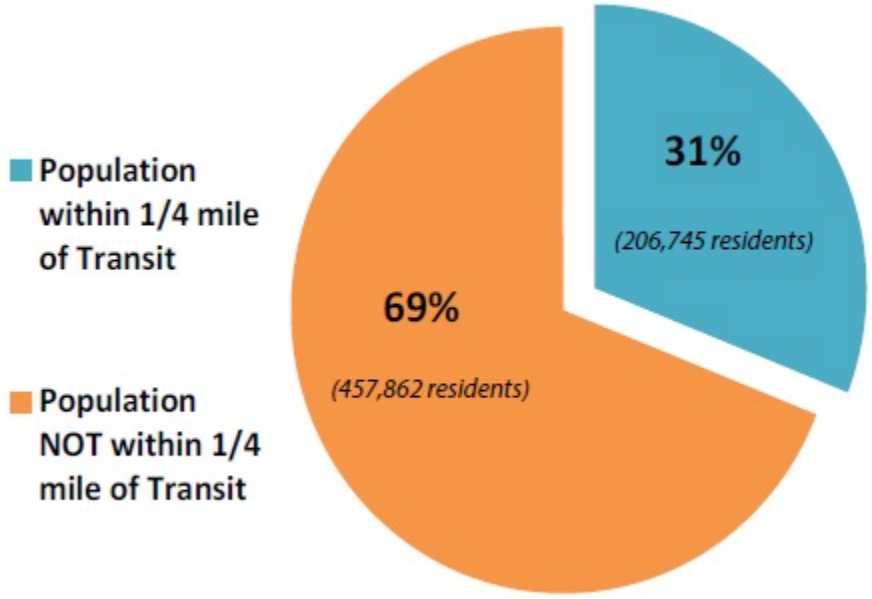


Source: Graphic made using Paycheck to Paycheck calculator by National Housing Conference, 2023 (Income needed to afford rental)

Table 3.6.1: Income Necessary to Afford Average-Priced Homes, 2021 ~~2012~~

	Average Sales Price	Income Necessary to Afford	Necessary Income as % of MHI
Region	$355,333 ~~265,806~~	$118,444 ~~88,804~~	173% of MHI
Berkeley County	$329,000 ~~214,334~~	$109,667 ~~71,351~~	139% of MHI
~~Berkeley County (without Daniel Island)~~	~~$173,000~~	~~$58,005~~	~~113% of MHI~~
Charleston County	**$440,000 ~~314,207~~**	$132,000 **~~04,717~~**	**204% of MHI**
~~Charleston County (without Beach Communities)~~	**~~$278,003~~**	**~~$92,911~~**	**~~181% of MHI~~**
Dorchester County	$297,000 ~~176,931~~	$99,000 ~~59,032~~	115% of MHI

Figure 3.6.9: Public Transportation Accessibility in Region, 2010



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

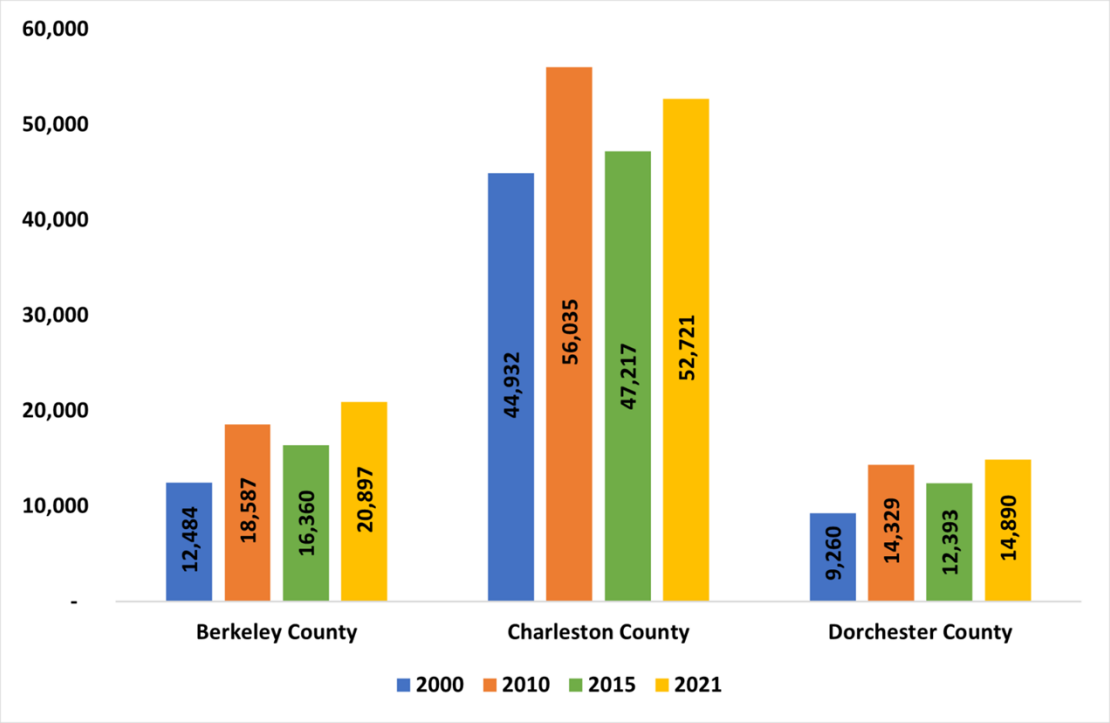
DRAFT

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 2015 to 2021 ~~1990 to 2015~~, the average number of persons per household decreased from ~~2.61 to~~ 2.44 to 2.34 in the County. Additionally, the number of single-person households increased from 2015 to 2021 ~~2000 to 2010~~, as shown in *Figure 3.6.10*, although the number of single-person households in the County in 2021 was lower than in 2010. In 2021 ~~10~~, single-person households in Charleston County comprised 31 ~~9~~ percent (~~56,035~~ 52,721 households) of the total households.~~;~~ ~~however, surprisingly~~, T~~t~~his number ~~fell to~~ rose from 47,217 households in 2015 (32 percent). As reported in 2015, ~~Additionally,~~ almost a third of single person households ~~those households~~ were individuals over 65 years of age. Current census data shows that individuals who are 64 years of age or younger now make up the majority of householders living alone. The number of single-person households is expected to 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 size~~s~~ will impact the types of housing units that need to be provided. As mentioned previously, in 2021 ~~15~~, the majority (60 ~~59~~ percent) of the housing stock in the County was 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, 65 ~~2~~ 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 size~~s~~ continue~~s~~ to decrease and more people live alone.

Figure 3.6.10: Single-Person Households by County, 2000-2021 ~~2015~~



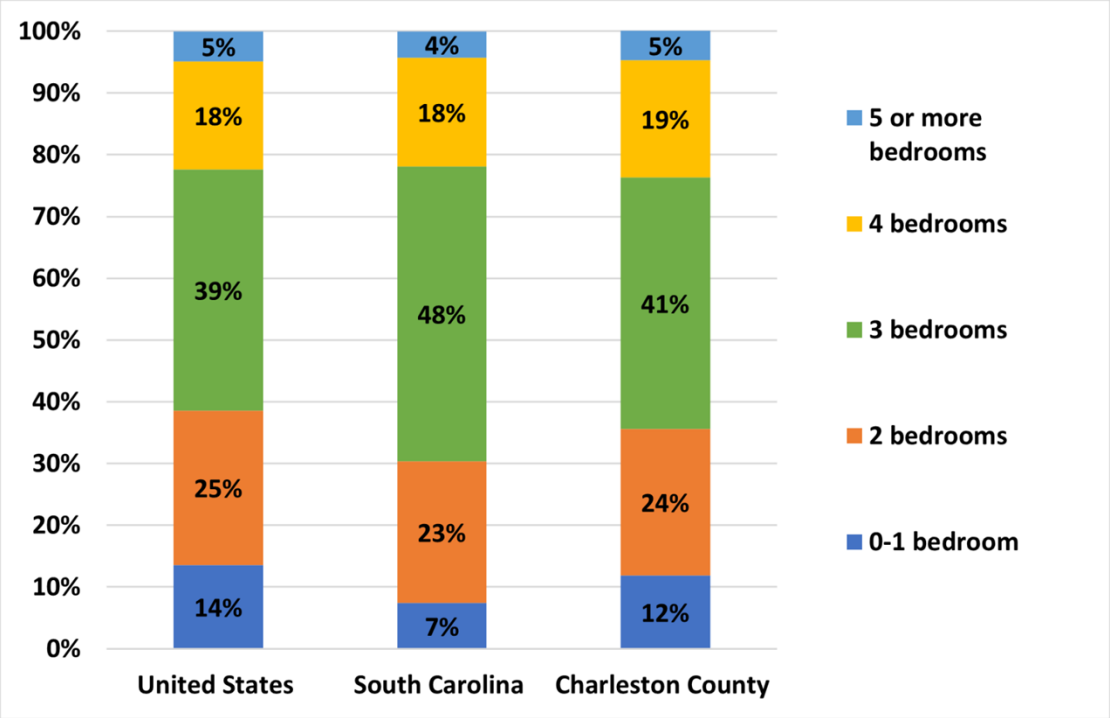
Sources: U.S. Census Bureau, 2000, 2010; American Community Survey Five-Year Estimate, 2011-2015; American Community Survey One-Year Estimates 2021

DRAFT

Lifestyle changes are also already impacting local housing markets. Two generations, the Millennials (Born between 1981 to 1996) and Baby Boomers (Born between 1946 to 1964), 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 could be important.

Millennials, the largest generation in the United States at around 72 ~~86~~ million people in 2021, 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.

Figure 3.6.11: Housing Size by Bedroom Count, 2021 ~~2015~~



Source: American Community Survey Five-Year Estimate, 2011-2015; American Community Survey One-Year Estimates 2021

DRAFT

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 2021 One-Year estimates ~~2011-2015 Five-Year Estimates~~, approximately 28 ~~39~~ percent of the housing units in Charleston County (57,055 ~~58,268~~ units) are renter-occupied, which is higher than the proportions of renters in ~~both~~ South Carolina (24 ~~31~~ percent) ~~and the United States (36 percent)~~.

~~**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/howhousing-matters/.~~

Public Housing Programs

For households earning Low to Moderate Income (LMI), which is between 30-50 percent of the area median income (less than $41,050 ~~33,000~~ for a family of four), public housing and housing vouchers are available through local housing authorities and funded by the US Department of Housing and Urban Development (HUD). The Charleston County *Housing Our Future* Plan states that there are currently 11,000 units dedicated for affordable housing. However, the report estimates that only one in five eligible households actually receive the needed support. ~~are eligible for these programs~~ ~~In 2015, 4,588 public housing units existed in Charleston County.~~ Three primary agencies, the City of Charleston Housing Authority, City of North Charleston Housing Authority, and Charleston County Housing and Redevelopment Authority, manage these units. Despite the number of units in existence, the waiting lists for these units and housing vouchers are very long, with each agency having hundreds of citizens on their waiting lists.

Affordable and Workforce Housing

Households earning between 30 percent and 80 percent of the Area Median Income (AMI) (less than $65,700 ~~52,800~~ for a family of four) may qualify for affordable housing assistance, while households earning between 80 percent and 120 percent of the AMI (less than $98,520 ~~79,200~~ for a family of four) may qualify for Workforce Housing. Affordable and Workforce Housing is often provided from funding through the Community Development Block Grant and HOME programs administered by HUD or non-profit organizations, such as the South Carolina Community Loan Fund and Habitat for Humanity. City and county ordinances can also be instrumental in encouraging affordable and workforce housing development. As of 2016, 1,262 affordable or workforce units existed in Charleston County, with the majority of units located in the City of Charleston, Town of Mount Pleasant, and City of North Charleston.

Impacts on the Housing Market

Trends unique to the Charleston area are impacting the local housing market. As Charleston continues to be a major tourist destination, short-term rentals have proliferated in all parts of the County. As property investors continue to acquire properties for conversion into short-term rentals, local governments will have to ensure the existing housing market is sustained and that the rentals do not negatively impact the quality of life for existing residents and neighborhoods. ~~The City of Charleston and Charleston County are both studying the short-term rental market and working to draft regulations~~. Unincorporated Charleston County adopted a Short-Term Rental Ordinance in July of 2018. These regulations aim to protect the quality of life and character of residential neighborhoods.

Another trend is the increased development of multifamily units. Most of the multi-family development is occurring in the City of Charleston and Town of Mount Pleasant. The County should continue to promote denser development within the Urban/Suburban Area, where infrastructure and services exist; however, the impacts of these developments should be considered, and infrastructure should be improved as necessary. Much of the multi-family development is being driven by the high cost of homeownership, growing population of students enrolled in higher education institutions, as well as the growing number of young professionals coming to the Charleston area.

Group Quarters

Not all residents live in individual privately-owned or rented homes. A small proportion of the County's population (2 ~~3~~ percent or 9,339 ~~12,067~~ residents) resided in group quarters in 2021 ~~2015~~, which can be categorized into two general groups institutional and non-institutional. The institutionalized 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. 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

DRAFT

~~The BCDCOG report identified regulatory barriers as a prominent housing issue. Most specifically, L~~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. As noted above, in October of 2021, the County adopted amendments to the Zoning and Land Development Regulations Ordinance (ZLDR) and Fee Ordinance to incentivize development of affordable and workforce housing and remove zoning-related regulatory barriers to the development of such units. Building code, stormwater, and state and f~~F~~ederal regulations can also unintentionally 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 housing and related issues.~~

~~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

Housing Element Needs

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

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

3.6.4: HOUSING ELEMENT STRATEGIES AND TIME FRAMES

~~Quality housing that is affordable will be encouraged~~ Charleston County will prioritize the development of quality, diverse housing with efficient transit connectivity that is affordable for people of all ages, incomes, and physical abilities with special emphasis for those earning less than 120% of the Area Median Income.

DRAFT

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.

H1. Continue to ~~C~~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.

H2. Continue to support funding for affordable and workforce housing agencies such as the SC Community Loan Fund and local housing authorities.

H3. Continue to ~~M~~maintain and develop incentives in the *Zoning and Land Development Regulations Ordinance*, such as density bonuses, transfers of density, accessory dwelling units, 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.

H4. ~~Continue to Ssupport existing communities by maintaining the existing housing stock and ensuring that infill development preserves and enhances the character of communities~~. Support the stabilization of existing, naturally occurring affordable housing stock through a revolving loan fund and other similar programs.

H5. 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 Federal Emergency Management Agency (FEMA) requirements.

H6. Adopt innovative planning and zoning techniques such as Form-Based Zoning District regulations to encourage mixed-use developments with diverse housing options in walking distance to services, retail, and employment opportunities.

H7. Continue to encourage provision of housing that is affordable to all residents and meets the needs of the diversifying population by allowing alternative housing types (e.g. Duplex, tri-plex, fourplex, townhouse) by right in the Urban/Suburban Area. ~~(e.g., rental apartments, townhouses, duplexes, and first time home buyer initiatives).~~

H8. Charleston County should be proactive in promoting housing that is affordable to all residents through incentives and removal of regulatory barriers.

H9. 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.

H10. Implement the recommendations of the Charleston County *Housing our Future Plan*, when adopted.

H11. ~~Investigate the feasibility of requiring new developments to provide affordable and workforce housing.~~ Support State legislation to allow jurisdictions to require the inclusion of affordable and workforce housing in developments.

H12. Identify and implement partnerships and initiatives that provide financial incentives for the development of affordable and workforce housing.

DRAFT

CHAPTER 3.7 TRANSPORTATION ELEMENT

Contents:

3.7.1: OVERVIEW
3.7.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.7.3: TRANSPORTATION ELEMENT GOAL
3.7.4: TRANSPORTATION ELEMENT STRATEGIES AND TIME FRAMES

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, City, and/or State, 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.

Element Goal

A public transportation system that is coordinated with land use patterns and community character through a high level of interaction with the community, and includes a diversity of transit options, prioritizes pedestrian infrastructure, and is accessible and efficient for all residents. The level of service should support economic development and a high quality of life for all income levels.

DRAFT

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.

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 bus rapid transit; and support and improve the existing emergency evacuation and transportation planning policies.

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.

DRAFT

3.7.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

The County's primary function in relation to transportation is through improvements of roadways and drainage. The Public Works ~~Transportation Development~~ Department is responsible for these roadway improvements and ~~, while the Public Works Department is responsible~~ for drainage and maintaining county roads. In 2004, Charleston County voters approved a half-cent sales tax on purchases made within the County for 25 years, or until $1.3 billion is collected to help address the challenging issues of lagging infrastructure compared to the pace of growth in the County. The intent of the sales tax is to fund the costs of highways, roads, streets, bridges, and other transportation-related projects and drainage facilities. The sales tax also funds mass transit systems operated by the Charleston Area Regional Transportation Authority (CARTA). Together, no more than $1,081,788,800.00 can be used for these projects and purposes. The remaining $221,571,200.00 collected must be used for financing the cost of the Greenbelt Program. Collection for the sales tax began in May 2005, and since then has funded the completion of eleven bonded projects and 261 annual allocation projects. ~~To date, this successful sales tax program has funded the completion of 11 bonded projects and 218 261 annual allocation projects.~~

In November 2016, the citizens of Charleston County voted to add a second half-cent sales tax. The passing of this referendum adds an additional half-cent to purchases made within the County beginning May 2017 for 25 years, or until $2.1 billion is collected. The second referendum also splits funding between transportation improvements and the Greenbelt Program, where $1,890,000,000.00 will be collected for transportation-related projects and mass transit and $210,000,000.00 will finance the cost of greenbelts. Details regarding each of these half-cent sales tax programs are provided later in this section.

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). The BCDCOG, one of South Carolina's ten Regional Planning Councils, provides regional planning for the tri-county area and is the designated Metropolitan Planning Organization (MPO) responsible for carrying out the urban transportation planning process for the Charleston Area Transportation Study (CHATS). The BCDCOG also provides staffing, management and oversight of the Charleston Area Regional Transportation Authority (CARTA), Charleston's urban public transportation system covering the metro area of Charleston, South Carolina. Together, these agencies analyze the short-and long-range transportation needs of the region and offer a public forum for transportation decision making.

DRAFT



(Source: www.combatindex.com)



(Source: www.

DRAFT

South Carolina Department of Transportation

The South Carolina Department of Transportation (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).



(Source: www.postandcourier.com/news/costly-housing-h charleston-area-workers-living-far-from/article_e3982e58-a99f-11e9-8026-ab8592c

SCDOT, in partnership with the South Carolina Department of Commerce, South Carolina State Ports Authority, Federal Highway Administration, Federal Transit Administration, and other key stakeholders have updated the South Carolina Multimodal Transportation Plan (MTP), "Charting a Course to 2040". The MTP is updated every five years to reflect the latest information on travel and growth trends, goals and objectives, infrastructure conditions, future deficiencies, and estimated funding. The current MTP was adopted by the SCDOT Commission in ~~December 2014~~ July 2020.

For the first time in 30 years, SCDOT has been provided with an increased and sustainable revenue stream. Legislation known as the "Roads Bill" was passed by the South Carolina General Assembly and went into effect on July 1, 2017. The centerpiece of the legislation ~~is~~ was the increase in sustained funding to fix more roads and bridges through a graduated increase in the state gas tax up to fiscal year 2022. ~~A recently released~~ The SCDOT Ten Year Project Plan, set to expire in 2027, is one of several initiatives that will utilize this new funding. The Plan lists 16 new state highway system projects in Charleston County that will increase interstate capacity, improve rural road safety, and eliminate load-restricted and structurally deficient bridges.

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 1,000 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. The CHATS Transportation Improvement Plan (TIP) lists three primary documents that encompass the region's urban transportation planning efforts:

1. The *Unified Planning Work Program* lists the transportation studies and tasks to be performed by the CHATS MPO 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

DRAFT

intermodal considerations. The vision of the LRTP is guided by estimated available financial resources. The current LRTP was adopted by the CHATS Policy Committee in January 2019 ~~on December 12, 2011, and BCDCOG staff is currently in the process of updating this document~~; and

3. The *Transportation Improvement Program* (TIP) is a short-range ~~five-year~~ capital improvement program prioritizing projects for federal funding. The current ~~five~~ seven-year transportation improvements program ~~was adopted in April 2017 and the program~~ spans ~~from~~ fiscal years ~~2017-2022~~ 2021 - 2027. A project must have available funding and be included in the LRTP to be included in the TIP.

Similarly, the BCDCOG maintains three primary documents which encompass the region's rural transportation planning effort: the Rural Unified Planning Work Program (RPWP), the Rural Long-Range Transportation Plan (RLRTP), and the Rural Transportation Improvement Program (RTIP). In June of 2016, the South Carolina General Assembly approved Act 275, which includes directing the revenue from certain fees and fines to the State highway fund for the Resurfacing Program and to the South Carolina State Infrastructure Bank (SIB) for bridge and interstate projects. Some of the Act 275 bridge and interstate funding is programmed in the CHATS TIP, including funding for existing I-526 widening and interchange improvements within Charleston County.

Public Transportation

CARTA

Charleston Area Regional Transportation Authority (CARTA) provides local, express, and neighborhood bus service within the urban and suburban areas of the Berkeley-Charleston-Dorchester Tri-County region. In Charleston County, CARTA provides service in and between North Charleston, Charleston, Mount Pleasant, West Ashley, and James Island and has seasonal beach service to the Isle of Palms. CARTA has regular routes that travel to major destinations and DASH service that provides free bus transportation in the downtown area. CARTA also has three express bus routes in Charleston County from the downtown employment centers to Park and Ride locations. A Tel-A-Ride Service provides curb-to-curb service for residents who meet the Americans with Disabilities Act (ADA) Certification Requirements. In addition to Tel-A-Ride, CARTA On Demand is a partnership with Uber that provides same day on demand services to seniors (age 55+) and Tel-A-Ride Paratransit customers throughout the CARTA service areas. CARTA contracts Transdev Services, Inc., to manage its transportation system. Transdev is responsible for the day-to-day operations of CARTA bus and paratransit services in Charleston, which includes the hiring, training and managing drivers, maintenance, call center dispatch and other employees to ensure safety, maintenance and customer service standards for the riders of the CARTA service. The 2006 Half-Cent Sales Tax allocates 18%, or almost $235 million, to Transit for spending from FY2005 to FY2030. Of that money, almost $233 million goes to CARTA. The 2016 Half-Cent Sales Tax allocates 29%, or $609 million, to Transit for spending from FY2017 to FY2042. Of that figure, almost $381 million goes to CARTA.

DRAFT



CARTA DASH vehicles (Source: www.postandcourier.com/charleston_sc/in-downtown-charleston-out-with-the-trolley-in-with-the/article_226a417c-b72f-11e6-b734-a306d01cbe77.html)

TriCounty Link

TriCounty Link provides rural bus service to Berkeley, Charleston, and Dorchester Counties. The current fleet consists of ~~49~~ 29 vehicles that seat from 14 to ~~32~~ 22 passengers. All TriCounty Link vehicles are ADA compliant and include wheelchair lifts. In Charleston County, three TriCounty Link 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.

Bus Rapid Transit (BRT)

As a result of a BCDCOG-led 15-month study to identify a transit alternative that will improve transit service and enhance regional mobility along the 22-mile I-26 corridor connecting Summerville, North Charleston, and Charleston, Bus Rapid Transit (BRT) along the US 78/US 52 (Rivers Avenue) was recommended to move forward into planning and design. BRT is a system of rubber tired buses that operate like a conventional rail in its own dedicated guideway or in mixed traffic. The BRT recommendation includes 16 hybrid-electric articulated vehicles operating in a semi-exclusive guideway with transit signal priority. The planned service originates in Summerville and ends in downtown Charleston at Line Street. The plan calls for 18 stations with park and rides, transit hubs, and neighborhood stops serving major activity centers such as Summerville, Trident Health/Charleston Southern University, Northwoods Mall, North Charleston, the Amtrak Station, and downtown Charleston. Charleston County's 2016 Half-Cent Sales Tax will provide local matching funds to supplement federal funding to implement and operate this BRT program.

DRAFT

The Lowcountry Rapid Transit (LCRT) Project is a 21.3-mile Bus Rapid Transit (BRT) corridor that will connect North Charleston and Charleston. The BRT route will operate in dedicated bus lanes and mixed traffic, with service to 20 stations and three (3) Park & Rides via 60' articulated battery-electric buses. Service will be operated by the Charleston Area Regional Transportation Authority (CARTA) and will begin at Fairgrounds Exchange Park in unincorporated Ladson and end at the Hagood/Line Station in Charleston. The duration of service is 21 hours on weekdays, 19 hours on Saturday, and 16 hours on Sunday, with 10-minute headways during peak and midday hours on weekdays, and 20 to 30 minute headways on weekends.

The LCRT project was initiated in 2014 with the I-26 Fixed Guideway Transit Alternatives Analysis (I-26ALT), a study conducted to improve transit service and enhance regional mobility along the I-26 corridor connecting Summerville, North Charleston, and Charleston. The I-26ALT study looked at fixed guideway transit and commuter bus service for the corridor and determined that BRT would be the most suitable service to meet the goals of the region. This mode also received strong support from stakeholders and community members. Following identification of the appropriate mode, 12 alignment alternatives considered. The alignment was then refined to a move the western terminus from Summerville to the Fairgrounds to provide the most competitive project for federal funding.

The purpose of the LCRT project is to provide premium, high-capacity BRT service connecting the Lowcountry that will address the following objectives:

- Improve mobility, accessibility, and connectivity of the transit system and region;
- Promote a cost effective and accessible transit alternative; and
- Support land use and transit objectives in the region.

In 2016, Charleston County passed a local sales tax referendum to fund local projects, including transit. As a result of the tax referendum, the Berkeley Charleston Dorchester Council of Governments (BCDCOG) initiated an effort to complete the next steps of the BRT Project Development effort and ultimately build and operate the service. The project is competing for federal matching funds through the Federal Transit Administration (FTA) Capital Investment Grant (CIG) Program as a New Starts Project. During Project Development, BCDCOG conducted the environmental evaluation, preliminary engineering and operations planning to further refine the project definition. The LCRT project is currently in the Engineering Phase of the CIG program. Pending grant funding, construction is scheduled to begin in 2026, with revenue service beginning in late 2028.

The Regional Transit Framework Plan (RTFP) sets the stage for how the region begins to establish a true multi-modal transit rich network. The purpose of the RTFP is to identify and prioritize a High Capacity Transit (HCT) network that serves wide-ranging trip needs, connects the region, enhances the quality of life, and supports economic growth and development. The RTFP serves as the foundation for future high capacity transit investment in the region through 2040 and the recommendations from the study will be incorporated into the region's Long Range Transportation Plan (LRTP), setting the stage for future premium transit infrastructure. The study considered and evaluated existing transit needs as well as future considerations such as population/employment growth, land use, funding, local and regional policies and stakeholder needs.

Charleston County Transportation Committee

DRAFT

By law each county in South Carolina is responsible for establishing a County Transportation Committee (CTC) appointed by the County's Legislative Delegation. Charleston County appoints two of the ten members of the Charleston County CTC, and the Charleston County Transportation Development Department acts as program manager for the CTC. The CTC is entrusted with the authority to select and approve projects to be funded utilizing "C" funds. The "C" funds are derived from the state gasoline tax and are distributed to each county based on an apportionment formula that takes into account the county's land area, population, and rural road mileage. Each year, the Charleston County CTC receives requests from municipalities and organizations and decides which improvement projects receive "C" funding.

Prior to 2017, every gallon of gasoline purchased within the State of South Carolina was taxed 16.75 cents. Counties within the state received 2.66 cents per gallon of all the gasoline sold, with this money being distributed to each county as the "C" fund. State law stipulated that the counties spend at least twenty-five percent of their apportionment of "C" funds on the state highway system for construction, improvements, and maintenance.

In 2017, the South Carolina General Assembly passed the Roads Bill Legislation (Act 40), which resulted in the authorization of additional funding for SCDOT to address essential improvements to the state's transportation system. This legislation also included the authorization of additional recurring funding for the CTC program. The new legislation amends the "C" Fund law increasing the CTC's portion by .3325 cents a gallon beginning July 1, 2018, and each July first thereafter through July 1, 2021, until such time as the total amount equalsed 3.99 cents a gallon. The increase in proceeds resulting from the provisions of the new legislation must be used exclusively for repairs, maintenance, and improvements to the state highway system. ~~Based on future gasoline sales projections, funding to the overall~~ The CTC program ~~would increase incrementally each year for four years for~~ now receives an approximate total of $8 to $9 million per year.

The Charleston County Half-Cent Sales Tax Programs

2006 Half-Cent Sales Tax Program

As noted above, ~~I~~in the fall of 2004, Charleston County voters approved a Half-Cent Sales Tax on purchases made within the County for 25 years, or until $1.3 billion is collected. Collection for the sales tax began in May 2005, and since then has funded the completion of eleven bonded projects and 261 annual allocation projects~~. The intent of the sales tax is to fund the costs of highways, roads, streets, bridges, and other transportation-related projects and drainage facilities. The sales tax also funds the Charleston County Greenbelt Program and mass transit systems operated by the Charleston Area Regional Transportation Authority (CARTA). Collection for the sales tax began in May 2005, and since then has funded 12 bonded projects~~ (ten of these projects have been completed and two are currently under construction):

- Bee Street and Courtenay Drive Infrastructure Improvements;
- Bees Ferry Road Widening;
- Folly Road and Maybank Highway Interstation Improvements;
- Future Drive at Northside Drive;

DRAFT

- Glenn McConnell at Magwood Drive and I-526;
- Harbor View Road Improvements;
- Johnnie Dodds Boulevard Improvements;
- Palmetto Commerce Parkway Phase 1 and 2;
- Wesley Drive Project;
- West Ashley Traffic Circle;
- Folly Road at Camp Road Intersection Improvements (under construction); and
- Maybank Highway Improvements Phase 2 (under construction).

The county began considering options for the clogged section of Maybank Highway at Johns Island's northeastern border more than 15 years ago. An early proposal to just widen the road to five lanes was rejected as being excessively unattractive, primarily due to the large number of grand oaks that would be required to be removed. As an alternative, the "pitchfork" design was proposed, with the Paul J. Gelegotis Bridge designed as the handle, and the three proposed connections to River Road - including the current section of Maybank - designed as the tines. However, the only work completed to date has been the addition of a westbound lane to Maybank; while this project helped reduce traffic in the late afternoon, there is still major traffic congestion. As of November 2022, Charleston County Council awarded a $4.3 million construction contract to construct the Northern Pitchfork. The Northern Pitchfork was funded through the half cent sales tax in lieu of widening Maybank to 4 or 5 lanes several years ago. There is no funding source or work currently being done on the Southern Pitchfork because the Northern Pitchfork used up all the funds set aside to widen Maybank.

In addition to the ~~12~~ major bonded projects, County Council typically allocates~~d~~ $10.5 million for the Half-Cent Sales Tax Allocation Program. To date, a total of ~~218~~261 projects have been completed under the annual allocation program. The breakdown of allocation funds are as follows:

- Resurfacing - $4 million;
- Bike/Pedestrian - $1 million;
- Local Paving - $2 million;
- Intersection Improvements - $2 million;
- Drainage Improvements - $0.5 million; and
- County Council/Public Works - $1 million.

2016 Half-Cent Sales Tax Program

In November 2016, the citizens of Charleston County voted to add a second Half-Cent Sales Tax. The passing of this sales tax added an additional half-cent to purchases made within the County beginning May 2017 for 25 years, or until $2.1 billion is collected. The 2nd Half-Cent Sales Tax will be used to fund the costs of highways, roads, streets, bridges, and other transportation-related projects and drainage facilities related thereto, and mass transit systems operated by Charleston County or jointly operated by the County and other governmental entities, which may include, but not limited to:

DRAFT

1. Projects of regional significance: Airport Area Roads Improvements, Dorchester Road Widening, Michaux Parkway to County line, US 17 at Main Road flyover and widening Main Road from Bees Ferry Road to Betsy Kerrison Parkway with a parkway-type section at Bohicket Road.
2. Projects of local significance: Annual Allocation continuation: Resurfacing, Bike/Pedestrian Facilities, Local Paving and Intersection Improvements, Glenn McConnell Parkway Widening, James Island Intersection and Pedestrian Improvements, Northside Drive Realignment at Ashley Phosphate Road, Rural Road Improvements, Savannah Highway/Ashley River Bridges/Crosstown Congestion Infrastructure Improvements, SC 41 Improvements from US 17 to Wando Bridge, and US 78 Improvements from US 52 to County line.

Other Transportation Initiatives

Mark Clark Extension Project

The South Carolina State Infrastructure Bank (SIB) made a commitment to fund the Mark Clark Extension Project's construction, from its current terminus at US Highway 17 South to the James Island Connector, as funding becomes available to the Bank. At the time of this commitment in 2006, the total project cost was estimated to be $420 million, and since then, the Bank has awarded the County $99 million for preliminary design, environmental impact studies, engineering, and right-of-way acquisition.

The Mark Clark Extension project's goals are to strengthen the regional transportation network's capacity, increase safety, and improve mobility to and from the Charleston metropolitan area's West Ashley, Johns Island, and James Island neighborhoods. On January 31, 2023, County Council allocated $75 million of Transportation Sales tax funding to continue to move the project forward. This funding should complete the permitting process and acquire the needed ROW for the first phase of the project. The SCDOT, who is managing the project, has recommended that the project be split into two phases. The first phase would be from the existing terminus at West Ashley to Johns Island.

North Charleston Intermodal Transportation Center A groundbreaking took place in August 2017 for the North Charleston Intermodal Transportation Center. This new transportation center ~~will be~~ was built at the ~~current~~ old Amtrak Station site on Gaynor Avenue, and in addition to Amtrak, the new 15,000 square foot terminal ~~will~~ offers CARTA Local Bus Service, Southeastern Stages (bus line and charter coach service), additional office space and a community room. Much of the funding for the $15 million project ~~is~~ was from the Federal Transit Administration, with Charleston County, North Charleston and the Charleston Area Regional Transportation Authority also contributing. ~~Construction is scheduled to be completed by the end of 2018, and~~ tThe City of North Charleston ~~will~~ owns and manages the facility.

DRAFT

The Shipwatch Square Transit Center will be a modern transit center and transfer hub that will replace the North Charleston Superstop, which currently serves as central transfer facility for the Charleston Area Regional Transportation Authority (CARTA). Currently, eight bus routes connect at the Superstop, with 14 to 18 transit buses per hour serving the station throughout the day. The existing location at Rivers Avenue and Cosgrove Avenue has exceeded capacity and needs to be expanded to accommodate existing transit services and future growth of the system. In 2016, BCDCOG completed a Comprehensive Operational Analysis of CARTA, which identified the need for a larger, modern transit hub to accommodate safe, efficient transfers between CARTA routes in North Charleston. The intersection of Rivers Avenue and McMillan Avenue was identified as the optimal location for a new transfer facility to accommodate existing needs and future growth of the system.

The facility would include a transit center with waiting areas, ticket vending, and meeting room for CARTA outreach and training. The project would include joint development, with the second-floor accommodating office space for complementary uses. The site plan includes a transfer hub with 10 bus bays. Although the largest transit bus in CARTA's current fleet is 40 feet; the future fleet will include 60 feet articulated transit buses on high-capacity transit routes. The Transit Center will include space for four on route bus chargers as identified in CARTA's Zero Emission Bus (ZEB) Fleet Transition Plan, as well as dynamic bus bay assignments, and fare vending.

Existing Intermodal Freight Terminals

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 SCSPA has an approximate capacity of 2.6 million twenty-foot equivalent units (TEUs) at its three existing container facilities, encompassing 450 acres of land designated for container operations. TEUs are common units used to measure a ship's cargo carrying capacity. Union Pier, Columbus Street, and Veterans Terminals handle non-containerized cargoes such as vehicles and breakbulk goods. Palmetto Railways currently provides rail services to Union Pier Terminal, Columbus Street Terminal, Veterans Terminal, North Charleston Terminal, and various terminals of private industries in the region.

Presently, there are two existing intermodal terminals in the Charleston region operated by the two Class I line-haul carriers that serve the Port of Charleston and various local businesses and industries. The existing intermodal facilities in the Charleston region include the CSX Ashley Junction intermodal terminal and the Norfolk Southern (NS) 7-Mile intermodal terminal. ~~Both~~ The terminals operate at high volumes today and are at or very near their throughput capacity. The stated combined capacity of the two existing intermodal terminals is 498,800 Twenty-Foot Equivalent Units (TEUs) without infrastructure improvements, which are limited by the lack of contiguous available land for future expansion.

The Hugh K. Leatherman Terminal, operated by SC Ports, was the first container terminal to open in the nation in more than a decade when it did so in March 2021 along the Cooper River in North Charleston. Phase One of the Leatherman Terminal expands the East Coast port market's throughput capacity by 700,000 TEUs annually and adds a berth. The 286-acre, three-berth terminal will increase the Port of Charleston's throughput capacity by 2.4 million TEUs after it is fully constructed.

DRAFT

The cutting-edge container terminal has a 1,400-foot berth that can accommodate a 20,000-TEU ship, five ship-to-shore cranes with 169 feet of lift height and 228 feet of outreach, 25 hybrid rubber-tired gantry cranes, eight empty container handlers, a refrigerated container yard, a new operating system, and improved technologies — all of which are intended to ensure efficient operations and speed-to-market for clients.

In order to ensure that South Carolina maintains its competitiveness on the global stage for decades to come, Leatherman Terminal improves SC Ports' capacity to handle increasing cargo volumes and the largest vessels calling the East Coast.

~~*Rendering of the North Charleston Intermodal Center (Source: www.RideCARTA.com, November 21, 2017).*~~



North Charleston Transit Center (Source: www.davisfloyd.com)

Intermodal Freight Terminals Under Construction

There are two major interrelated freight projects under construction on or adjacent to the former Charleston Naval Complex (CNC): ~~the South Carolina Ports Authority's Hugh K. Leatherman, Senior Marine Container Terminal,~~ Palmetto Railways' Intermodal Container Transfer Facility (ICTF), and SCDOT's Port Access Road.

~~SCPA is currently building the Hugh K. Leatherman, Senior Marine Container Terminal at the CNC. It is the only permitted new container terminal on the U.S. East and Gulf Coasts, and at build out, the 280-acre terminal will boost capacity in the port by a full 50 percent.~~ Palmetto Railways is currently constructing and will operate an Intermodal Container Transfer Facility (ICTF) on a 130-acre site also located at the former CNC. The proposed Navy Base ICTF will provide capacity to meet projected future intermodal growth within the region and has focused on the provision of equal access for both Class I carriers in the region (CSX and NS).

The Port Access Road is a new roadway and structure project to provide direct access between the proposed marine container terminal location on the former Navy Base and I-26, while maintaining adequate service for local, commuter, and commercial traffic. Included in the project's purpose is the intent to safely integrate container terminal traffic with existing traffic; support local and regional planning policies and strategies; and minimize adverse impacts on communities and the environment. The project consists of the construction of a new fully directional interchange on I-26, a Bainbridge Connector Road, the extension of Stromboli Avenue and associated roadway improvements to surface streets to serve the proposed Naval Base Terminal (NBT) in the County. The feasibility of constructing overpasses over railroad tracks along port roads should be explored.

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.

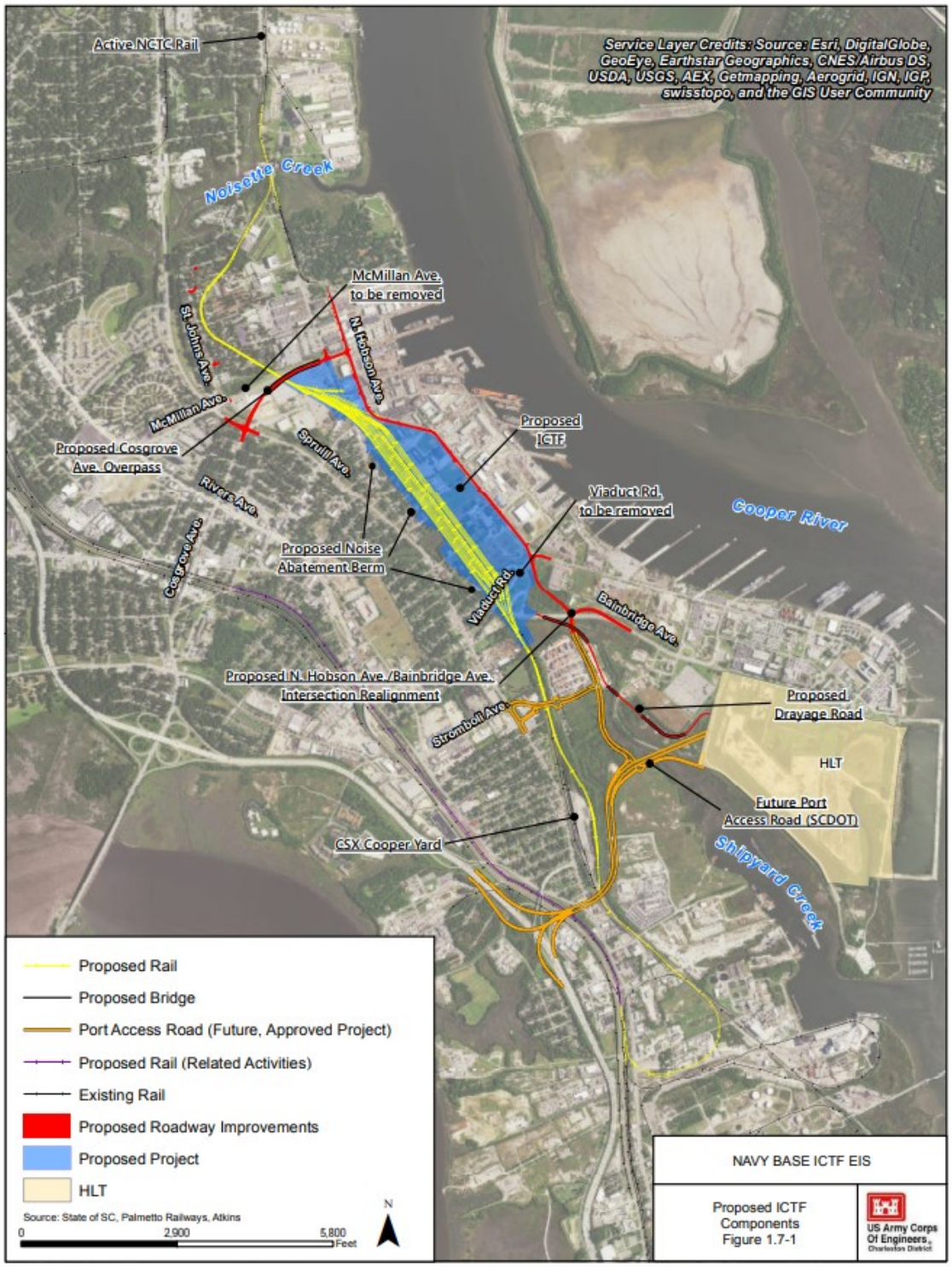
Charleston International Airport

~~As reflected in Figure 3.7.2, the Charleston International Airport is experiencing unprecedented passenger growth due to the region's increase in population, as well as growth in manufacturing, health care, tourism and technology industries.[1] The 3.7 million people who traveled through the airport in 2016 represented an increase of 8 percent from the previous year, and the Charleston County Aviation Authority anticipates over four million travelers in 2017.~~

North Charleston is home to the joint civil and military airport known as Charleston International Airport. A joint-use contract between Joint Base Charleston and the Charleston County Aviation Authority governs how the airport is run. It is the busiest airport in South Carolina; in 2019, it handled approximately 4.9 million passengers, setting a new record.

While a recently completed $200 million terminal renovation has dramatically improved the overall appearance and traveler experience, the airport is now contemplating bigger changes directed toward keeping up with traveler demand. Input from Charleston County Aviation Authority employees included in a 2017-2021 plan presented to airport board members in January 2017 includes expanding capacity and services to handle more passengers in the form of adding more space to airline ticketing and check-in counters, additional on-site parking, and even consideration of constructing an additional concourse. Charleston International Airport's increase in service and significance to the local economy can be attributed to Boeing's investment in South Carolina. These investments include three major facilities on a Boeing's 141-acre "North Campus" and the new 787 Dreamliner Final Assembly Plant and state-of-the-art decorative paint facility, both located at the Boeing South Carolina's Main Campus adjacent to the airport.

~~*Navy Base Intermodal Container Transfer Facility (ICTF) Components (Source: State of SC, Palmetto Railways), 2015.*~~



Navy Base Intermodal Container Transfer Facility (ICTF) Components (Source: State of SC, Palmetto Railways), 2018

DRAFT

Charleston Harbor Deepening

Charleston Harbor has been a key economic driver for more than 300 years. The harbor maintains the deepest water in its competitive region today, including serving 16 post-Panamax vessel calls each week. At 52 feet, Charleston Harbor is currently the East Coast's deepest harbor. ~~Due to their~~This depth will increase competitiveness, which in turn will allow SC Ports the ability to bring in more cargo, first-in-calls, and ship services.

~~However, to meet the depth requirements of the growing number of large vessels calling Charleston, a next-generation "Charleston Harbor Deepening" project is underway that will make Charleston the deepest harbor on the East Coast.~~

~~The full expected state contribution of the rising construction expenses was $300 million, which was set aside by the SC General Assembly in 2012. By allocating funds for the project, South Carolina was able to convince the federal government that it is completely committed to it. The deepening project was one of President Obama's *We Can't Wait* initiatives. The project was authorized by Congress in December of 2016, and received appropriations in the FY17 Army Corps of Engineers work plan and the critical "new start" designation in May 2017. The Army Corps of Engineers' work plan included $17.5 million in the first wave of government funding for the project in fiscal year 2017. For a total of $108 million of the government contribution so far, the Army Corps of Engineers has committed $49 million in fiscal year 2018 and $41.4 million in fiscal year 2019. The project was also given an additional $50 million loan from the South Carolina legislature. The deepening project reached a significant milestone in March 2019 when President Trump included $138 million in the spending plan for the coming fiscal year. The fiscal year 2020 Energy and Water Appropriations Acts, which were signed into law in December 2019, included the proposed $138 million from the House and Senate, completely funding the project to its conclusion.. Construction on the project will soon begin, and with a channel depth of 52 feet and entrance channel depth of 54 feet, as well as enlarged turning basins, Charleston will be the deepest harbor on the East Coast.~~

DR

Charleston Executive Airport

Source: www.scspa.com, ~~November 22, 2017.~~ December 5, 2022

The Charleston Executive Airport is located ~~on 1,333 acres~~ on the eastern edge of Johns Island next to the Stono River. The Charleston County Aviation Authority owns and operates the facility as a reliever airport for the Charleston International Airport. A new 5,900 square foot General Aviation Terminal was opened in May 2007 and includes additional ramp parking for aircraft.

At an elevation of 19 feet, the airport covers 1,373 acres and has two concrete runways.

The airport saw 31,000 aircraft operations in the year ending December 11, 2019, or an average of 85 per day. 84% of operations were general aviation, 9.5% were military, and 6.5% were air taxi. At that time, 39 aircraft were based onsite, with 90% single-engine, 5% multi-engine, and 5% jet aircraft.

The airport primarily serves western Charleston County, including Kiawah and Seabrook Islands and downtown Charleston. Its clientele tends to be corporate and business jets. Other on-site facilities include Charleston County Mosquito Abatement and the U.S. Coast Guard Air Facility Charleston.

Mount Pleasant Regional Airport

The Mount Pleasant Regional Airport is located in the Town of Mount Pleasant on 300 acres, and is owned and operated by the Charleston County ~~Airport~~ Aviation Authority. The airport does not provide scheduled passenger services but rather is primarily geared toward the recreational flyer. ~~Three~~ One flight school~~s~~ ~~are~~ is located on site. 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. An addition completed in 2009 added 2,400 square feet in support of general aviation activities.

The airport saw 18,250 aircraft operations for a 12-month period ending November 15, 2019, or 50 per day on average: 94% of them were general aviation, 5% were air taxis, and 1% were military. This airport has 54 aircraft based there, 94% of which are single engines and 6% are multi-engine.

(Source: www.charlestonbusiness.com/news/aerospace/82929/)

Figure 3.7.~~12~~: Charleston International Airport Passenger Growth

Year	Charleston International Airport Passengers	Growth Since 20~~18~~80 (%)
~~2010~~ 2018	~~2,021,328.00~~ 4,470,239	
~~2011~~ 2019	~~2,520,799.00~~ 4,871,062	~~24.71~~ 8.96%
~~2012~~ 2020	~~2,592,763.00~~ 1,952,271	~~28.27~~ 56.33%
~~2013~~ 2021	~~2,923,621.00~~ 4,181,588	~~44.64~~ 6.46%
~~2014~~ 2022	~~3,131,072.00~~ 5,323,632	~~54.90~~ 19.09%
~~2015~~ 2023	~~3,418,089.00~~ 4,593,679*	~~69.10~~ 2.76%

Figure 3.7.12: Charleston International Airport Passenger Growth		
Year	Charleston International Airport Passengers	Growth Since 20180 (%)
2016	3,704,270.00	83.26%
* = numbers through September 2023 October 2022 Source: Charleston County Aviation Authority, 201723.		

[1] Charleston Business Journal, February 21, 2017.

3.7.3: TRANSPORTATION ELEMENT GOAL

Transportation Element Needs

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

- Tying transportation needs with the strategies of housing, economic development, and land use;
- Encouraging alternative modes of transportation such as public transit and pedestrian/bicycle systems;
- Improving the efficiency of the transportation system;
- Ensuring transportation planning is coordinated with all jurisdictions; and
- Ensuring that evacuation routes are viable in the event of an emergency.

A public transportation system that is coordinated with land use patterns and community character through a high level of interaction with the community, and includes a diversity of transit options, prioritizes pedestrian infrastructure, and is accessible and efficient for all residents. The level of service should support economic development and a high quality of life for all income levels.

DR

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. Continue to ~~R~~require traffic impact studies consistent with the Zoning and Land Development Regulations Ordinance.

T 2. Continue to ~~C~~coordinate with residents, community groups, municipalities, surrounding counties and SCDOT on all major projects.

T 3. Adopt and administer standards, in accordance with the appropriate transportation agenc~~y~~ies based on traffic impact studies and made as a condition of approval for all proposed developments, zoning changes, ~~o~~rand special use approvals, 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.

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.

T 5. Incentivize and preserve future transportation corridors and other rights-of-way to reduce future acquisition costs.

T 6. Mandate that adequate transportation infrastructure be in place prior to, or concurrent with, additional development.

T 7. ~~Coordinate~~ Base land use strategies, development decisions, and growth management policies on existing and planned transportation infrastructure and levels of service ~~planning with growth management and land use strategies~~.

T 8. Adopt “Complete Streets” policies to 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 9. Continue to ~~S~~support and participate in Metropolitan Planning Organization functions, as designated by the Federal Highway Administration and SCDOT.

T 10. Continue to monitor the status of population evacuation for emergency preparedness for natural or man-made disasters.

T 11. Continue to administer the Charleston County Transportation Half-Cent Sales Tax Programs and identify additional ways of financing transportation improvements including through public/private

partnerships.

T 12. Continue to s~~S~~upport the functions of the Charleston County Transportation Committee (CCTC).

T 13. Continue to ~~P~~promote multi-transit opportunities, including the improvements at the Charleston International Airport/Air Force Base, State Ports Authority, maintaining the Intracoastal Waterway, and implementing and operating a bus rapid transit system.

T 14. Continue to ~~S~~support the People 2 Parks Plan created by the Charleston County Park and Recreation Commission (CCPRC), the Walk+Bike BCD Plan ~~currently being~~ (May 2017) developed by the Berkeley Charleston Dorchester Council of Governments, and associated municipal plans, to continue to develop the pedestrian and bicycle network in Charleston County.

T 15. ~~Encourage~~ Prioritize pedestrian infrastructure by requiring that pedestrian and bike access be incorporated ~~on~~ in all existing and planned public roadways, including bridges, and ~~explore~~ exploring potential funding sources for additional pedestrian and bike access projects.

T 16. Support the recommendations of the Savannah Highway / Ashley River Bridges / Crosstown Congestion Management Study.

T 17. Coordinate with CARTA, adjacent jurisdictions, and residents ~~to ensure bus routes are consistent with land use and development patterns, to serve the maximum number of people~~ to improve the efficiency of the bus system, enhance bus stops, and implement incentives and regulations that reduce reliance on single-occupancy vehicles including, but not limited to, improving and enhancing the public transportation system, reducing parking availability in targeted areas, and improving pedestrian infrastructure.

T 18. 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.

T 19. Coordinat~~ione~~ 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.

T 20. Monitor emerging transportation technologies such as personal rapid transit systems and implement as feasible.

T 21. Coordinate transportation plans and projects with adjacent counties and municipalities in Charleston County.

T 22. Create an Official Map showing federal and locally funded roads, along with planned road projects and CARTA projects.

CHAPTER 3.8 COMMUNITY FACILITIES ELEMENT

Contents:

3.8.1: OVERVIEW
3.8.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.8.3: COMMUNITY FACILITIES ELEMENT GOAL
3.8.4: COMMUNITY FACILITIES ELEMENT STRATEGIES AND TIME FRAMES

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*.

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 linked to land use planning and development decisions to ensure capacity for expected growth.

DRAFT

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;
- Government facilities such as the O.T. Wallace County Office Building, Lonnie Hamilton, III Public Services Building, Consolidated 9-1-1 Center, and 3600 Rivers Avenue;

- Public safety services including Emergency Medical Services (EMS), the Charleston County Sheriff 's Office, and the Charleston County Emergency Management Department;
- Environmental Management;
- 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.

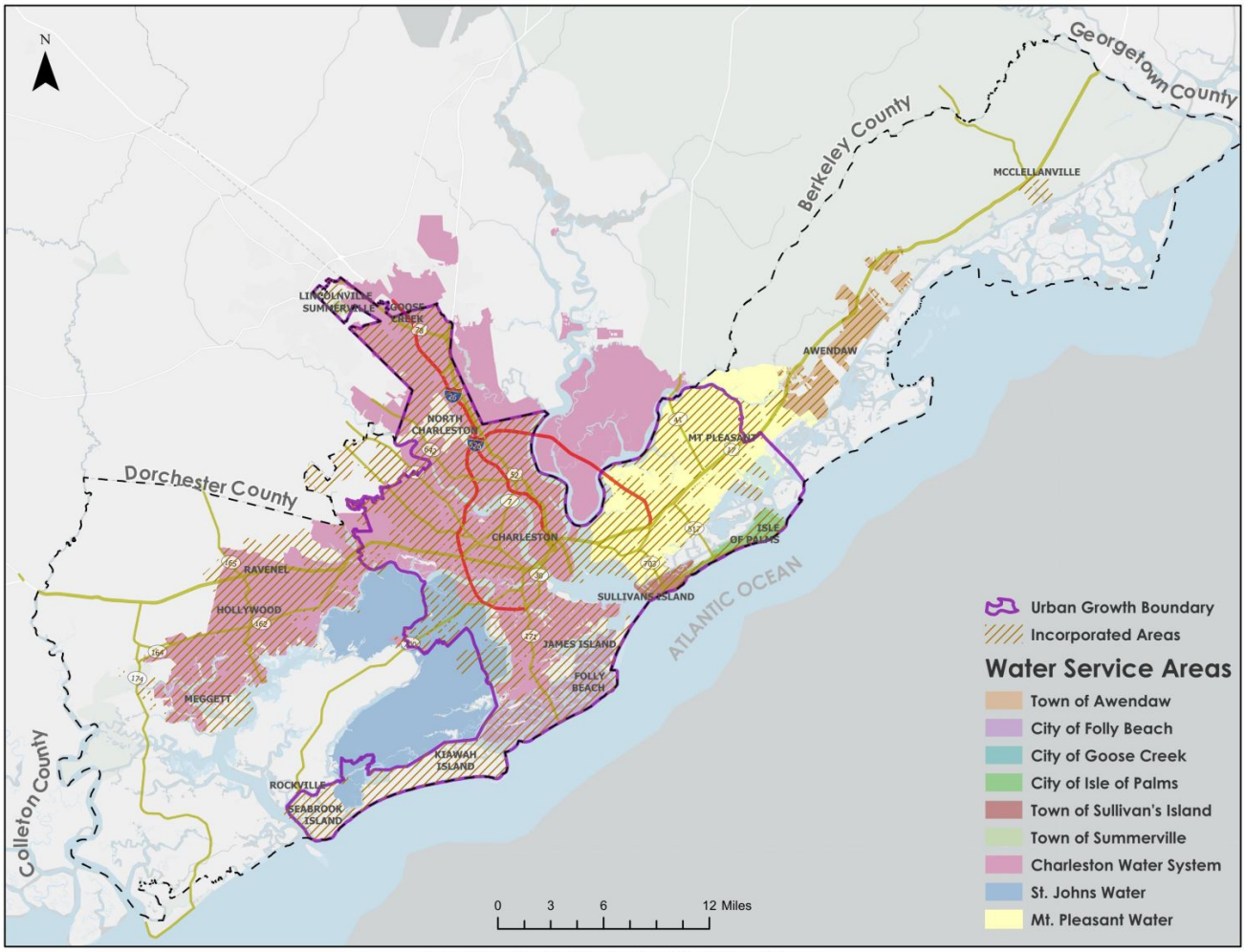
Water Supply

Charleston County is not a water service provider. Water service is provided by various agencies, including, but not limited to Charleston Water System, 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 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 uses 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.

~~*Note: Municipal boundaries shown are as of August 18, 2017.*~~

Map 3.8.1. Water Service Area~~s~~

DRAFT



~~Note: Municipal boundaries shown are as of XXXXXXX.~~ Map dated January 27, 2023

Wastewater

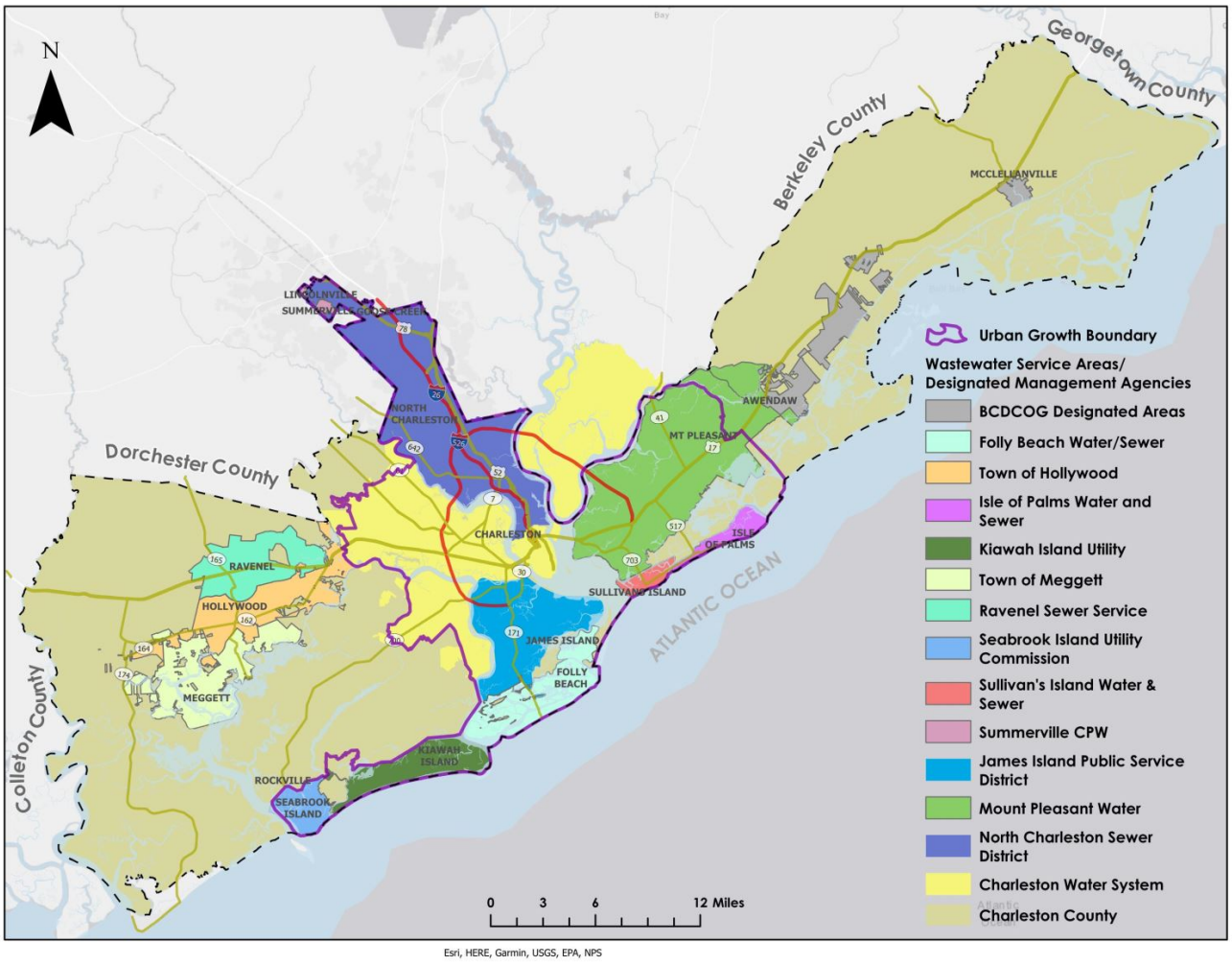
Charleston County does not provide wastewater treatment services. Wastewater treatment service providers within the County include, but are not limited to, Charleston Water System, Mount Pleasant Water Works, North Charleston Public Service District, James Island Public Service District, Kiawah Island 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 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),* administered 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 Ac*t 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.

~~**Map 3.8.2: Wastewater/Sewer Service Areas/Designated Management Agencies**~~

Map 3.8.2: Wastewater/Sewer Service Areas/Designated Management Agencies

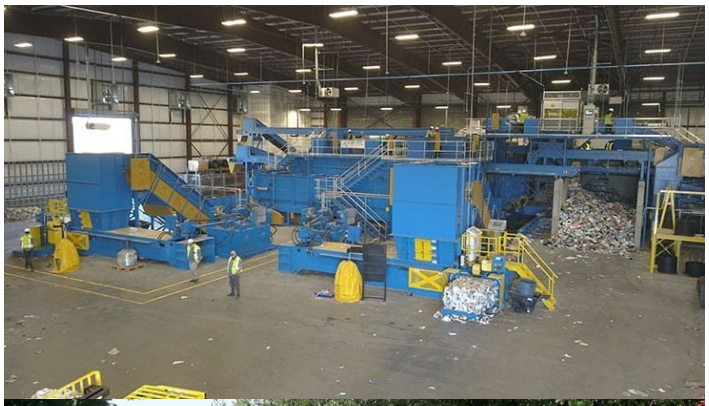


Map dated January 27, 2023

Environmental Management

The Charleston County Environmental Management Department provides solid waste disposal and recycling services to residents in the incorporated and unincorporated areas of Charleston County. The principal funding source for the County's solid waste management program is the Solid Waste User Fee. The residential user fee is included as part of the annual real property tax bill. The commercial user fee is billed separately and is based on the prior year's volume.

The Environmental Management Department's responsibilities include recycling collection and processing and disposal of municipal solid waste (MSW). The Department also composts yard waste and food waste at the Bees Ferry Landfill. The County collects the following recyclables: cardboard, paper, plastic bottles and containers, aluminum and steel cans and glass bottles and jars.





Bees Ferry Landfill

The Bees Ferry Landfill is located on a 312-acre site with designated areas for MSW and vegetative debris. Approximately 60 percent of the County's MSW is transferred from two transfer facilities to a landfill in Dorchester County. The transfer facilities and landfill are privately owned. In Fiscal Year ~~2016~~ 2022, Charleston County disposed of ~~313,382~~ 192,970 tons of MSW. At the current disposal rate, the Bees Ferry landfill has approximately ~~25~~ 18 years of remaining capacity.

Recycling Collection

Single Family - Environmental Management provides bi-weekly recycling curbside collection to residential customers and provides 95- and ~~65~~ 35-gallon roll carts to single family homes.

Multi-family - Charleston County offers recycling service for residents living in apartments and condominiums. Participating entities agree to designate an area for recycling containers on their property, and the recycling containers are serviced weekly. Based on the size of the complex and the space available, Environmental Management can provide a number of 95-gallon recycling roll carts or a recycling container.

Commercial - The County offers a basic level of commercial service supported by the County's Solid Waste User Fee. The program offers ~~up to three~~ 95-gallon recycling roll carts, which are serviced once a week. In addition to exterior 95-gallon recycling roll carts, commercial customers are offered internal bins to aid in the collection of recyclables.

Convenience Centers and Drop-sites

DRAFT

~~Nine~~ Eight staffed convenience centers are located within the County at Awendaw, McClellanville, Edisto Island, Hollywood, Adams Run, Signal Point Road, Wadmalaw Island and Bees Ferry. Additionally, Environmental Management operates a number of recycling drop-sites within the County. All the convenience centers and drop-sites accept household recyclables and are located to allow convenient access to residents in the incorporated and unincorporated areas of the County. Waste and recyclables collected at the convenience centers and drop-sites are transferred to the appropriate county facility. ~~The North Charleston and Ladson areas require staffed convenience centers.~~

~~Romney Street Materials Recovery Facility~~

~~The Romney Street Materials Recovery Facility (MRF) serves as a recyclables transfer station while the County constructs its new MRF. Cardboard and some shredded paper are processed at the facility. Single stream recyclables are transferred to the Horry County Solid Waste Authority for processing. In the near future, this transfer station will be repurposed to process and ship electronics and household hazardous waste.~~

~~In Fiscal Year 16, 138,344.96 tons of material were recycled in Charleston County. Per the South Carolina Department of Health and Environmental Control, the County's recycling rate is 30 percent.~~

~~New Materials Recovery Facility (MRF)~~

~~The County is constructing a new 57,000 square feet Material Recovery Facility (MRF). The facility will be located on a 20-acre site on Palmetto Commerce Parkway. The MRF has been designed to meet future regional recycling needs and will operate at 25 tons per hour, 52,000 tons per year on a single 8-hour shift.~~

New Material Recovery Facility (MRF)

In late 2020, the County opened the new recycling center, or material recovery facility (MRF) on Palmetto Commerce Parkway. This 82,000 square foot facility features state-of-the art processing equipment and operates at 25 tons per hour. The facility features administrative space and an interactive education center and was designed to meet future recycling needs. In FY22, the facility averaged 3,374 incoming tons per month.

DRAFT

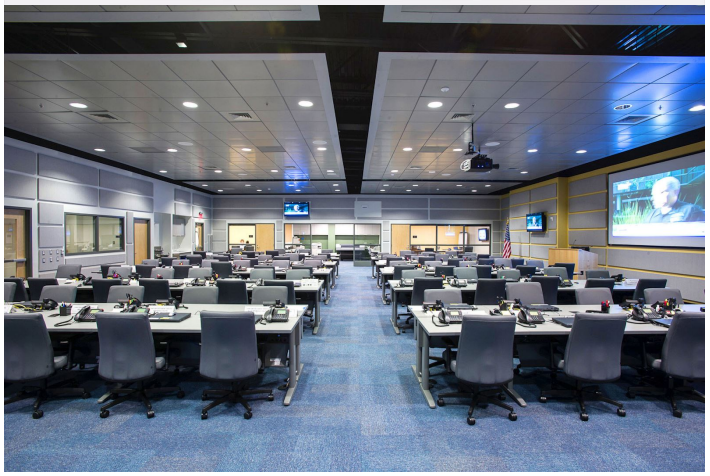
Public Safety Services

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, Folly Beach, and Dewees Island serve only the municipality in which they are located. ~~Charleston, Lincolnville, Isle of Palms, Sullivans Island, Folly Beach, and Dewees Island serve only the municipality in which they are located.~~ Joint Base Charleston has its own fire department which is federally maintained. C&B is a ~~volunteer~~ department ~~serving unincorporated areas of Charleston County as well as some unincorporated areas in Berkeley County.~~ with five stations in Charleston and Berkeley counties; it is a combination (paid and volunteer) department with 85 personnel.





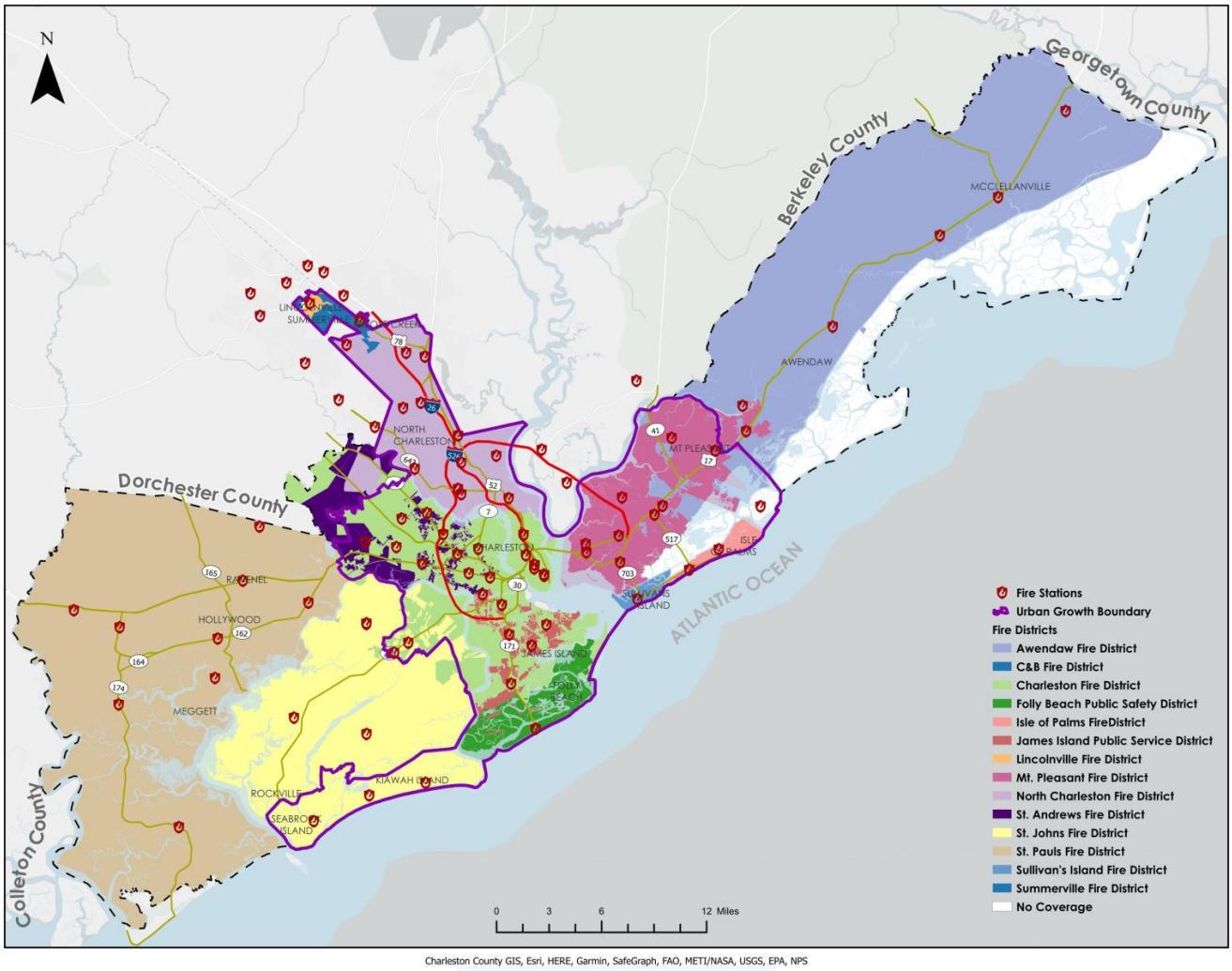


The City of Charleston, James Island PSD, Joint Base Charleston, Mount Pleasant, City of North Charleston, St. Johns, and St. Andrews fire departments are staffed by paid firefighters. ~~The C&B Volunteer Fire Department is staffed only by volunteers.~~ The remaining ~~eight~~ departments have both paid and volunteer firefighters in differing ratios, with the majority of these fire departments relying almost exclusively on paid firefighters.

An Automatic Aid Agreement between Charleston, North Charleston, St. Johns, St. Andrews, James Island, and Mount Pleasant fire departments releases jurisdictional boundaries from a response perspective so that the closest fire apparatus or unit responds regardless of municipality.

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~~ Office (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. The Charleston, North Charleston, ~~Awendaw~~ and St. Andrews Fire Departments have recently earned Class 1 ISO ratings.

Map 3.8.3: Fire Service Districts, 202217



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

Map dated January 27, 2023

Emergency Medical Services

The Charleston County Emergency Medical Service (CCEMS) provides medical care and transportation to hospital emergency departments for citizens and visitors to Charleston County. CCEMS includes special units and programs including, but not limited to, the Community Paramedic Program, Tele-psych Services, the Tactical Emergency Medical Services Support Team, a Motorcycle Team, a Bicycle Team and a Metro Marine EMS Team. CCEMS responsibilities include:

- Providing emergency lifesaving care to people who are seriously ill or injured;
- Transporting patients to local hospital emergency departments;
- Operating ambulances and Quick Response Vehicles to support these services; and
- Providing a variety of educational programs to the public on many safety issues.

Services are administered from CCEMS Headquarters in North Charleston where the CCEMS 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~~ clinical aspects of the services, and a professional staff of emergency medical certified dispatchers and technicians perform the services. CCEMS staffs ~~15 full-time medic stations throughout the county. These stations are strategically located to provide a timely response to all emergencies. In addition to these full-time medic stations, Charleston County EMS also staffs several "Power Squad" ambulances who are on duty during the high call volumes.~~ up to 31 transport units throughout a 24-hour period. These units are strategically placed and staffed during high call volumes to provide a timely response to all emergencies. CCEMS has approximately 11 specific EMS stations throughout the Charleston County area and maintains 24/7 staffing in Edisto, McClellanville, and Kiawah at the respective EMS stations. EMS locations are shown on Map 3.8.4: EMS Locations.

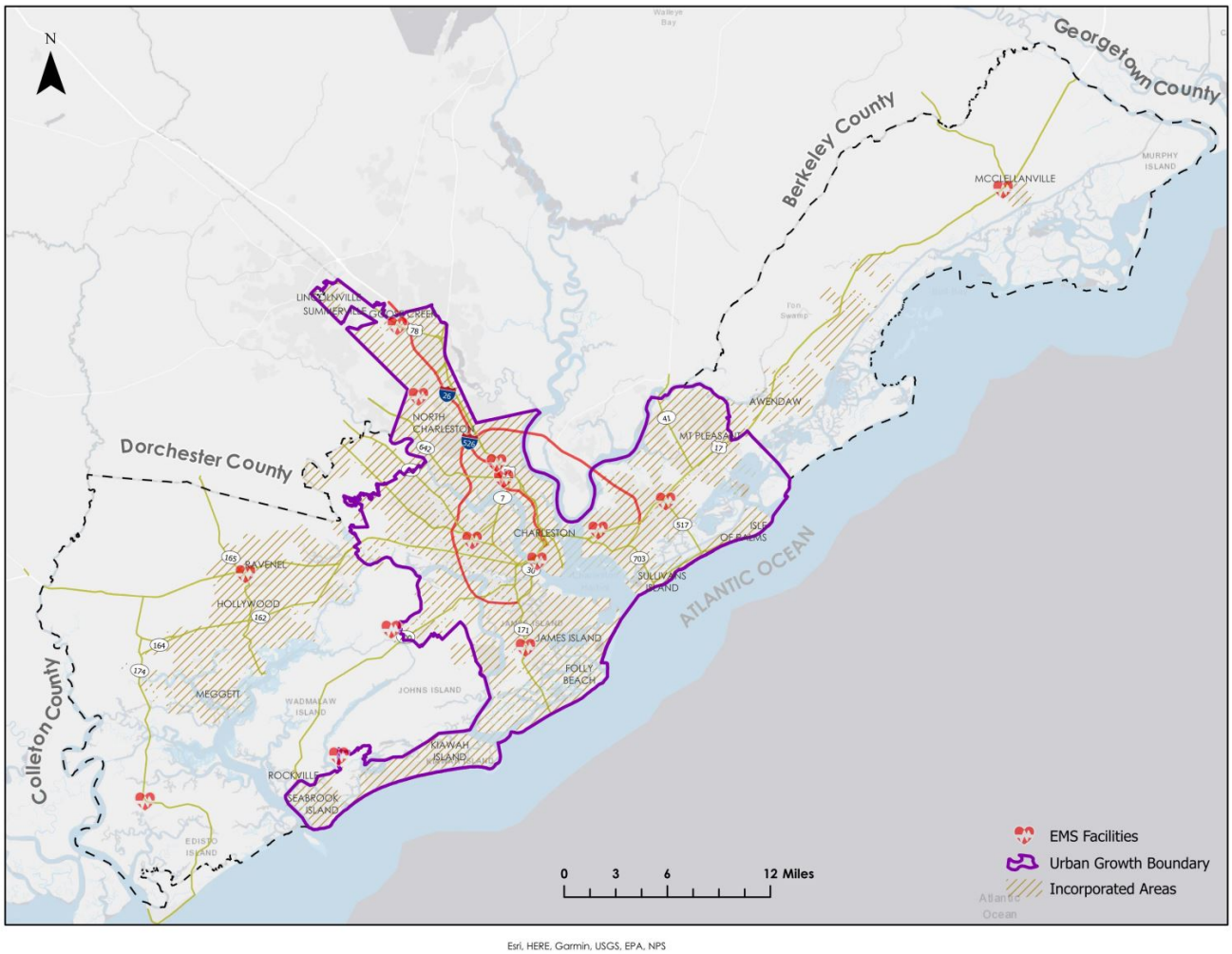
Law Enforcement

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~~ the County. 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~~ from the agency. The Sheriff's Office also maintains the County Detention Center, which is comprised of a jail facility for adults~~,~~ and a Juvenile Detention Center~~., and two post-conviction housing facilities for adults.~~ The agency is also responsible for all civil and criminal processes issued by Magistrate Courts and ~~courts of record~~ State Courts, as well as prisoner transport, therapeutic mental health transport, ~~courtroom~~ County courthouse 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, and Marine and Air Support.

DRAFT

The Charleston County Detention Center, which was most recently expanded in May 2010, has a capacity for ~~1,917~~ 1,693 inmates. The campus consists of five buildings. The original building, 'Tower A', ~~includes~~ houses the Training Division, Training Room, ~~Inmate Library, Environmental/ Logistics,~~ eight inmate housing units, and two modular units. The expansion 'Towers B and C' includes administrative offices, conference rooms, control center, medical department, visitation area, 21 direct supervision units and an infirmary. The fourth building is the work camp facility. The fifth building is the Juvenile Detention Facility, ~~and is~~ located ~~nearby off campus~~ immediately adjacent to the main facility. Both ~~T~~ the Detention Center and the Juvenile Detention Center ~~is~~ are closely monitored by ~~over 700 cameras in the "nerve center" known as~~ the most advanced camera systems available, but a selective, dedicated team in Central Control ~~to~~ ensures the safety and security of the facility, staff, and inmates.

Map 3.8.4: EMS Facilities, 202217



~~Note: Municipal boundaries shown are as of August 18, 2017.~~Map dated January 27, 2023

Consolidated 9-1-1 Center

Provision of the public safety services discussed above involves the coordinated efforts of many agencies. Effective and efficient communications is critical for agency interoperability and maximum safety for citizens and responders. Based on requests of public safety/community leaders and recognizing response delays inherent in having multiple 9-1-1 call taking and dispatching operations in the County, the Charleston County Consolidated 9-1-1 Center was formed through an Intergovernmental Agreement authorized by County Council in 2008. Consolidation of emergency communications began in 2009, and a new Consolidated 9-1-1 Center, housed together with the County's Emergency Operations Center (EOC), became operational in Spring 2013. This 38,000 square foot facility received the Leadership in Energy and Environmental Design (LEED) Gold Certification and has features to ensure continuous operations (such as backup electrical, water and sewer) in the case of an emergency. The Consolidated 9-1-1 Center has a total call volume in 2021 of ~~over 1 million~~ 874,103 calls per year and currently (~~2017~~ 2021) dispatches for the following agencies:

- 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 Public Service District Fire Department;
- Lincolnville Police and Fire Departments;
- Mount Pleasant Police and Fire Departments;
- North Charleston Police and Fire Departments;
- St. Andrews Public Service District Fire Department;
- St. Johns Fire District;
- St. Pauls Fire Department;
- Sullivan's Island Police and Fire Departments;
- C&B Fire Department; ~~and~~
- Charleston County Emergency Management;
- Charleston County Coroner's Office; and
- National Park Service.

DRAFT

In addition, the Consolidated 9-1-1 Center has expanded its technology to offer shared technology systems to specific government entities, whereby Computer Aided Dispatch (CAD) and/or other technology tools utilized by the 9-1-1 Center are made available, bringing about greater efficiencies and interoperability in emergency response. To date, shared technology systems exist with the College of Charleston Public Safety, Folly Beach Public Safety, and Joint Base Charleston Public Safety.

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 ~~140~~ 137 facilities totaling ~~over~~ approximately ~~2.7~~ 3.1 million square feet and over ~~1,600~~ 860 acres of land. These properties serve judicial, law enforcement, social services, administrative, emergency management, fleet, public works, communication towers, libraries, public service centers and environmental management functions.

The Lonnie Hamilton III, Public Services Building, located on 4045 Bridge View Drive in North Charleston, is the County's main administrative office building. It houses the offices of the County Administrator, Deputy Administrators, County Council, County Attorney, Budget, Finance, Controller, Human Resources, Magistrate's Summary Courts, Procurement, Technology Services/GIS, Transportation Development, Zoning/Planning Department, the Building Services Department, and other County departments. The O.T. Wallace County Office Building and Annex, located at 101 Meeting Street in downtown Charleston, houses the main offices of ~~the Assessor,~~ the Auditor, the Public Defender, Register of Deeds (ROD), Ninth Circuit Solicitor, Small Claims Court, and the Treasurer. The Judicial Center, also located at 101 Meeting Street, is the County's main judicial office building housing Circuit Judges, the Clerk of Court, Probate Court, ~~the 9th Circuit Solicitor,~~ General Sessions Court, and State Probation and Parole Court Services. Magistrate's Courts ~~and Small Claims Court~~ are dispersed at 14 locations throughout the County.

The Public Works 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, 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.

DRAFT

The Department of Alcohol and Other Drug Abuse Services (DAODAS) is headquartered at the ~~Charleston Center~~ Teddie E. Pryor Sr. Social Services HUB. The various functions of DAODAS include Withdrawal Management Services and Sobering Center, Women and Children's Residential Services, Adult Residential Services, Community and Prevention Services, Criminal Justice Services including Adult and Juvenile Drug Court, Women's, Adult and Adolescent Outpatient Services, and DSS Licensed Therapeutic Day Care Services. DAODAS also provides Medication Assisted Treatment (Opioid Treatment Program and associated medications), Urine Drug Screen Lab, HIV and Hepatitis C testing and Opioid Overdose Prevention training and medication. Also, intensive alcohol and drug treatment services for detainees are located at the Sheriff Al Cannon Detention Center with two designated units and office space.

The Charleston County Perimeter Center, located on Bridge View Drive in North Charleston, includes ~~the SC DHEC District 7 Health Office~~ Community Development, Housing and Neighborhood Revitalization, and the SC Department of Probation, Parole, and Pardon Services.

Other locations of Charleston County facilities include:

- Consolidated 9-1-1 Center and Emergency Management Department, located at the Emergency Operations Center (EOC), Palmetto Commerce Parkway;
- County Coroner Office, Salt Pointe Parkway;
- Nineteen Radio Communications and Telecommunications tower site locations;
- ~~North Charleston Housing Authority, Goodman Boulevard;~~
- Law Enforcement Center and Detention Center, Leeds Avenue;
- Twenty Boat Landings;
- Charleston County Records Center, Leeds Avenue;
- Offices of the Board of Election and Voter Registration, Headquarters Road;
- Bees Ferry Landfill;
- Materials Recovery Facility ~~(under construction)~~, Palmetto Commerce Parkway;
- ~~Thirteen~~ Eighteen ~~existing~~ libraries, plus ~~a new~~ the ~~Administrative~~ Library Administrative Support Building~~,~~. ~~plus future homes for five new libraries in Mt. Pleasant, James Island, Hollywood, West Ashley and North Charleston.~~

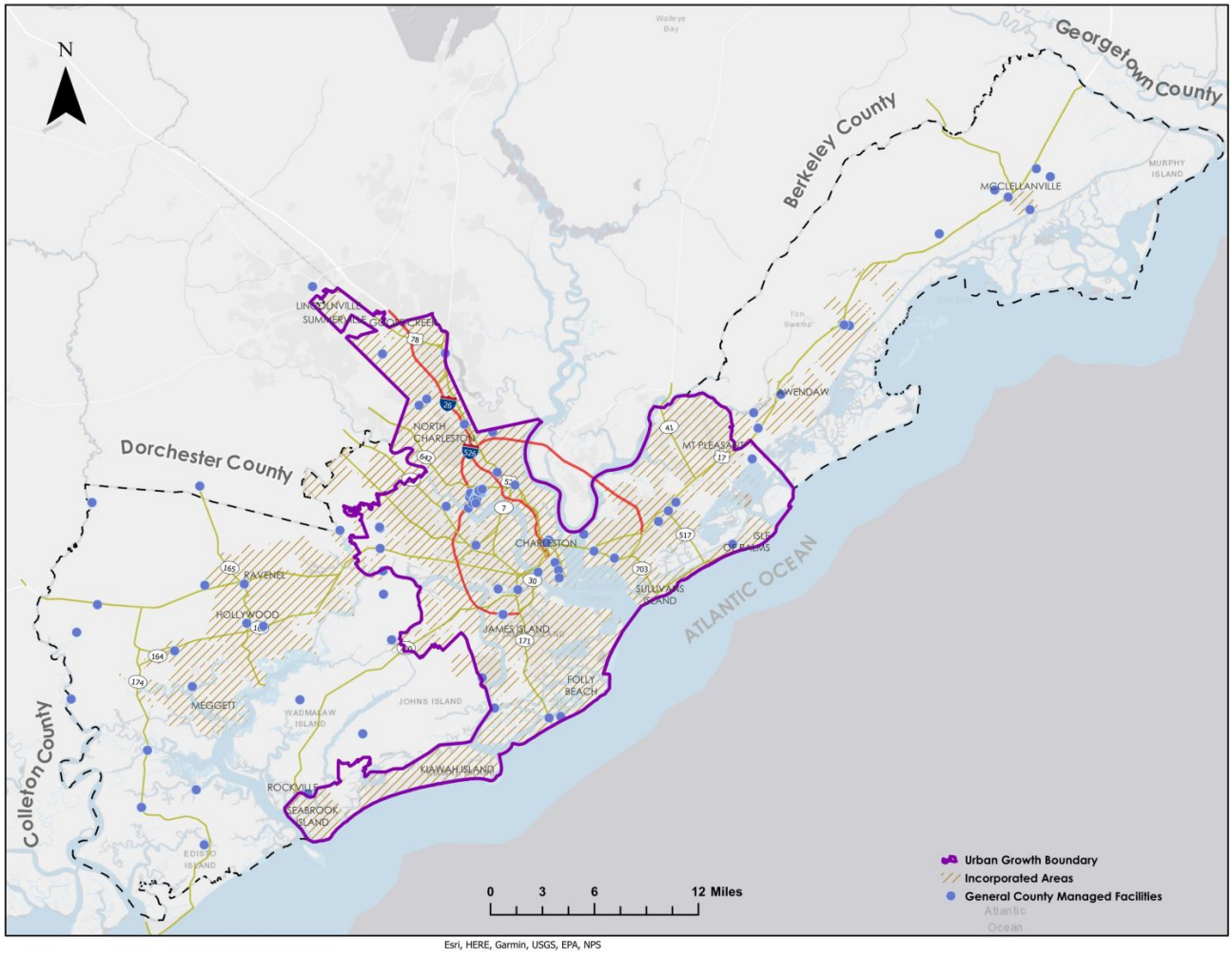


~~Charleston County Consolidated 9-1-1 Center and Emergency Operations Center~~ Teddie E. Pryor, Sr. Social Services HUB

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

Map 3.8.5: General County Managed Facilities, 2022~~17~~

DRAFT



~~Note: Municipal boundaries shown are as of August 18, 2017.~~Map dated January 27, 2023

Emergency Preparedness

The Charleston County Emergency Management Department (EMD) is located at 8500 Palmetto Commerce Parkway in North Charleston. From this location, the EMD provides leadership and assistance in an effort to reduce the loss of life and property in Charleston County from a variety of man-made and natural hazards, through an effective emergency management program based on the ~~Four~~ Five Phases of Emergency Management:

- Mitigation - efforts to reduce hazards or their impacts;
- Preparedness - efforts to prepare for a likely hazard;
- Response - actions taken to respond to an emergency or disaster; ~~and~~

- Recovery - actions taken to restore the community to pre-disaster condition.; and
- Prevention - focuses on preventing hazards from occurring, whether they are natural, technological, or caused by humans.

In 2010, the Emergency Preparedness Division and the Hazardous Materials Division were consolidated under EMD as a single department. The move centralized the coordination of emergency preparedness, homeland security and hazardous materials responsibilities. EMD developed and maintains the Charleston County Emergency Operations Plan (EOP) and Re-Entry Plan. These plans provide the framework under which Charleston County prepares for, responds to and performs its emergency response functions. EMD coordinates the Local Emergency Planning Committee for hazardous materials planning and emergency response and conducts programs for the public, emergency responders and industry professionals to include Community Emergency Response Training (CERT) and National Incident Management System (NIMS) courses. EMD also coordinates training announcements from the S.C. Emergency Management Department and the Emergency Management Institute/U.S. Department of Homeland Security. EMD is the county's liaison for the Charleston County Volunteer Fire and Rescue Squad.

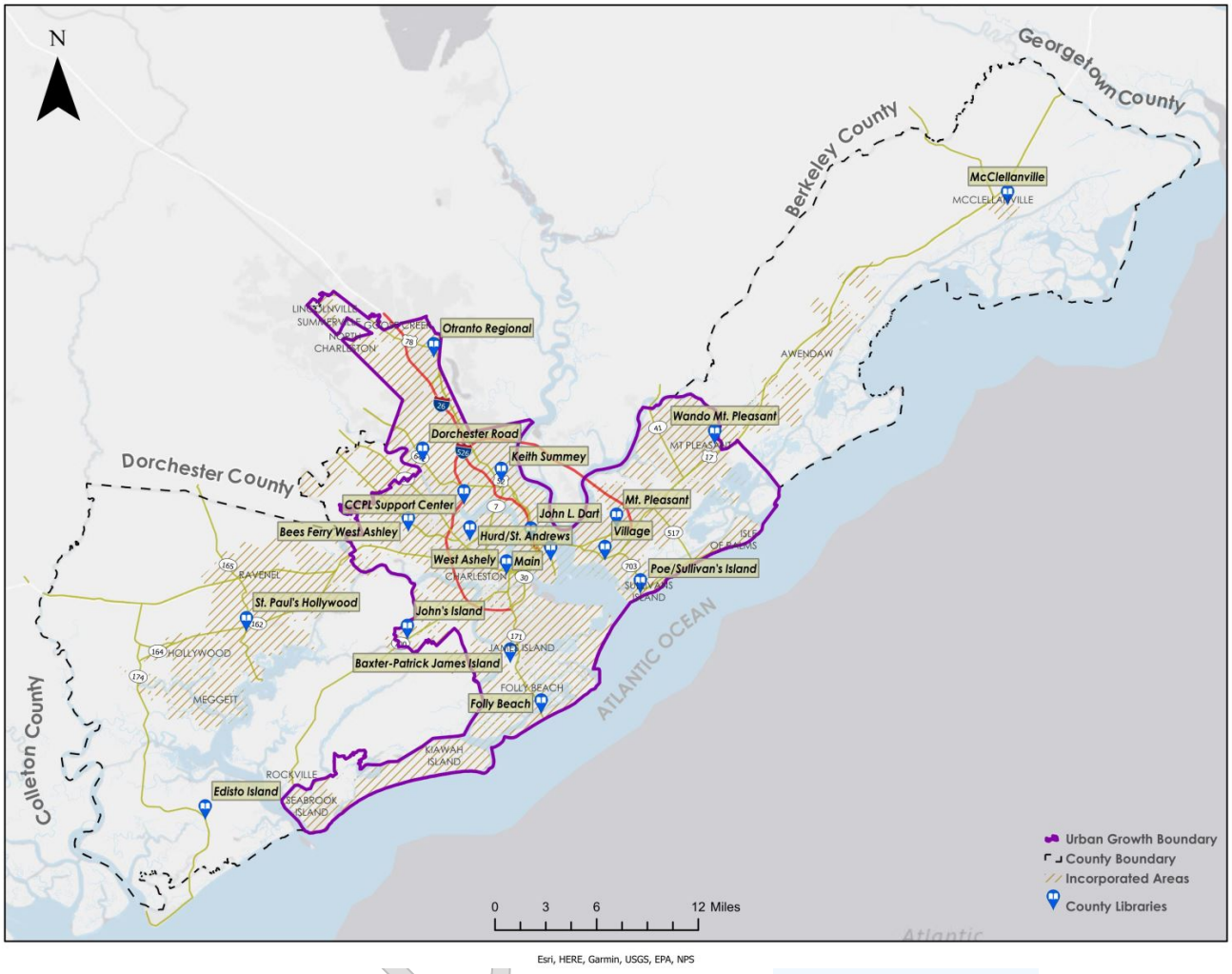
Public Libraries

~~The Charleston County Public Library (CCPL) is an independent authority component of Charleston County Government that was established by the State of South Carolina Legislature to provide library services to the residents of Charleston County. A County Council-appointed Board of Trustees directs library activities, and CCPL currently provides resources for every age group, from infants to retirees, at 16 branch locations and through bookmobile and online services. Library branches serve the informational, educational, cultural and recreational needs of the community in which they are located.~~

DRAFT

~~County residents approved a $108.5 million referendum in November 2014 that includes construction, renovation or upgrades of 19 buildings throughout the county. Five new libraries will be constructed – two in areas of rapid growth (the East Cooper/Carolina Park and West Ashley/Bees Ferry Road areas) and three to replace outdated facilities that aren't able to meet customer needs (the Cooper River Memorial Branch in North Charleston plus the James Island and St. Paul's/ Hollywood branches). A total of 13 existing libraries will be renovated. The library's support staff will be relocated from the Main Library to free up space for public use, and the library's technology will be upgraded to include self-checkout kiosks, more public computers and the latest equipment in meeting rooms. *Map 3.8.6* shows current and future library locations.~~ Charleston County opened its first free public library in 1931. Today, the Charleston County Public Library (CCPL) is an independent authority component unit of Charleston County Government established by the State of South Carolina Legislature to provide library services to the citizens of Charleston County. A County Council-appointed Board of Trustees serves as the governing body. CCPL currently operates under a strategic vision covering 2021-2024, with a mission "to connect our diverse community to information, foster lifelong learning, and enrich lives," primarily in five core focus areas: Community Engagement, Educational Success, Equity, Literacy, and Workforce Development. CCPL serves the community with 18 branch locations, a state-of-the-art mobile library, numerous digital resources and online services, and a dedicated, professional staff. Since June 2019, CCPL has opened four new libraries and renovated five existing ones, with a fifth new building under construction. Eight additional libraries will be renovated. The building program is funded by a $108.5 million bond issue approved by County residents in a 2014 referendum. Map 3.8.6 shows current and future library locations. ~~The construction plan was developed after a detailed assessment of the library's existing facilities, a review of population growth patterns since the previous library referendum in 1986, a study of changing technologies, a look at library service trends plus multiple meetings, surveys, focus groups and interviews to determine community needs. An independent consultant helped the library develop a strategic plan and identify areas that needed attention. CCPL's construction and renovation projects are expected to conclude by 2021.~~

Map 3.8.6: Libraries, 2022~~17~~



~~Note: Municipal boundaries shown are as of August 18, 2017.~~Map dated January 27, 2023

Parks and Recreation Services

Established as a Special Purpose District in 1968, the Charleston County Park and Recreation Commission (CCPRC) has specific areas of responsibility defined by state legislation. CCPRC'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. Currently, the park system features over 11,000 acres of property and includes four land parks, three beach parks, four seasonally-lifeguarded beach areas, three dog parks, two landmark fishing piers, three waterparks, a historic plantation site, 19 boat landings, a skate park, a climbing wall, a challenge course, an interpretive center, an equestrian center, cottages, a campground, a marina, as well as wedding, meeting and event facilities. The park system also offers a wide variety of recreational services including festivals, camps, classes, programs, and volunteer opportunities.

CCPRC's operations are overseen by a seven-member board that is appointed by the Governor, upon the recommendation of the Charleston County Council. CCPRC's orientation is toward resource-based passive recreation with income-producing activities. CCPRC 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.

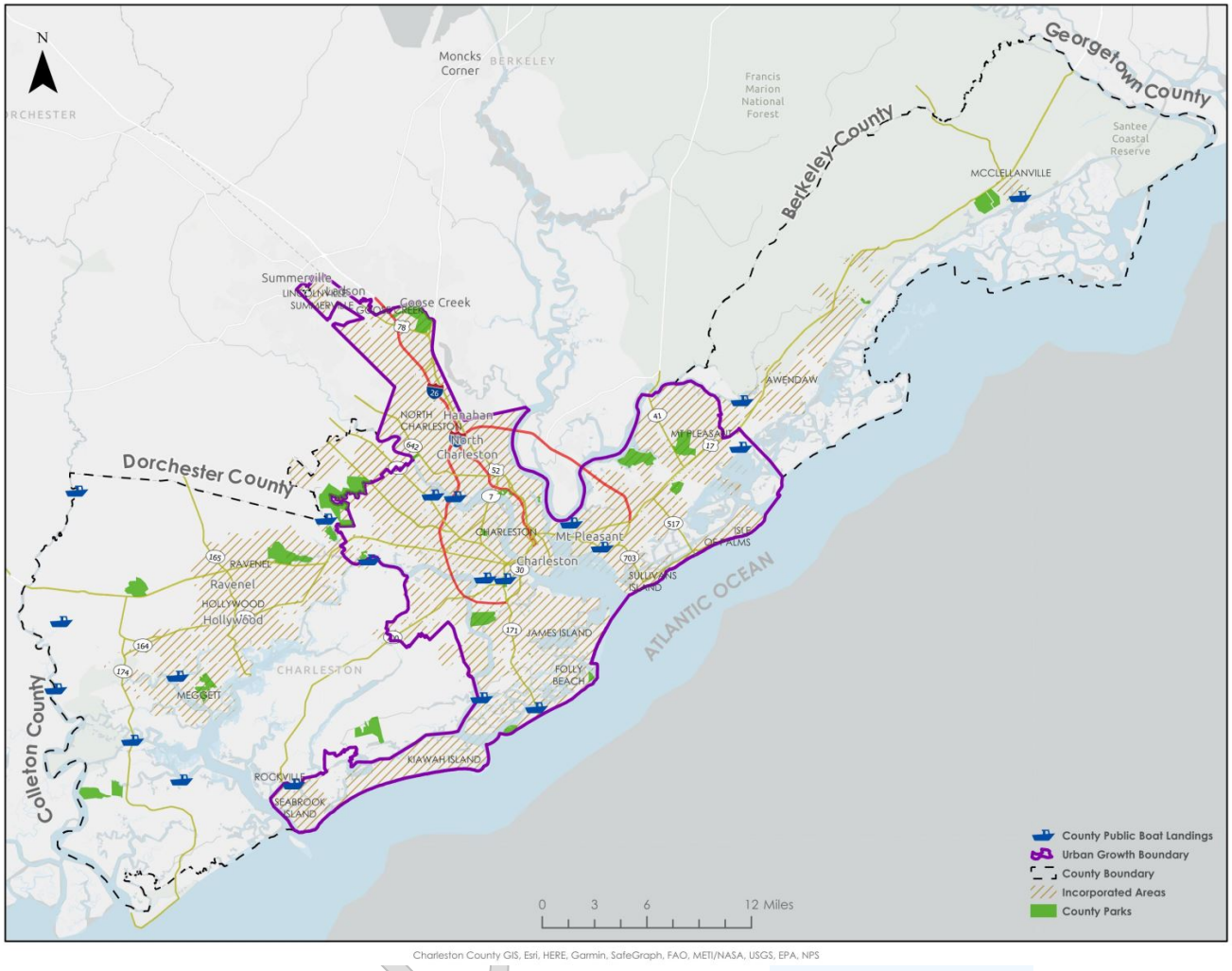
It is a goal of the CCPRC to provide at least one County park within reasonable access of each population center in the County. The abundant waterways create physical barriers that in many cases greatly increase travel time from one area to another. It is therefore important that all areas are provided 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.

CCPRC is involved in providing public recreation programs, primarily through its various County park facilities and through the Community Education Program. CCPRC'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 CCPRC's various County parks.

There are many other entities involved in the provision 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.

Map 3.8.7: Charleston County Parks & Recreation Commission Parks and Public Boat Landings, 202217

DRAFT



~~Note: Municipal boundaries shown are as of August 18, 2017.~~Map dated January 27, 2023

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. Both public and private schools are discussed in this section. 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

The Charleston County School District (CCSD), a district of schools with national accreditation, is dedicated to giving all of its children access to equitable and high-quality educational opportunities. The second-largest school district in South Carolina, CCSD encompasses 1,300 square miles along the coast and features a distinctive mix of urban, suburban, and rural schools. About 49,000 children are served by CCSD through 88 schools and specialized programs. ~~Charleston County School District (CCSD) is divided into eight constituent districts educating a combined total of nearly 50,000 students in 48 elementary schools, 132 middle schools, 12 high schools, four alternative schools, and nine charter schools.~~ There are also 54 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 CCSD. 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 CCSD.

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 CCSD includes public education excellence for kindergarten through 12th grade. However, CCSD offers full-day Child Development (CD)/Pre-Kindergarten Programs for students who will be four years old by September 1 of the year of enrollment.



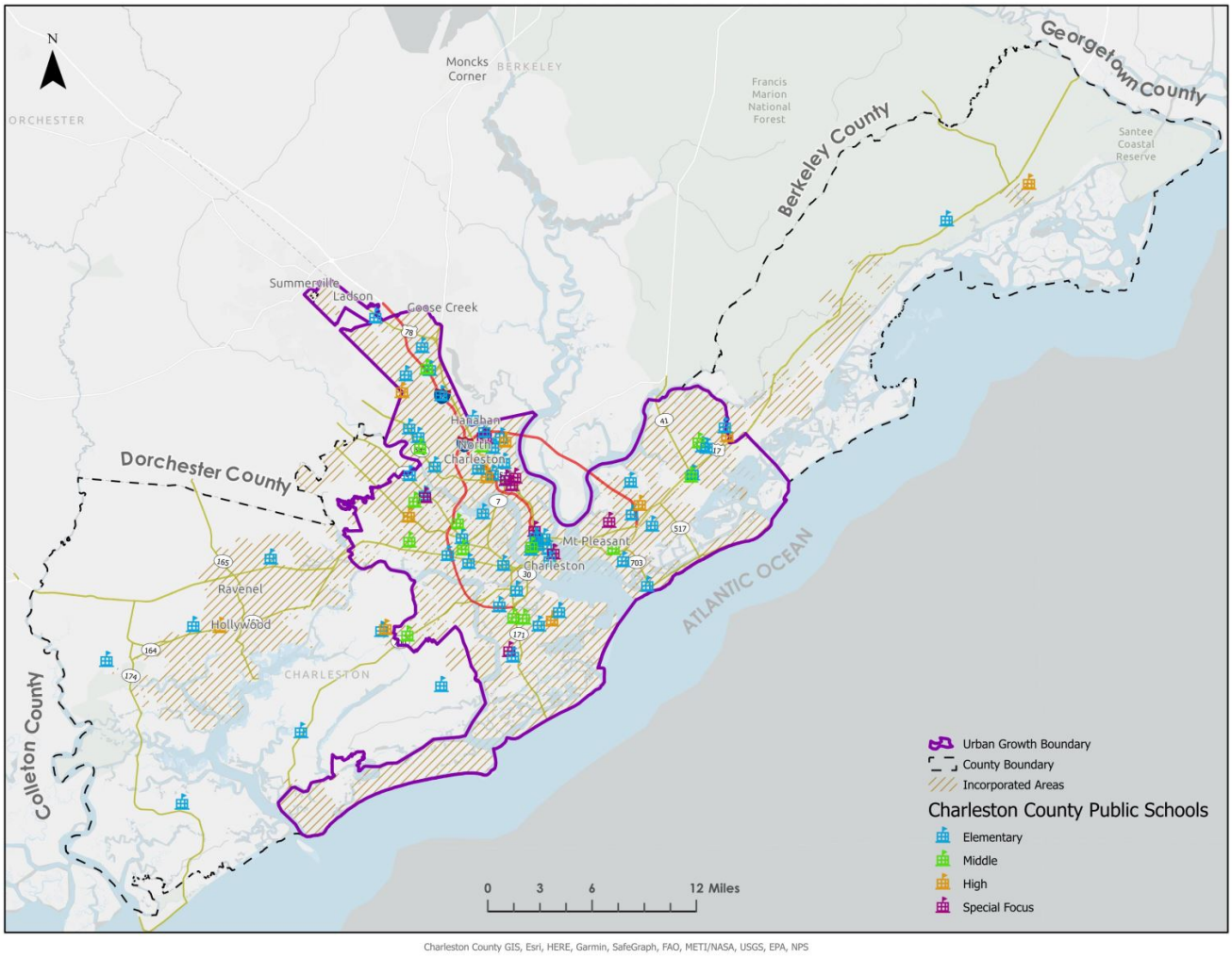
While historically CCSD has seen a decrease in students, in recent years enrollment in the public school system has increased. Additionally, CCSD has seen an influx of students that speak Spanish as their primary language, which increases the need for bilingual teachers. In the ~~2016-2017~~ 2022-2023 academic year, the School District had ~~3,851~~ 5,048 ~~English Language~~ Multilingual Learners, and over ~~nine~~ 13 percent of the entire student body was Hispanic.

CCSD's strategic plan, Charleston Achieving Excellence, is focused on raising the academic performance of all schools and closing the achievement gap. CCSD is the ~~fourth~~ third largest public sector employer in Charleston County, with ~~5,520~~ 6,273 certified and support staff including ~~3,163~~ 3,519 full-time teachers, ~~72~~ 49 part-time teachers, and ~~575~~ 648 teacher's assistants.

~~Map 3.8.1: Water Service Areas~~

DRAFT

Map 3.8.8: Charleston County Public School Locations, 202217



~~Note: Municipal boundaries shown are as of August 18, 2017.~~Map dated January 27, 2023

Private Educational Facilities (K-12)

Private Educational Facilities are not regulated by the South Carolina Department of Education or by Charleston County School District. Charleston County has 47 private schools with 8,844 students enrolled for the 2022–23 academic year. In Charleston County, 15% of all K–12 students attend private schools, compared to an average of 8% for the state of South Carolina. The average tuition is $13,338/year (2023), which is more than the $7,708 average for private schools in South Carolina. In Charleston County, 69% of private schools have a religious affiliation (most commonly Christian and Baptist). ~~Of these schools, 44~~ 48 ~~private schools in Charleston County educating 9,430 students, 70 percent of the schools are religiously affiliated~~. Minority enrollment makes up ~~11~~ 48 percent of the private school student body, and the overall student~~:~~ to teacher ratio is ~~11~~ 15:1. ~~The average private high school tuition in Charleston County is $13,338 per year, as compared to a national average of $13,524~~ $14,978. The South Carolina Independent School Association (SCISA) provides accreditation standards for private schools, although private schools are not required to be accredited. Sixteen of the private schools in Charleston County meet the accreditation criteria of the South Carolina Independent School Association (SCISA).

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 some of these schools, along with location information and brief descriptions. The table does not list all institutes of higher learning. ~~; however, it does include the institutions with the highest enrollments in the region~~.

Table 3.8.1: Continuing Education Institutions

School	Location	Type of School	Enrollment*	Brief Description
~~Art Institute of Charleston~~ American College of the Building Arts	~~Market Street, Downtown Charleston~~ 649 Meeting Street, Charleston	~~4-Year, Private~~ 4-Year Private	~~700~~ 93	~~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~~ 385 Meeting Street, Downtown Charleston	Graduate, Private	~~700~~ 627	Originated with the Forensic Club in 1825, it 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	9200 University Blvd, North Charleston	4-Year, Private	~~3,367~~ 2,720	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

DRAFT

Table 3.8.1: Continuing Education Institutions				
School	**Location**	**Type of School**	**Enrollment***	**Brief Description**
The Citadel	171 Moultrie Street, Downtown Charleston	4-Year, Public	~~3,592~~ 2,828	Consisting of nearly ~~3,300~~ 3,000 students and 19 programs of study, civilian evening graduate/undergraduate classes are available as well
Clemson ~~Architecture~~ Design Center, Charleston	~~20 Franklin~~ 701 East Bay Street, Suite 202 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	66 George Street, Downtown Charleston	4-Year, Public	~~11,619~~ 9,100	Founded in 1770, it 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~~ 3800 Paramount Drive, North Charleston	2-Year, Private	~~300~~ 13,983	Associates and Diploma programs in Network Security, Electronics Engineering, Medical Administration as well as Medical Assistant are available programs of study
Limestone College	4500 Leeds Ave, North Charleston	Evening, Private	~~120~~ 1,818	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~~ 2001 Mabelline Road, North Charleston	Graduate, Public	300	~~13~~ 26 graduate programs administered in conjunction with The Citadel, The College of Charleston, and the Medical University of South Carolina~~, Clemson and the University of South Carolina~~
Medical University of South Carolina	171 Ashley Ave, Downtown Charleston	4-Year, Public	~~2,996~~ 2,965	Chartered in 1823, it was the first medical school in the ~~s~~South, and now caters to nearly ~~2,600~~ 3,000 students with its Colleges of Dental Medicine, Medicine, Graduate Studies, Health Professions, Nursing, and Pharmacy

DRAFT

Table 3.8.1: Continuing Education Institutions				
School	**Location**	**Type of School**	**Enrollment***	**Brief Description**
Miller-Motte ~~Technical~~ College	8085 Rivers Ave, North Charleston	2-Year, Public	~~667~~ 309	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~~ Southeastern College - Charleston	~~Belle Oaks Drive, North Charleston~~ 2431 Rivers Avenue	~~Weekend, Private~~ Private	~~185~~ 200	~~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~~ 601 Meeting Street, ~~North~~ Charleston	2,4-Year, Private	~~N/A~~ 2,806	Undergraduate/graduate programs available for study such as Accounting, Business, General Studies, Health Services Administration, Information Systems, and Public Administration
Trident Technical College	7000 Rivers Ave, North Charleston	2-Year, Public	~~17,489~~ 9,003	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~~ 4105 Faber Place Drive, North Charleston	2,4-Year, Private	400	~~Located off of International Blvd and the Air Force Base,~~ More than 160 graduate/undergraduate programs of study are offered in fields such as Behavioral and Social Sciences, Business Management, among others
**Reflects most recent enrollment data collected from various sources.*				

DRAFT

3.8.3: COMMUNITY FACILITIES ELEMENT GOAL

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;

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 linked to land use planning and development decisions to ensure capacity for expected growth.

- 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.

DRAFT

CF 1. Continue to ~~P~~provide and support facilities that serve government functions and responsibilities throughout the County, including public library facilities.

CF 2. Ensure that new development contributes its fair share to the costs of community facilities and services.

CF 3. Create a stronger link between capital improvements programming and land use planning.

CF 4. Take the lead in establishing intergovernmental agreements for the provision of county-wide services.

CF 5. Continue to ~~S~~support efforts to provide safe, high-quality, adequate supplies of potable water to meet the needs of present and future residents.

CF 6. Continue to c~~C~~oordinate 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 7. Continue to i~~I~~nvestigate programs, such as Septic Maintenance Programs, to protect water quality and provide clean, safe septic systems to communities in the Rural Area, with any proposed community based wastewater treatment systems being publicly owned and approved by County Council.

CF 8. Continue to ~~P~~provide for adequate collection, processing, disposal of solid waste, and recycling efforts in an environmentally sound economical 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. Pursue solid waste collection programs that reduce the County's carbon footprint and preserve landfill space.

CF 9. Continue to ~~S~~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 10. Continue to ~~P~~provide County-wide ~~adequate~~ emergency medical care, quality public safety services, and emergency preparedness.

CF 11. Continue to coordinate with the ~~Encourage~~ Charleston County School District ~~to coordinate their facilities planning with~~ regarding land use planning and development approvals.

CF 12. Explore opportunities for sharing/consolidating government facilities and services to lower the cost to all residents.

CF 13. Continue to ~~P~~provide parks, recreational facilities, and services in coordination with the Charleston County Greenbelt Program and the Charleston County Park and Recreation Commission, ensuring accessibility to residents of all ages and socioeconomic statuses.

CF 14. Support efforts to create 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 15. Identify community facility needs in the Rural Area and implement ways to address those needs.

DRAFT

CHAPTER 3.9 PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION ELEMENT

Contents:

3.9.1: OVERVIEW
3.9.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.9.3: PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION ELEMENT GOAL
3.9.4: PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION STRATEGIES AND TIME FRAMES
3.9.5: IMPLEMENTATION INITIATIVES
3.9.6. IMPLEMENTATION TOOLBOX

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, Transportation and Priority Investment. 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.

Element Goal

Public infrastructure and planning projects ~~will~~ shall be prioritized and implemented through active and open coordination with the community as well as with adjacent and relevant jurisdictions and agencies.

DRAFT

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 to be 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: (1) Major Planning Efforts and Projects, (2) Capital Improvement Plan, Fiscal Impact Assessment, and Funding Options, (3) Interjurisdictional Coordination; and (4) Rural Preservation; and
3. An implementation toolbox.

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 to 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.

DRAFT

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 and adjacent jurisdictions, when applicable, 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.

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 Community Development Department (Community Development Block Grants); ~~and~~
- The Charleston Area Transportation Study (CHATS) Program (federal and state transportation funding)~~.~~; and
- The American Rescue Plan Act (ARPA).

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 to the right.

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 (UGB) which delineates the Urban/ Suburban Area and the Rural Area of the County. Strategies encourage preservation of the Rural Area and suggest that intensification and infill development is more appropriate for the Urban/Suburban Area, due to the high levels of public facilities and services available. 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. Strategies also support community planning efforts at all levels.
2. **Economic Development Element** Includes strategies to balance business and employment growth with population growth.
3. **Natural Resources and Cultural Resources Elements** Focus 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** Describes the agencies charged with building and maintaining the transportation networks within Charleston County, as well as the funding sources for

DRAFT

transportation improvements. Strategies focus on improving the multi-modal transportation network in Charleston County and coordinating transportation planning with land use recommendations.

7. **Community Facilities Element** Focuses on strategies to balance land use planning with the availability of public facilities and services.
8. **Energy and Sustainability Element** Identifies strategies to promote the use of alternative energy sources and energy conservation measures that benefit our communities.
9. **Resilience Element** identifies strategies to make the County more resilient.

3.9.3: PRIORITY INVESTMENT, IMPLEMENTATION, AND COORDINATION ELEMENT GOAL

Priority Investment, Implementation, and Coordination Element Needs

Priority Investment, Implementation, and Coordination Element needs include, but are not limited to, the following:

Public infrastructure and planning projects ~~will~~ shall be prioritized and implemented through active and open coordination with the community as well as with adjacent and relevant jurisdictions and agencies.

- Interjurisdictional coordination including reinforcing the location of the Urban Growth Boundary (UGB) through a mutually agreed-to process and criteria for amending the U~~rban~~ G~~rowth~~ B~~oundary~~;
- 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.

DRAFT

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. Continue to ~~R~~regularly review and update the *Zoning and Land Development Regulations Ordinance* to ensure these regulations reflect the recommendations of the *Comprehensive Plan.*

PI 4. Address specific planning issues involving Charleston County so that:

- Land use plans, overlay zoning districts, and architectural standards are consistent among adjacent jurisdictions;
- The goals and strategies contained in the *Berkeley-Charleston-Dorchester Housing Needs Assessment* and *Charleston County Housing Our Future Plan* are implemented; and
- Transportation plans and projects are coordinated ~~There are 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*.

PI 6. Reinforce the location of the Urban Growth Boundary (UGB) and establish criteria to change its location through coordination with the Cities of Charleston and North Charleston, the Towns of Mount Pleasant, Kiawah Island and Seabrook Island, and service providers.

PI 7. Continue the *Comprehensive Plan* implementation initiatives included in this Element and adopted by County Council.

PI 8. Coordinate with municipalities in the County to address mutually agreed-upon regional issues.

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, emergency planning, 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 support transportation planning in Charleston County that is consistent with the goals of the Charleston County *Comprehensive Plan*, focused on the following:

- Identification of roadway improvements in future updates of the *CHATS Plan* and the *Five-Year Transportation Improvement Plan* (TIP);
- Long-term planning for state highways;
- Design of state highways; 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 to ~~C~~coordinate land use planning with Charleston County School District.

PI 13. 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 14. Continue to ~~A~~address resilience and sustainability in the *Zoning and Land Development Regulations Ordinance*.

PI 15. Encourage long-term public-private partnerships in land use, housing, economic development, and infrastructure planning.

PI 16. Continue to work with residents and stakeholders to implement corridor and community plans adopted as part of this Plan.

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, 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. Major Planning Efforts and Projects;
B. Capital Improvement Plan, Fiscal Impact Assessment, and Funding Options;
C. Interjurisdictional Coordination; and
D. Rural Preservation.

A. Major Planning Efforts and Projects

During each Five-Year Review and Ten-Year Update of the Comprehensive Plan, major planning efforts and projects are identified and prioritized by County Council. *Table 3.9.1* lists the projects identified during the ~~2013-2014~~2023 Five-Year Review~~. Updates on those projects are also included in the table.~~ as priority recommendations/major planning efforts to be undertaken in the next five years. This table includes the recommended time frame, intergovernmental coordination required, and status of each project. More detailed information on each project is included in the paragraphs following Table 3.9.1. *Map 3.9.1* demonstrates where the projects are located geographically, if applicable.

~~As part of the 2018 Ten-Year Update, the major planning efforts and projects that were not completed from the Five-Year Review Priority Recommendations, along with new projects added by County Council, comprise the 2018-2023 Priority Recommendations. *Table 3.9.2* lists these projects, recommended time frames, and intergovernmental coordination. In the paragraphs to follow, the projects are described in greater detail. *Map 3.9.1* demonstrates where the projects are located geographically, if applicable.~~

DRAFT

The Priority Recommendations are a strategic component to implement the *Comprehensive Plan*. County Council should review these and establish an Annual Work Plan and direct the Planning Department to undertake projects, based on available resources.

Major Planning Efforts and Projects

The intent of the County in identifying major planning efforts and projects 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. The following paragraphs describe ~~all of~~ the projects included in the ~~2018-2023~~2023-2028 Priority Recommendations. County Council should review the Priority Recommendations each year and prioritize projects in an Annual Work Plan.

~~Table 3.9.1: Project Statuses for 2013-2014 Five-Year Review Priority Recommendations~~			
~~Project~~	~~Intergovernmental Coordination~~	~~Project Status~~	
~~Proposed Spring Grove Development (formerly East Edisto)~~	~~Towns of Hollywood, Meggett, and Ravenel~~	~~Development Agreement, Development of County Significance, and Form-Based Zoning District Adopted in 2015; Project development plan review will continue throughout the 50-year life of the Development Agreement~~	
~~Historic Resources Survey Update~~	~~State Historic Preservation Office~~	~~Completed in 2016~~	
~~West Ashley Consistency Review~~	~~City of Charleston~~	~~Completed DUPont | Wappoo Community Plan and Overlay Zoning District in 2016; participating in City of Charleston West Ashley Master Plan project~~	

DRAFT

Table 3.9.1: Project Statuses for 2013-2014 Five-Year Review Priority Recommendations			
Project	**Intergovernmental Coordination**	**Project Status**	
Rural Area Cultural Community Protection Overlay Zoning Districts (Parkers Ferry Area)	Applicable jurisdictions and service providers	Completed in 2017	
ReThink Folly Road Implementation	City of Charleston, Town of James Island, City of Folly Beach, and service providers	Plan adopted in 2016; implementation included in 2018-2023 Work Plan	
ZLDR Comprehensive Review	All municipalities and service providers within Charleston County	Began in 2017; included in 2018-2023 Work Plan as it is a multi-year project	
Urban/Suburban Area Cultural Community Protection Overlay Zoning Districts for Historic African-American Communities, as identified in the 2016 Charleston County Historic Resources Survey Update (e.g. Phillips, Snowden, Ten Mile, Grimball Farm, etc.)	Applicable jurisdictions and service providers	Completed Sol Legare Community Plan and Overlay Zoning District in 2018; other communities included in 2018-2023 Work Plan. Staff is currently working with the Ten-Mile Community to develop an Overlay district. Community Plans/ Overlay Zoning Districts/Historic Districts for other communities to be completed as requested by each community.	

DRAFT

Table 3.9.1: Project Statuses for 2013-2014 Five-Year Review Priority Recommendations			
Project	**Intergovernmental Coordination**	**Project Status**	
Implementation of Urban/Suburban Future Land Use Designation	All municipalities within the Urban Growth Boundary	Included in 2018-2023 Work Plan as part of the ZLDR Comprehensive Review Project	
Implementation of the Rural Residential Future Land Use Designation	City of Charleston and Town of Mount Pleasant	Included in 2018-2023 Work Plan as part of the ZLDR Comprehensive Review Project	
Maybank Highway Corridor Overlay Zoning District (consistency review with the Johns Island Plan and extension onto James Island)	City of Charleston	Completed in 2021	
Main Road (River Road to Maybank Highway, including Kitford Road Area)	City of Charleston	Completed in 2020	
Mount Pleasant Overlay Zoning District – Sweetgrass Basket Stand Special Consideration Area	Town of Mount Pleasant	Included in 2018-2023 Work Plan County staff is currently working with Town staff to update the Mount Pleasant Overlay Zoning District.	
Reinforce the location of the Urban Growth Boundary	City of Charleston, City of North Charleston, Town of Mount Pleasant, and relevant service providers	Included in 2018-2023 Work Plan	
Voluntary Agricultural and Forestal Areas Ordinance	Applicable jurisdictions	Included in 2018-2023 Work Plan	

DRAFT

Table 3.9.2: 2018-2023 Priority Recommendations				
	Project	Recommended Time Frame*	Intergovernmental Coordination	
1	ZLDR Comprehensive Review	2-3 Years	All municipalities and service providers within Charleston County	
2	Mount Pleasant Overlay Zoning District – Sweetgrass Basket Stand Special Consideration Area	1-2 Years	Town of Mount Pleasant	
3	Urban/Suburban Area Cultural Community Protection Overlay Zoning Districts for Historic African-American Communities, as identified in the 2016 Charleston County Historic Resources Survey Update (e.g. Phillips, Snowden, Ten Mile, Grimball Farm, etc.)	ongoing 2-3 Years	Applicable jurisdictions and service providers	
4	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	
5	Coordinate with Charleston County Economic Development Department to identify economic development opportunities in the Western area of Charleston County	1-2 Years	Towns of Hollywood, Meggett, and Ravenel	
6	Future Land Use Consistency Review in Highway 78 Area	2-3 Years	Town of Lincolnville, City of North Charleston, and Berkeley County	
7	Voluntary Agricultural and Forestal Areas Ordinance	1-2 Years	Applicable jurisdictions	
8	Editso Island SLDR/Comprehensive Plan Amendments	2-3 Years		
9	Implementation of adopted Community Plans (e.g. DuPont | Wappoo, Parkers Ferry, Sol Legare)	Ongoing	Applicable jurisdictions	

DRAFT

Table 3.9.2: 2018-2023 Priority Recommendations				
Project		Recommended Time Frame*	Intergovernmental Coordination	
10	ReThink Folly Road Implementation	Ongoing	City of Charleston, Town of James Island, City of Folly Beach, and service providers	
11	2016 Charelston County Historic Resources Survey Update Implementation	Ongoing	Applicable jurisdictions and State Historic Preservation Office	

DRAFT

Table 3.9.1, Priority Recommendations (2023 - 2028) *Time frame based on availability of adequate resources, to be directed and reviewed annually by County Council.				
	Project	**Intergovernmental Coordination**	**Recommended Time Frame**	**Project Status**
1	Reinforce the location of the Urban Growth Boundary (UGB)	City of Charleston, City of North Charleston, Towns of Mount Pleasant, Kiawah Island and Seabrook Island, and relevant service providers	1 - 2 Years	This project has not begun.
2	-Mount Pleasant Overlay Zoning District - including Sweetgrass Basket Stand Special Consideration Area Update	Town of Mount Pleasant	1 - 2 Years	County staff is currently working with Town staff to update the Mount Pleasant Overlay Zoning District and Sweetgrass Basket Stand Special Consideration Area.

DRAFT

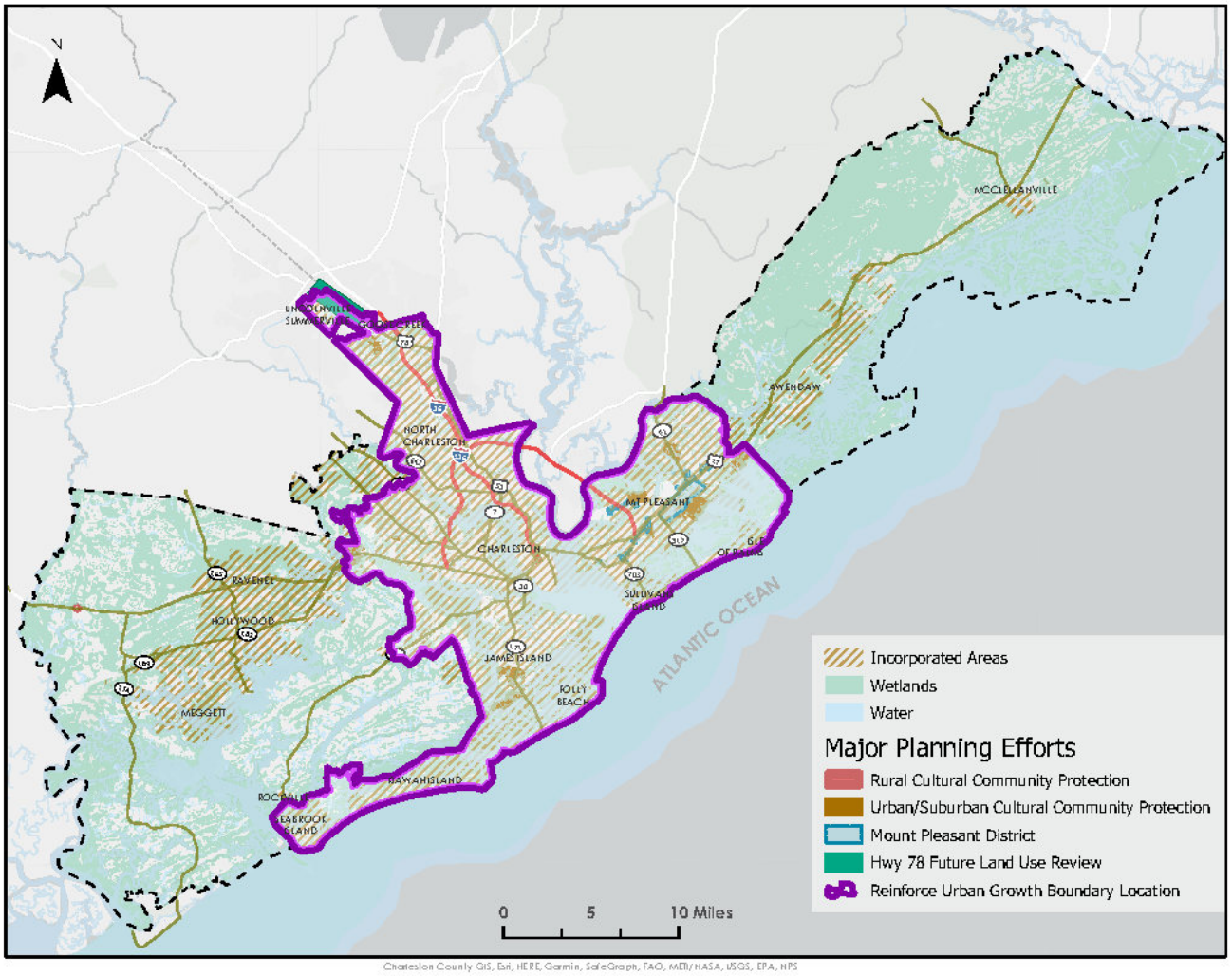
Table 3.9.1, Priority Recommendations (2023 - 2028) *Time frame based on availability of adequate resources, to be directed and reviewed annually by County Council.				
	Project	**Intergovernmental Coordination**	**Recommended Time Frame**	**Project Status**
3	Urban/Suburban Area Cultural Community Protection Overlay Zoning Districts and Historic Districts for Historic African-American Communities, as identified in the 2016 Charleston County Historic Resources Survey Update (e.g. Phillips, Snowden, Ten Mile, Grimball Farm, etc.)	Applicable jurisdictions and service providers	Ongoing	Completed the Sol Legare Community Plan and Overlay Zoning District in 2018. Staff is currently working with the Ten-Mile Community to develop an Overlay Zoning District. Community Plans/Overlay Zoning Districts/Historic Districts for other communities to be completed as requested by each community.
4	Rural Area Cultural Community Protection Overlay Zoning Districts and Historic Districts	Applicable jurisdictions and service providers	Ongoing	Ongoing/ as requested by residents of each community
5	Future Land Use Consistency Review in Highway 78 Area	Town of Lincolnville, City of North Charleston, and Berkeley County	2 - 3 Years	This project has not begun.

DRAFT

Table 3.9.1, Priority Recommendations (2023 - 2028) *Time frame based on availability of adequate resources, to be directed and reviewed annually by County Council.				
	Project	**Intergovernmental Coordination**	**Recommended Time Frame**	**Project Status**
6	Funding Tools and Programs to Implement the Strategies of the Comprehensive Plan (e.g., impact fees, transfer of development rights, purchase of development rights and similar programs)	Applicable jurisdictions and service providers	2 - 3 Years	This project has not begun.
7	Review the land uses and zoning allowed ~~in the agricultural zoning districts~~ on Johns Island to prioritize agricultural, silviculture, equestrian and other agriculturally related uses	Internal/County Staff	2 - 3 Years	This project has not begun.
8	Review and amend the Comprehensive Plan and the ZLDR, as applicable, to increase open space, clustering, and other requirements necessary to achieve ~~the increased~~ higher densities~~y of 1 dwelling per 4 acres in the Rural Agricultural Future Land Use designation~~ through the Planned Development process, ~~and better define~~ refine the open space as it relates to Planned Developments, and remove the conservation subdivision provisions of the ZLDR as they relate to the AG-8 zoning district	Internal/County Staff	2 - 3 Years	This project has not begun.
9	Review/amend the Comprehensive Plan and ZLDR to prohibit clear cutting of properties and incentivize the retention of swaths of trees	Internal/County Staff	2 - 3 Years	This project has not begun.
10	Create an Official Map showing federal and locally funded roads, along with planned road projects and CARTA projects.	Internal/County Staff	2 - 3 Years	This project has not begun.

DRAFT

Map 3.9.1: Major Planning Efforts



Map dated March 29, 2023

~~Comprehensive Review of the Zoning and Land Development Regulations Ordinance~~

~~As a general implementation strategy, the County should review the *Zoning and Land Development Regulations Ordinance* (ZLDR) to ensure conformance with the Comprehensive Plan goals and strategies. The current ZLDR was adopted in 2001, and while it has been reviewed and amended several times over the last 17 years, a comprehensive review of the regulations has not been done. Since the Comprehensive Plan has undergone several modifications due to mandated reviews and updates during this time frame, a comprehensive review of the ZLDR, focusing on design standards and zoning regulations to support the character of the Rural Area and Urban/Suburban Area, is necessary. This project was identified during the 2013-2014 Five-Year Review, and as a result, the Planning Department sent a Request for Proposals (RFP) in late 2016 to solicit responses from qualified planning consultants with planning and related legal expertise. In Spring 2017, a consultant was hired to assist in the comprehensive review process, which is programmed to occur in three phases.~~

~~Phase 1, which began in the spring of 2017, includes: a strategic assessment of the entire ZLDR, including recommendations for amendments; development of a Short-Term Rental Ordinance; amendments to the existing Historic Preservation Ordinance; and a new interactive, web-based platform for the ZLDR.~~

~~Phase 2 includes a review and update of the land use matrix, base zoning districts, development review procedures, overlay zoning districts, land development and subdivision regulations, definitions, and affordable housing provisions/incentives.~~

~~Phase 3 includes: reviewing and updating permitting procedures, temporary and accessory uses, and Planned Development Zoning Districts requirements and processes; and addressing urban agriculture and open space requirements.~~

~~Maybank Highway Corridor and Main Road Corridor Overlay Zoning Districts~~

~~*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 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. Planning staff has been coordinating with City of Charleston staff, and this project is scheduled to begin in Spring 2018.~~

~~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.~~

Reinforce the Location of the Urban Growth Boundary (UGB)

As discussed in the Land Use Element, the Urban Growth Boundary (UGB) 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 U~~rban Growth Boundary~~ and the criteria and process to change its location.

The City of North Charleston has not adopted ~~an~~ U~~rban~~ G~~rowth~~ B~~oundary~~; however, the City of Charleston and Town of Mount Pleasant have adopted Urban Growth Boundaries. During the *2013-2014 Five-Year Review* of the County's Plan, the County reviewed the location of its U~~rban~~ G~~rowth~~ B~~oundary~~ relative to the locations of those adopted by the City of Charleston and Town of Mount Pleasant. The County's U~~rban~~ G~~rowth~~ B~~oundary~~ was revised in specific locations to match those adopted by the other jurisdictions, as appropriate. The Urban Growth Boundaries adopted by the Town of Mount Pleasant and Charleston County are consistent with one another. However, the City of Charleston's U~~rban~~ G~~rowth~~ B~~oundary~~ varies slightly from the location of the U~~rban~~ G~~rowth~~ B~~oundary~~ adopted by Charleston County as it places a portion of James Island in the Rural Area while the County places all of James Island in the Urban/Suburban Area.

Charleston County should approach the City of North Charleston and Towns of Kiawah Island and Seabrook Island, and other applicable jurisdictions and service providers about adopting a~~n~~ U~~rban~~ G~~rowth~~ B~~oundary~~ consistent with the County's U~~rban~~ G~~rowth~~ B~~oundary~~ to ensure that annexations do not allow development that is inconsistent with the County's future land use recommendations and zoning. Charleston County should also coordinate with all applicable jurisdictions to draft and adopt the criteria and process to move the U~~rban~~ G~~rowth~~ B~~oundary~~. Charleston County and adjacent jurisdictions should approach service providers regarding provision of services such as public water and sewer outside the U~~rban~~ G~~rowth~~ B~~oundary~~.

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, Hungry Neck Boulevard has been extended, 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 improvements in the Old Georgetown Road area, known as the "Old Georgetown Office Loop," have increased development pressure in recent years. Several property owners in this area, along with the Seven Mile Community Action Group for Encouragement (CAGE), have requested the County to review the Special Consideration Area and Office Loop area specifically, as they feel the zoning and land development regulations are too restrictive and limit the redevelopment potential of these properties.

The 2016 *Charleston County Historic Resources Survey Update* highlighted the significance of the African American ~~settlement~~ Cc communities in the East Cooper area, specifically in the Sweetgrass Basket Stand Special Consideration Area and surrounding neighborhoods. In 2020, the Town of Mount Pleasant Town Council established a Settlement Communities Task Force to disucss issues affecting the various Historic African-American Communities within or adjacent to Town boundaries. County staff provided support as many of the Communities are located in the unincorporated County. The Task Force met for over a year and made recommendations regarding infrastructure, economic disparity, cultural integrity, planning and zoning decisions, and property ownership, all of which are included in the final Settlement Community Task Force Report and Recommendations report.

DRAFT

~~Recognizing that~~ The historic African-American Communities, ~~these communities~~ (Six Mile, Seven Mile, Snowden, Phillips, etc.), along with the existing agricultural resources (Hamlin Farms and Boone Hall) and cultural resources (Charles Pinckney Historic Site, Palmetto Fort, etc.) are a core feature of the history of both the County and the Town of Mount Pleasant and should be preserved~~,~~. Charleston County should work with residents, community groups, and the Town to implement the recommendations of the Settlement Communities Task Force, update the Mount Pleasant Overlay Zoning District and Sweetgrass Basket Stand Special Consideration Area accordingly, and work with communities to develop overlay zoning districts and historic districts as requested by each community. ~~create a community plan for the Mount Pleasant area that would encourage neighborhood preservation, cohesive land use patterns, and transportation issues, among other community development needs. Once the community plan is created, the Town and County should work with residents to implement the plan, beginning with significant revisions to the Mount Pleasant Overlay Zoning District and Sweetgrass Basket Stand Special Consideration Area overlay.~~

Urban/Suburban Area Cultural Community Protection Overlay Zoning Districts and Historic Districts

As part of the 2013-2014 Five-Year Review, the former Residential/Special Management Future Land Use designation was replaced with the Urban/Suburban Area Cultural Community Protection (USCCP) Future Land Use designation. This future land use category is intended to protect and promote the culture and unique development patterns of historic African-American C~~c~~ommunities in the Urban/Suburban Area, many of which were recognized as historically and culturally significant in the *2016 Charleston County Historic Resources Survey Update* (Survey Update). Four communities, Phillips, Snowden, Sol Legare, and Scanlonville, were identified as eligible for the National Register of Historic Places (NRHP) under Criterion A (contribution to the broad patterns of history) for their African-American ethnic heritage. Several other communities, including Grimball Farm, Ten Mile, Red Top, and several others, were identified as needing further research to determine NRHP eligibility. These communities are each very unique but share commonalities that relate to strong social values around land ownership, familial ties, and religion that descend from the Gullah Geechee heritage. The historic and cultural value of each community is evident through observing subdivision patterns and lot design, site layout characteristics, and vernacular architecture.

DRAFT

To implement the USCCP and findings from the 2016 Survey Update, changes are necessary to the *Zoning and Land Development Regulations Ordinance*. The County completed the first implementation of this future land use designation in 2018 with the adoption of the Sol Legare Community Plan and Overlay Zoning District. In addition, Planning staff assisted the Phillips Community, Beefield Community, and Ten Mile Community in achieving Historic District status and is currently working with the Ten Mile Community to create an overlay zoning district that meets their needs. The recommended strategy is to continue to work with the residents of these communities and relevant jurisdictions and service providers to create overlay zoning districts and/or historic districts that meet the needs of each individual community. ~~Planning staff has been working with the Sol Legare community on James Island since 2013 to create a Community Plan and Overlay Zoning District. The project culminated in Spring 2018, with both documents being adopted. Citizens of the African-American communities in the East Cooper area, namely the Phillips, Snowden, Scanlonville, and Cainhoy-Huger communities, have established the African American Settlement Communities Historic Commission, Inc. to focus on protecting their communities and managing the type of growth that occurs. It is recommended that the Planning staff continue to work with this newly formed group when implementing the USCCP in the East Cooper area, as well as with the Grimball Farm and Ten Mile communities.~~

~~Reinforce the Location of the 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; however, the City of Charleston and Town of Mount Pleasant have adopted Urban Growth Boundaries. 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.~~

~~Charleston County should approach the City of North Charleston about adopting an Urban Growth Boundary consistent with the County's Urban Growth Boundary to ensure that annexations by the City of North Charleston do not allow development that is inconsistent with the County's future land use recommendations and zoning. Charleston County should also coordinate with all applicable jurisdictions to draft and adopt the criteria and process to move the Urban Growth Boundary. Charleston County and adjacent jurisdictions should approach service providers regarding provision of services such as public water and sewer outside the Urban Growth Boundary.~~

Rural Area Cultural Community Protection Overlay Zoning Districts and Historic Districts

The Rural Cultural Community Protection future land use designation is intended to protect and promote the culture and unique development patterns of existing communities in the Rural Area of the County and sustain their strong sense of community. These communities 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 *2016 Charleston County Historic Resources Survey Update* (Survey Update) recognized many of these communities (Fifteen Mile, South Santee, Germantown, Buck Hall, and Tibwin) as historically and culturally significant, but in need of further research to determine NRHP eligibility. These communities are each ~~very~~ unique but share commonalities that relate to strong social values around land ownership, familial ties, and religion that descend from the Gullah Geechee heritage. The historic and cultural value of each community is evident through observing subdivision patterns and lot design, site layout characteristics, and vernacular architecture. To implement the Rural Area Cultural Commmunity Protection future land use designation and findings from the 2016 Survey Update, changes are necessary to the *Zoning and Land Development Regulations Ordinance*. In 2017, the County completed the first implementation of this future land use designation with the adoption of the Parkers Ferry Community Plan and Overlay Zoning District. The recommended strategy is to continue to work with the residents of these communities and relevant jurisdictions and service providers to create overlay zoning districts and/or historic districts that meet the needs of each individual community.

Future Land Use Consistency Review in Highway 78 Area

In 2016, zoning map amendment applications submitted for properties near the intersection of Pinewood Avenue and Highway 78 in the North Area of the County drew attention to inconsistencies between the Future Land Use designations, zoning designations, and existing land uses in the area. As a result, County Council directed Planning staff to review the Future Land Use designations in the area. The recommended strategy is to work with residents, the Town of Lincolnville, City of North Charleston, and Berkeley County to review the Future Land Use Plan in the area and amend, as necessary.

Funding Tools and Programs to Implement the Strategies of the Comprehensive Plan

DRAFT

Fiscal responsibility is one of the overarching themes of this Plan. Chapter 1.1, Introduction, states, "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." Many of the strategies contained in the Plan echo this theme and also recommend that infrastructure be in place prior to development approvals. For example, Land Use Element Strategy 7 states "Ensure developers contribute an equitable ~~fair~~ share to the costs of services associated with development," Transportation Element Strategy 6 states "Mandate that adequate transportation infrastructure be in place prior to, or concurrent with, additional development," Community Facilities Element Strategy 2 states "Ensure that new development contributes its fair share to the costs of community facilities and services," and Community Facilities Element Strategy 3 states "Create a stronger link between capital improvements programming and land use planning." The recommended strategy is for the County to investigate and enact funding tools to implement these strategies such as adequate public facilities ordinances, impact fees, transfer of development rights programs, and purchase of development rights programs. Information on many of these tools can be found in Appendix A, Charleston County Implementation Toolbox, of this Plan.

Review Allowed Land Uses in the Johns Island Agricultural Zoning Districts

The purpose of this project is to review the Zoning and Land Development Regulations Ordinance and amend it as necessary to ensure the land uses allowed in the Agricultural zoning districts on Johns Island are consistent with the description of the applicable future land use designations contained in this Plan. Agricultural, silviculture, equestrian, and other agriculturally related uses should be prioritized.

Review Requirements for Planned Developments in the Rural Agricultural Future Land Use Designation

Increasing open space, clustering, and other requirements necessary to achieve ~~the~~ increased density ~~of 1 dwelling per 4 acres~~ through the Planned Development process in the Rural Agricultural Future Land Use designation would continue to protect the rural character of Johns Island while allowing increased density consistent with the recommendations of this Plan. The purpose of this project is to review this Plan and the Zoning and Land Development Regulations Ordinance and propose amendments as necessary to accomplish the above-state goal and to better define the term "open space" as it relates to Planned Developments.

Review/Amend Comprehensive Plan and ZLDR to Prohibit Property Clear Cutting and Incentivize Tree Retention

Forests provide resilience to hurricanes, floods, and other water-related disasters. In comparison to fragmented stands of trees, they also offer higher levels of biodiversity. The purpose of this project is to review this Plan and the Zoning and Land Development Regulations Ordinance and proposed amendments as necessary to require and/or incentivize the retention of contiguous wooded areas both inside individual properties and between neighboring properties as a condition of land development.

Creation of an Official Transportation Map

In order to give the public the ability to quickly and easily see how their tax dollars are being used for transportation projects, create an Official Map showing federal and locally funded roads, along with planned road projects and CARTA projects. The map should also be used to prioritize road funding projects and make determinations regarding development approvals.

~~*Creation of a Community Resiliency Element for Comprehensive Plan*~~

~~Public input submitted through the 2018 Ten-Year Update requested that the County consider adding a new Element to the Comprehensive Plan to address high water impacts and community resiliency. Recent flooding events that result from tidal influence and extreme weather have demonstrated the need for the County and municipalities to review current policies and practices to attempt to adapt existing and future development. The City of Charleston has taken the lead in the region by adopting a Sea Level Rise Strategy, while the Department of Health and Environmental Control (DHEC) has also established a coalition of public and private partners called the Charleston Resilience Network (CRN) to address resiliency throughout the region. The recommended strategy to improve County resiliency is to establish a subcommittee of Planning Commission, comprised of Planning Commission members, County staff, subject matter experts, and community stakeholders (including representatives from municipalities and service providers) to create a new Element focused on community resiliency. This new Element might supplement or replace the Energy Element, and it would support the existing goals, needs, and strategies of the Comprehensive Plan that intend to promote rural preservation.~~

~~*Voluntary Agricultural and Forestal Areas Ordinance*~~

~~One of the primary goals of the Comprehensive Plan is rural and agriculture preservation. County Council established an Agricultural Issues Advisory Committee to complement the strategies contained in this Plan and identify new strategies. The Committee has coordinated with conservation groups in the County to advocate for a Voluntary Agricultural and Forestal Areas (VAFA) ordinance to conserve, protect, and maintain Charleston County's agribusiness land and facilities for the production of food and other agricultural products; reduce the loss of agribusiness resources by limiting the circumstances under which agricultural and forestry facilities and operations may be considered; and prevent the loss of agribusiness caused by common law nuisance actions resulting from nonagricultural land uses expanding into rural and agricultural areas. The recommended strategy is to continue with the Committee's work and adopt a VAFA ordinance, in coordination with municipalities in the Rural Area.~~

~~*Wadmalaw Island Community Plan*~~

Prior to the adoption of this Plan in 1999, the Wadmalaw Island Land Planning Committee created a planned development for the island to guide future development and ensure preservation of the island, which was adopted by County Council. This document guided many of the current recommendations in the Comprehensive Plan in regards to Wadmalaw Island, and subsequently, the Zoning and Land Development Regulations Ordinance implements these recommendations. A review of the future land use designations and zoning regulations for Wadmalaw Island has not been conducted in recent years. As a result, the recommended strategy is to work with residents and the Wadmalaw Island Land Planning Committee to review the future land use designations and zoning regulations and make adjustments as applicable.

Edisto Island Consistency Review

As a result of the recently approved Spring Grove Form-Based Development of County Significance and Development Agreement, residents on Edisto Island, through the Edisto Island Preservation Alliance, requested that Planning staff review the future land use designations and zoning regulations on the island. County Council added this project to the 2016-2017 Annual Work Plan. In mid-2017, the Edisto Island Preservation Alliance submitted a letter to Planning Commission, explaining that they do not foresee any changes being necessary to the recommendations in the Comprehensive Plan or the zoning regulations for Edisto Island; however, it is recommended that Planning staff work with residents to review the commercial zoning and future land use recommendations in the Comprehensive Plan to ensure these areas are still desirable for commercial growth.

Community Plan Implementation

As County Council adopts Community Plans to implement the goals, needs, and strategies of this Comprehensive Plan and address the specific needs of communities, the recommended strategy is to continue implementation initiatives outlined in adopted Community Plans through coordination with County departments, applicable jurisdictions, public and private community organizations, and local residents. As of the date of the adoption of this 2018 Ten-Year Update, County Council has adopted the following Community Plans: DuPont | Wappoo, Parkers Ferry, and Sol Legare. These plans can be viewed by visiting www.charlestoncounty.org/departments/zoning-planning/index.php under the "Projects" tab.

ReThink Folly Road Implementation

Planning staff coordinated with members of the public, City of Charleston, Town of James Island, and City of Folly Beach to review and update the Folly Road Corridor Overlay Zoning District in 2014. Building on the success of this project, a Complete Streets Study was completed by the BCDCOG, in coordination with the City of Charleston, Town of James Island, City of Folly Beach, Charleston County, CARTA, and SCDOT. As part of the study, multiple public workshops were held to gather input on the future of the Folly Road corridor. The study was adopted by all participating jurisdictions, and a Memorandum of Understanding was signed in 2016. A Steering Committee has been formed to implement the findings of the study, and the recommended strategy is to continue to participate in the Steering Committee and coordinate with adjacent jurisdictions and service providers on projects in the area.

2016 Charleston County Historic Resources Survey Update Implementation

In September 2016, Charleston County completed the Historic Resources Survey Update, which implements the goal and strategies identified in the Cultural Resources Element. The Survey Update contains several strategies to continue implementation of this Element, including amending the historic preservation ordinance, establishing a local inventory for historic resources, educating and collaborating with the public on historic preservation projects, and becoming a Certified Local Government. In 2017, Planning staff began working with the Historic Preservation Committee of Planning Commission to create a new historic preservation ordinance, which would clarify development requirements for historic sites and establish a Historic Preservation Commission and a process for a local historic inventory. The recommended strategy is to continue to implement the Survey Update recommendations, in partnership with the Historic Preservation Committee of Planning Commission and/or the Historic Preservation Commission, State Historic Preservation Office/South Carolina Department of Archives and History, and public/private historic preservation organizations.

- 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 significant transportation improvements in the area, including widening Maybank Highway and incorporating bicycle and pedestrian ways, creating a pitchfork road design network north and south of Maybank Highway on the eastern side of River Road to manage traffic coming onto the island from James Island, and 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.

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 Assessment to determine the cost of providing services and infrastructure to new development. A Fiscal Impact Assessment 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 Assessment 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.

DRAFT

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:

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 –a rural industrial district to provide services and employment opportunities for rural residents. ~~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.

DRAFT

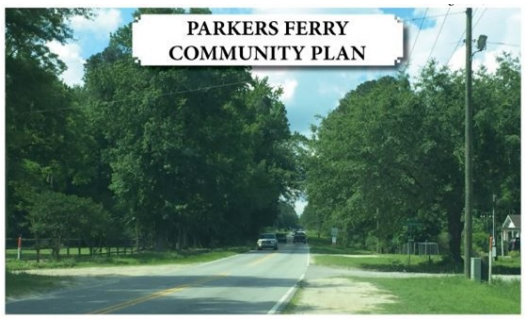
2. ***Continuing to explore ~~Exploring~~ ways, through zoning, to encourage and allow rural and agricultural businesses to prosper through farm and agricultural related activities. Such methods could include:***
    - Expanding agriculture and agricultural uses in districts; and
    - Allowing niche 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.***

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*.

DRAFT

- The *Zoning and Land Development Regulations Ordinance*;
- The *Charleston County Greenbelt Plan*;
- Planned Development Zoning District;
- 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.



*A **collaborative planning effort** to preserve the cultural and natural resources of the historic Parkers Ferry community*



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
Draft – April 22, 2016 - Draft

DRAFT

CHAPTER 3.10 ENERGY AND SUSTAINABILITY ELEMENT

Contents:

3.10.1: OVERVIEW
3.10.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.10.3: ENERGY ELEMENT GOAL
3.10.4: ENERGY ELEMENT STRATEGIES AND TIME FRAMES

3.10.1: OVERVIEW

The Energy and Sustainability Element includes information about energy use, available energy sources, and recommendations to help Charleston County become more energy independent to reduce harmful greenhouse gas emissions. Energy independence is vitally important for national security and economic stability because it minimizes reliance on imported fuel and sources of energy that have become increasingly scarce and costly to obtain. Ways to achieve energy independence include:

Element Goal

~~Promote~~ Charleston County will emphasize and invest in the use of alternative energy sources and energy conservation measures ~~and the reduction of greenhouse gas emissions~~ that benefit our communities and reflect our responsibility to steward our natural resources with future generations in mind.

DRAFT

- Conservation;
- Efficiency;
- Utilizing Renewable and Alternative Energy Sources; and
- Utilizing Local Resources.

Reducing the use of fossil fuels as the County's primary energy source will also lead to decreased greenhouse gas emissions which contribute to increased temperatures and extreme weather events. Increased temperatures and extreme weather events can lead to significant impacts like sea level rise and hurricanes.

Energy plays an important role in the development of civilization. For centuries, the primary sources 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 continues to be ~~as~~ a valid concern because of the impact fossil fuels have on the environment. ~~despite fossil fuels remaining relatively inexpensive over the last several years.~~ Integration of sustainable development through alternative energy planning into the comprehensive planning process at the local level is vital to achieving sensible growth in South Carolina.

Purpose and Intent

The purpose and intent of the Energy and Sustainability Element is to promote the reduction of greenhouse gas emissions through 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.

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. 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 and Sustainability Element underscores the significance of energy through an 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 and Sustainability Element is vital in this Plan as it both "sets the stage" and "reinforces" the concepts of most other Elements in the Plan.

The type and amount of energy used is a very important factor in the amount of greenhouse gases emitted into the Earth's atmosphere. When fossil fuels are burned for energy, greenhouse gases are added to the atmosphere. This buildup of gases, including carbon dioxide, methane, and nitrous oxide, which are naturally occurring and fluorinated gases that are man-made, acts like a blanket around the Earth that traps heat, leading to increased temperatures over the long-term that disrupt the climate. Not all greenhouse gases have the same impact. It depends on three factors: 1) concentration of the gas in the atmosphere; 2) how long the gas remains in the atmosphere; and 3) how effective the gas is at trapping heat. Although the burning of fossil fuels is the largest contributor to greenhouse gas emissions, other human activities also contribute. The four main greenhouse gases and the sources of these emissions are discussed below.

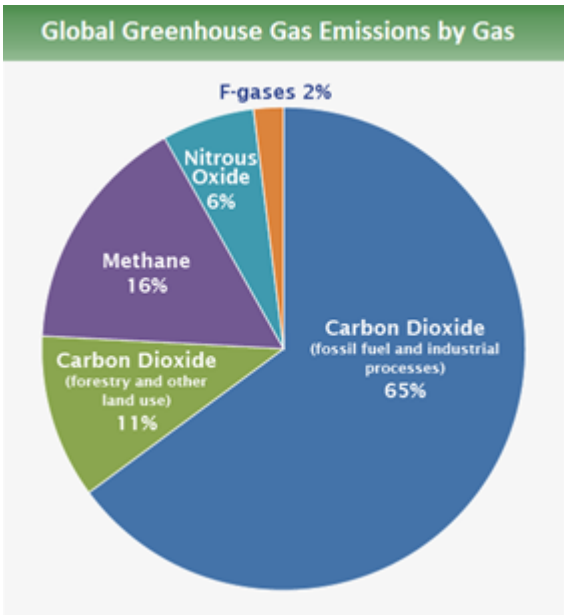


Figure 3.10.1 Source: United States Environmental Protection Agency

- **Carbon dioxide**: As seen in Figure 3.10.1, the Fifth Assessment Report of the International Panel on Climate Change (IPCC) estimated that Carbon Dioxide comprises the majority of greenhouse gas emissions at 76 percent. The primary source of Carbon Dioxide emissions are the combustion of fossil fuels from transportation, electricity, and industry, but can also come from deforestation and land clearing as well as from agriculture.
    - **Methane:** Accounts for 16 percent of total emissions; human activities that contribute to emissions include energy, landfills, and livestock production.
- **Nitrous Oxide**: Accounts for six percent of total emissions; the most prevalent human activity that contributes to emissions is the use of fertilizers.
- **Fluorinated Gases:** Account for two percent of total emissions; these gases only come from human activities like industrial processes, refrigeration, and the use of a variety of consumer products. These gases are the most potent and longest lasting type of greenhouse gases emitted by human activities.

~~From 2000 to 2010, annual greenhouse gas emissions grew by 2.2 percent compared to 1.3 percent between 1970 and 2000. Total greenhouse gas emissions from human activities were the highest in human history between 2000 and 2010. According to the IPCC, between preindustrial times and the present, the Earth's average temperature has increased 1.8 degrees Fahrenheit. This increase in temperature is changing the Earth's climate in many ways, including:~~

- ~~More frequent and extreme weather events such as hurricanes and flooding;~~
- ~~Worsening precipitation, causing more rain in traditionally rainy climates and less rain in traditionally dry climates;~~
- ~~Rising sea levels due to glaciers melting and an increase in ocean temperatures; and~~
- ~~Changing ecosystems and natural habitats, which pose a threat to plants and wildlife.~~

~~Greenhouse gas emissions and changes in the climate system also have a significant impact on human health. Examples include:~~

- ~~Temperature extremes, especially heat exposure, can lead to increased mortality rates, particularly in vulnerable populations;~~
- ~~Warmer temperatures allow insects like mosquitos to thrive, increasing the spreading of certain vector-borne diseases like dengue fever, Zika, and Lyme disease;~~

- ~~Increased runoff from flooding can contribute to viral and bacterial water contamination from combined sewer overflows, and increased rainfall can impact recreational water and drinking water sources by introducing more pathogens and toxic algal blooms;~~
- ~~Climate changes are projected to affect food security by threatening food safety, i.e., increased exposure to pathogens and toxins and also disrupting food availability which, in turn, increases food prices; and~~
- ~~Individuals who experience a traumatic weather event, like a household flood, are at a higher risk for mental health issues due to this instability.~~

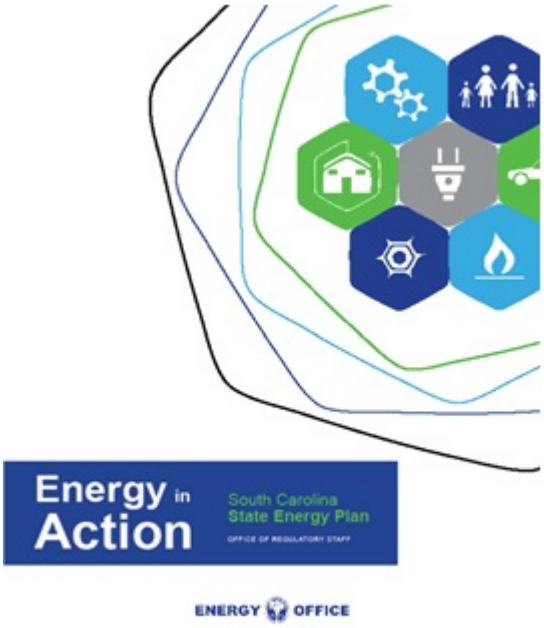
~~While greenhouse gas emissions is a significant component of sustainability because of its link to climate change, it is not the only important piece. Sustainability is about balancing social equity, economic viability, and environmental preservation. This means that when thinking about policy and projects, the effects on people and the environment should be considered.~~

Thinking about resource consumption is also an important piece of sustainability. The earth has a finite number of resources, some renewable and some non-renewable. When resources are overconsumed, the planet becomes unsustainable for current and future generations. For example, cutting down many trees causes increased heat effects and decreases the capture of carbon dioxide, the most common greenhouse gas. Sustainability has impacts on the quality for residents today and in the future.

DRAFT



3.10.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS



Energy in Action: South Carolina State Energy Plan, prepared by the South Carolina Office of Regulatory Staff, Energy Office, 2021. ~~2016~~.

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 information about global, national, state, and county energy consumption. This will help guide the County to be more energy independent and consume less energy in the future.

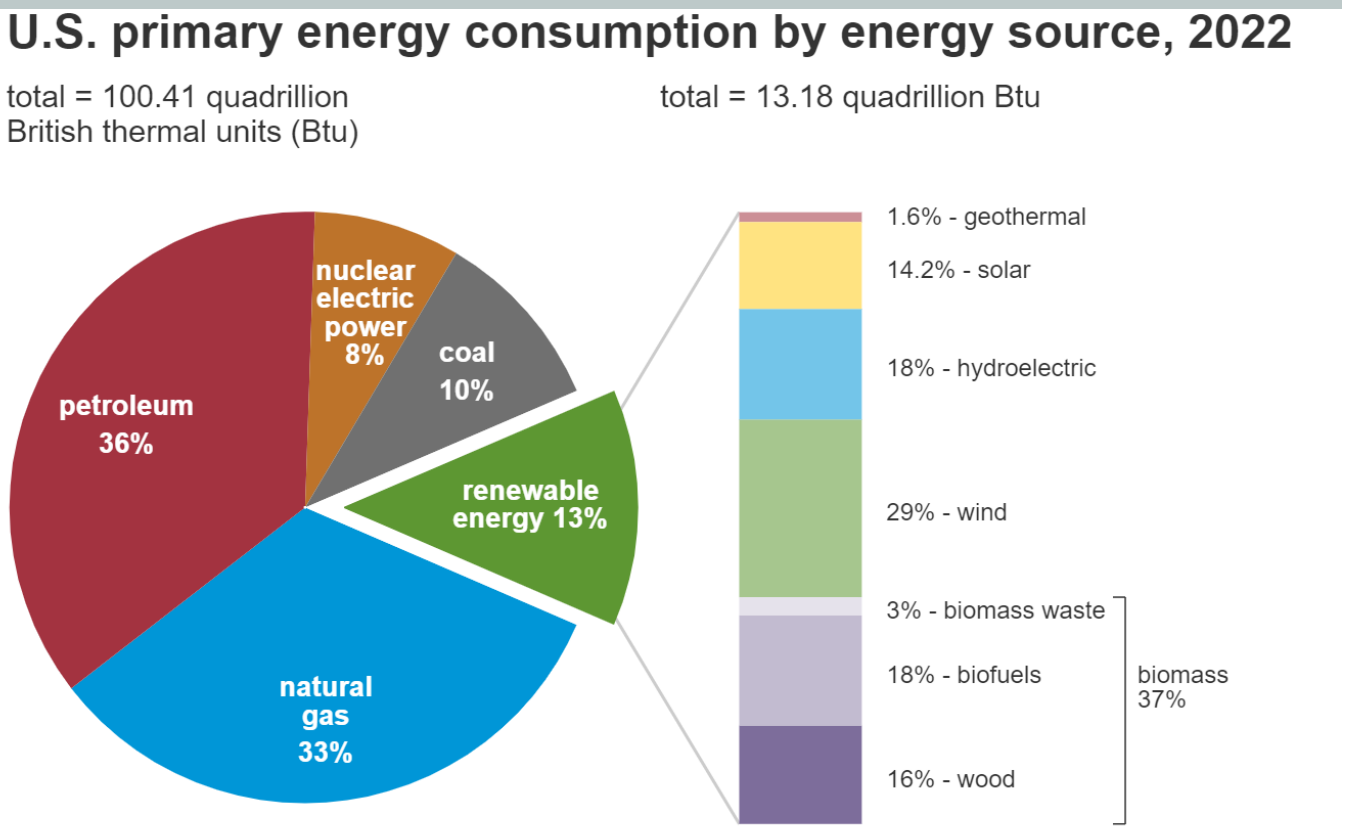
Energy is the vital force powering business, manufacturing, and the transportation of goods and services. Energy supply and demand plays a vital role in our national security and the economy.

In ~~2019 ,~~ 2021 the U.S. Energy Information Administration (EIA) reported that the U.S spends over ~~$1.2~~ 1.3 trillion annually on energy, which was 5.6 ~~5.7~~% of gross Domestic Product (nominal GDP). Additionally, in 2020, the EIA reported that the U.S. consumes ~~93~~ 97.33 quadrillion British Thermal Units (BTUs) annually. ~~In 2010, the U.S. Energy Information Administration (EIA) reported that the U.S. spends over $1.2 trillion annually on energy, which was 8.3 percent of Gross Domestic Product (nominal GDP). Additionally, in 2014, the EIA reported that the U.S. consumes 98.0 quadrillion British Thermal Units (BTUs) annually.~~

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 3.10.1*, in ~~2016~~2021 2 approximately ~~82~~ 79 percent of the U.S. energy consumption came from fossil fuels (petroleum, natural gas, and coal). Of that, about ~~37~~36 percent was provided by petroleum, ~~29~~32 33 percent from natural gas and ~~16~~11 10 percent came from coal. Nuclear-derived electric power provided about ~~nine~~eight percent, and the remaining ~~10~~12 13 percent was provided by renewable resources, including biomass, hydroelectric, wind, solar and geothermal.

DRAFT

Figure 3.10.1: U.S. Energy Consumption by Source, 2022



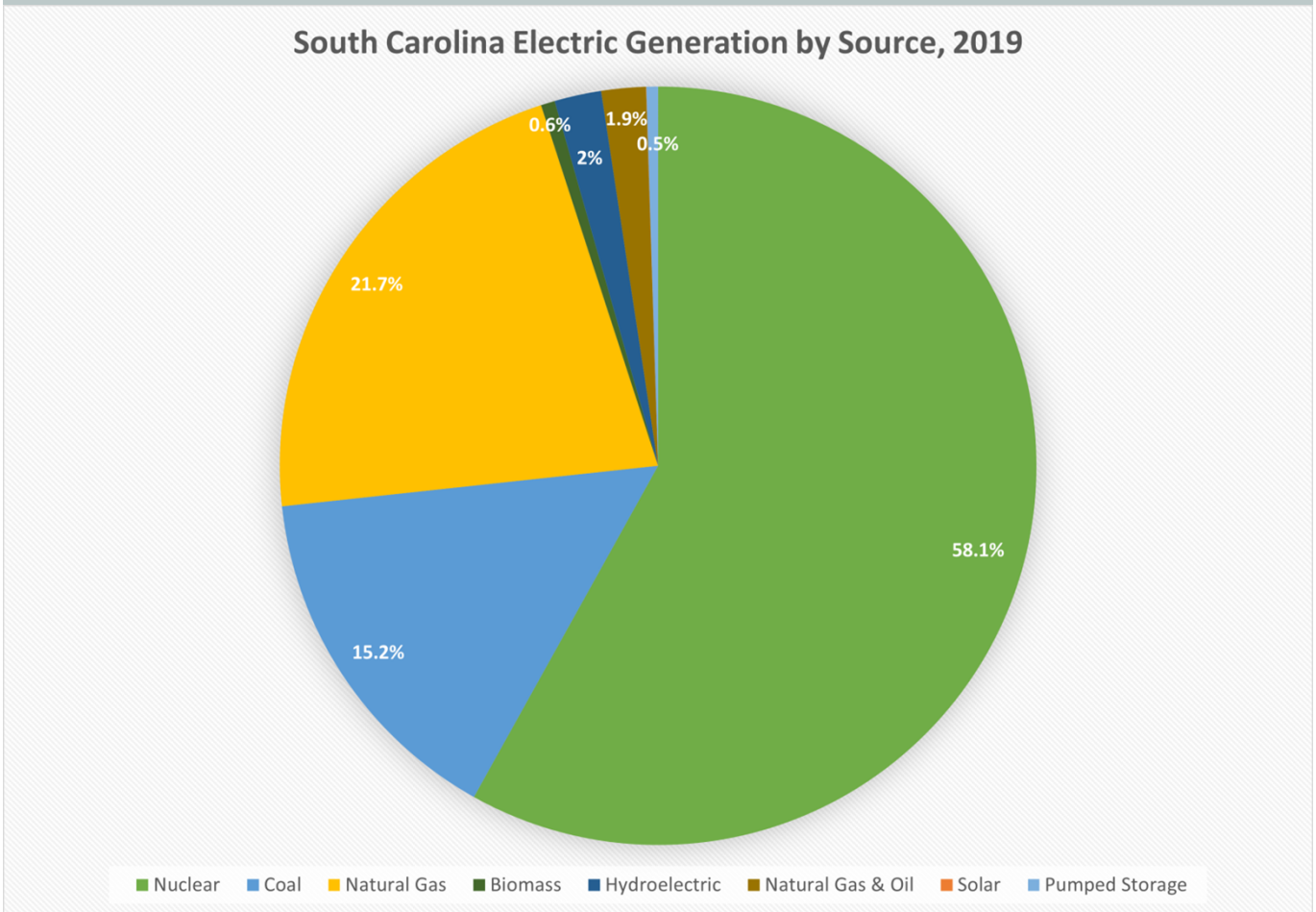
Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 20~~1521~~. 2022.

In 2016, the South Carolina Office of Regulatory Staff Energy Office collaborated with over 130 professionals representing over 60 organizations to prepare the South Carolina State Energy Plan. The "State Energy Plan" is a comprehensive blueprint for a reliable, resilient, clean, and affordable energy system for South Carolina residents and businesses, designed to evolve with the state's needs. Specifically, the State Energy Plan is designed to maximize (to the extent practical) reliability, environmental quality, energy conservation, and energy efficiency while minimizing the cost of energy throughout the state. The State Energy Plan includes top tier policy recommendations that the Energy Office will dedicate its resources to implementing, and a list of additional policy recommendations are included in Appendix C of the document providing sufficient detail to encourage other entities and stakeholders to champion each individually or in collaboration.

In the 2021 Update on the South Carolina State Energy Plan, eight "top-tier" proposals were selected from more than 80 cross-cutting, stakeholder-driven, energy policy recommendations. Each was further examined, leading to several papers, training sessions, seminars, an Integrated Resource Plan best practices manual, and practical solutions like *EnergySaver.sc.gov* , a website that provides a full spectrum of funding opportunities for energy-related improvements for residences and businesses.

According to 2020 ~~2010~~ U.S. Census data, South Carolina had a population of approximately 5.1 ~~4.6~~ million people. ~~Between 2000 and 2030, South Carolina's population is projected by the Census Bureau to increase 28.3 per cent, adding over one million people to the state~~. As seen in *Figure 3.10.2*, in 2019~~5~~, ~~approximately~~ almost ~~59~~37 percent of South Carolina's energy consumption came from fossil fuels (~~petroleum,~~ natural gas~~,~~ and coal). Of that, ~~29 percent was provided by petroleum,~~ ~~14~~15.2 percent was provided by coal (although there are no coal mines in South Carolina) and ~~16~~21.7 percent was provided by natural gas. Nuclear power provided ~~32~~58.1 percent of South Carolina's energy. Renewable energy sources (biomass, conventional hydroelectric power, ~~geothermal~~ natural gas and oil, solar, and ~~wind power~~ pumped storage) accounted for ~~eight~~ five percent of the state's energy consumption.

Figure 3.10.2: SC Energy Consumption by Source, 2019

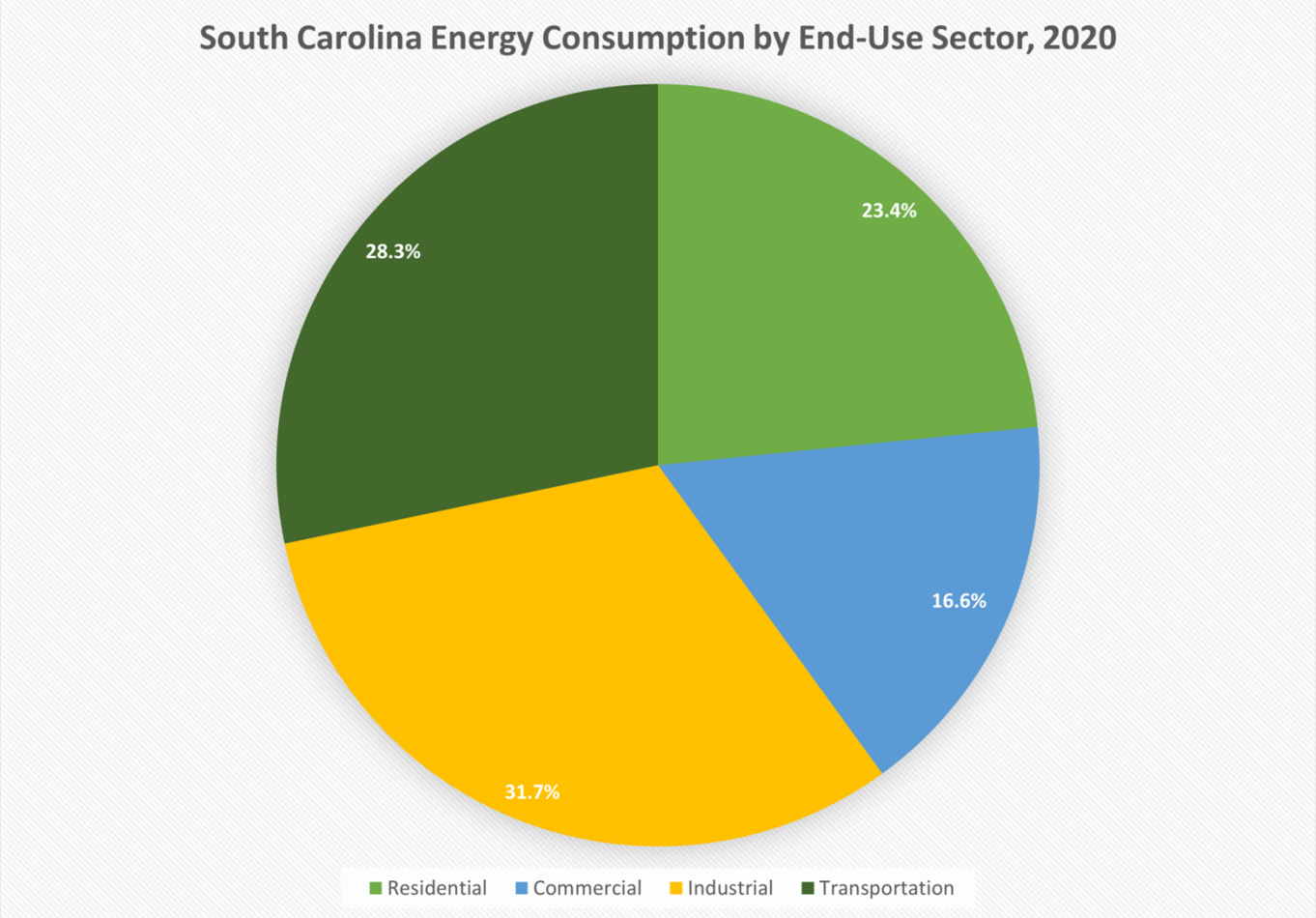


~~S~~ources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 201~~5~~9.

In ~~2015~~2020, the industrial sector in South Carolina accounted for the largest portion of the state's energy consumption by demand, at approximately ~~33~~31.7 percent (*Figure 3.10.3*). This was followed by transportation at 28.3 percent, residential at ~~22~~23.4 percent, and commercial at ~~17~~16.6 percent.

Figure 3.10.3: SC Energy Demand by Sector, 2020

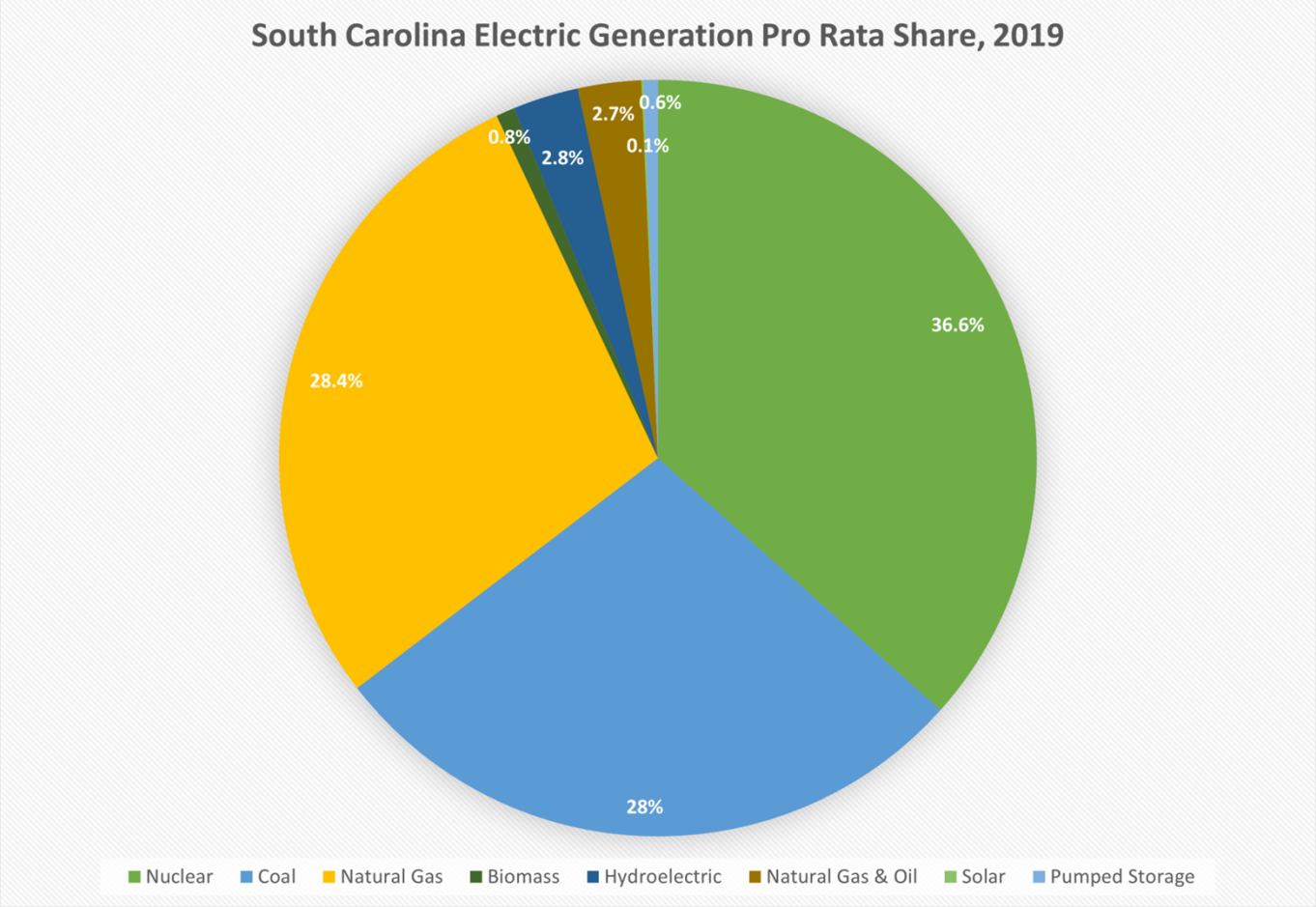
S



Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 20~~15~~20.

In 20194, South Carolina was ranked ~~nineteenth~~22nd highest in energy use per capita in the nation with a consumption of ~~338~~316 million BTU per capita, according to data from the U.S. Energy Information Administration. According to the EIA, South Carolina ranked 2~~5~~6th highest in the nation in total net electricity generation in 20194. 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 3.10.4*, as of ~~March~~ 20194, South Carolina electricity generation came from nuclear (~~805~~36.6 percent), ~~wood and waste (15 percent),~~ coal (2~~7~~8 percent), natural gas (~~11~~28.4 percent), hydroelectric (~~three~~2.8 percent), and other miscellaneous sources and technologies including ~~hydroelectric power~~ biomass, ~~as well as geothermal~~ natural gas and oil, solar and ~~wind energy~~pumped storage (4.2 percent). ~~, solar, biomass and petroleum (two percent~~). ~~The~~ The data on the pro-rata share in Figure 3.10.4 below reflects how much power is used in South Carolina.

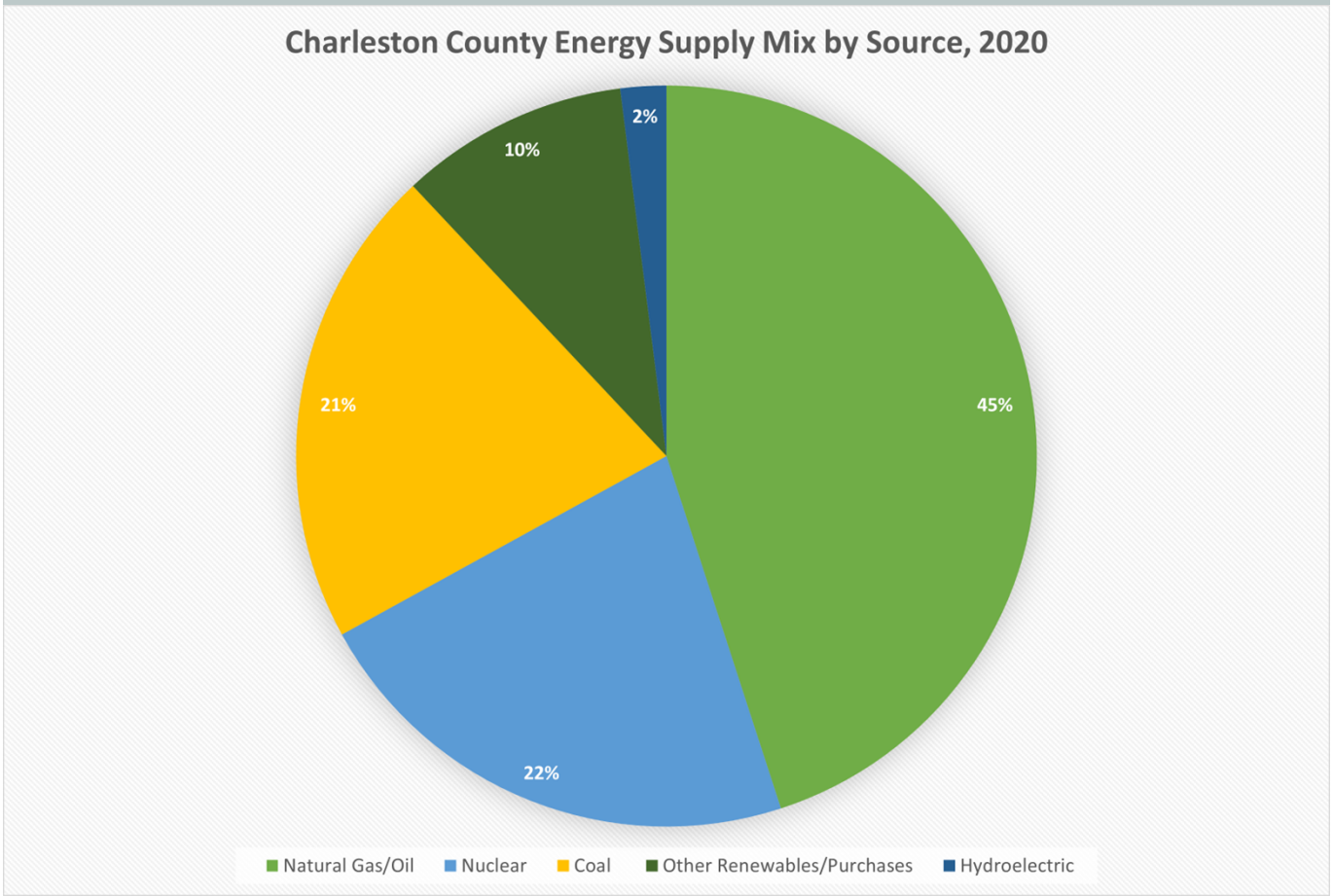
Figure 3.10.4: SC Electricity Generation by ~~Source~~Pro Rata Share, 2019



~~N~~ote: 'Other' includes wind, solar, biomass, and petroleum. Sources: U.S. Energy Information Administration (EIA) and Department of Energy (DOE), 20149.

As seen in *Figure 3.10.5*, in ~~2013~~2020, coal and nuclear power provided ~~over 75~~ 43 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~~. Natural gas/oil provided approximately ~~21~~45 percent and hydroelectric power provided ~~three~~ two percent of the County's electric energy consumption. Approximately one percent came from other ~~sources such as wind, solar, biomass, and petroleum~~ renewables/purchases.

Figure 3.10.5: Charleston County Electricity Consumption by Source, 2020

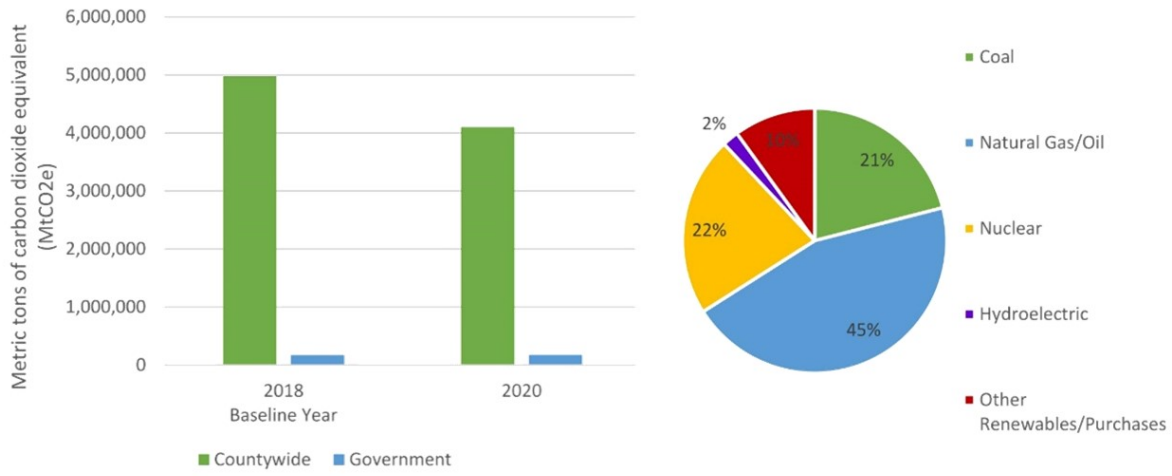


Note: 'Other' includes wind, solar, biomass, and petroleum. Sources: South Carolina Electric and Gas (SCE&G), Berkeley Electric Cooperative (BEC) and Santee Cooper, 20~~13~~20.

Greenhouse Gas Emissions Inventory

Charleston County's first Greenhouse Gas Emissions Inventory was completed in 2022. This inventory looked at calendar year 2018 and 2020 emissions. 2018 serves as the baseline year in which to compare all future emissions data. The inventory measured emissions for all Charleston County residents and Charleston County government activities. Emissions are measured in carbon dioxide equivalents (mtCO2e) meaning the number of metric tons of carbon dioxide emissions with the same global warming potential as one metric ton of another greenhouse gas. This unit of measurement standardizes the climate effects of various greenhouse gases.

Figure 3.10.6: Charleston County Greenhouse Gas Emissions



Sources: Greenhouse Gas Emissions Inventory: Charleston County, 2018 & 2020.

As seen in Figure 3.10.6, greenhouse gas emissions in Charleston County have decreased approximately 18 percent from 2018 to 2020 to 4.1 million metric tons of MtCO2e. The inventory measured four main categories: buildings, transportation, waste and carbon sequestration. The reduction in emissions can mainly be attributed to a decrease in emissions from buildings and transportation. Per capita emissions for the average Charleston County resident decreased by 20 percent from 2018 to 2020. This means that emissions decreased at a faster rate than population growth in this time period. This decrease in emissions from buildings (energy use) and transportation (gas/diesel use) is likely a combination of the significant shift from coal to natural gas as well as less driving taking place during the COVID-19 pandemic.

Government emissions account for three percent of countywide emissions and have increased by about 3 percent to 176,129 MTCO2e from 2018 to 2020.

A. Alternative Energy

The following 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 3~~0~~ 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 8~~0~~57 percent of South Carolina's electricity generation in 2019~~as of March 2014~~. With seven nuclear plants, South Carolina is ranked third in the nation for installed nuclear power. According to the 2018 South Carolina State Energy Plan, nuclear power makes up more than half of the electricity generated in South Carolina
- **Solar energy** requires no additional fuel to run and is pollution-free. 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. Recent improvements in manufacturing and technology have dramatically reduced the costs and improved the efficiency of photovoltaic (PV) solar panels. According to the Solar Energy Industries Association (SEIA), as of March 2022 ~~2016~~ there was ~~is~~ about ~~144~~1,915 MW of installed solar energy capacity in South Carolina. This includes over 16,000 homes powered by solar energy and over $~~284M~~2.4B invested in solar energy statewide. SEIA projects that South Carolina will have over ~~1,800~~2,000 MW of installed solar energy capacity in the next five years and will rank ~~15~~18th nationally in solar power generation. In 2014, South Carolina enacted a renewable portfolio standard that requires two percent of energy provided by investor-owned utilities to be from a renewable source. The same legislation also increased the cap on solar power for businesses and universities, and allowed South Carolina residents to use third party leasing to lower the initial cost of rooftop solar installations.
- **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 drive-train 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.
- **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

DRAFT

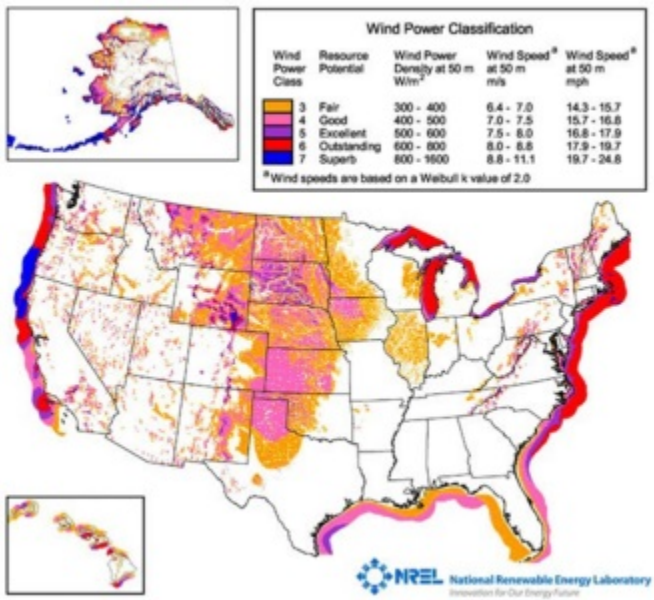
ethanol and biodiesel. There are currently several facilities in South Carolina that manufacture biofuel, with one facility operating in North Charleston. According to the ~~2016~~2018 South Carolina State Energy Plan, hydroelectric and biomass are the largest renewable electricity generation resources in the state.



- **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 ~~six~~ seven percent of the electricity generated in the nation and three percent of the electricity generated in South Carolina. In Charleston County, ~~three~~ two percent of all electricity consumed comes from a hydroelectric source.
- **Geothermal energy** is heat energy generated and stored in the earth. While South Carolina does not have traditional sources of geothermal energy typically associated with the western United States, residential and commercial geothermal heat pumps (GHPs) are used throughout the state to enhance the energy efficiency of traditional heating and cooling systems.

DRAFT

Map 3.10.1: Wind Energy Resource Map

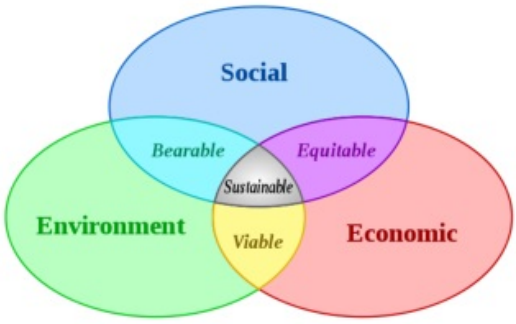


Sources: U.S. Department of Energy (DOE) and National Renewable Energy Laboratory (NREL), 2010.

B. Land Use

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. Preserving forested land also decreases greenhouse gas emissions because the trees provide carbon sequestration. 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 2022~~ February 2023 ~~July 2017,~~ 44,017 ~~21,170~~ 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 (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*). More recently, and as a response to challenges such as extreme weather and costly energy, there has been a call for more resilient communities. Resilient Communities for America defines a resilient community as one that is "able to bounce back from disruptions in a sustainable way and maintain a good quality of life for all".



By promoting mixed use development within the Urban/Suburban Area and preserving land outside the U~~rban~~ G~~rowth~~ B~~oundary~~ for other activities such as agriculture, recreation, and open space, we begin to achieve sustainable development and resilience. 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 U~~rban~~ G~~rowth~~ B~~oundary~~, Infill Development, and Transit Oriented Development can all be used to help promote sustainable development and resilience.

DRAFT

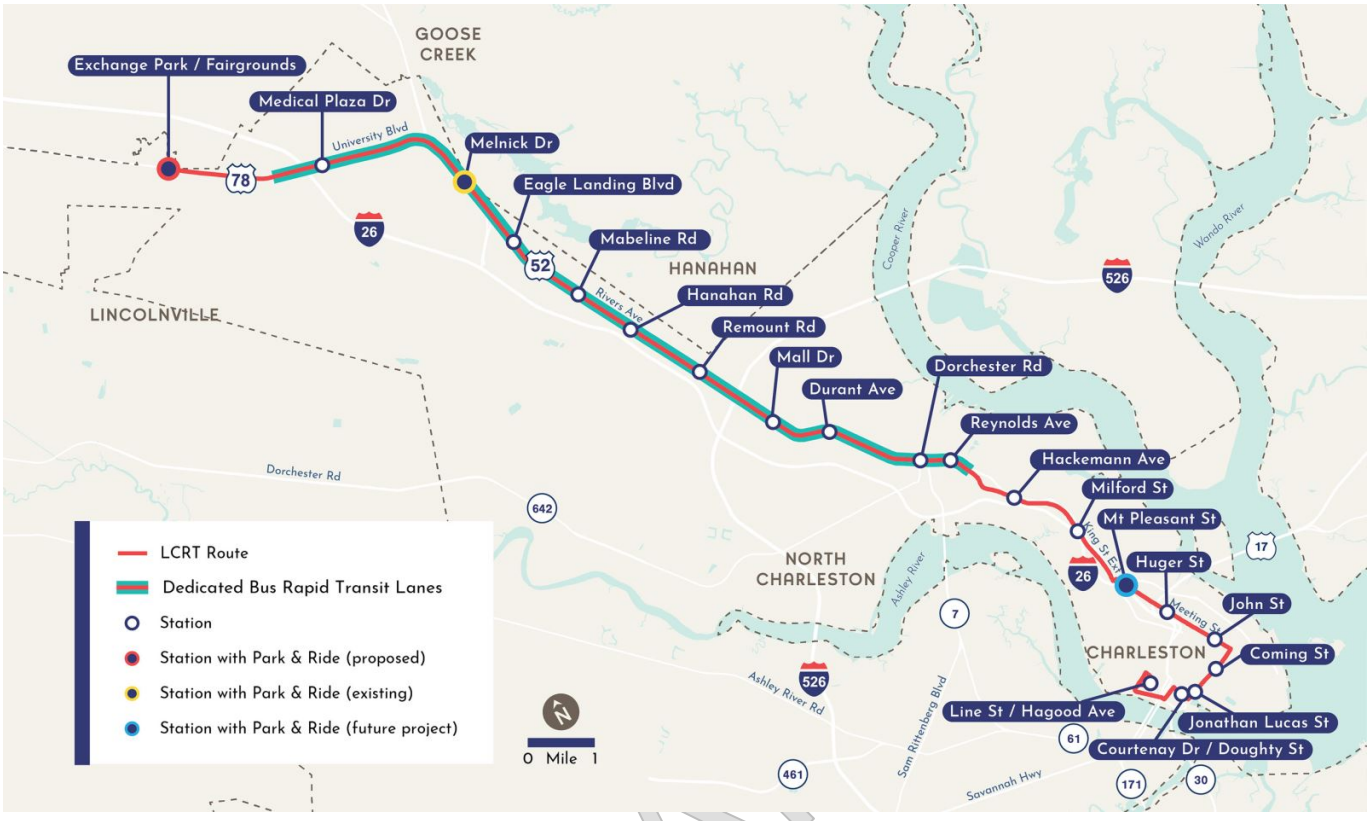
C. Transportation

Driving habits are a direct result of development patterns. The national transportation sector accounted for ~~29~~ 37 percent of total energy use in ~~2016~~ 2019. According to the American Community Survey, ~~2011-2015~~ 2015 - 2019 Five Year Estimates, the average travel time to work in Charleston County was ~~23~~ 24 minutes with nearly ~~78~~ 79 percent of the population commuting alone by car, truck, or van. To assist in reducing vehicle miles traveled (VMT) by single occupancy vehicles in the Charleston area, the Berkeley--Charleston--Dorchester Council of Governments (BCDCOG) maintains a Trident Smart Ride program that provides information, resources, and tools to help residents, employees, and students make good transportation choices. Through a separate program called Trident Rideshare, the BCDCOG offers a coordinated menu of tools, encouragement, information, and activities to promote walking, biking, transit use and carpooling.

The BCDCOG also administers the Charleston Area Regional Transportation Authority (CARTA), the primary public transportation entity for the Charleston region. CARTA offers Fixed-route, Flex Service, Express commute service, and Paratransit service throughout the Charleston Metropolitan area, including The Trolley (DASH) service in the Historic Peninsula area of Charleston. In addition, the BCDCOG is managing the I-26 Alt Bus Rapid Transit project (BRT). This transportation alternative would be a first for the Charleston area, with construction proposed to begin in 2023 on this high-quality bus-based transit system that delivers fast, comfortable, and cost-effective services at metro-level capacities. BRT operates much like light rail and can have a range of features, including limited stops, faster travel times, prepayment, and improved boarding access. In addition to supporting the use of public transit as a means to minimize VMT, Charleston County promotes 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.

Lowcountry Rapid Transit (LCRT), a program of Berkeley-Charleston-Dorchester Council of Governments, is a 21.3-mile, cutting-edge bus rapid transit system being planned to connect towns in our area as never before (see below). Whether you're on the bus, a bike, or foot, the LCRT will offer safe, dependable, and affordable connections between Ladson, North Charleston, and Downtown Charleston by operating primarily in dedicated lanes. Please reference the Transportation Element for more detailed information.

DRAFT



Source: Berkeley-Charleston-Dorchester Council of Governments (BCDCOG), 2021.

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. Moving forward, it is important to more efficiently utilize existing transportation corridors for all modes of transportation. For example, the proposed route for the LCRT ~~I-26 Alt BRT~~ is contained entirely within existing corridors. Additional transportation options that should be considered for the regional transportation network include the following:

- Commuter Rail Service, which refers to passenger trains operated on main line railroad tracks to carry riders to and from city centers. Commuter rail in the Charleston region would improve overall capacity along the congested transportation network adjacent to the rail corridors, particularly during peak travel hours.
- Light Rail Service, which 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). Light rail service in the Charleston region would improve capacity along the congested transportation network adjacent to the rail corridors, particularly during peak travel hours.
- Electric and Partially-Electric Vehicles, which 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 to 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.

D. Landfill/Recycling

Landfill gas has the potential to power homes if captured and converted into pure methane gas. Statewide, landfill gas is used to generate electricity at 20 facilities in South Carolina. The Charleston County Bees Ferry Landfill, which was opened in 1977 in the St. Andrews area of Charleston County, provides a local opportunity to convert landfill gas to power. A portion of the site was formerly an unlined municipal solid waste landfill that closed in 2006. This closed portion of the landfill and the landfill's current 80-acre lined municipal solid waste (MSW) site are recognized as potential methane capture projects. In ~~Fiscal Year 2016,~~2019 Charleston County disposed of ~~313,382~~171,406 tons of MSW. At the current disposal rate, the Bees Ferry Landfill has approximately ~~25~~12.2 years of remaining capacity.



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 nine staffed convenience centers and operates a number of dropsites within the county. The Bees Ferry Landfill also houses a 28-acre Compost Facility, where 100 percent of the yard waste that is accepted at the facility is composted. The County entered a 10-year contract with McGill Environmental Systems to operate this facility. The waste in the landfill is being used to produce sustainable, organic soil to be used by everyday citizens and local businesses. The landfill also has a paint remix program which offers customers the opportunity to buy paint.

~~Currently, Charleston County's Romney Street Materials Recovery Facility (MRF) serves as a recyclables transfer station while the~~ Charleston County opened its new Materials Recovery Facility ~~constructs its new~~ (MRF) in December 2020. ~~In the near future, the Romney Street MRF transfer station will be repurposed to~~ This new center processes and ships electronics and household hazardous waste. The new MRF is ~~will be~~ a 57,000 square foot facility located on a 12-acre site on Palmetto Commerce Parkway ~~and is planned for completion by July 2018. The MRF~~ and has been designed to meet future regional recycling needs operating at 25 tons per hour, 52,000 tons per year on a single 8-hour shift.

E. Building Codes

DRAFT

Currently, Charleston County enforces the *International Building Code* (IBC) and the *International Residential Code* (IRC) of 2021 ~~2015~~ as adopted by the State of South Carolina. The exception to the IBC is that the State does not adhere to the Energy and Sustainability 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.

F. County Facilities & Fleet



The County currently has ~~797~~863 active vehicles in its fleet with an average age of ~~4.62~~6.7 years. The County has ~~124~~127 vehicles that fall into the class of truck with an average age of ~~5.87~~6.08 years, ~~31~~45 ambulances with an average of ~~2.32~~3.18 years, 6 hybrid vehicles with an average of ~~6.94~~10.08 years, 27~~45~~ vehicles in the car class with an average age of ~~3.99~~6.53 years, ~~161~~183 vehicles of the pickup truck type with an average age of ~~5.25~~6.57 years, ~~164~~176 vehicles in the sport utility class with an average age of ~~3.29~~5.69 years, and ~~50~~71 vehicles of the van class with an average age of ~~5.44~~8.75 years. ~~As a whole, the County's fleet of vehicles has an average age of 4.62 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. In addition, t~~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~~137 facilities encompassing approximately ~~2.8~~3.1 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.

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 traveled (VMTs) and higher energy costs for both residents and local governments.

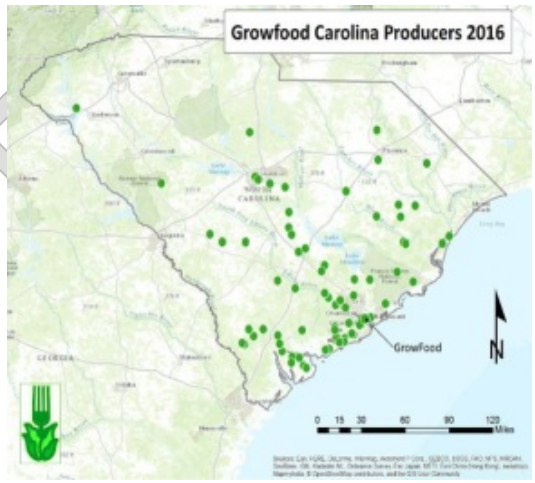
H. Food

DRAFT

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.

The South Carolina Department of Commerce reported that Agribusiness in South Carolina has grown more than 25% over the last decade and is the state's fastest-growing industry with an economic impact of more than $46 billion and accounting for 247,000 jobs statewide.

~~In February 2015, the South Carolina Department of Agriculture reported that the South Carolina Agriculture and Forestry Industries have grown 23 percent since 2006 to have an annual economic impact of $41.7 billion and support 212,000 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 7,000 acres of farmland to date.

Other efforts to promote local living include the Lowcountry Local First and Buy Local campaigns, and the local food hub Growfood Carolina. Lowcountry Local First promotes local, independent businesses and farmers who reflect the unique character, flavor, and culture of the Lowcountry and Buy Local is a grassroots campaign that focuses on the need to recirculate more money in our community to promote a strong local economy and support and strengthen locally-owned, independent businesses and local jobs. Officially launched in 2011, Growfood Carolina set the goal of providing small- to mid-size growers assistance with marketing, warehousing, and distribution. Since Growfood was founded, it has continued to expand across the state, currently supporting more than 80 farms.

DRAFT

3.10.3: ENERGY AND SUSTAINABILITY ELEMENT GOAL

Energy and Sustainability Element Needs

Energy and Sustainability Element needs include, but are not limited to, the following:

- Promoting conservation of resources;
- Investing in renewable energies;
- Educating the public and County employees on the importance of greenhouse gas emission reduction by using alternative energy sources and through energy conservation; and

~~Promote~~ Charleston County will emphasize and invest in the use of alternative energy sources and energy conservation measures, ~~and the reduction of greenhouse gas emissions~~ that benefit our communities and reflect our responsibility to steward our natural resources with future generations in mind.

- Encouraging public and private partnerships to facilitate alternative energy sources and energy conservation.

3.10.4: ENERGY AND SUSTAINABILITY ELEMENT STRATEGIES, ACTION ITEMS AND TIME FRAMES

The following strategic actions should be undertaken by Charleston County and cooperating agencies in support of the Energy and Sustainability Element Goal. 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.

DRAFT

ES 1. Coordinate energy reduction and sustainability-related efforts within the County and across jurisdictional boundaries.

Action Item: Develop a Climate Action Plan the purposes of which include: setting a greenhouse gas emissions reduction goal; establishing a timeframe to meet that established goal; and listing activities that will be implemented to accomplish this goal. Form multiple stakeholder workgroups focused around topic areas like buildings, transportation, and waste management that include members from the 16 municipalities located geographically within Charleston County to help develop the Plan.

Action Item: Work with other jurisdictions on joint programs and activities as applicable, i.e., educational events, public charging stations for Charleston County residents, etc.

ES 2. Identify energy reduction programs and activities the Charleston County government can implement to reduce the County's greenhouse gas emissions.

Action Item: Incorporate energy-reducing projects in the annual Capital Improvement Plan (CIP) for existing and new buildings. This includes conducting an energy and water usage audit for all major County facilities to establish a baseline of energy and water use in order to recommend necessary reductions.

Action Item: Support departments who are interested in electric vehicles for fleet replacement.

Action Item: Develop a Sustainable Purchasing Policy that focuses on environmental considerations in Charleston County government purchasing along with the traditional concerns of price, performance, and availability.

ES 3. Identify activities to reduce landfill emissions from the Bees Ferry Landfill.

Action Item: Promote and educate about the importance of recycling to Charleston County employees and residents through the Green Liaisons program and additional outreach efforts.

Action Item: Promote composting by providing Charleston County residents more access to drop-off composting and education about at-home composting.

Action Item: Explore opportunities for landfill gas capture projects.

ES 4. Promote energy efficiency and use of alternative energy sources by:

a) Education outreach, training and technical assistance;

b) Utilizing existing state, federal and non-profit resources such as Carolina Energy Office, ENERGY STAR, public utility energy efficiency programs, and Commercial Property Assessed Clean Energy (PACE) financing;

c) Conducting an energy audit for all County facilities (existing, undergoing renovation, and under

design) and implement the recommended cost effective improvements; and

d) Monitoring state and federal legislation that promotes energy efficiency and renewable or alternative energy resources such as net metering legislation.

ES 5. Evaluate the impact on vehicle miles traveled (VMTs) for both County residents and employees through providing County services at satellite facilities, expanding online services and allowing telecommuting when it is a viable management work option.

ES 6. Continue to ~~P~~promote green building code standards and sustainable landscaping that aids in energy conservation.

ES 7. Continue to s~~S~~upport weatherization programs, such as the Weatherization Plus program implemented by the Sustainability Institute in Charleston, SC, and the Weatherization Assistance Program offered throughout the U.S. Department of Energy.

ES 8. Amend the *Zoning and Land Development Regulations Ordinance* to encourage local renewable energy generation and green building design, and provide standards for solar collectors, solar farms, and wind generators ~~as accessory uses~~.

ES 9. Continue to ~~S~~support those involved with local food production as a means to reduce energy by minimizing food transportation costs.

ES 10. Adopt land use regulations that allow the establishment of electric vehicle charging stations where feasible.

ES 11. Support tax incentives for properties that install/utilize alternative energy sources.

ES 12. Coordinate with CARTA and adjacent jurisdictions to develop a more energy efficient mass transit system.

CHAPTER 3.11 RESILIENCE ELEMENT

Contents:

3.11.1: OVERVIEW
3.11.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS
3.11.3: RESILIENCE ELEMENT GOAL
3.11.4: RESILIENCE ELEMENT STRATEGIES, ACTION ITEMS AND TIME FRAMES

3.11.1: OVERVIEW

Resilience is the ability of a community to respond, adapt, and thrive under changing conditions, including, but not limited to, recurrent burdens and sudden disasters.

Element Goal

Charleston County will prioritize resilience, including resilience to stormwater events and rising sea levels and protection of natural defenses such as wetlands, woodlands, and floodplains, in all County plans, policies, and regulations to ensure the long-term survival of the community.

In light of flooding events ~~over the past three years~~ seen over the past decade, along with annual hurricane threats, the existence of a major fault line, and unprecedented growth creating stresses on essential services, infrastructure, development, and the environment, it has become overwhelmingly apparent that Charleston County and surrounding areas need to plan and proactively approach resilience now to be prepared for changes in the future. By committing time, effort, and funding now we can research, assess, and implement projects to protect our citizens and community for future generations.

DRAFT

The need for a Resilience Element (Element) to be added to the Comprehensive Plan was identified after the 2015 flood event when the County's Planning Commission saw the need for study and action~~,~~ and wrote a letter to County Council about their concerns. This need was further demonstrated after flood events in 2016 and again in 2017. The Planning Commission then determined that it would form a subcommittee containing different faces of the community so that several perspectives could sit at the same table. The end result is the formation of this Element, which contains goals and strategies to improve Charleston County's resilience, including, but not limited to, coordinated efforts with the jurisdictions within the County. The subcommittee worked for nine months to develop this Element, and then recommended it to the Planning Commission for approval. The Planning Commission reviewed it and recommended it to County Council for approval on October 14, 2019, and County Council adopted it as part of the Comprehensive Plan on March 10, 2020.

Purpose and Intent

The primary purpose of the Resilience Element is to ~~identify strategies to make the County more resilient.~~ establish resiliency strategies and actions and identify resources that can aid in strengthening our resilience. The Resilience Element provides the long-range plan needed to coordinate these ongoing efforts. Although flooding is a major concern and addressed throughout the Element, other areas of concern are also discussed, and Charleston County is dedicated to taking an all-hazards approach to resilience planning. This means when planning for resilience, the County is not planning around specific events, but rather taking a big-picture approach towards risk mitigation. Another purpose of the Resilience Element is to clarify the roles that government, the private sector, and individuals hold in regards to improving resilience.

3.11.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Topography and Geography

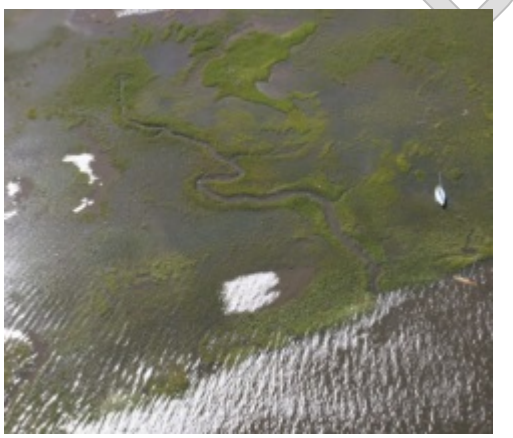


Photo: Chas County Public Information Office

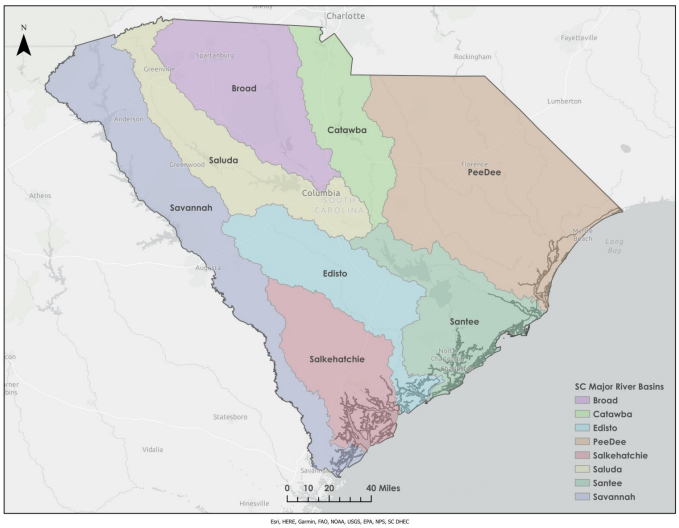
Charleston County's geography is first and foremost defined by water. Here, the Cooper River, Ashley River, Edisto River, Wadmalaw River, Stono River, and Wando River converge and meet the Atlantic Ocean.

In 1972, the United States Government began granting states funding to better manage its water quality. The Federal Water Pollution Control Act Amendments (US Public Law 92-500) prompted the state of South Carolina to launch its first watershed planning activities, and statewide planning activities were completed in the 1970s. Managed by the SC Department of Health and Environment Control (DHEC), the state created eight major regions, along hydrologic lines, known as river basins (Broad, Catawba, Edisto, Salkahatchie, Saluda, Santee, Savannah and Pee Dee). The majority of Charleston County falls within the Santee River

Basin; however, a portion of the southern/western County is located in the Edisto River Basin (see Map 3.11.1).

The Santee River Basin encompasses 11 watersheds and 1,280 square miles. The Santee River originates in the Upper Coastal Plain region, giving way to the Lower Coastal Plain and Coastal Zone regions. The Santee River Basin includes nearly one million acres. There are a total of 976 stream miles, 94,668 acres of lake waters, and 5,276 acres of estuarine areas in the Santee River Basin. The Santee River is formed from the confluence of the Congaree and Wateree Rivers and flows through Lake Marion. It is diverted in lower Lake Marion, and either flows out of the Santee Dam to eventually drain into the Atlantic Ocean via the South Santee River and the North Santee River, or is channeled along a 7.5-mile diversion canal to fill Lake Moultrie.

Map 3.11.1: South Carolina ~~Watersheds (SCDNR)~~ River Basins



Map dated February 1, 2023

The Edisto River Basin originates in the South Carolina Sandhills region and flows through the Upper and Lower Coastal Plain Regions and into the Coastal Zone region. It encompasses 30 watersheds and some two million acres of the State. There are a total of 2,780 stream miles, 8,402 acres of lake waters, and 20,284 acres (31.7 square miles) of estuarine areas in the Edisto River Basin. The confluence of Chinquapin Creek and Lightwood Knot Creek form the North Fork Edisto River, which is joined downstream by Black Creek, Bull Swamp Creek, and Caw Caw Swamp. The South Fork Edisto River accepts drainage from Shaw Creek, Dean Swamp Creek, Goodland Creek, and Roberts Swamp before merging with the North Fork Edisto River to form the Edisto River. Downstream from the confluence, the Edisto River is joined by Cattle Creek, Indian Field Swamp, and Four Hole Swamp. Prior to joining the Edisto River, Four Hole Swamp accepts drainage from Cow Castle Creek, Providence Swamp, Horse Range Swamp, and Dean Swamp. Downstream from the Four Hole Swamp, the Dawho River enters the Edisto River, and their confluence forms the South Edisto River and the North Edisto River, which both drain to the Atlantic Ocean.

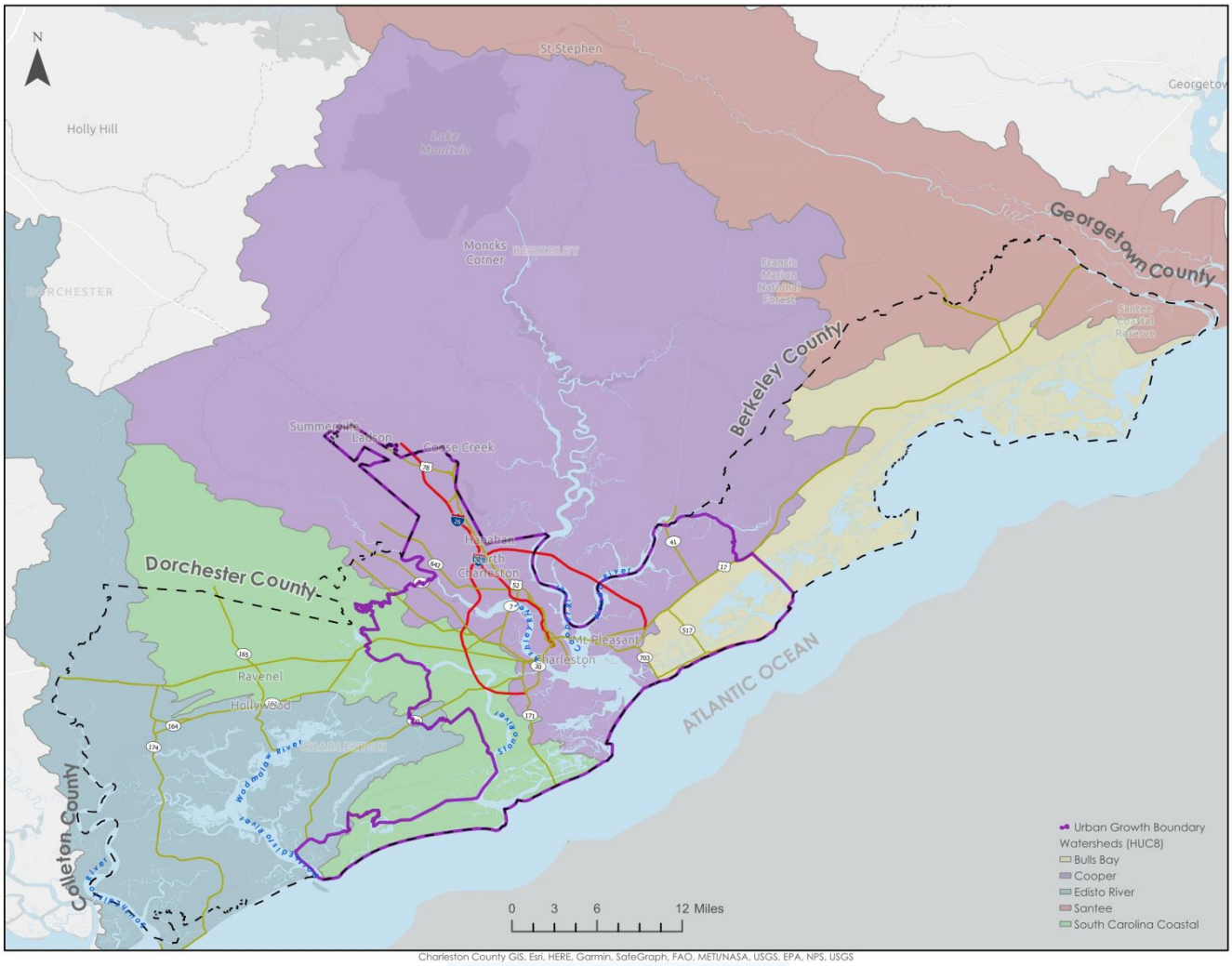
Each of these river basins are further subdivided into specific regional watersheds, which are geographic areas into which the surrounding waters, sediments, and dissolved materials drain, and whose boundaries extend along surrounding topographic ridges. Each watershed or "unit" has a unique hydrologic unit code (HUC). Hydrologic unit codes are a United States Geological Survey (USGS) cataloging system that arranges watersheds from the largest area or region (2 digits - 03) to the smallest (12 digits - 030502020101). Charleston County includes five HUC-8 watersheds: Edisto River, Santee River, Cooper River, Bulls Bay, and South Carolina Coastal as shown on Map 3.11.2. HUC-8 maps show us the sub-basin level, which corresponds to medium-sized river basins. These watersheds can be even further divided into HUC-10 watersheds, of which Charleston County has eight: Edisto River, North Edisto River, Rantowles Creek, Stono River, Ashley River, Cooper River, Wando River, and Bulls Bay. DHEC produces a Watershed Water Quality Assessment (WWQA) for each watershed every five years.

DRAFT

The Cooper River Basin spans 843 square miles and the Ashley River Basin covers 894 square miles. The Charleston Harbor Watershed, a combined area also known as the Ashley/Cooper River Basin, continues inland 45 miles, and incorporates three freshwater lakes: Lake Moultrie, Bushy Park Reservoir, and Goose Creek Reservoir. The watersheds in Charleston County have been greatly influenced by time and increasing human interaction. Rice cultivation changed the shape of tidal rivers as farmers learned to control the water. Later, the practice of filling in wetlands added more land area, and as industry grew, pollutants entered the watershed. In 1939, as population and industry grew, the Santee-Cooper Hydroelectric Project formed Lake Moultrie~~,~~ by damming the headwaters of the Cooper River. Because Lake Moultrie is connected to Lake Marion, on the Santee River, drainage from the Santee River Basin combined with the Ashley/Cooper River Basin, which increased the size of the watershed to 15,600 square miles.

DRAFT

Map 3.11.2: Charleston County HUC-8 Watersheds



Map dated February 1, 2023

HAZARDS

Flooding

According to NOAA, flooding is an overflowing of water onto land that is normally dry. Flooding can be further classified, defined, and forecasted depending on several factors including cause, duration, and extent. Flooding is the most frequent and costly natural hazard in the United States. In Charleston County, the most common types of flooding are rain events, tidal flooding, and storm surges. Other issues that enhance the effects and extent of flooding are sea level rise and climate change. Because about 68% of the County lies within the floodplain, a proactive approach to flooding is necessary to protect the community and make it more resilient.

Sea Level Rise

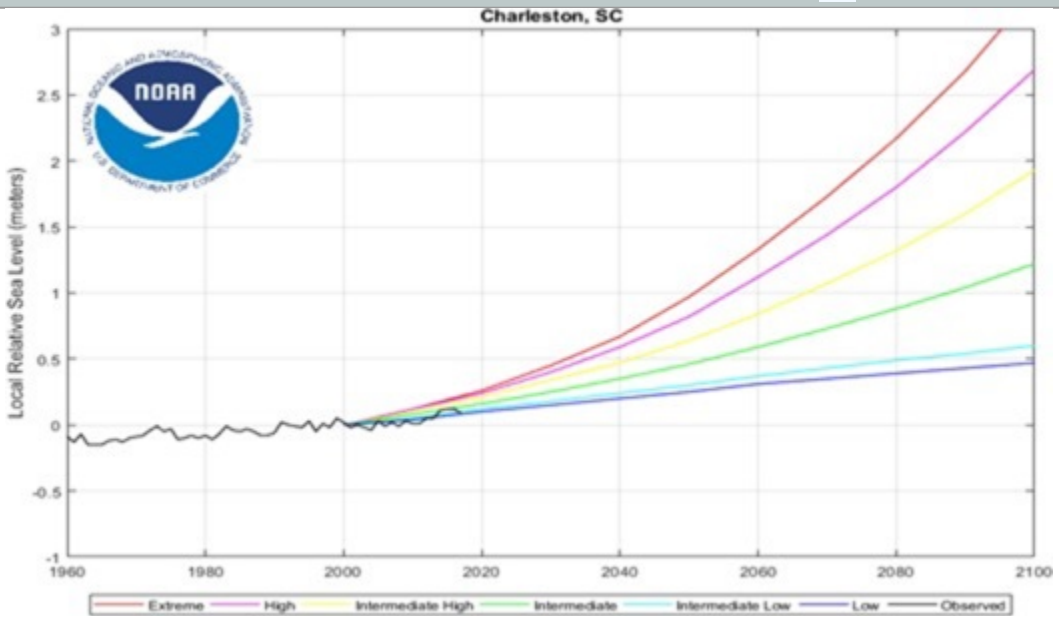
Sea level rise is the result of two major causes: the thermal expansion caused by warming of the ocean and increased melting of land-based ice (NOAA). The current global rate of rise is about one-eighth of an inch per year, but could be measured at a rate higher or lower depending on other factors locally. Scientists are confident that the global mean sea level will rise 8 inches to 6.6 feet by the year 2100 (NOAA, Climate.gov). Global sea level trends and local sea level trends are different measurements. Just as the surface of the Earth is not flat, the surface of the ocean is also not flat—in other words, the sea level is not changing at the same rate globally. Sea level rise at specific locations may be more or less than the global average due to many local factors such as land subsidence from natural processes and withdrawal of groundwater and fossil fuels, upstream flood control, erosion, changes in regional ocean currents, variations in land height, and whether the land is still rebounding from the compressive weight of Ice Age glaciers.

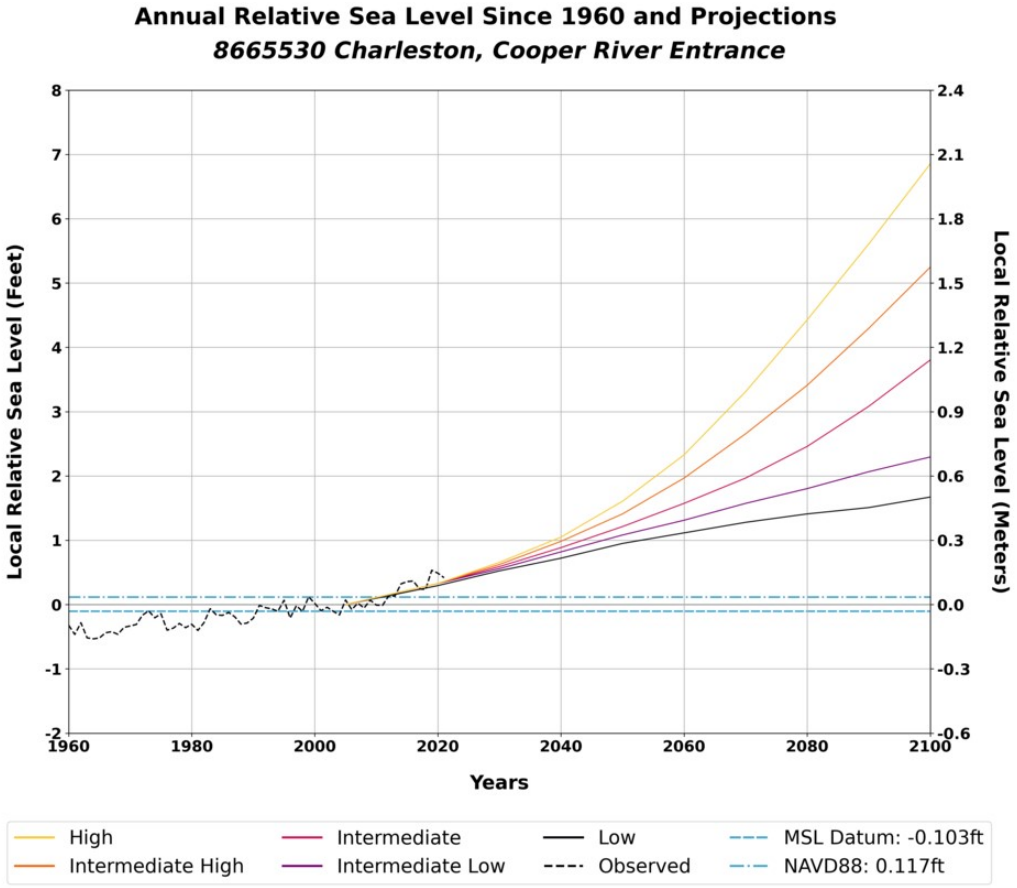
There has been a more than one foot rise in sea level in the Charleston Harbor over the past 80 years. NOAA estimates the rate at which sea level is rising in South Carolina has been increasing, and is now around one inch of rise every two years. NOAA's predictions for sea level rise in Charleston can be seen in Figure 3.11.1, and includes six potential scenarios. The intermediate scenario suggests Charleston could see ~~a four~~around a 3.6-~~-~~foot increase in sea level by 2100. The City of Charleston currently plans their Sea Level Rise Strategy around a 2- to 3-foot increase in sea level over the next fifty years. Also, see the NOAA Sea Level Rise Maps in Figure 3.11.2 for a visual representation of how sea level rise would affect our area.

In urban settings, rising seas threaten infrastructure necessary for local jobs and regional industries. Roads, bridges, subways, water supplies, oil and gas wells, power plants, sewage treatment plants, landfills—virtually all human infrastructure—is at risk from sea level rise.

DRAFT

Figure 3.11.1 NOAA Sea Level Rise Predictions [1]

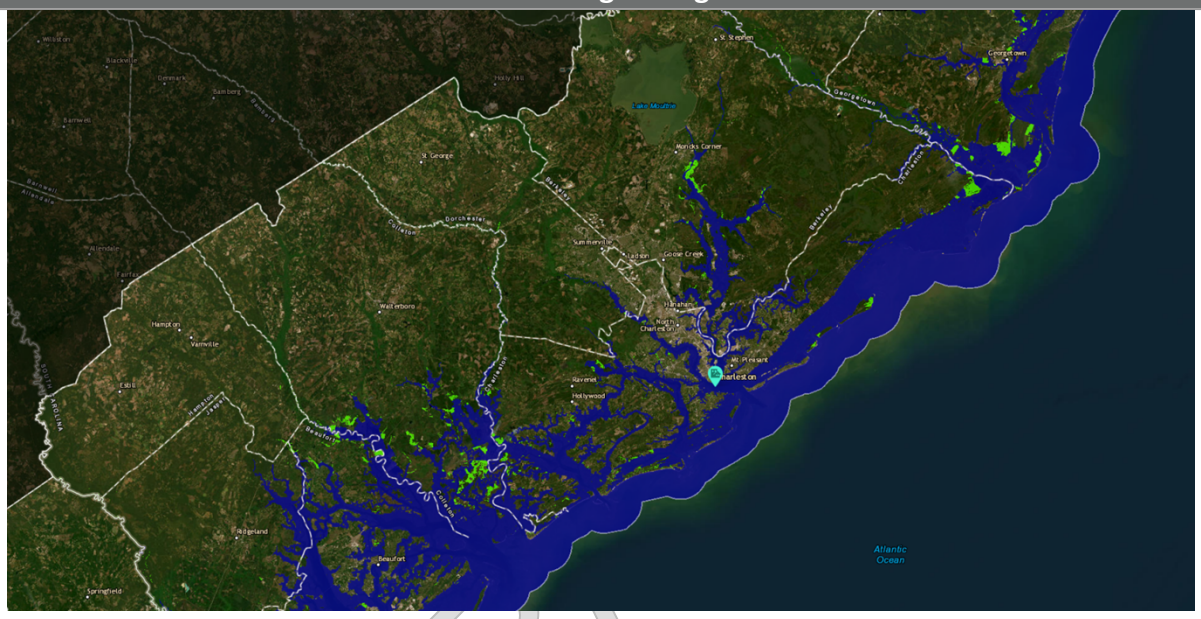




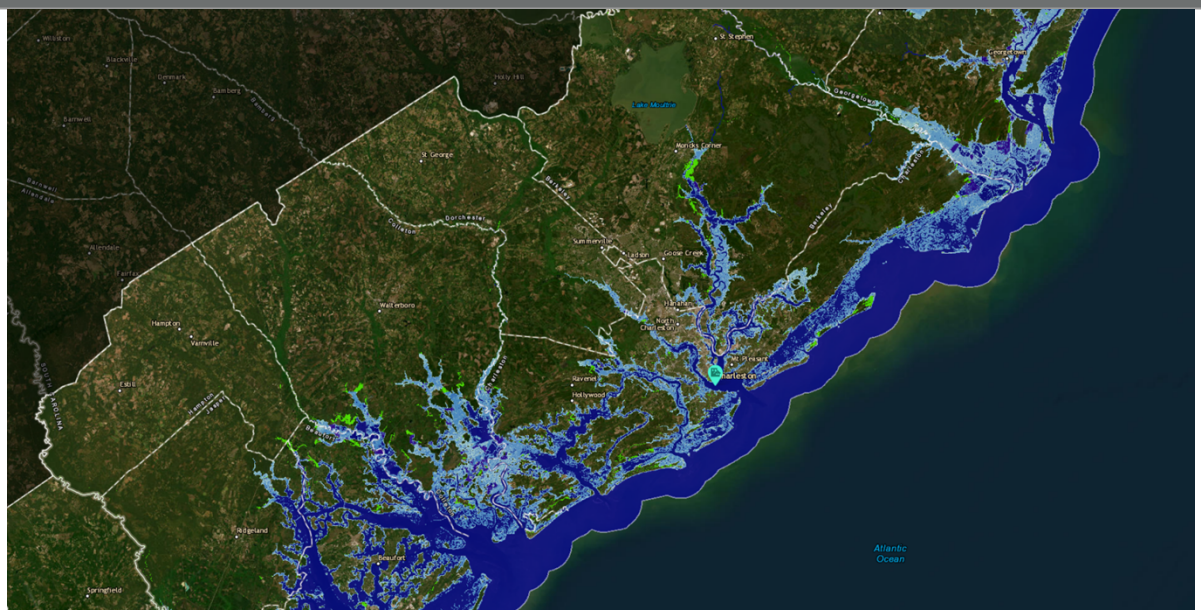
[1]These projection of future sea levels were released in 2022 by a U.S. interagency task force in preparation for the Fifth National Climate Assessment. The figure shows the station's annual mean sea level since 1960 and five regionalized sea level rise scenarios plotted relative to a 1996-2014 baseline period, with the year 2005 as the 'zero' for the figure.

Figure 3.11.2: NOAA Sea Level Rise Maps

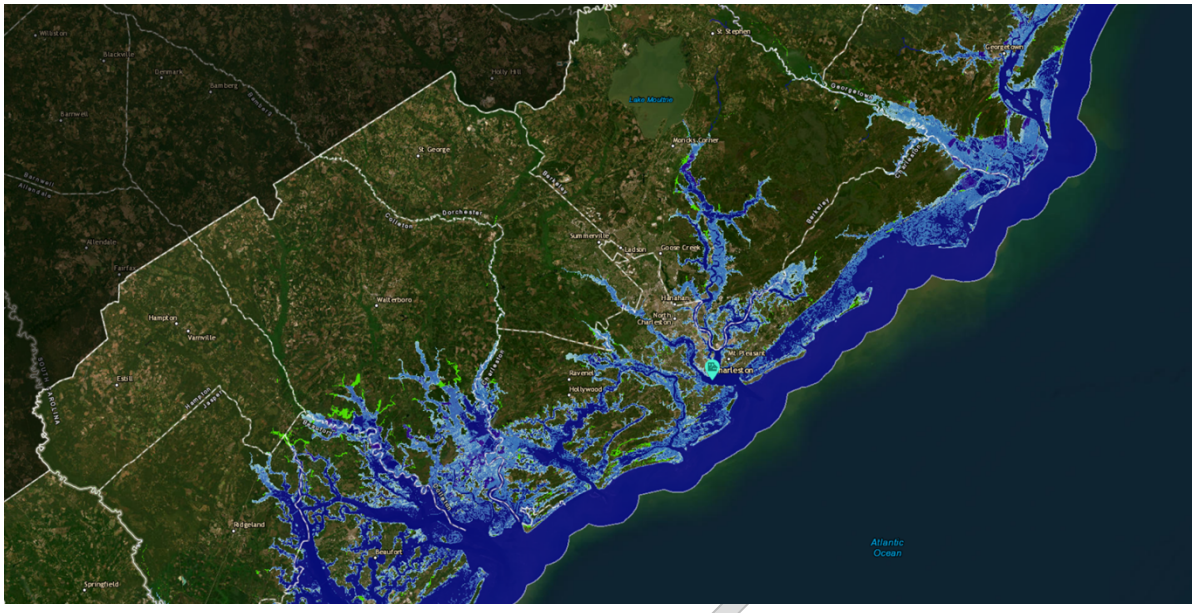
Current Area Mean Higher High Water Level



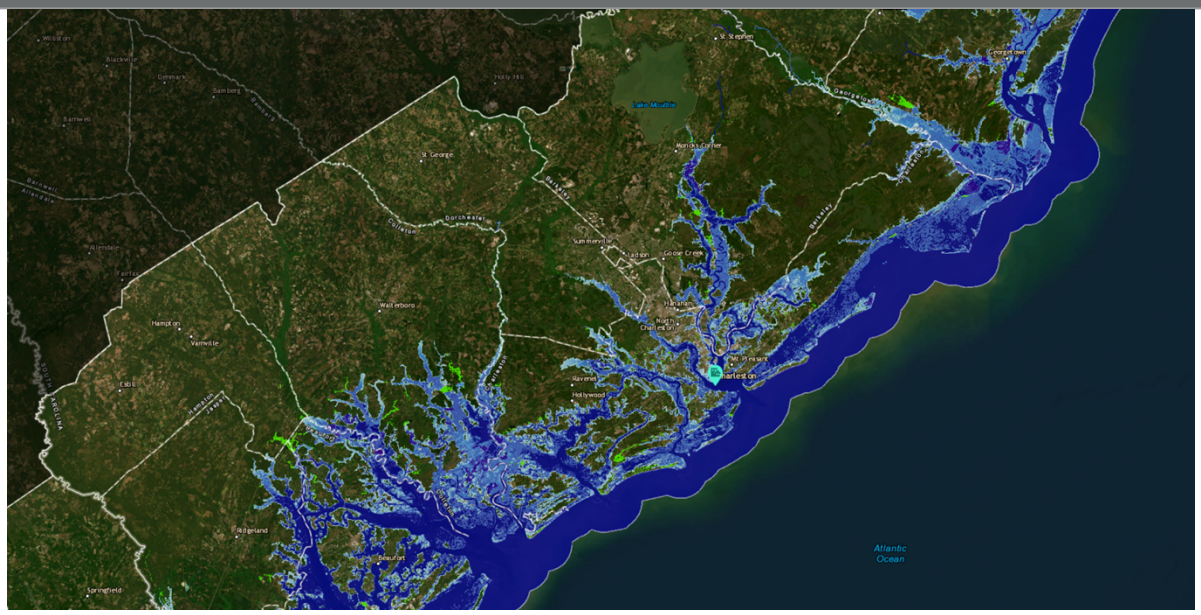
Sea Level Rise at 1 Foot



Sea Level Rise at 2 Feet



Sea Level Rise at 3 Feet



The images above are from the Sea Level Rise viewer on the NOAA. gov website. The top figure shows the current area Mean Higher High Water Level. The three successive figures show (in light blue) the areas of the county that would be covered by a sea level rise of one foot, two feet, and three feet. At three feet, the majority of Charleston County is affected. Maps are dated December 15, 2023.

Rain Event Flooding

Rain event flooding can be classified by severe rain events, whether associated with tropical weather or not, that cause major flooding in areas that may not have experienced flooding in prior years. Like tidal flooding, these big rain events are exacerbated by a combination of several factors that result in widespread flooding, including king tides, sea level rise, drainage issues and storm surges. Charleston County experienced flooding as a result of continual rain lasting several days in 2015 that caused extensive damage and shut down the County for days. The storm drainage systems could not handle the amount of rain that fell in the area during those days, and because there was no break in the rain, the drainage systems had no time to recover. In addition, high tides peaked which added more struggle to the already aggravated system.

In 2016, the area was hit by Hurricane Matthew, which made landfall near McClellanville, SC as a Category 1 Hurricane. The storm dumped nearly a foot of rain on parts of the County, and the combination of a six-foot storm surge and strong winds led to extensive damage along the coast, despite hitting the area during a relatively low tide. Matthew resulted in water levels three to five feet higher than normal astronomical tides. In 2017, Charleston County felt the effects of Hurricane Irma, which had weakened to a tropical storm before Charleston felt its effects. Tropical Storm Irma swept through Charleston during an extremely high tide, resulting in a peak storm tide recorded at almost 10 feet, the third highest on record in Charleston County. The greatest storm surge during Tropical Storm Irma was recorded at just under five feet. Additionally, four tornadoes were confirmed in Charleston County in association with this storm.

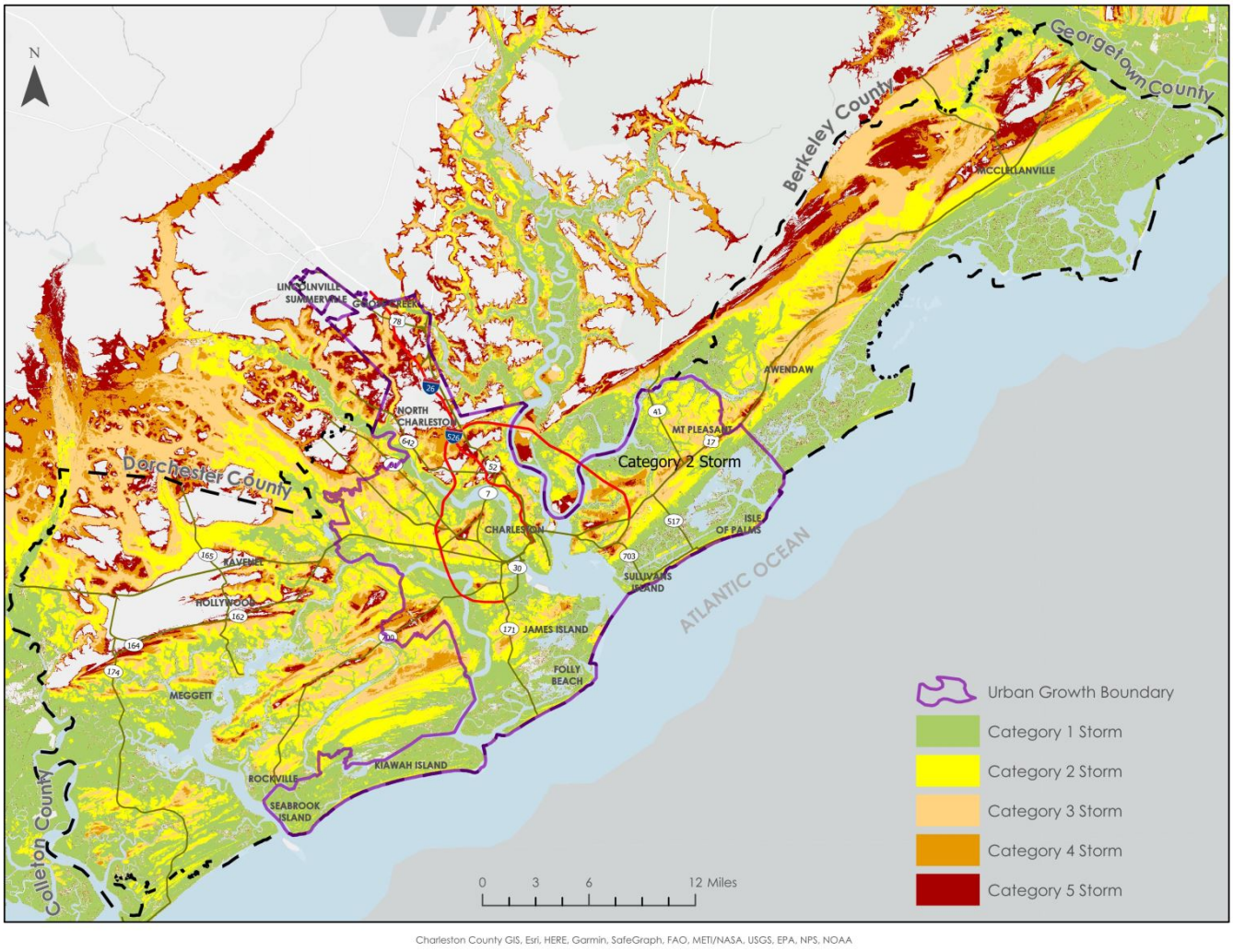
On September 14, 2018, Hurricane Florence made landfall in North Carolina before stalling and then traveling southwest through Charleston County as a Tropical Storm on September 15th, resulting in localized heavy rain and tropical storm force wind gusts, but significant widespread impacts were avoided. Between October 10-11, 2018, Hurricane Michael made landfall in Florida before weakening to a Tropical Storm as it moved through Georgia and ultimately central South Carolina. Charleston County experienced tropical storm force winds and several inches of rainfall, resulting in fallen trees and power outages.

Hurricane Dorian traveled along the South Carolina coastline, without making landfall in Charleston County, between September 4-5, 2019, while intensifying to a Category 3 hurricane with maximum sustained winds of 115 miles per hour. Impacts to Charleston County included sustained tropical storm force winds, hurricane force wind gusts, heavy rain, and some coastal flooding.

In August of 2020, Hurricane Isaias intensified to a Category 1 hurricane about 50 miles east of Charleston. The County saw minor impacts, with tropical storm force wind gusts, rainfall flooding, and minor coastal flooding. Two years later, in September of 2022, Hurricane Ian made landfall just north of Charleston County near Georgetown, SC as a Category 1 hurricane with sustained winds of 85 mph. The Charleston area saw heavy rainfall and significant flooding, which resulted in thousands of power outages due to downed trees and power lines. The Church Creek, in West Ashley, rose about three feet due to the extreme rainfall.

Overall, rain events that have impacted the Charleston area ~~since 2015~~in the past decade have brought the issue of flooding to the forefront. The purpose of this Element is intended to address these issues and pave the way for future planning to combat the problem.

Map 3.11.3 Charleston County Storm Surge Map



Charleston County GIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, NOAA

Map dated February 1, 2023

People at Risk

Rising population numbers exacerbate potential flooding risk; impacts can be even greater when social vulnerability factors (age, income, capabilities) are involved, as these citizens may not be able to adequately prepare and respond. 19.3% of Charleston County's total population resides in low-lying areas. As is already the case in many parts of the country, these areas are the first to experience impacts. Charleston County is working to create additional goals. More natural areas (wetlands, forests, parks, dunes etc.) to absorb floodwaters and protect the community, and less development in flood prone areas. We are not only considering today's floodplain, but also the floodplain extent projected for the future.

Hurricanes

Records dating back to the 1600s indicate there were about 43 tropical cyclones before official records were kept in 1851. Since then, there have been an additional 4~~1~~16 tropical systems (2~~5~~58 hurricanes, 1~~0~~02 tropical storms and six tropical depressions) that have hit or affected the Charleston region (NOAA). The region will remain vulnerable to hurricanes and tropical weather and this threat may increase with climate change and warming seas. Hurricanes pose many threats to the area, including wind, rainfall, and storm surge. In addition, tides can also have a major effect on the extent of hurricane-related flooding.

Storm Surge

Storm surge is the rise of water level that occurs as a result of high winds pushing onto the coast due to tropical conditions. In combination with regular tides, storm surge can cause significant flooding in coastal areas, and is exasperated depending on the intensity of the storm. Some problems that storm surges cause include inland flooding, flooding in advance of a storm, dangerous debris carried by waves, severe beach erosion, and significant property damage.

Advancements in mapping have provided flood inundation maps to inform citizens of potential flood impacts during different categories of storm events where a citizen can simply type in their address on a web page and have a visual reference of where flooding can occur around them (NOAA). These tools are very helpful when planning and preparing for an event and determining the amount of storm preparation that would be required in advance.

Map 3.11.3 shows storm surge projections for Charleston County. The Sea, Lake, and Overland Surges from Hurricanes (SLOSH) Model was used to generate Map 3.11.3 and estimates storm surge heights, considering atmospheric pressure, size, forward speed, and track data to model the wind field, which generates storm surge. The model was developed by the National Weather Service and is a computerized numerical model that can be applied to a specific region's coastline. The SLOSH Model can be used to predict storm surge heights resulting from historical, hypothetical, or forecasted hurricanes. The SLOSH model does not include breaking waves/wave run-up, astronomical tide, or normal river flow and rain. However, the model does consider coastal reflection; overtopping of barrier systems, levees, and roads; inland inundation; deep passes between bodies of water; and flow through barriers, gaps, and passes. The SLOSH Model, like most storm surge models, is heavily reliant on the accuracy of meteorological input. Additionally, it is important to note that storm surge is merely one element of total water level rise, with tides, waves, and freshwater flow making up the other components.

Tidal Flooding

The beauty and character of Charleston County lies in its breadth of winding tidal creeks and hidden reaches of waterfront property. With this beauty comes the risks associated with tidal flooding, also called nuisance flooding, because of the inconveniences caused during unusually high tides. Many factors contribute to this "perfect storm" of problems that can shutdown areas of Charleston County for hours or days.

DRAFT

Sea level rise is one contributing problem to tidal flooding in many areas within the County. Rising seas means higher tides, and more frequent king tides, which are now an issue to formerly non-flood-prone areas. In areas like Downtown Charleston that were built centuries ago on fill dirt, the land has subsided over time and is simply not high enough to avoid this flooding. Also because it was built on fill dirt, areas have further settled over time, leaving some parts of the City lower, and more affected than others.



Photo: Charleston County Public Information Office

Frequent road closures, property damage, loss of business, and potentially hazardous conditions leave areas affected by tidal flooding in a state of uncertainty. Sea level rise will continue to be a more frequent issue for all coastal areas within the County. Time is of the essence to study and make modifications to alleviate some of the effects that sea level rise will have on communities in the County. This not only affects area residents from being able to get to and from their homes, but also has a large impact on continuity of services for business operations, safety services, including access to area hospitals, and the general functioning of the area and its residents on a normal day-to-day level.

A recent example of how king tides can majorly affect Charleston occurred in November 2018 when the County was affected by the sixth highest record tide. This resulted in several road closures and flooding on a perfectly sunny day. Of the top eight highest tides on record in Charleston, half of them have occurred in the past decade (NWS). Instances like these are becoming more and more common, and the County needs to plan for ways to protect and prepare the community.

Impacts to Groundwater

DRAFT

Groundwater aquifers are sponge-like, interconnected layers saturated slowly over time with water that comes from the surface water supply. Groundwater resources are of concern when considering resilience because when aquifers are depleted of groundwater, surface water sinks to replace it. The surface water supply is where most residents obtain drinking water, thus the depletion of this resource is of great concern. Additionally, due to its very dynamic nature beneath the earth's surface, groundwater resources are not easily quantified, making it difficult to determine exactly how much groundwater exists and where it is located. The Charleston Aquifer runs under most of the South Carolina Coastal Plain, beginning at the boundary of the Piedmont and Coastal Plains (the Fall Line) and deepening and thickening as it gets closer to the ocean. As a result of groundwater being pumped from the Charleston Aquifer since the late 1800s to fuel development and industry, Charleston County now experiences regional declines in groundwater levels. Because of these declines, Charleston, Berkeley, and Dorchester Counties were designated as the Trident Capacity Use Area (CUA) in August of 2002. There are currently four CUAs in South Carolina, each within the Coastal Plain. In these areas, groundwater withdrawals in excess of three million gallons per month must be permitted by SCDHEC. In May of 2017, the Trident Area Groundwater Management Plan was adopted by the SCDHEC Board. The purpose of the plan is to provide direction for future groundwater management and protection by: 1) ensuring sustainable development of the groundwater resource by management of groundwater withdrawals; 2) protecting groundwater quality from salt-water intrusion; and 3) monitoring groundwater quality and quantity to evaluate conditions. During the year 2016, Charleston County reported a total of approximately 2.44 billion gallons of water withdrawn from groundwater. In the County, the number one use for this water is for the public water supply, followed by golf course irrigation, and then industrial use.

Drought

Drought, the lack of precipitation over an extended period of time, is another stressor that Charleston County may face. South Carolina experiences significant variability in rainfall and this makes it hard to pinpoint the start or end of a drought. The Coastal Plain of South Carolina receives around 48 to 56 inches of precipitation annually, although there is some variation. Charleston County is at risk for a drought during any season, and it can be brought about by factors such as changes in pressure, storm tracks, and the jet stream, as well as extreme heat, wind, and evapotranspiration rates. In the 20~~18~~21 Charleston County Emergency Operations Plan, drought was listed as a moderate probability threat for the area, and is considered a serious economic threat to the County because of how severely it can adversely affect agricultural industries.

Earthquakes

Earthquakes regularly occur in South Carolina. An earthquake hit the City of Charleston with an estimated magnitude of 7.0 on August 31, 1886, and it changed the face of the City killing approximately 60 people.

The entire County of Charleston lies within a "high potential for liquefaction" area (South Carolina Department of Natural Resources). This issue needs additional study and evaluation as it is definitely an issue of concern. The County needs to address ways to protect against additional damage in the event of an earthquake beyond what is regulated through building codes.

DRAFT

Liquefaction is the transformation of loosely packed sediment or cohesionless soil to a liquid state as a result of increased porefluid pressure and reduced effective stress. Liquefaction is caused by the ground shaking during an earthquake. Soil-liquefaction potential is based on the interpretation of thick, cohesionless material (mostly sand) combined with a high water table (SCDNR).

Although no major damaging earthquakes have occurred in the County since 1886, there have been several small scale earthquakes, mainly clustered around the Summerville area. Charleston County should prepare for the impacts of an earthquake now so that it can be ready. Because we have regularly occurring issues like flooding, earthquake resilience is often overlooked or set aside in order to address more regularly occurring issues, but the threat is imminent on a day-to-day basis.

Winter Weather

Although a rare occurrence, Charleston County can be affected by winter weather. In January 2018, Charleston County experienced a variety of wintry precipitation including snow, sleet and freezing rain. The Charleston Airport measured 5.3 inches of snow, the third greatest snowfall on record. Due to the continued cold air in place after the storm, the snow and ice remained on the ground for many days, causing significant disruptions to day-to-day life throughout the County.

Just four years earlier in February 2014, Charleston experienced a winter storm event leaving about one quarter of an inch of ice throughout Charleston County. Most of Charleston County escaped the amount of accumulation to cause serious damage, but the surrounding counties of Berkeley, Dorchester and Colleton had significant damage to trees and power lines caused by ice. Although not as crippling as the 2018 storm, Charleston was not able to bounce back from this event quickly, having roads and business closures County-wide.

Because of the irregularity of winter weather in Charleston County, the area is not typically prepared to handle such events. There are few, if any, salt trucks and snow plows available. The County must rely on outside resources to assist or just wait out the weather and shut down for several days creating disruptions in essential services, safety concerns, and financial hardships. Building resilience and planning for winter weather is ~~definitely~~ necessary ~~for future events~~ to limit the economic impacts of future events.

Extreme Heat

Extreme heat is one of the leading causes of weather-related illness and death in the United States, causing more fatalities in a typical year than hurricanes, tornadoes, severe storms, and floods. As climate change continues to increase the likelihood of weather extremes, the impacts of heat on communities — especially on their most vulnerable citizens — is likely to worsen.

Known as a silent killer, extreme heat can cause increased health risks, especially for those without the resources to prepare for and mitigate its effects. The climate crisis is making heat waves more intense and frequent, taking a toll on health across the country — sending tens of thousands of Americans to the emergency room, increasing risks of heart and respiratory problems, and especially endangering our workers, children, seniors, historically underserved and overburdened communities, and people with underlying health conditions.

OTHER RESILIENCE ISSUES

DRAFT

Transportation Infrastructure

Transportation is essential for a community to function. Flooding can interrupt or detrimentally affect transportation. According to the Centers for Disease Control and Prevention, over half of all flood-related deaths occur when a vehicle is driven into hazardous flood water. The next highest percentage of flood related deaths is due to walking into or near flood waters. People continue to drive or walk through flood waters to get to work and school, and if they are not able to, this indicates a need to increase the County's economic resilience, as laid out later in this Element. Critical infrastructure, such as bridges, roads, ports, clinics and hospitals are the foundation upon which the County functions, and are essential elements in getting the community back up and running after an event.

Considering the unique topographical nature of Charleston County, including islands, peninsulas, and inland property, the County is reliant on its infrastructure to tie transportation facilities together. Of large importance are bridges, which ~~are something that~~ nearly every citizen of Charleston County must cross on a daily basis. Since many areas of the County are only accessible via bridges, bridge closures can prevent many of our citizens from being able to get to and from their home, work, or school, potentially creating vast negative economic consequences. Bridge closures are not typically associated with flooding, but other influential impacts on the area such as ice storms and strong winds can completely shut down access to and from work, home, and school.

Accessibility is also key to the functionality of a community. If specific areas are not accessible due to flooding, the economics of that area and those working there can be affected, and also cause major issues in terms of safety. Rain events often flood the area around ~~Recently during a rain event,~~ the hospitals in Downtown Charleston ~~were not accessible~~, creating a hazard for caregivers, patients, and visitors.

~~Health Resilience~~Vector-Borne Diseases

Charleston's climate makes it susceptible to the transmission of vector-borne diseases, those spread by the bite of an insect such as a mosquito. The 2018 National Climate Assessment, a federally mandated report, asserts that climate change will modify the seasonality and prevalence of vector-borne diseases. Currently, Charleston's climate is suitable for the Aedes aegypti mosquito, that can spread several diseases including Zika, dengue fever, and chikungunya, from July through September. If temperatures were to increase in Charleston County, that active season could potentially lengthen, leading to increased disease risk. Additionally, the 2018 National Climate Assessment predicts an increase in labor hours lost from heat-related illnesses, as climate change contributes to higher temperatures. These stresses would be felt strongly in the labor-intensive agricultural, timber, and manufacturing sectors.

COVID-19 and Related Health Resilience Issues

DRAFT

With the onset of the COVID-19 Pandemic in March of 2020, Charleston County offices were closed to the public for 43 days. Some staff were able to work remotely, maintaining the essential functions of the County. Mirroring the rest of the nation, Charleston County experienced supply chain disruptions, business closures, and widespread health impacts. As of the start of 2023, just under 1.8 million cases of COVID-19 had been reported in the County and 18,834 residents had lost their lives to the COVID-19 Pandemic. In addition, 53.8% of County residents had completed their COVID-19 vaccinations. The Pandemic brought about many changes to the workplace, and daily life in general, including more options for online services for citizens and remote work and flexible scheduling options for employees.

Economic Resilience

In Charleston County, we face frequent flooding and other events that impact our local economy by making it harder for employees to get to work, as well as affecting the County's ability to provide services to its citizens. ~~In 2018,~~ Charleston County was forced to close its offices ~~were closed~~ due to flooding, winter, and tropical storm events for six days in 2018; four and a half days in 2019; a half day in 2020; and three days in 2022 ~~for several business days~~. Additionally, when there is a mandatory evacuation order for Charleston County, it adds to families' financial stresses, as they budget and plan for an extended stay away from home. Increasing our economic resilience, therefore, must include ways to reduce the number of down days due to such events.

The Charleston County Emergency Operations Plan (Operations Plan) includes the County's Continuity of Operations Program (COOP), the purpose of which is to ensure the continuity of mission essential emergency functions under all circumstances. The Operations Plan also encourages all County agencies to have a viable COOP in place. In Charleston County, several departments have a COOP which instructs departments on how to function in the event of an emergency. FEMA provides a course in Continuity of Operations, and also has templates and other resources available online for businesses and government entities to begin developing their own COOPs. Additionally, the Charleston County Emergency Management Department encourages local business owners to form disaster plans and COOPs of their own, and offers support for those looking to develop emergency operations plans. A collection of governmental and private sector business and industry leaders hold an annual workshop to assist businesses with the formation of these emergency operations plans.

Energy Resilience

DRAFT

The 2018 National Climate Assessment, a comprehensive and authoritative report on climate change and its impacts in the United States done by the U.S. Global Change Research Program (USGCRP), predicts that the southeast region will experience the highest costs in the United States associated with meeting increased electricity demands in a warmer world. Therefore, energy becomes an essential consideration when creating a resilient community. The Energy and Sustainability Element of the Comprehensive Plan ~~already~~ addresses some issues of energy resilience. It outlines planning and zoning techniques such as the establishment of an Urban Growth Boundary (UGB), Infill Development, and Transit-Oriented Development as tools for building sustainable and resilient communities. Additionally, the Energy and Sustainability Element Strategies support goals for resilience including, but not limited to: promoting green building code standards and sustainable landscaping that aid in energy conservation; supporting tax incentives for properties that install/utilize alternative energy sources; and amending the Zoning and Land Development Regulations Ordinance to encourage local renewable energy generation and green building design, and providing standards for ~~solar collectors and~~ wind generators as accessory uses.

Food

The 2018 National Climate Assessment predicts climate change to have a negative impact on agricultural productivity, because changes in temperature can change the conditions for crops and livestock. All livestock are susceptible to heat stress, making it vital for Charleston County to consider new or enhanced adaptive care strategies. Additionally, climate change has the potential to impact local food sources, including regionally important crops. As the County experiences warmer temperatures during the winter months, the harvesting of corn, soybeans, rice, peaches, and many other crops are affected. However, for freeze-sensitive plants, including oranges, papayas, and mangoes, the increasing temperature has the potential to allow these crops to thrive in our region. An additional threat to food resilience is the impact of drought on crops and livestock. One of the most immediate effects of drought is a decrease in crop production. There are also other less obvious consequences of drought including poor soil quality and increased spending on feed and water for livestock, which impact our local food supply. These factors can all lead to higher food costs.

DRAFT

TOOLS AND EXISTING PROTECTIVE MEASURES

South Carolina Office of Resilience

The South Carolina Office of Resilience (SCOR) was formed in September of 2020 by SC Code §48-62-10. The SCOR seeks to serve the state through: 1) housing recovery following a federally declared disaster; 2) mitigation against future flood risks; and 3) resilience planning. Under the role of resilience planning, the SCOR is in the process of developing a Strategic Statewide Resilience and Risk Reduction Plan, which will identify major flood risks within the State, quantify losses that could potentially occur as a result of extreme weather events, and provide strategies for local governments within South Carolina to bolster resilience within their own communities.

Charleston County Chief Resilience Officer

An action item that was identified in the initial adoption of the Resilience Element was to identify a Resilience Officer. To implement this action item, the County Administrator appointed the first Chief Resilience Officer for the County in October of 2020. Since then, the Chief Resilience Officer has been working to identify strategies to make the County more resilient while focusing on the prevention and mitigation of climate change.

The Chief Resilience Officer is working with NOAA and partners in Las Vegas, Phoenix, Miami, and Charleston on an 18-month project to help communities pinpoint local impacts of extreme heat. The pilot project, "Building Equitable Resilience to Extreme Heat," will support state and local initiatives designed to reduce the negative health effects of extreme heat events, especially for disproportionately affected populations. With a fiscal year 2022 investment of $187,800, NOAA is supporting activities in each of the four cities. The work in each city is specific to local needs and includes heat monitoring; summarizing existing heat-related activities; planning exercises to better understand roles and responsibilities of federal and community stakeholders both during extreme events and to support cross-sector planning for increased heat on multiple time scales; and identifying heat risk reduction strategies. Charleston County participated in a Heat Exercise with NOAA and other jurisdictions on March 14th and 15th, 2023.

Additionally, the Chief Resilience Officer assisted in obtaining a grant to conduct a tree canopy study focusing on two key areas of the County, Johns Island and West Ashley. This study was conducted by the US Forestry Commission. This study used land cover maps at one meter for urban areas and 30 meters for rural areas. This resulted in printable area maps to calculate how many additional trees could be planted in specific areas. The study results stated that of the number of possible tree plantings, 59.68% would be large trees and 40.32% would be small trees. The ecosystem services the County received in this study included analysis of air quality benefits and carbon storage, as well as urban heat analysis. The Chief Resilience Officer is currently researching several options to achieve grant funding to accomplish the tree planting initiative.

The Chief Resilience Officer is also in the process of securing two new tools to assist with Resilience efforts, the Woodwell Flood Modeling Tool and FloodMapp. The Woodwell Flood Modeling Tool would provide the County with assessments of climate change influenced risk to allow for near and long-term resilience planning. The key deliverables of this effort would be a report, which includes a series of maps that address present and future climate-driven risk for selected perils, and a detailed technical and methodological appendix. Additionally, FloodMapp is a real-time system that analyzes certain data to help predict exactly where a flood will take place. This information is then sent to the Waze app, where it can be used to alert drivers if their travels will be taking them too close to roads that are flooded and reroute drivers away from impassable roads by suggesting alternative routes.

Charleston County Resilience and Sustainability Advisory Committee

On September 20, 2022, Charleston County Council approved the Resilience and Sustainability Advisory Committee. This committee is comprised of nine voting members and will act as an advisory board on all matters related to the Climate Action Plan, All-Hazard Vulnerability and Risk Assessment, Sustainability, and Resilience. The first meeting was held on January 25, 2023, and the committee will meet quarterly.

Tri-County Task Force (Regional Resilience Officers)

The Tri-County Task Force (Regional Resilience Officers) has been created to reduce the duplication of efforts and together will create additional resilience initiatives to be carried out in a coordinated manner. This task force currently includes the City of Charleston, City of North Charleston, and Town of Mount Pleasant.

All-Hazards Vulnerability and Risk Assessment

In March of 2023, Charleston County entered into a contract to perform an All-Hazards Vulnerability and Risk Assessment using the framework from the US Climate Resilience Toolkit's Steps to Resilience. A phased approach to this work will be supported by two grants, including FEMA BRIC and Hazard Mitigation Grant Program (HMGP). The hazards to be assessed are: 1) Floodplain Inundation; 2) Tidal Flooding; 3) Storm Surge; 4) Wildfires; 5) Extreme Heat (vulnerability to sensitive populations); 6) Earthquakes; and 7) HAZMAT Releases.

Charleston County Zoning and Land Development Regulations Ordinance

Strategic land use planning and zoning and land development regulations can bolster a county's resilience by shaping where, what, and how land can be developed. There are several regulations included in ~~centered on~~ the County's current Zoning and Land Development Regulations Ordinance (ZLDR) that contribute to resilience. One item that makes the County stand out is the required vegetated buffers from saltwater wetlands, waterways, and Ocean and Coastal Resource Management (OCRM) Critical Lines. These buffers provide a visual, spatial, and ecological transition zone between development and the County's saltwater wetlands and waterways, and ~~to~~ protect water quality and wildlife habitat. Additionally, Charleston County requires larger minimum lot sizes and widths for properties that contain or abut an OCRM Critical Line~~,~~ in order to maintain a lower density along the waterfront. The Charleston County Zoning & Planning Department also works in close coordination with the County's Stormwater Management Division when property is being developed or redeveloped.

After the adoption of the first Resilience Element in March 2020, the Resilience Committee met from April 2021 through February 2022 under the direction of the Chief Resilience Officer to implement the action items outlined in the Element. The Committee made recommendations regarding ways the ZLDR, Building and Flood Codes, and Stormwater Manual could be revised to address resilience issues. The final draft recommendations were separated into three categories of short-term, mid-term and long-term recommended changes based on staff's ability to implement them and the amount of research required. Planning Staff drafted amendments to the ZLDR to implement the Committee's recommendations and presented them to the Committee for review and feedback, culminating in the final proposed ZLDR amendments, which were presented to Planning Commission and County Council. Ultimately, the ZLDR amendments adopted by Council included the following:

- Removed freshwater wetland areas from density and lot area calculations (adopted in October 2021);
- Incorporated exemptions for the area under buildings used for parking from maximum building height calculations, up to one story, for parking areas under buildings that cover at least 51 percent of the building footprint, to encourage parking under buildings and reductions in impervious surfaces;

DRAFT

- Changed the maximum building coverage requirement to a maximum impervious surface coverage requirement in all zoning districts except non-residential zoning districts with the ability to increase impervious surface coverage over the maximum allowed (up to 70 percent of the site) with mitigation as approved by the Public Works/Stormwater Division;
- Prohibited driveways of any surface type from being located in OCRM Critical Line Buffers; and
- Changed the definition of "Building Height" to be measured from the Design Flood Elevation instead of the Base Flood Elevation.

Charleston County Stormwater Manual and Stormwater Management Plan

Charleston County developed both a manual and Charleston County Ordinance #1518 to protect, maintain, and enhance the water quality and the environment of the County, as well as to improve the short-term and long-term public health, safety, and general welfare of its citizens. This Manual is for stormwater management purposes only, and the requirements are specific to Charleston County.

The Charleston County Stormwater Permitting Standards and Procedures Manual (Manual) describes the policies and procedures used by the Public Works Department to implement the Ordinance and the County's Stormwater Management Plan (SWMP). These standards and procedures describe the requirements of construction activity applications and the approval process as it relates to stormwater management; convey the technical design standards to the engineering community, to include standards which address runoff flow rates, volumes, and pollutant load/concentration, as well as specific standards during construction, and post-construction for long-term performance; provide information on avenues to improve water quality, prevent illicit discharges, and minimize stormwater runoff impacts due to development and re-development; convey other protection provisions related to stormwater discharges such as wetlands and watercourse conservation.

The Charleston County Stormwater Management Plan (SWMP), adopted originally in 2014, and revised most recently in March 2020, is designed to reduce the discharge of pollutants from Charleston County's Small Municipal Separate Storm Sewer System (SMS4) to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act.

Charleston Regional Hazard Mitigation Plan

RAFT



The Charleston Regional Hazard Mitigation Plan is incorporated into this Comprehensive Plan.

In compliance with the Federal Emergency Management Agency's (FEMA) requirements to receive federal disaster funding, Charleston County, jurisdictions and community stakeholders and partners (i.e., Charleston County Parks & Recreation Commission, Roper St. Francis Hospital, Charleston County School District, individual water and sewer districts, etc.) have adopted a Hazard Mitigation Plan that is updated annually, with a full review every five years as required. The purpose of the Hazard Mitigation Plan is to continue guiding hazard mitigation efforts to better protect the people and property in the County from the effects of hazard events. This Hazard Mitigation Plan demonstrates the community's commitment to reducing risks from hazards, and serves as a tool to help decision makers direct mitigation activities and resources. This Hazard Mitigation Plan was also developed to ensure Charleston County and participating stakeholders and partners also earns points for the National Flood Insurance Program's Community Rating System (CRS), which provides for lower flood insurance premiums in CRS communities as described later in this Element.

Charleston County implores feedback from all jurisdictions within Charleston County and participation in planning the document is required. Public input is also obtained through surveys and open meetings. After updates, suggested edits and refocusing on the community's current hazard needs, the plan goes through a full adoption process every five years. Adoption of the plan is required for all participating jurisdictions, stakeholders, and partners. The County is currently working on the Charleston Regional Hazards Mitigation Plan update due in March 2024 for FEMA approval.

Community Rating System

DRAFT

Charleston County has participated in the Community Rating System (CRS) program since 1995. The purpose of the CRS is to support the National Flood Insurance Program (NFIP) by working to minimize flood losses nationwide. This can be accomplished by encouraging communities to reduce the exposure of existing building to flood damage, protect new buildings from known and future flood hazards, and encourage implementation of higher regulatory standards from the minimum NFIP requirements. It is a point-based system that once all efforts are tallied, CRS will issue a rating. This rating is associated with a discount that is assessed to all residents owning flood insurance policies within a participating jurisdiction. Properties located in unincorporated Charleston County are currently allowed a 35 percent discount in flood insurance premiums, a Class 3 rating classification in the Community Rating System (CRS). At the last audit visit in 2022, Charleston County accumulated enough points to increase its assessment upon a 40 percent discount in flood insurance premiums, improving its CRS to a Class 2 community (ranging on a scale of 1-10 with Class 1 being the highest). The audit was conducted by the Insurance Services Office (ISO) in partnership with FEMA. The new 40 percent discount in flood insurance premiums, Class 2 CRS rating, will be effective on October 1, 2023.~~For those jurisdictions in Charleston County that have opted to allow the County to administer their floodplain management regulations, the rating they are currently assessed upon is a 305 percent% discount in flood insurance premiums. This 305 percent% means that Charleston County has accumulated enough points to be rated as a Class 43 community (ranging on a scale of 1-10 with Class 1 being the highest).~~ Several County departments work with Building Inspection Services to either provide information for the required documentation or they work to implement higher regulatory standards. Although the County currently covers many of the sections in the CRS manual, there are a few sections that could be covered to implemented to make the community more resilient.

The Community Rating System program consists of nineteen creditable activities under four categories, including public information, mapping and regulations, flood damage reduction, and warning and response activities. The County participates in all four categories and most of the creditable activities contained within the categories. Some examples of the County activities include: raising the freeboard (the required height at which buildings must be built) from one foot above base flood elevation to two feet above; digitizing and providing complimentary review and public access to elevation certificates; providing a Public Information Plan characterized by the County's activities to provide flood protection information to the public; designating and mapping open space preservation areas; assessing and mapping repetitive loss properties; providing notification of special flood hazard area information; pursuing feasible flood mitigation grant opportunities; and participating in annual drills, among many others. In January of 2021, the County adopted higher regulatory building standards for Coastal A flood zones, which increased protection to structures in flood zone AE located in high hazard areas. Coastal A flood zones are affected by 1.5-foot or greater breaking waves during a 1-percent-annual flood event (wave wash) as determined by FEMA. The Coastal A flood zone is delineated by the Limit of Moderate Wave Action (LiMWA) line and shown in the Charleston County Flood Insurance Rate Map (FIRM). Other activities that the County can potentially participate in to increase its CRS rating are~~will be~~ detailed in the Strategies section of this element.

Beachfront Management Plan

DRAFT

The State of South Carolina requires that ocean beachfront counties and municipalities prepare local comprehensive beach management plans in coordination with the Department of Health and Environmental Control, Office of Coastal Resource Management (DHEC-OCRM). The plan must include a minimum of ten elements, be adopted by the community, and then submitted to DHEC for review and state approval. These plans provide guidance to state and federal agencies on local policies, regulations, and procedures related to beachfront management plans. Similar to the County's Comprehensive Plan, the Beachfront Management Plan must be reviewed every five years and updated every ten years.

The required elements include the following:

1. Inventory of beach profile data and historic erosion rate data for each standard erosion zone and inlet erosion zone under the local jurisdiction;
2. Inventory of public beach accesses along with a plan for enhancing public access and parking;
3. Inventory of all structures located in the area seaward of the setback line;
4. Inventory of turtle nesting and important habitats of the beach/dune system and a protection and restoration plan if necessary;
5. A conventional zoning and land use plan consistent with the purposes of the Act for the area seaward of the setback line;
6. Analysis of beach erosion control alternatives, including re-nourishment of the beach under the local government's jurisdiction;
7. Drainage plan for the area seaward of the setback zone;
8. Post disaster plan, including plans for cleanup, maintaining essential services, protecting public health, emergency building ordinances, and the establishment of priorities, all of which must be consistent with the Act;
9. Detailed strategy for achieving the goals of this chapter by the end of the forty-year retreat period. Consideration must be given to relocating buildings, removal of erosion control structures, and relocation of utilities; and
10. Detailed strategy for achieving the goals of preservation of existing public access and the enhancement of public access to assure full enjoyment of the beach by all residents of this state.

The Charleston County Beachfront Management Plan is prepared in coordination with several departments including the Deputy Administrator for General Services, Building Inspection Services, Zoning & Planning, GIS/Technology Services, Stormwater/Public Works, and Emergency Management. It has been adopted as a part of the Comprehensive Plan and is due for a ten-year update in 2020~~0~~5. Because the next update is in the near future, this is a great opportunity to collaborate and work on strategies to support this Beachfront Management Plan.

Emergency Management Accreditation Program (EMAP)

DRAFT

The Charleston County Emergency Management Department maintains extensive emergency management plans and strategies, accreditations and resources that can be utilized in planning for a resilient community. The Department's vision is “to be recognized as an accomplished and innovative leader in emergency management that is known as ready, relevant, resilient and responsible.” The County is recognized as being the only EMAP accredited community in the state of South Carolina. EMAP, the voluntary standards, assessment, and accreditation process for disaster preparedness programs throughout the country, fosters excellence and accountability in emergency management and homeland security programs, by establishing credible standards applied in a peer-review accreditation process. EMAP was created by a group of national organizations to foster continuous improvement in emergency management capabilities. It provides emergency management programs the opportunity to be recognized for compliance with industry standards, to demonstrate accountability, and to focus attention on areas and issues where resources are needed.

Strategic Plan

Charleston County’s Emergency Management Department utilizes strategic planning in an effort to maximize team members' ability to provide measurable projects and programs through preparedness, prevention, response, recovery, and mitigation. During the strategic planning process, goals and objectives are determined based on community need and the on-going changes in the field of emergency management. This Plan serves as the Strategic Plan for the entire Charleston County Emergency Management Program to include all municipalities and public services districts. As a result, the Emergency Management Department developed a comprehensive three-year plan to enhance the way Charleston County manages major events.

In collaboration with public, private, faith-based, and non-profit organizations; goals and objectives were developed that enhance the “whole community” approach to emergency management. The development of goals and objectives derives from strengths, opportunities for improvement, lessons learned, and best practices gathered from disaster events across the world. The 2016-2019 Strategic Plan aims to facilitate accountability of necessary goals and objectives by assigning action items and completion dates to measure achievements for the team throughout the planning process. The Emergency Management Department helps to coordinate the response among public, private, non-profit, and community organizations in order for Charleston County to remain resilient during major events. The Emergency Management Department is currently in the process of updating their Strategic Plan.

DRAFT

The Emergency Management Department looks for opportunities to curb the trends of dwindling budgets, staffing shortages, availability of grants, and the overall decreasing volunteerism in order to build a resilient emergency management program. The team members seek new ways to better utilize existing resources and enhance their capability to respond and recover from large-scale events. The Emergency Management Department focuses on building community partnerships to help leverage the gaps analyzed as a result of the strategic plan. In doing so, organizations engage in exercises, trainings, and community meetings that promote a culture of preparedness. Research has shown that communities that train together, across all disciplines and jurisdictions, will ultimately build the resiliency needed to recover quickly from even the worst disaster to impact the community. These vital partnerships within our community allow Charleston County to maximize the utility of resources available to citizens after a major event.

The Emergency Management Department has several additional resources including the Redbook, the Emergency Operations Plan, and the Lowcountry CERT Program, among other training opportunities to keep County staff and volunteers current on training and documentation to prepare for most situations.

Charleston County Building Ordinance and International Building Code Series

The Charleston County Building Inspection Services Department administers the County's Building Ordinance, which adopts the International Building Code (as required by the State of South Carolina), and sets out any additional standards above the minimum building code requirements that must be met to, and in the interest of, public health, safety, and welfare. There are several flood-related standards identified in the International Building Code, but the Code points to the FEMA regulatory standards when referencing requirements. The Charleston County Building Ordinance addresses all concerns regarding buildings, except flood requirements, which are found in the Charleston County Flood Damage and Prevention Ordinance.

The State of South Carolina requires governing local entities to adopt, by ordinance, the state-approved versions of the International Building Code series. Currently the State approved Building Code ~~in South Carolina~~ is the 2021 International Building Code (IBC) with modifications, and the 2009 Energy Code. The 2021 International Building Code has been adopted and implemented by the local governing entities since January 1, 2023.~~Currently the State approved Building Code in South Carolina is the 2015 International Building Code (IBC), and the 2009 Energy Code. The 2021 International Building Code was adopted by the State in October of 2021 and is required to be implemented in local jurisdictions by January 1, 2023. The 2018 International Building Code is currently under review by the State, and will be required to be adopted by the local governing entities within six months after receiving notification of the approval.~~

DRAFT

The International Building Code series provides best practices to protect the public health, safety, and general welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings, structures, and certain equipment. In Charleston County, a series of processes are in place that require a building plan review in order to check for compliance with the applicable building codes in effect. In addition, during this review, plans are reviewed for compliance with the local flood ordinance and FEMA standards for buildings located within the Special Flood Hazard Area, such as freeboard requirements, venting requirements and systems, and wet or dry floodproofing, among others.~~In addition, during this review, plans are also reviewed for compliance with FEMA standards for buildings located within the Special Flood Hazard Area, such as freeboard requirements, venting requirements and systems, wet or dry floodproofing, among others.~~

FEMA Flood Insurance Rate Maps (FIRM)

The Federal Government requires the adoption and maintenance of Flood Insurance Rate Maps (FIRM) by communities in order to participate in the National Flood Insurance Program (NFIP). These maps are tools for communities to not only identify the area's flood zones, but also provide information to citizens in evaluating their risks. These maps are updated periodically by either the introduction of new technology or due to the needs of a community. The process of updating these maps can be very costly, and for a community the size of Charleston, it is a lengthy process. After a private consultant prepares new map updates, the community is provided with a period of time to review the maps and submit any comments or appeals. The appeals can come from citizens or jurisdictions. If appeals are submitted, they are reviewed and will be further processed if the claim is based on quantifiable data. It is the responsibility of the property owner to either provide a survey or an engineering analysis if the claim is stating that the new data is inaccurate. After FEMA completes its review, the jurisdiction will receive a Letter of Final Determination, and is then required to adopt the new maps within six months to maintain the community's NFIP status. Charleston County went through a process of updating the FIRM maps beginning in September of 2016. FEMA received comments and appeals from the community and reviewed the data in collaboration with the engineer that produced the maps. Charleston County adopted the new FEMA FIRM maps on January 29, 2021.~~Charleston County has been in the process of updating the maps since September 2016. FEMA received comments and appeals, and has since been reviewing the data and working with the engineer that produced the maps. The County will likely adopt the new maps sometime in 2019.~~

DRAFT

Map 3.11.4 illustrates the County's flood zones according to the currently adopted 2021 maps. More than half of the County lies within a Special Flood Hazard Area (SFHA); however, the buildable portions of the SFHA cover 45 percent of the County's total land area as of the 2021 FEMA map update.~~Map 3.11.4 illustrates the County's flood zones according to the currently adopted 2004 maps. Most of the County lies within a flood zone, or about 68 % of the land area.~~ It is imperative that Charleston County as a whole works with other departments and jurisdictions to make floodplain management a collaborative effort so that systems and strategies compliment and support one another. Flood zones know no boundaries and by joining forces, the County can best serve its citizens. In addition, because a property is located in an X Flood Zone does not mean that the property does not have a risk of flooding because the flood zone designation is only associated with a potential for an annual chance of a flood. For example, properties located within the AE Flood Zone are identified as having a one-percent annual chance of flooding. X Zones are still considered to be areas of "moderate" risks as opposed to "high risk," therefore still have the potential to flood, just not as high of a chance as those zones within the Special Flood Hazard Areas. Public education is essential to inform citizens about what flood zones mean and how they can be affected by varying factors.

The Special Flood Hazard Area (SFHA) is the area that will be inundated by the flood event having a one-percent chance of being equaled or exceeded in any given year. This is also referred to as the "base flood" or "100-year flood." SFHA's are labeled as Zone A, AO, AH, A1-A30, AE, A99, AR, AR/AE, AR/AO, AR/A1-A30, AR/A, V, VE, and V2-V30. These are considered to be high hazard areas, and have additional building code and flood requirements. Moderate flood hazard areas are labeled B or Shaded X, and have a 0.2 percent annual chance of flood or also known as the 500-year flood. The area of minimal flood hazard, called Zone X, or C, are outside the SFHA and have a higher elevation than the 0.2 percent annual chance flood area.

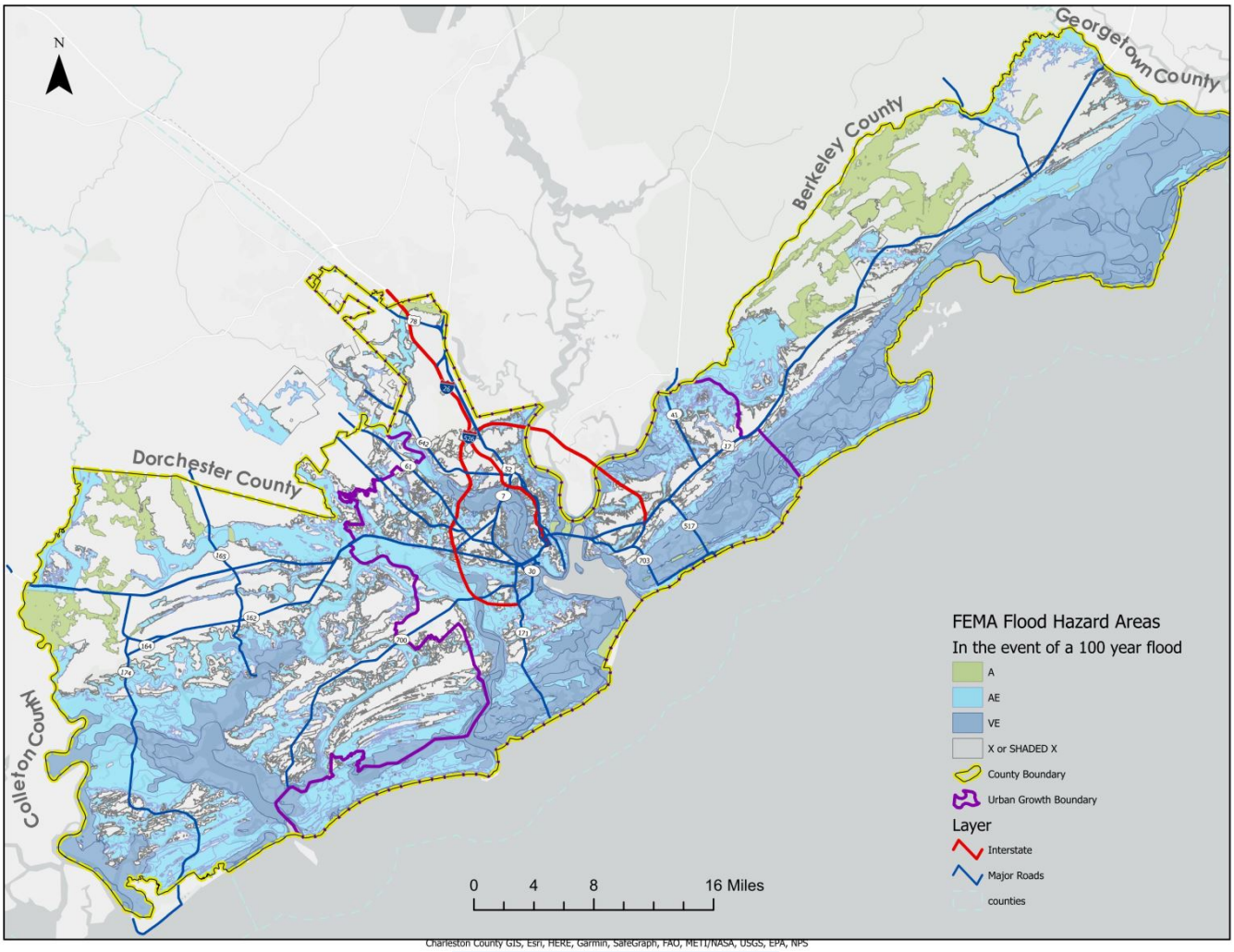
Charleston County Flood Damage and Prevention Ordinance

One major step in ensuring compliance with FEMA flood regulations is in the adoption of a flood ordinance by local jurisdictions. It is required for communities to participate in the National Flood Insurance Program. The purposes of this Ordinance, also called the "Flood" Ordinance, is to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. These provisions are designed to restrict or prohibit uses which are potentially in danger and vulnerable to water or erosion hazards, or which result in damaging increases in erosion or in flood heights and velocities. This ordinance also requires that structures vulnerable to flooding be protected against flood damage. Some examples of how the Ordinance can accomplish this is by implementing a minimum freeboard at which a building must be elevated or protected above the base flood elevation; requiring hydrostatic venting systems, dry or wet floodproofing techniques on commercial building, among several others.

Some ways that the Flood Ordinance ensures building protection against flood damage is by requiring building plans be reviewed for compliance with the Flood Ordinance prior to building permits being issued. During this review, the Department is looking for things such as breakaway wall certification from a design professional, elevation of mechanical systems, and reviewing the height at which the lowest floor is designed.

DRAFT

Map 3.11.4 Charleston County FEMA Flood Hazard Areas



Map dated January 27, 2023

After a permit is issued and construction has begun, building inspectors will inspect the building to ensure that the requirements approved on the plans are also actually implemented during construction. All of the requirements must be met or corrected before a Certificate of Occupancy is issued.

Additional objectives of the ordinance help to minimize the expenditure of public money for costly flood control projects, minimize the need for rescue and relief efforts associated with flooding, minimize prolonged business interruptions, and to help maintain a stable tax base by providing for the sound use and development of flood prone areas in such manner as to minimize flood blight areas. And finally, to ensure that potential homebuyers are notified that property is in a flood zone.

Just as the Building Ordinance requires some additional standards above those outlined in the International Building Code, the Flood Ordinance provides an avenue for the County to legally require flood protection measures above and beyond minimum standards as set forth by FEMA regulations. The County's Flood Ordinance, adopted on November 23, 2004, is where any existing higher regulatory standards can be found, as well as where any additional regulations can be implemented; such as requiring an increased minimum freeboard, requiring minimum flood standards for properties located in the X Flood Zone, requiring additional site plan review, etc. The Flood Ordinance was recently updated to reflect 2021 FEMA flood maps and to clarify code requirements. The ~~Flood Ordinance is expected to be updated next when the new FEMA flood maps go into effect sometime within the next year.~~

Resilient Roads

The Titanium Dioxide Pilot Program is a pavement preservation treatment that not only helps to extend the life of asphalt, but also helps to improve the environment around it. In testing completed by Texas A&M Transportation Institute, harmful vehicle exhaust that travels above the roadway was reduced by 38%, eliminating nearly all roadway microplastic debris while also making the road surface four times more reflective to help reduce heat island impacts. Heat islands are urbanized areas that experience higher temperatures than outlying areas. Heat islands create higher energy demand in the area due to elevated temperatures from heat absorbed by buildings, roads and other infrastructure and re-emitted into the environment more than natural landscapes that cause higher energy demand. This pavement management process is like applying sunscreen to the road surface that also reduces the harmful chemicals released into the environment. The treatment is sprayed on wet and goes onto the road surface as a yellowish white liquid, but the color fades as it soaks into the pavement. In the pavement plan, TST 2022 Rejuvenation Plan, 31 roads have been or will be treated with this product.

In addition, Charleston County Public Works has installed 1.56 miles of pervious pavement across the County, seen in Table 3.11.1. This has allowed the County to pave roads with a smaller disturbed area, minimizing stormwater design, avoiding utility relocation, and avoiding right-of-way impacts. With the large number of earth roads located within Charleston County, there is a great opportunity to improve access to citizens with less impacts.

Table 3.11.1, Pervious Pavement Installation

Road	Miles
Trexler Avenue	0.434
Lemontree Lane	0.117
Judge Road	0.08
Joseph White Road	0.402
Jeffrey Drive	0.212
Ben Road	0.066
Victory Lane	0.249

Table 3.11.1, Pervious Pavement Installation	
Road	**Miles**
Total	**1.56**
Source: Charleston County Public Works Table dated March 2023	

Repetitive Loss Properties

Repetitive loss properties are classified by FEMA as any insurable building for which two or more flood insurance claims of more than $1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year time period, since 1978. The property may or may not be currently insured by the NFIP. Structures that flood frequently strain the National Flood Insurance Fund, draining the funds needed to prepare for catastrophic events. The primary objective of the Repetitive Loss identification program is to eliminate or reduce the damage to property and the disruption to life caused by repeated flooding of the same properties. There have been a number of efforts aimed at reducing the risks, one of which is providing the FEMA post-disaster Hazard Mitigation Grant Program (HMGP) projects, which has funded the mitigation of nearly 3,000 properties nationwide. Also the Flood Mitigation Assistance (FMA) Program offers monetary assistance to homeowners that mitigate their properties to reduce the impacts of flooding. Once mitigation efforts have been completed, the property owner may request for the property to be removed from the list.

Severe repetitive loss properties are classified as properties having four or more claims of more than $5,000 each or two or more separate claims where the total dollar amount of the payments exceeds the current value of the property. Both situations must have occurred within a ten-year period. Similar to the grants mentioned above, there are additional funding options for property owners to alleviate some of the mitigation costs.

Due to privacy restrictions, these lists are not available to the public and there are currently no requirements regarding disclosure when such properties are for sale to inform potential buyers of the known risks.

As of ~~May 2018~~September 2022, there were 1~~5~~229 properties on the Repetitive Loss list in Unincorporated Charleston County and the following jurisdictions: Town of Awendaw, Town of Hollywood, Town of James Island, Town of Lincolnville, Town of Meggett, Town of Ravenel and Town of Seabrook Island. These jurisdictions are currently served by the County's floodplain management program through intergovernmental agreements. FEMA confirmed that one property was successfully mitigated via structure elevation completed in 2022.

DRAFT

CONCLUSION

The scope of resilience goes far beyond the topics covered in this Element, and the County will continue to work to introduce additional areas of concern, causes, and potential solutions over time to help create a more resilient Charleston County. ~~The topic of resilience is incorporated covered in other Elements of this Comprehensive Plan, as well, and during the next scheduled review of the Comprehensive Plan in its entirety, these topics will be consolidated and evaluated.~~



Photo: Charleston County Public Information Office

3.11.3: RESILIENCE ELEMENT GOAL

Charleston County will prioritize resilience, including resilience to stormwater events and rising sea levels and protection of natural defenses such as wetlands, woodlands, and floodplains, in all County plans, policies, and regulations to ensure the long-term survival of the community.

Resilience Element Needs

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

- Improving the County's ability to handle and recover from sudden emergencies, as well as more persistent issues.
- Determining areas that are of the highest risk, evaluating development intensity regulations for these areas, and prioritizing projects in these areas.
- Strengthening partnerships with surrounding jurisdictions to combat issues that cross jurisdictional boundaries.
- Educating the public about their role in building resilience and how to recover.
- Continuing to review ~~Review~~ and consolidate resilience-related efforts detailed in other Elements of this Plan during subsequent reviews and



Photo: Charleston County Public Information Office

DRAFT

updates ~~the next five-year update~~, which may include, but not be limited to, advanced study and audit of existing facilities and programs.

3.11.4: RESILIENCE ELEMENT STRATEGIES, ACTION ITEMS AND TIME FRAMES

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

RE.1 Coordinate resilience-related efforts within the County and across jurisdictional boundaries.

ACTION ITEM: ~~Identify a~~Under the expertise of the Resilience Officer, continue to identify ~~and~~ resources to implement strategies, administer programs, pursue funding opportunities, and provide standards to coordinate resilience-related efforts of County Departments, municipalities and adjacent jurisdictions, applicable regulatory agencies, and regional partners.

ACTION ITEM: Continue to ~~i~~dentify and pursue amendments to existing County policies and regulations including, but not limited to, the Floodplain Management Program, Hazard Mitigation Plan, Stormwater Ordinance, Building Ordinance, and Zoning and Land Development Regulations Ordinance, to improve the County's resilience towards long-term stresses and acute disasters, using the best data available to inform decisions.

ACTION ITEM: Amend applicable County ordinances to address the Community Rating System (CRS) standards not currently addressed by the County, including, but not limited to:

- Requiring low-impact development design Best Management Practices such as non-structural flood protection techniques that can mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources in applicable areas;
- Increasing the freeboard in Special Flood Hazard Areas;

ACTION ITEM: Work with adjacent jurisdictions ~~to secure funding~~ to perform a regional vulnerability, risk, and resilience assessment and watershed assessment, ~~both of which should include~~and implement~~ation~~ strategies.

ACTION ITEM: Continue to a~~A~~mend County regulations and policies to implement the strategies of the regional vulnerability and watershed assessments.

ACTION ITEM: Continue to create, implement, maintain and assist in public information programs in order to educate citizens about resilience practices including, but not limited to, assisting business owners with developing Continuity of Operations Plans; educating the public, including children, about contributing factors related to flood risks, sea level rise, and ways to reduce environmental impacts; creating targeted messaging that is understood at all educational levels, ages and nationalities, so that the public can be better informed; and incorporating K-12 educational efforts to promote resilience, mitigation and disaster preparedness at the school-aged level.

ACTION ITEM: Continually monitor local, state, federal, and private initiatives and recommendations regarding resilience.

ACTION ITEM: Continue to coordinate with municipalities to reduce waste and duplication of efforts, and investigate diversion strategies in

- Implementing freeboard requirements in X Zones;
- Increasing minimum lot size requirements in low density zoning districts (in the Rural Area);
- Prohibiting filling of land where determined to create or exacerbate flooding, whether the land is in a flood zone or not;
- Increasing OCRM Critical Line buffer requirements;
- Requiring additional review of flood hazards during the Site Plan Review process;
- Enacting transfer and/or purchase of development rights programs through Intergovernmental Agreements with other jurisdictions to provide incentives for low levels of development within the Special Flood Hazard Areas; and
- Requiring compensatory storage of stormwater in new development/re-development, where applicable.

order to limit impacts on the environment.

ACTION ITEM: Utilize the knowledge gained from the COVID-19 Pandemic to maintain and enhance resilience towards health-related disasters.

ACTION ITEM: ~~Investigate the feasibility of limiting development in areas prone to flooding.~~ Investigate the feasibility of elevation-based zoning to limit development in areas prone to flooding and identify areas more appropriate for increased density based on flood zones.

RE.2 Develop, adopt, and implement a Drainage Master Plan and sea level rise strategies that are coordinated with adjacent jurisdictions through the All-Hazards Vulnerability and Risk Assessment.

ACTION ITEM: ~~Create an~~Continually monitor the County's asset management plan to identify existing drainage easements and structures, including ownership, and ensure their maintenance and longevity.

ACTION ITEM: Identify additional Best Management Practices to be utilized in areas as specified by the Drainage Master Plan.

ACTION ITEM: Identify where drainage easements and/or structures are needed and coordinate with property owners and/or jurisdictions to obtain the easements, construct the improvements, and maintain the improvements.

ACTION ITEM: Develop, adopt, and implement resilience strategies for capital expenditures for existing and new infrastructure.

DRAFT

PART 4: ADDITIONAL RESOURCES & REFERENCES

Contents:

CHAPTER 4.1 DEFINITIONS
CHAPTER 4.2 INDEX OF RESOURCES

DRAFT

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

DRAFT

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.

Green Infrastructure

An approach to water management that protects, restores, or mimics the natural water cycle. Green infrastructure incorporates both the natural environment and engineered systems to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife. Green infrastructure solutions can be applied on different scales, from the house or building level, to the broader landscape level. On the local level, green infrastructure practices include rain gardens, permeable pavements, green roofs, infiltration planters, trees and tree boxes, and rainwater harvesting systems. At the largest scale, the preservation and restoration of natural landscapes (such as forests, floodplains, and wetlands) are critical components of green infrastructure. (American Rivers)

Greenbelt

DRAFT

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 sec- tor 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, exclusive of imperious surfaces, 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. ~~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

DRAFT

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).

DRAFT

CHAPTER 4.2 INDEX OF RESOURCES

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.

- Charleston County Comprehensive Plan Implementation Toolbox
- Charleston County Demand Analysis 2007
- Charleston County Capacity Analysis 2008
- Charleston County Greenbelt Plan 2006
- DuPont | Wappoo Community Plan
- Parkers Ferry Community Plan
- Sol Legare Community Plan
- Summary of Public Comments
  - October 2007
  - February 2008
  - July 2008
  - Summer 2014
  - April 2018

DRAFT

Berkeley-Charleston-Dorchester Council of Governments. 2018. *Berkeley County Comprehensive Plan Update 2010.* Charleston: Berkeley-Charleston-Dorchester Council of Governments.

Berkeley-Charleston-Dorchester Council of Governments. 2018. *Dorchester County Comprehensive Plan Update 2008.* Charleston: Berkeley-Charleston-Dorchester Council of Governments.

Berkeley-Charleston-Dorchester Council of Governments. 2005. *Growth Indicators in the Berkeley Charleston Dorchester Region.* Charleston: Berkeley-Charleston-Dorchester Council of Governments.

Berkeley-Charleston-Dorchester Council of Governments. 2018. *Town of Awendaw Comprehensive Plan*. Charleston: Berkeley-Charleston-Dorchester Council of Governments.

Berkeley-Charleston-Dorchester Council of Governments. 1999 and 2006. *Town of McClellanville Comprehensive Plan*. Charleston: Berkeley-Charleston-Dorchester Council of Governments.

Berkeley-Charleston-Dorchester Council of Governments. 2017. Walk+Bike BCD 2017. North Charleston: Berkeley-Charleston-Dorchester Council of Governments.

Berkeley Charleston Dorchester Council of Governments. 2018. *Berkeley-Charleston-Dorchester Water Quality Management Plan 2011 Update*. North Charleston: Berkeley Charleston Dorchester Council of Governments.

Charleston Area Regional Transportation Authority. <https://www.ridecarta.com>.

Charleston Business Journal. http://www.charlestonbusiness.com/

Charleston County Aviation Authority. <https://www.iflychs.com/AviationAuthority>.

Charleston County Planning Department. 2001. *Charleston County Settlement Areas Study.* North Charleston: Charleston County.

Charleston County School District. 2006. *School Capacity Study*. North Charleston: Department of Facilities Improvements.

"Charleston County School District". <http://www.ccsdschools.com/>.

Charleston Metro Chamber of Commerce. 2007. *Economic Forecast Charleston Region, South Carolina*. Charleston: Charleston Metro Chamber of Commerce.

Charleston Metro Chamber of Commerce. <http://www.charlestonchamber.net/>

Charleston Regional Development Alliance. <http://www.crda.org/> (accessed 23 July 2008).

Charleston Trident Association of Realtors. *Charleston-Trident Housing Market Annual Reports, 2011-2016*.

City of Charleston. Unknown. *City of Charleston Century V City Plan*. Charleston: City of Charleston.

City of North Charleston. 2016. *Comprehensive Plan*. North Charleston: City of North Charleston.

City of Charleston. 2007. *Johns Island Community Plan*. Charleston: City of Charleston, Department of Planning, Preservation and Economic Innovation.

Cost of Living Index. 2016. <www.C2ER.org>.

Edisto Island Study Committee. 1985. *Edisto Island Land Use Policy Recommendations*. Edisto Island: Town of Edisto Island.

"Growing by Choice or Chance" (2003). Available from: The Urban Land Institute.

Isle of Palms Planning Commission. 2015. *Comprehensive Plan for the City of Isle of Palm, South Carolina*. Isle of Palms: City of Isle of Palm.

Municipal Association of South Carolina. 2006. *Comprehensive Planning Guide for Local Governments*. Columbia: Municipal Association of South Carolina.

National Park Service. 2005. *Low Country Gullah Culture – Special Resource Study and Final Environmental Impact Statement*. Atlanta: Southeast Regional Office.

Page and Turnbull, Inc. 2007. *Charleston Preservation Plan*. San Francisco: Page and Turnbull, Inc.

South Carolina Department of Employment and Workforce, Unemployment Rates, 2000-2015.

South Carolina Department of Employment and Workforce, Economic Sector Composition, 2000-2015.

South Carolina Department of Revenue and Fiscal Affairs, Population Projections through 2030, accessed in 2018.

South Carolina Department of Health and Environmental Control - Vital Records Department, Population Counts and Projections, 2000- 2030.

Town of Ravenel. Unknown. *Town of Ravenel Comprehensive Plan*. Ravenel: Town of Ravenel.

South Carolina Office of Regulatory Staff - Energy Office. 2016. *South Carolina State Energy Plan*.

Town of Edisto Beach and Lowcountry Council of Governments. 2010. *Town of Edisto Beach Revised Comprehensive Plan*. Yemassee: Lowcountry Council of Governments.

Town of Hollywood. 2015. *Town of Hollywood Comprehensive Plan Update*. Hollywood: Town of Hollywood.

Town of James Island. 2015. *Comprehensive Plan Town of James Island*. James Island: Town of James Island.

Town of Kiawah Island. 2015. *Town of Kiawah Island Comprehensive Plan*. Kiawah Island: Town of Kiawah Island.

Town of Lincolnville. 2006. *Lincolnville Comprehensive Plan Update*. Lincolnville: Town of Lincolnville.

Town of Meggett. 2014. *Town of Meggett Comprehensive Plan 5-Year Review*. Meggett: Town of Meggett.

Town of Mount Pleasant. 2014. *Comprehensive Plan Update*. Mount Pleasant: Department of Planning and Development.

Town of Mount Pleasant. 2007. *Annexation Policy*. Mount Pleasant: Department of Planning and Development.

Town of Mount Pleasant. 2007. *Long Range Transportation Plan Update*. Mount Pleasant: Department of Planning and Development.

Town of Rockville. 2009. *Town of Rockville Comprehensive Plan*. Rockville: Town of Rockville.

Town of Seabrook Island. 2015 *Town of Seabrook Island Comprehensive Plan*. Seabrook Island: Town of Seabrook Island.

Town of Sullivan's Island. 2014. *Town of Sullivan's Island*. Sullivan's Island: Town of Sullivan's Island.

Town of Summerville. 2011. *Summerville Tomorrow Comprehensive Plan 1999*. Summerville: Town of Summerville.

United States Census Bureau, American Community Survey Five-Year Estimates, 2011-2015.

United States Census Bureau, Dicennial Census, 1990, 2000, and 2010.

United States Department of Labor - Bureau of Labor Statistics, Employment and Wage Data, 2000-2015.

United States Energy Information Administration (EIA) and Department of Energy (DOE). <https://www.eia.gov/>.

Wadmalaw Island Planning Committee. 1988. *Wadmalaw Island Planned Development Guidelines*. North Charleston: Charleston County.

APPENDIX A CHARLESTON COUNTY IMPLEMENTATION TOOLBOX

An Appendix to the Charleston County Comprehensive Plan

Contents:

INTRODUCTION/PREFACE
1. PLANNING AND LAND USE STRATEGIES
2. LAND USE AND PUBLIC FACILITIES LINKAGE AND FISCAL SUSTAINABILITY
3. INTERJURISDICTIONAL COOPERATION
4. RURAL PRESERVATION
5. DEVELOPMENT QUALITY, TRANSITIONAL, MIXED USE

DRAFT

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 PRIORITY RECOMMENDATIONS 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, that warrant additional study and planning. These areas were identified in the Priority Investment, Implementation, and Coordination Element as "Priority Recommendations." The Implementation of the recommendations for further planning can be carried out in the short to mid-term. Each project 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, known as the Annual Work Plan.

The Zoning and Land Development Regulations Ordinance will be used to implement many of the strategies in the Annual Work Plan in combination with public service provisions and transportation planning. Many of the projects included in the Work Plan require coordination with municipalities or service providers. In these instances, the County is encouraged to adopt Intergovernmental Agreements to ensure project goals are agreed upon and accomplished and public services are provided.

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
   iii. Form-Based 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 is important that the *Zoning and Land Development Regulations Ordinance* is evaluated frequently 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*

DRAFT

The South Carolina Local Government Comprehensive Planning Enabling Act of 1994, as amended (Planning Act) authorizes local governments to utilize zoning and planning techniques (not limited to those found in the Planning Act) for implementation of the goals specified in S.C. Code Ann. Section 6-29-720 (2007). Charleston County Council has established a zoning and planning technique called a "Planned Development" zoning district. The "Planned Development" zoning district incorporates provisions of the planning technique called "planned development district" referred to in the Planning Act. A "Planned Development" is a type of zoning district (PD) and a type of development plan. PD zoning districts are inextricably linked to Planned Development plans, in that no rights of development apply to a PD zoning designation other than those of the approved Planned Development plan. The existing PD zoning district regulations are intended to encourage achievement of the goals of the *Charleston County Comprehensive Plan* and to allow flexibility in development of property that proposes a single or multiple use(s) that will result in improved design, character, and quality of new or redesigned developments; innovative site planning; conservation of natural and cultural resources; preservation of natural and scenic features of open spaces; and efficient use and provision of public facilities and services in order to accomplish the Purpose and Intent of the *Comprehensive Plan.* There can be mutual benefits 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. PDs 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.

- **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 per dwelling unit 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. In the Rural Area, density bonuses may also be allowed for PDs 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

DRAFT

this Plan. ~~If at least 50 percent of the PD is permanently protected Common Open Space, 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 may be permitted (example calculation: number of dwelling units permitted under the maximum density multiplied by 1.2). 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) may also be permitted, if 50 percent of the development is permanently protected Common Open Space (example calculation: number of dwelling units permitted under the base density multiplied by 2.2).~~

- **Affordable Housing.** Density bonuses beyond the maximum density of the recommended future land use designation may be approved when affordable housing units are included.
- **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.

iii. *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.

DRAFT

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.

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 155);
- A historic and archeological resource study;

DRAFT

- 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.

DRAFT

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.

DRAFT

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 handful 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 Ordinanc*e and 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* establishes protocol for submission requirements and review of Developments of County Significance. The following outlines an application, process, and criteria, which is also addressed in the *Zoning and Land Development Regulations Ordinance*.

DRAFT

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 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;
- 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

DRAFT

- Emergency evacuation plans.

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 "Priority Recommendations" and implemented through the Council-approved Annual Work Plan.

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*.

DRAFT

iii. *The Charleston County Transportation Development Department and Half-Cent Sales Tax Programs*

Charleston County voters approved two Half-Cent Sales Tax programs, one in 2004 and one in 2016, to fund the costs of highways, roads, streets, bridges, and other transportation-related projects and drainage facilities. Funds also support the County's Greenbelt Program and Charleston Area Regional Transportation Authority (CARTA). These programs are 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 adopted a County Stormwater Management Plan in 2014.

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 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.

DRAFT

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 (UGB), 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), policies 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 and service providers 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 (CIP)
B. Impact Assessments
C. Adequate Public Facilities Ordinance (APFO)
D. Funding Tools

A. Capital Improvement Program(s)

A Capital Improvement Program (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.

DRAFT

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;

DRAFT

- 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 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.

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;
- Estimation of the capital improvement needs to accommodate new growth and development and their costs over a five 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 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.

DRAFT

---

[1] Level of Service is a term used to describe a benchmark or standards against which the provision of a service can be measured. 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.

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 pursue 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 on 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.

DRAFT

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 20 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 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.

DRAFT

[2] Description of Fiscal Impact Analysis provided by TischlerBise Associates, Inc.

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.

DRAFT

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;

DRAFT

- 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.

---

[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.

DRAFT

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 50.8 mills (25% of the county-wide millage). On top of the County millage, the School Board charges 119.2 mills (58% of the county-wide millage).

DRAFT

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. A second Half-Cent Transportation Sales Tax was approved by voters in 2016.

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.

DRAFT

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 facilities 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:

DRAFT

- 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*

DRAFT

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 (UGB).

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.**

A. Urban Growth Boundary (UGB)

DRAFT

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 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 UGB ~~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

DRAFT

Service provision agreements are 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 interjurisdictional cooperation may be through intergovernmental contracts or agreements. This approach is a flexible, yet predictable method of interjurisdictional 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.))

DRAFT

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

DRAFT

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 subsequent reviews and updates have recognized these public goods.

To these ends, the County has made a number of policy and regulatory decisions. These have included establishing 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

DRAFT

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 (repair, 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, subject to performance standards

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. *Figure A.1* illustrates conservation design. 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. Conservation subdivisions/clustering and connectivity through existing neighborhoods should be coordinated with and supported by existing residents. The actual process of designing a conservation subdivision typically involves the following four basic steps:

Step 1: Resource Analysis/Mapping

DRAFT

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).

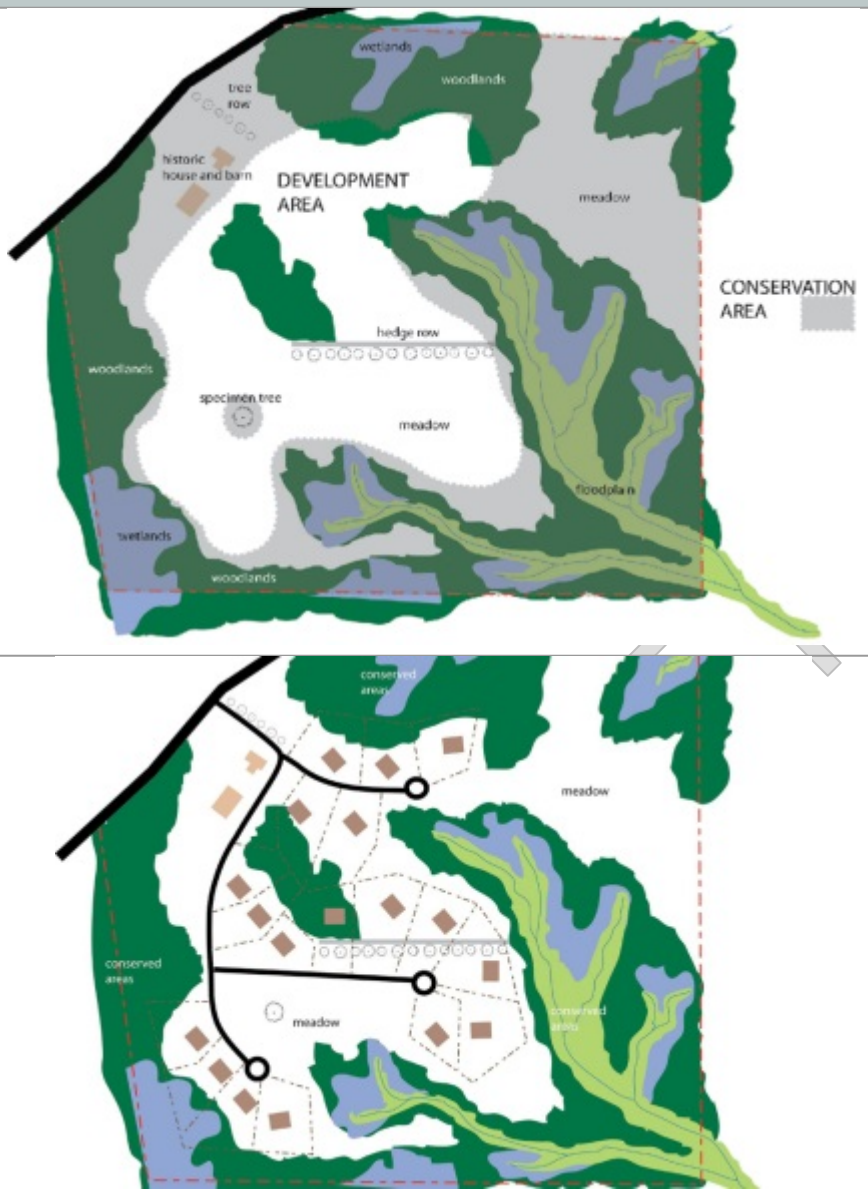
Step 4: Submission of Conservation Design Plan

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.

The County allows conservation subdivisions in Rural Residential (RR~~-3~~) and Agricultural Preservation (AG-8) Zoning Districts.

DRAFT

Figure A.1: 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.

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:

DRAFT

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

DRAFT

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 strategies to influence the quality of development. To implement these strategies, 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**

DRAFT

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 be addressed. 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;

DRAFT

- Connected Open Space;
- Building Orientation - primary entrances should face streets not internal site areas or parking lots; and
- 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.

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.

DRAFT

- **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.

DRAFT

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 a historic pattern that 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).

DRAFT