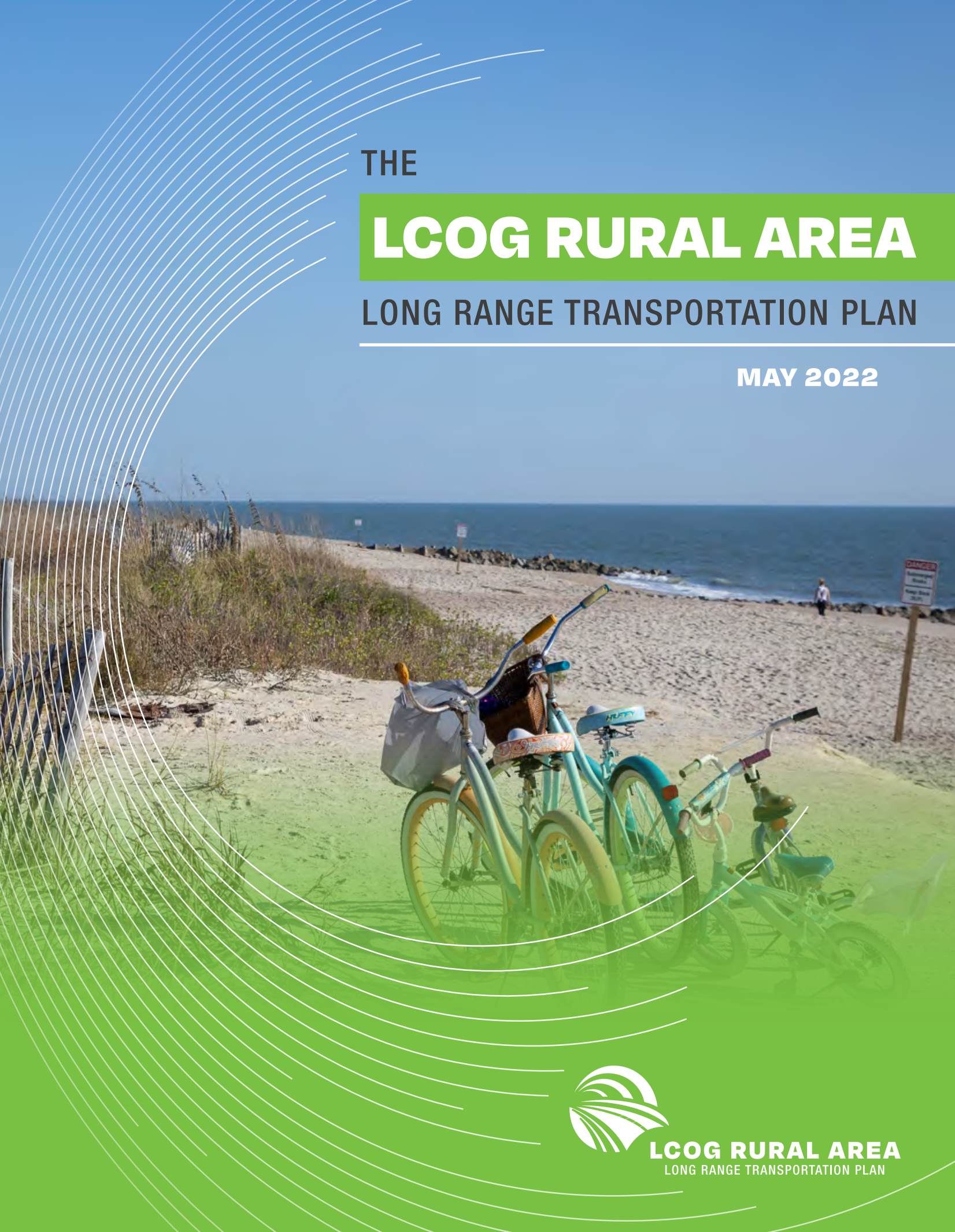


THE

LCOG RURAL AREA

LONG RANGE TRANSPORTATION PLAN

MAY 2022



LCOG RURAL AREA
LONG RANGE TRANSPORTATION PLAN



Serving **Beaufort • Colleton • Hampton • Jasper Counties**

**RESOLUTION ADOPTING
THE 2045 LONG RANGE TRANSPORTATION PLAN FOR THE
LOWCOUNTRY RURAL AREA**

WHEREAS, the Lowcountry Council of Governments (LCOG) conducts rural transportation planning activities for the four county Lowcountry region including Hampton, Jasper, Colleton and Beaufort counties; and

WHEREAS, the Lowcountry Council of Governments, in accordance with state and federal requirements maintains the region's Rural Long Range Transportation Plan, a twenty-plus year plan for federally- funded highway, transit and non-motorized projects for the rural planning area and the Rural Transportation Improvement Program; and

WHEREAS, current regulations require that the Lowcountry Area Transportation Study in cooperation with participants in the planning process, develop and update the Rural Long Range Transportation Plan (LRTP) every five years; and

WHEREAS, the staff of the Lowcountry Council of Governments and the South Carolina Department of Transportation have reviewed the organization and activities of the planning process and found them to be in conformance with the requirements of law and regulations; and

WHEREAS, the locally developed and adopted process for public participation has been followed in the development of the LCOG 2045 Rural LRTP; and

WHEREAS, the LCOG, in accordance with state and federal requirements for a Long Range Transportation Plan, has developed a twenty-plus year plan for highway, transit and non-motorized projects for the Lowcountry rural area; and

WHEREAS, the LCOG 2045 Rural LRTP is consistent with all plans, goals and objectives of LCOG, and shall be updated at least every five years with revisions to reflect changes in program emphasis and anticipated funding availability; and

NOW, THEREFORE BE IT RESOLVED, that the Lowcountry Council of Government's Board of Directors adopts the attached LCOG 2045 Rural LRTP on this the 26th, day of May 2022.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Lowcountry Council of Government's Board of Directors at the meeting held on May 26th, 2022.

John Carroll, Chair

Stephanie Rossi, Planning Director

Lowcountry Council of Governments

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Acknowledgements

The Lowcountry Council of Governments thanks the participants whose input was instrumental to understanding needs and priorities related to a safe, multimodal, and interconnected transportation system for the region's rural area. The *2045 Lowcountry Council of Governments Rural Area Long Range Transportation Plan (2045 LCOG Rural Area LRTP)* reflects the collaborative spirit of the public, stakeholders, local staff, and elected officials who came together with the shared goal of improving access to opportunity and quality of life that comes with better transportation options. The efforts of everyone are greatly appreciated.

Photo by Paul Nurnberg

Chapter 1 | Purpose and Process

Introduction

The people who live in rural areas have a unique reliance on the network of streets and highways of a mostly dispersed transportation network. The network connects people to jobs and the regional economy. It provides a lifeline to daily necessities ranging from healthcare to services to groceries and other goods and it informs the way of life people in these areas have become accustomed to. Planning for transportation in a rural setting is quite different than planning for those needs in an urban area, particularly given the limited funding for costly improvements.

The 2045 Lowcountry Area Council of Governments (LCOG) Rural Area Long Range Transportation Plan (LRTP) includes ways to create a more resilient rural transportation network that considers existing and future needs. The plan is not a federally required financially constrained plan, but it maintains an awareness of federal direction for transportation planning and funding limitations that extend into the Rural Area.

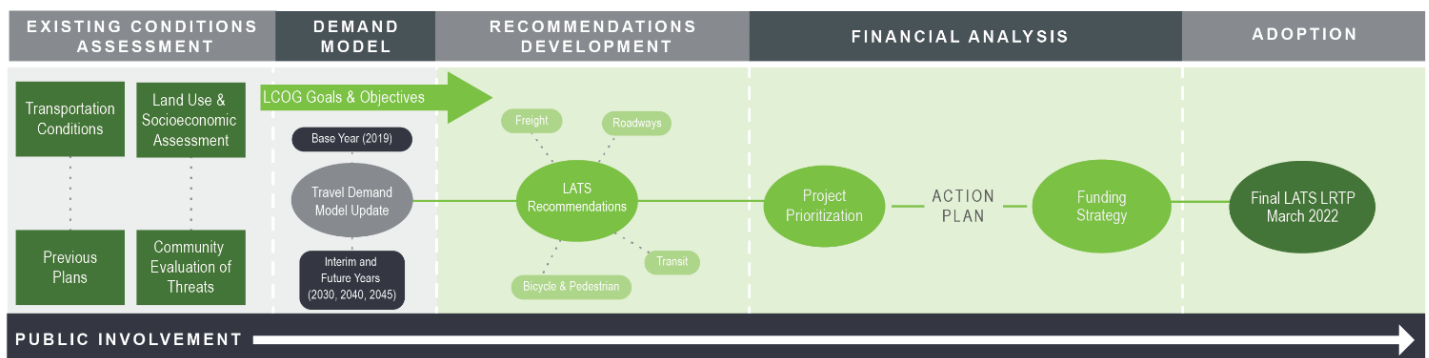
The urbanized areas of Beaufort and Jasper Counties undergo a separate, financially constrained transportation planning process via the Lowcountry Area Transportation Study (LATS) Metropolitan Planning Organization (MPO). LCOG assists the South Carolina Department of Transportation (SCDOT) in the long-range planning of transportation improvements in the Rural Area such as highways, public transit, and multimodal facilities. Using the long-range plan, LCOG can identify regional opportunities to invest its resources and address critical transportation needs.

Background

The Lowcountry Council of Governments is one of ten councils in South Carolina which connect local governments to programs at the State and Federal levels. LCOG coordinates with four counties: Beaufort, Colleton, Jasper, and Hampton, along with their 25 municipalities, to coordinate growth and planning on a regional scale. The study area for the 2045 LCOG Rural Area LRTP includes the rural portions of Beaufort and Jasper Counties, all of Hampton and Colleton Counties, and the 20 cities and towns in this area.

The Planning Process

The 2045 LCOG Rural Area LRTP was developed in concert with the 2045 LATS LRTP and included the time and energy of stakeholders, local staff, LCOG staff, and hundreds of residents from across the planning area. This input was critical to creating a plan that reflects the values and addresses the needs of the Rural Area. The process started with an assessment of the current transportation network, socioeconomic conditions, and existing planning efforts. Planning goals that spanned the urban and rural areas were vetted through the engagement process and guided the development of the long range plans. The 2045 LCOG Rural Area LRTP provides multimodal recommendations to ensure that the programming of transportation dollars will satisfy the diverse interests of a growing region.





Community Outreach

LCOG staff and the project team engaged the public throughout the planning process in a variety of ways. The following sections outline how community engagement was pursued. The details of each outreach activity can be found in the Appendix.



Technical Advisory Committee

The Technical Advisory Committee—or TAC—includes LCOG staff, local officials, and local and state agency representatives. The TAC helped establish and inform the existing conditions, refine the plan’s goals, and confirmed the direction for recommendations development.

LCOG Board of Directors

The LCOG Board of Directors, the decision-making body for the long range transportation plan, consists of representatives from LCOG counties and municipalities. The LCOG Board provided feedback representing their constituents and approved the final LRTP.

Stakeholder Interviews

Information was gathered through discussions with stakeholders, including a session on September 2, 2021 with staff and elected officials from the Lowcountry Rural Area. Other stakeholder meetings (focused on specific groups such as staff, electees, and bicycle and pedestrian planning) during the joint process with the *2045 LATS LRTP*.

Public Workshop

The public workshop for the LRTPs was held on September 8, 2021 both in-person and virtually. The workshop provided information on the planning process, demographic conditions, and transportation trends. Participants provided input through activities and facilitated discussion. The workshop was designed to mirror information collected in the online survey.



Online Survey

An interactive online survey was available from September 15, 2021 to October 20, 2021 as a joint effort for the 2045 LCOG Rural Area LRTP and 2045 LATS LRTP. More than 820 participants offered input on community goals, debated investment priorities, and identified transportation projects. The survey included five interactive screens to educate the public about the long range transportation process and gather input on the plan’s development.

827
Total Responses

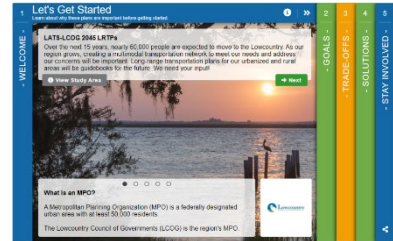
12,218
Data Points

1,298
Written Comments

72%
Participants Interested in the Rural Area LRTP

SCREEN 1 | Welcome

- Provided a brief overview and introduction to the LRTPs



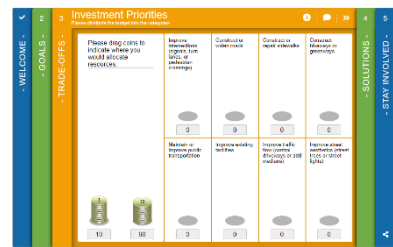
SCREEN 2 | Goals

- Asked participants to rank the six draft plan goals (More information on the plan’s goals can be found in Chapter 2: Plan Goals.)



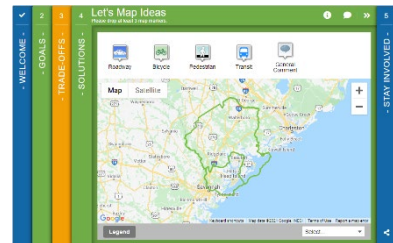
SCREEN 3 | Tradeoffs

- Asked participants to allocate \$100 to various transportation investment options
- Allowed the project team to understand the priorities when faced with limited funding
- Helped guide the types of recommendations that were proposed and eventually prioritized



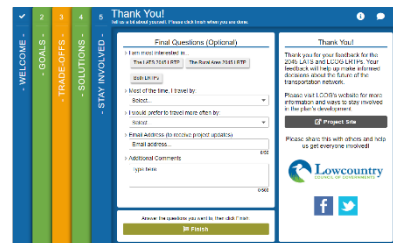
SCREEN 4 | Solutions

- Asked participants to identify potential multimodal projects (roadway, bicycle, pedestrian, transit) and provide other general comments
- Allowed the project team to identify issues and informed project recommendations



SCREEN 5 | Wrap Up

- Asked final questions about the participants interest in the LRTPs and their preferred travel
- Thanked participants for their input and directed them to the LCOG website for more information



More information on engagement activities is available in the appendix.

Recommendation Development

Document Review

The summaries below are an inventory of the previous and recently completed planning efforts around the region. The document review is chronologically organized and includes comprehensive plans, corridor studies, bicycle and pedestrian plans, feasibility studies, and transit plans. The findings and relevant recommendations from these plans were evaluated and incorporated into the *2045 LCOG Rural Area LRTP*.

Beaufort County Connects: Bicycle and Pedestrian Plan (2021)

Beaufort County Connects recognizes the existing network and growing culture of walking and biking in the county in addition to promoting the safe, equitable, and accessible expansion of active transportation throughout the region. The Beaufort County Connects plan was a regionally collaborative effort that included members from Beaufort County, the City of Beaufort, the Town of Port Royal, the Town of Bluffton, the Town of Hilton Head Island, the City of Hardeeville, Jasper County, and LCOG. The plan outlines the routes, policies, programs, and funding sources to achieve the vision for the county.

- Formally adopt a Complete Streets policy that requires all streets to be planned, designed, operated, and maintained to enable safe access for all users, including pedestrians, bicyclists, and transit riders of all ages and abilities in partnering jurisdictions.
- Provide a bicycle- and walk-friendly community for everyone.
- Create safe and comfortable pedestrian and bicycle facilities.
- Develop an education program similar to Charleston’s Bike Right, Drive Right Campaign to educate pedestrians, bicyclists, and motorists on safe and respectful sharing of the roads.
- Create a strong multimodal culture that welcomes and celebrates walking and biking.
- Plan for walking and bicycling as safe and viable transportation options.

Beaufort County Comprehensive Plan (2021)

The “Envision Beaufort County” Comprehensive Plan identifies a group strategy for the next 20 years. The plan creates a more direct link between planning for prosperity, environmental and economic resilience, equitable community services and infrastructure, and preservation of the unique place that is the Lowcountry.

- Adopt a Complete Streets policy and develop corridor master plan to enable safe access for all users including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.
- Maintain and enhance a safe, efficient, and regional road network.
- Preserve and enhance network efficiency by adopting, applying, and enforcing policies to manage access and reduce VMT.
- Promote context sensitive transportation improvements that enhance the local environment.
- Prioritize bicycling and walking to connect residents with jobs, schools, and other destinations; provide safe facilities that benefit persons of all economic statuses, ages, and abilities.
- Support the development of bus rapid transit features in high demand corridors, such as off-board fare collection.
- Create platform level boarding, dedicated lanes, and stops sheltered for public transportation.
- Upgrade the Hilton Head Island Airport and the Beaufort Executive Airport.

2021 – 2027 Rural Transportation Improvement Program – Lowcountry Council of Governments (2020)

Adopted in September 2020, the Rural Transportation Improvement Program (RTIP) is a multi-year program of proposed projects for federal, state, and local funding sources within the Lowcountry region. The RTIP must be financially constrained, meaning the amount of funding programmed cannot exceed the amount of estimated funding. Typically, the RTIP is updated every four years.

- Widen US 17 (Georgia State Line to SC 315).
- Fund and program bridge improvements in Beaufort, Colleton, and Hampton County.
- Fund and program safety improvements in Beaufort, Colleton, and Jasper County.
- Fund and program public transportation improvements in Colleton, Hampton, and Jasper County.
- Fund and program pavement and reconstruction throughout the Lowcountry.

The People and the Economy (2020)

The report offers a snapshot of socioeconomic conditions unique to the Lowcountry region, with key indicators relevant to population, housing, education, economy, public health, and crime and safety. The People and the Economy also includes a special section focusing on the COVID-19 pandemic and other emerging issues in 2020.

- Provides a snapshot of regional and local demographic conditions and trends that identify the need for transit services.

Colleton County Comprehensive Plan (2020)

The Colleton County Comprehensive Plan establishes a foundation for flexible land use policies to supplement clustered urban growth trends. The plan also allows for and encourages lower-density land usage in areas outside of its municipalities in order to enhance and protect the County's significant natural resources, rural way of life, and economic development opportunities. The Comprehensive Plan is designed to help shape the future of the county for the next ten years.

- Improve the SC 64/Walterboro Bypass and US17A to meet the county's long term transportation needs.
- Expand the airport facilities.
- Identify transportation improvements to support larger-scale development.
- Develop and maintain a transportation network that connects the workforce to jobs, industries to markets and the community to the greater region especially through the expansion of public transportation options.
- Encourage increased public transportation options, greenway, bicycle, and pedestrian connections.
- Encourage multi-lane transportation connections.



Jasper County Comprehensive Plan (2018)

The Jasper County Comprehensive Plan—Jasper’s Journey—is a long range planning document that streamlines the vision for the community and provides the strategies to achieve the community vision. Despite the ever-changing demographic characteristics, Jasper County possesses a rural character with a beautiful natural environment. The Comprehensive Plan includes an inventory of existing conditions, statement of needs and goals, and implementation strategies to address the nine elements of the community: population, economic development, natural resources, cultural resources, community facilities, housing, land use, transportation, and priority investments.

- Expand transportation infrastructure, including expansion of runways to accommodate jets and connecting existing rail lines to more transportation opportunities.
- Establish the Jasper port.
- Preserve, maintain, and enhance the existing transportation system and enhance connections between modes of transportation.
- Improve the operational efficiency of the transportation network.
- Support the economic vitality of the region by improving access to freight facilities and prioritizing transportation programs that retain existing businesses and attract new businesses.
- Protect and enhance the environment by minimizing direct and indirect environment impacts of transportation system.
- Enhance the safety of the transportation system.

Lowcountry Long Range Regional Transportation Plan (2007)

The Lowcountry Long Range Transportation Plan is a comprehensive planning document for Beaufort, Colleton, Hampton, and Jasper counties in the Lowcountry region of South Carolina. The LRTP sets the vision and goals for transportation in the region for the next twenty-five years. The plan uses the anticipated funding to financially constrain the recommendations of the LRTP.

- Improve and expand the existing transportation system to better accommodate non-motorized traffic.
- Include freight transportation planning as an integral part of all transportation planning in the Lowcountry.
- Improve bicycle and pedestrian system maintenance to ensure safety to users.
- Provide services for as many segments of the Lowcountry population as possible.
- Facilitate the development of public-private partnerships in the transit service delivery.
- Adopted level-of-service (LOS) standard for state roadways shall be “C” based on SCDOT adopted capacities.

Document Overview

The 2045 LATS LRTP is divided into the following chapters.

01

Purpose and Process

Provides an overview of the long range transportation development process

02

Plan Goals

Describes the six goals that provided direction for the LRTP

03

Social and Environmental Resources

Examines the social, demographic, and environmental conditions to be referenced during the development process of multimodal recommendations

04

Roadway

Identifies the existing and projected roadway conditions and proposes recommendations

05

Bicycle and Pedestrian

Evaluates the existing bicycle and pedestrian network and outlines the various types of facilities to be considered in the study area

06

Public Transportation

Inventories the existing public transportation system and leverages new opportunities

07

Freight and Aviation

Reviews relevant data and inventories existing facilities to address intermodal connectivity gaps

08

Conclusion

Evaluates the potential funding priorities and describes the implementation methods for recommendations

Chapter 2 | Plan Goals

Introduction

The first step in developing a long range transportation plan is to establish a set of goals to provide direction for the plan. The *2045 LCOG Rural Area LRTP*'s guiding statements reflect the community's vision for the transportation system.

Goals

The goals were developed to address the regional transportation needs with specific emphasis on the rural context. The goals are not mutually exclusive of each other and often overlap with one another. The combined impact of each project on the plan's goals must prove to be significantly beneficial before it is incorporated into the long range transportation plan. The *2045 LCOG Rural Area LRTP* goals are listed below. The goals match the goals of the *2045 LATS LRTP* but are tailored to meet the unique needs and context of the Rural Area.

Subsequent chapters of the *2045 LCOG Rural Area LRTP* show how these goals relate to efforts to improve the Roadway, Bicycle and Pedestrian, Public Transportation, and Freight and Aviation networks.



Access and Mobility

Promote an efficient, interconnected, multimodal, and accessible transportation network for people, goods, and the delivery of services in the Rural Area.



Culture and Environment

Coordinate decisions for transportation and land use in ways that protect the region's treasured natural resources, promote the Lowcountry quality of life, and provide predictability for future growth.



Economic Vitality

Encourage economic development through targeted transportation investments that enable competitiveness, productivity, and efficiency while preserving the Rural Area's character.



Resiliency

Encourage improvements to the transportation network that prevent interruptions, endure damages, and quickly recover from disturbances.



Safety and Security

Improve safety for all users as they move around the region, protect the region's infrastructure from threats, and provide for efficient emergency evacuation.



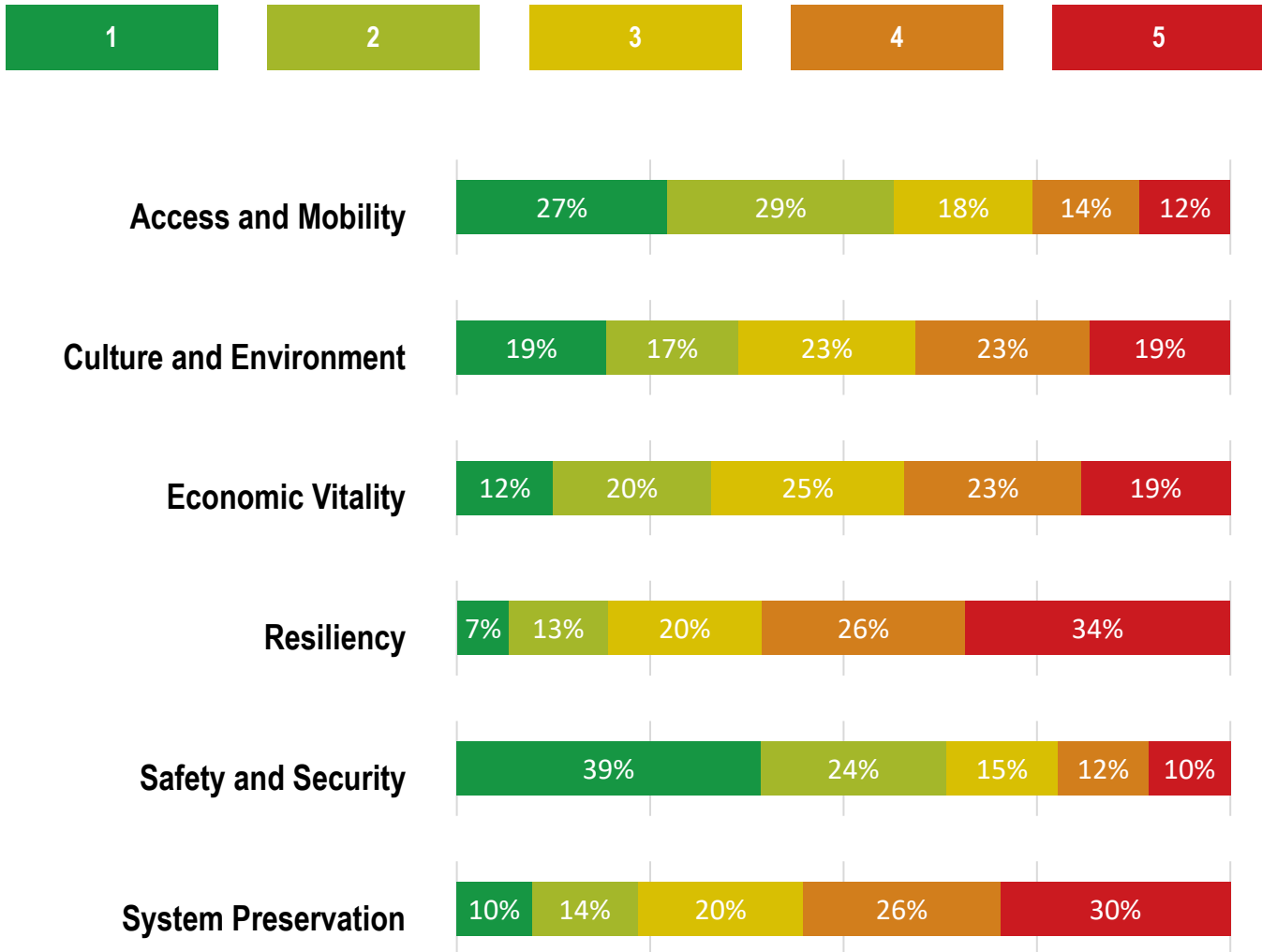
System Preservation

Support and strengthen the current transportation network in ways that extend the functional life of transportation facilities, embrace current and emerging technologies, and make travel more efficient.



Online Outreach























A critical first step of engagement and outreach was to verify the goals of the long range plan with the public. Survey participants were asked to rank their top goal for the 2045 LCOG Rural Area LRTP. While the goals are individually and collectively important, understanding the public priorities is an essential part of developing recommendations and identifying programmatic solutions. The summary below shows the percentage that each goal was ranked one (top priority) through five (lower priority).



Safety and Security received the most top-priority rankings, with 39% of participants ranking it as their top choice and over 60% in their top two choices. Access and Mobility also ranked highly among survey participants.

Federal Planning Factors

The 2045 LCOG Rural Area LRTP is not a federally mandated plan like the associated long range plan for the LATS urbanized area. However, it is helpful to recognize the linkage between the plan’s goals and federal planning factors established in the Fixing America's Surface Transportation (FAST) Act.

| Federal Planning Factors | 2045 LCOG Rural Area LRTP Goals | | | | | |
|---|---|---|--|---|---|---|
| | Access and Mobility | Culture and Environment | Economic Vitality | Resiliency | Safety and Security | System Preservation |
| Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency |  | |  | | | |
| Increase the safety of the transportation system for motorized and non-motorized users | | | | |  | |
| Increase the security of the transportation system for motorized and non-motorized users | | | |  |  | |
| Increase the accessibility and mobility of people and for freight |  |  |  | | | |
| Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation | |  |  | | | |
| Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight |  |  | | | | |
| Promote efficient system management and operation | | |  | |  |  |
| Emphasize the preservation of the existing transportation system | | | |  | |  |
| Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation | | | |  | |  |
| Enhance travel and tourism |  |  |  | | | |

Introduction

Decisions made as part of the long range transportation plan process must consider the area's natural resources as well as the social and cultural elements unique to Colleton County, Hampton County and the rural portions of Beaufort and Jasper Counties, along with their respective towns and cities. Screening environmental and social resources as part of the transportation planning process helps identify sensitive resources and begins to determine ways to mitigate or avoid impacts that could result from construction. Identifying potential impacts also helps balance the often competing interests of improving mobility and preserving a community's important natural and cultural features. The earlier these features are identified, the more likely sustainable solutions will arise to minimize or avoid impacts and reduce unnecessary delays and expenses.

This chapter of the *2045 LCOG Rural Area LRTP* documents environmental and social features. When overlaid with proposed transportation projects, this information provides a frame of reference to help assess the relative impacts of these projects on the community.





Figure 1: LCOG Rural Area



Population Characteristics

Population Density

The rural portion of the Lowcountry region lies to the north of the urbanized area that includes Hilton Head Island, Bluffton, Hardeeville, Port Royal, and Beaufort. The Lowcountry Rural Area totals approximately 3,700 square miles—reflecting 82% of the entire region—and includes Colleton County, Hampton County, and the rural (northern) portions of Beaufort and Jasper Counties.

Table 1 provides information on total population and population density of counties, cities, and towns within the rural LCOG area, as well as the overall Lowcountry region and South Carolina.

The population of the LCOG Rural Area is estimated to be around 88,772 or roughly 32% of the Lowcountry region's population and 1.7% of the state's population.

Of the municipalities that fall within the LCOG Rural Area, Walterboro is the most populated at 5,477.

Figure 2 depicts population concentrations of the LCOG Rural Area by block group.

The average population density in the LCOG Rural Area is 39 people per square mile, compared to the Lowcountry region's average of 101 per square mile and the state's average of 171 people per square mile.

The LCOG Rural Area is densest in the Town of Estill and the City of Walterboro. **Figure 3** shows the population density in the LCOG Rural Area by block groups.

Table 1: Total Population and Population Density

| | Total Population | Population Density (Per Square Mile) |
|---------------------------------|------------------|--------------------------------------|
| Colleton County | 37,585 | 36 |
| <i>Town of Cottageville</i> | 885 | 259 |
| <i>Town of Edisto Beach</i> | 604 | 284 |
| <i>Town of Lodge</i> | 95 | 30 |
| <i>Town of Smoaks</i> | 109 | 67 |
| <i>City of Walterboro</i> | 5,477 | 844 |
| <i>Town of Williams</i> | 193 | 241 |
| Hampton County | 19,564 | 35 |
| <i>Town of Brunson</i> | 555 | 546 |
| <i>Town of Estill</i> | 3,282 | 1,016 |
| <i>Town of Furman</i> | 216 | 69 |
| <i>Town of Gifford</i> | 266 | 275 |
| <i>Town of Hampton</i> | 2,560 | 567 |
| <i>Town of Luray</i> | 79 | 77 |
| <i>Town of Scotia</i> | 307 | 97 |
| <i>Town of Varnville</i> | 1,854 | 484 |
| <i>Town of Yemassee</i> | 979 | 154 |
| Northern Beaufort County | 16,002 | 71 |
| Northern Jasper County | 15,621 | 33 |
| <i>Town of Ridgeland</i> | 3,911 | 81 |
| Lowcountry Rural Area | 88,772 | 39 |
| Lowcountry | 271,901 | 101 |
| South Carolina | 5,148,714 | 171 |

Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates, Total Population Table; TIGER/Line Shapefiles, Land Area



Figure 2: Total Population (2019) by Census Block Group

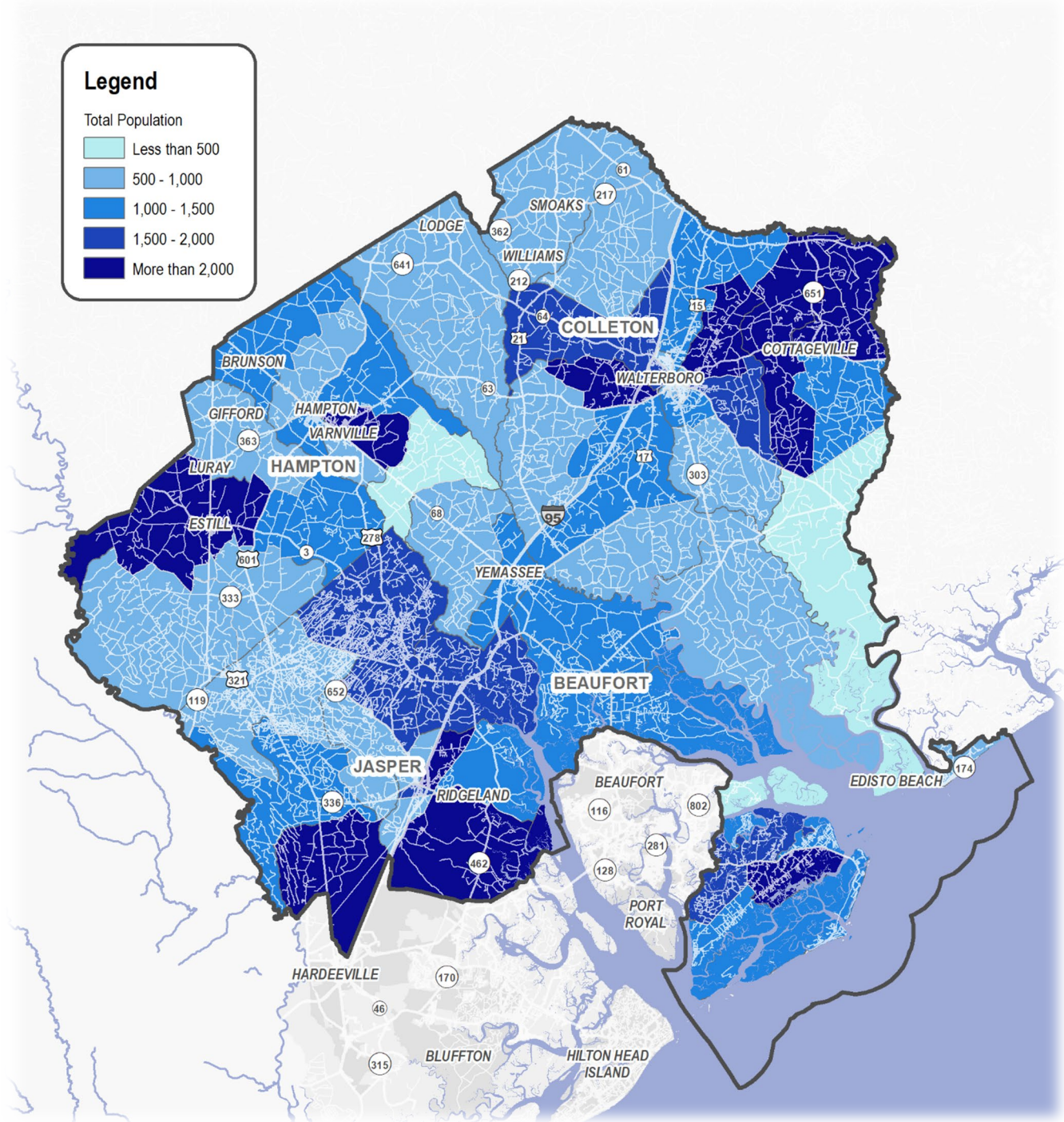
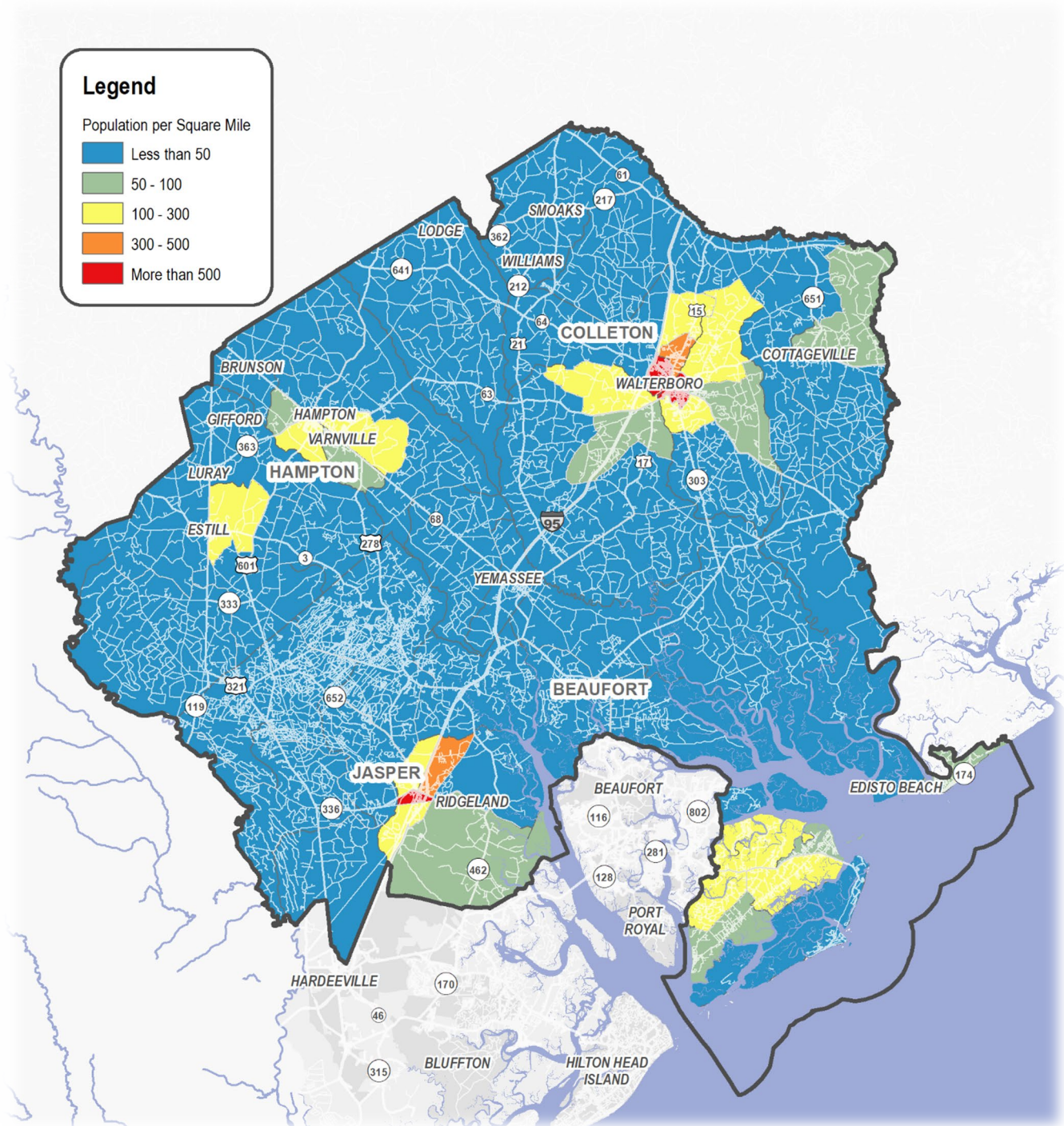


Figure 3: Population Density (2019) by Census Block Group





Population Projections

Based on the 2010 population, the Lowcountry region is projected to increase in population by 1.4% annually to over 380,000 people in 2045. Beaufort and Jasper counties are anticipating an increase in population by 1.9% and 2.2% per year respectively in 2045. Colleton and Hampton counties are projected to experience a slight decrease in population by -0.3% and -1.5% per year respectively in the same period. These projections and percent growth are shown in the graph and table below. Population projections for 2040 and 2045 were extrapolated from the 2020-2035 projections. These trends are shown in **Table 2** and **Figure 4**.

Table 2: Historic and Projected Population 2000-2045

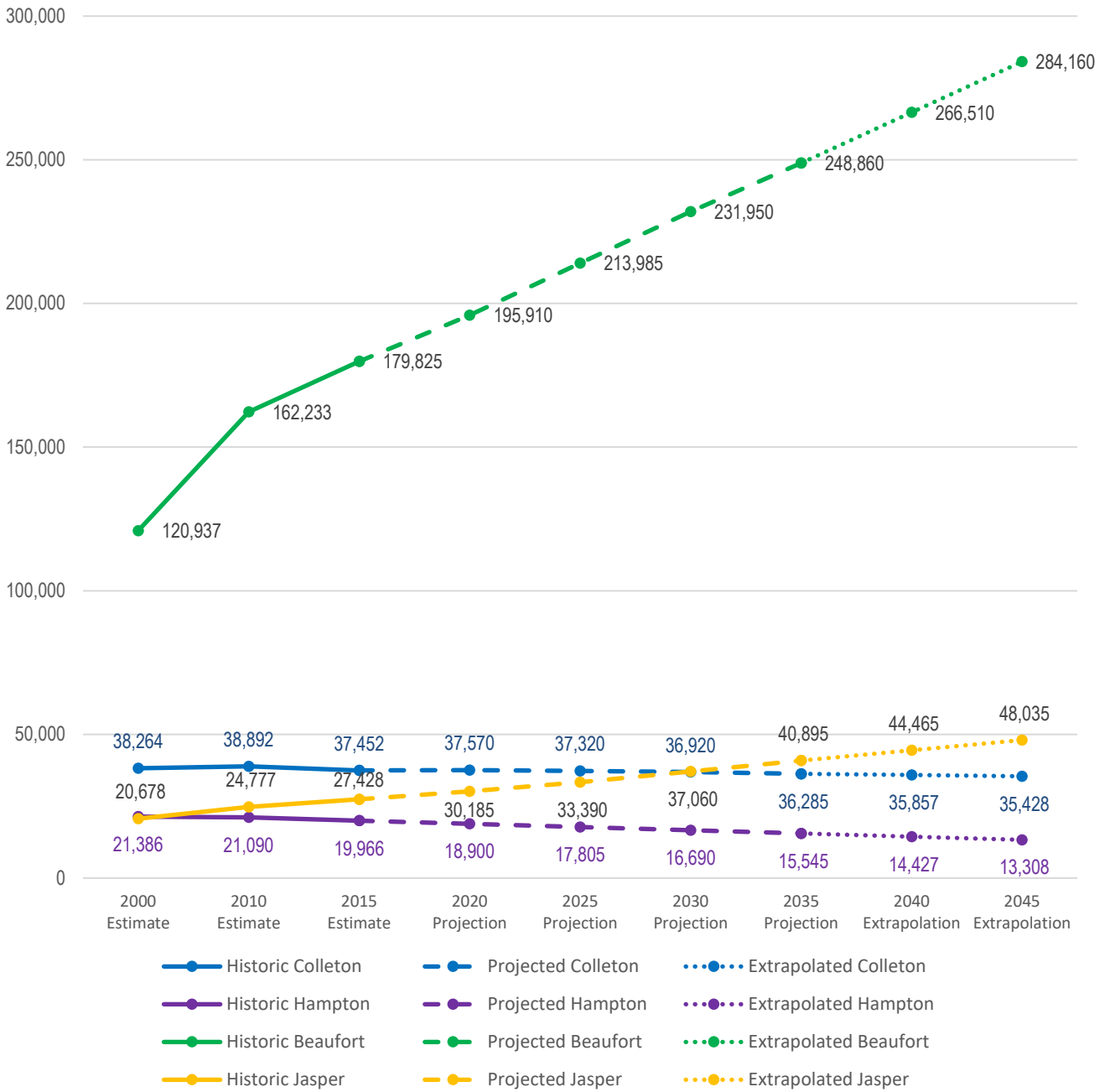
| | Estimate | | | | Projection | | | | | Annual Change |
|-------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|---------------|
| | 2000 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2010-2045 |
| Beaufort | 122,306 | 162,846 | 179,825 | 195,910 | 213,985 | 231,950 | 248,860 | 266,510 | 284,160 | 1.9% |
| Colleton | 38,304 | 38,896 | 37,452 | 37,570 | 37,320 | 36,920 | 36,285 | 35,857 | 35,428 | -0.3% |
| Hampton | 21,344 | 21,072 | 19,966 | 18,900 | 17,805 | 16,690 | 15,545 | 14,427 | 13,308 | -1.5% |
| Jasper | 20,721 | 24,931 | 27,428 | 30,185 | 33,390 | 37,060 | 40,895 | 44,465 | 48,035 | 2.2% |
| Lowcountry | 204,675 | 249,755 | 266,686 | 284,585 | 304,525 | 324,650 | 343,620 | 363,299 | 382,977 | 1.4% |
| SC | 4,024,223 | 4,635,656 | 4,892,253 | 5,213,370 | 5,542,140 | 5,881,710 | 6,223,085 | 6,559,657 | 6,896,228 | 1.3% |

Source: S.C. Department of Revenue and Fiscal Affairs Office, S.C. Community Profiles, S.C. Population Estimates from 2000-2015 and Population Projections from 2020-2035 (revised November 2019)

Notes:

1. Data for population projection are from U.S. Census Bureau, Annual Estimates of the Resident Population - Vintage 2018 and S.C. Department of Health and Environmental Control - Vital Records Department.
2. Population projections 2020-2035 are calculated by S.C. Department of Revenue and Fiscal Affairs - Health and Demographics Section, using 2000 and 2010 estimates for the purpose of trend analysis.
3. Population projections for 2045 were extrapolated from the 2020-2035 projections.

Figure 4: Historic and Projected Population 2020-2045



Source: S.C. Revenue and Fiscal Affairs Office, S.C. Community Profiles, S.C. Population Estimates from 2000-2015 and Population Projections from 2020-2035 (revised November 2019)



Minority

The American Community Survey collects detailed information regarding race. Survey participants can indicate their race as White, Black or African American, American Indian and Alaska Native, Asian, or Native Hawaiian and Other Pacific Islander as well as whether they are of two or more races. Within this assessment, minority populations refer to people who do not define their race as “White Only”.

The largest percentages of the population considered a racial minority can be found in Hampton County and Northern Jasper County at 57.9% and 55.6% respectively. Approximately 50.1% of the Rural Area’s population is considered part of a minority race, compared to 33.8% for the state of South Carolina. Northwestern Jasper County has the most concentrated Hispanic population at 12.7%. **Table 3** and **Figures 5 and 6** show both minority and Hispanic populations within the LCOG Rural Area.

Table 3: Minority Population 2019

| | Population | Percent Racial Minority | Percent Hispanic/Latino |
|------------------------------|---------------|-------------------------|-------------------------|
| Colleton County | 37,585 | 42.7% | 3.2% |
| Hampton County | 19,564 | 57.9% | 4.0% |
| Northern Beaufort County | 16,002 | 52.1% | 5.6% |
| Northern Jasper County | 15,621 | 55.6% | 12.7% |
| Lowcountry Rural Area | 88,772 | 50.1% | 6.2% |
| Lowcountry | 271,901 | 32.6% | 9.7% |
| South Carolina | 5,020,806 | 32.8% | 17.6% |

Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates, Demographic and Housing Estimates Table

Figure 5: Minority Population Percentage (2019) by Census Block Group

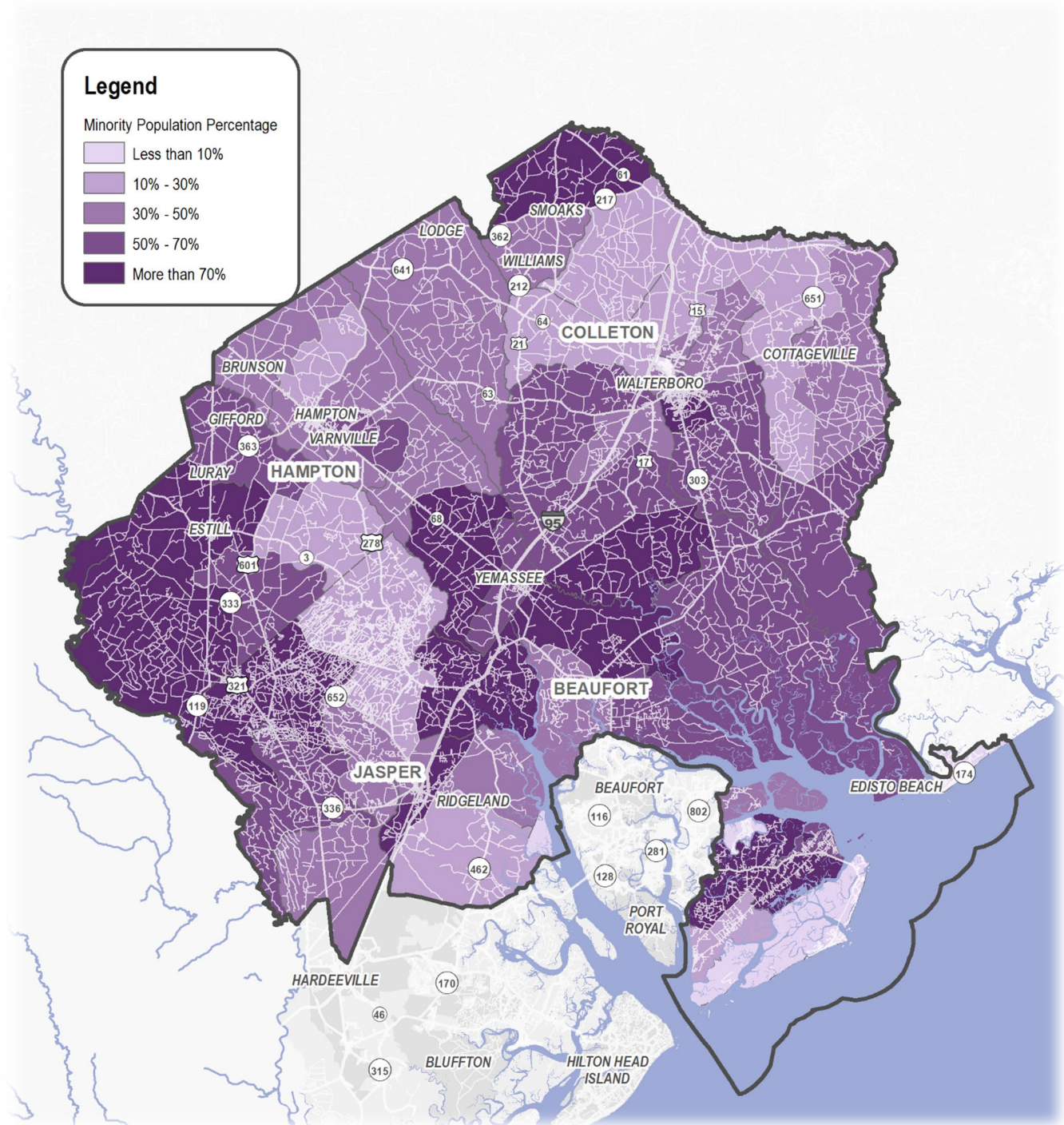
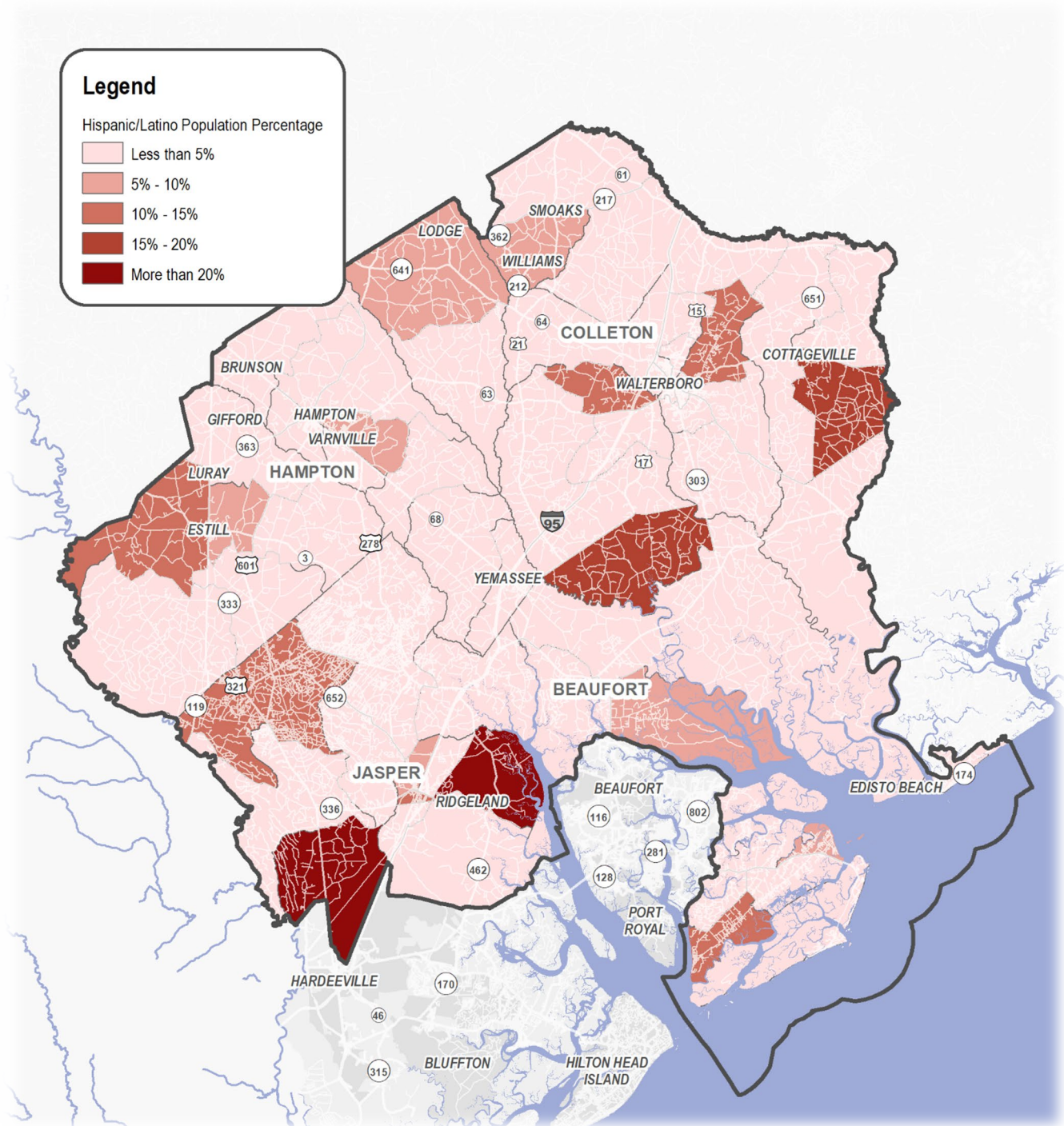




Figure 6: Hispanic Population Percentage (2019) by Census Block Group



Income and Poverty

The American Community Survey defines poverty by families and individuals: families with a total income below the poverty threshold and individuals with incomes below the poverty threshold are considered to be in poverty. The 2019 poverty threshold for a family of four is \$25,750 and the poverty threshold for an individual was \$12,490. The greatest poverty rates by percentage of families are in central Jasper County north of Hardeeville (47.9%), the eastern portion of Colleton County (41.1%), western portion of Hampton County (38.8%) and Burton area north of the Broad River (28.7%).

Income can be used to determine the well-being of individuals or families and whether individuals or families are in poverty. As shown in **Table 4**, per capita income in the Lowcountry Rural Area is \$24,646 which is significantly lower than the Lowcountry's per capita of \$33,525 and also lower than the state's per capita of \$29,426. The highest per capita income is in the Pritchards, Fripp, and Hunting Islands in Northern Beaufort County and the Town of Edisto Beach in Colleton County. **Figure 7** illustrates the distribution of per capita income within the Lowcountry Rural Area by census block group. **Figure 8** and **Figure 9** shows individuals in poverty and households in poverty, respectively.

Table 4: Per Capita Income and Poverty (2019)

| | Per Capita Income | % Population in Poverty | |
|------------------------------|-------------------|-------------------------|--------------|
| | | Individual | Family |
| Colleton County | \$21,377 | 21.8% | 16.3% |
| Hampton County | \$18,424 | 20.5% | 17.0% |
| Northern Beaufort County | \$30,400 | 13.0% | 7.1% |
| Northern Jasper County | \$24,396 | 15.2% | 11.8% |
| Lowcountry Rural Area | \$24,646 | 18.5% | 13.6% |
| Lowcountry | \$33,525 | 13.1% | 9.0% |
| South Carolina | \$29,426 | 15.2% | 10.9% |

Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates, Aggregate Income in the Past 12 Months (in 2019 inflation-adjusted dollars) and Total Population Tables, Poverty Status in the Past 12 Months Table, and Poverty Status in the Past 12 Months of Family Table.



Figure 7: Per Capita Income (2019) by Census Block Group

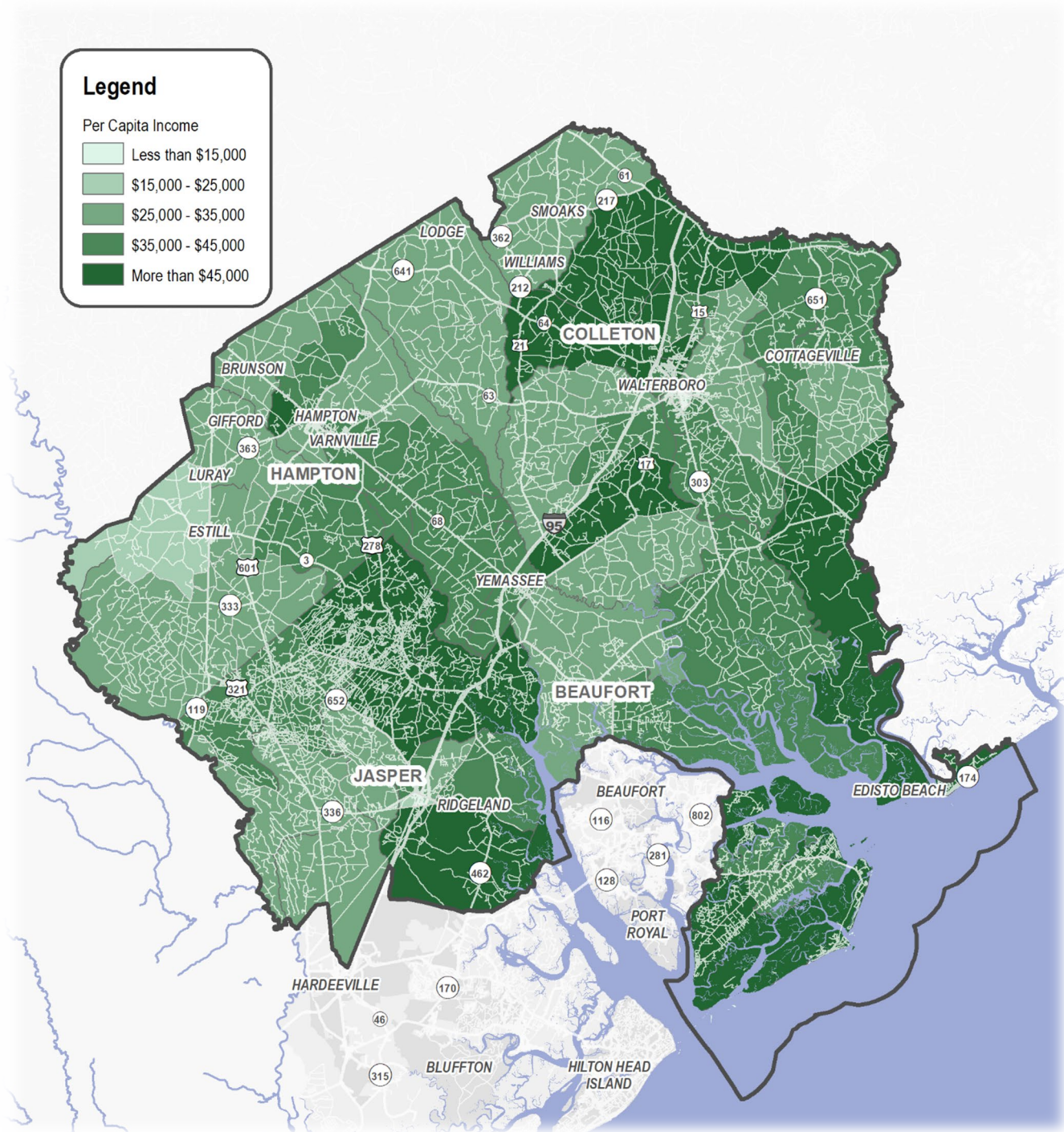


Figure 8: Individuals in Poverty (2019) by Census Block Group

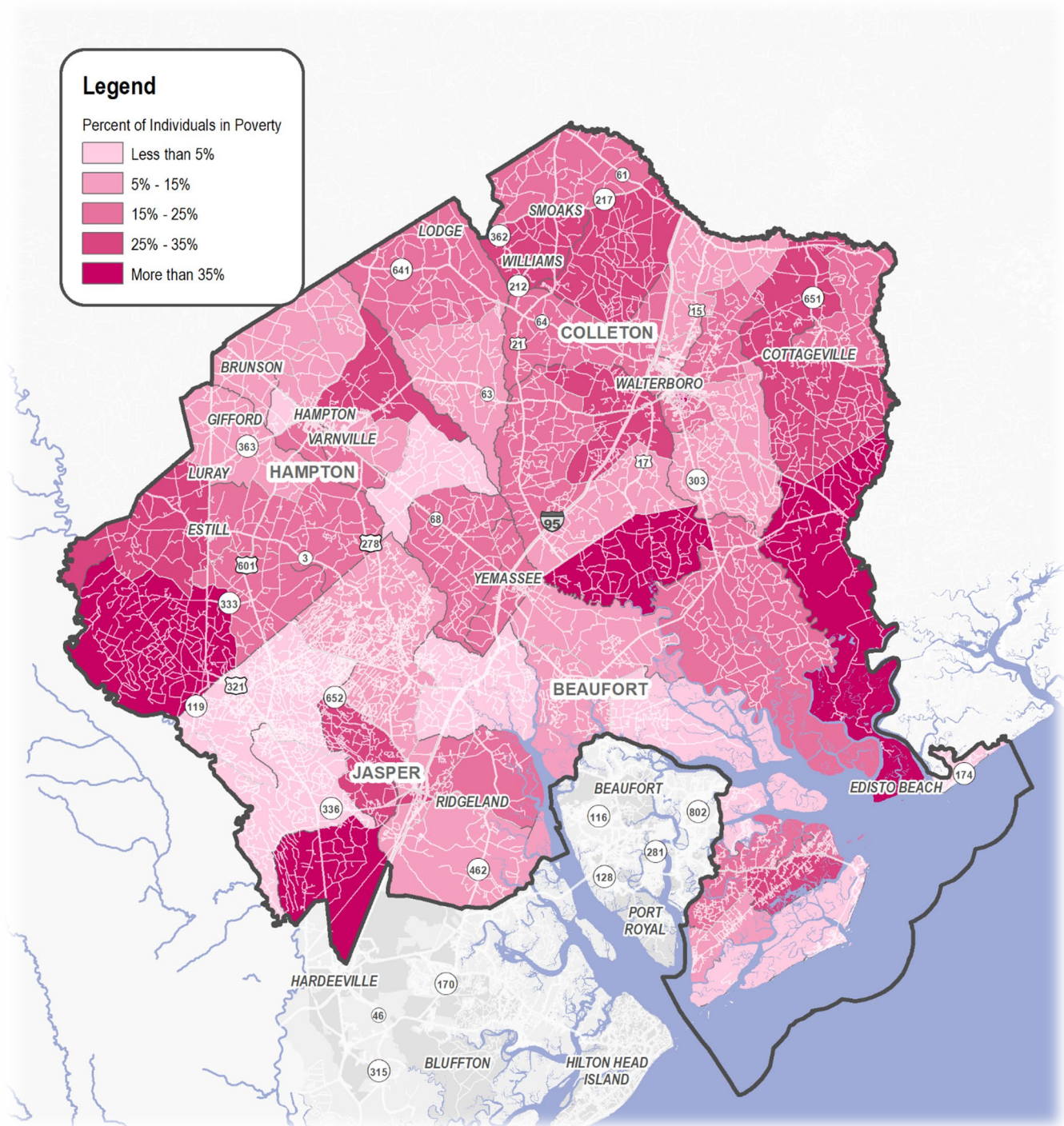
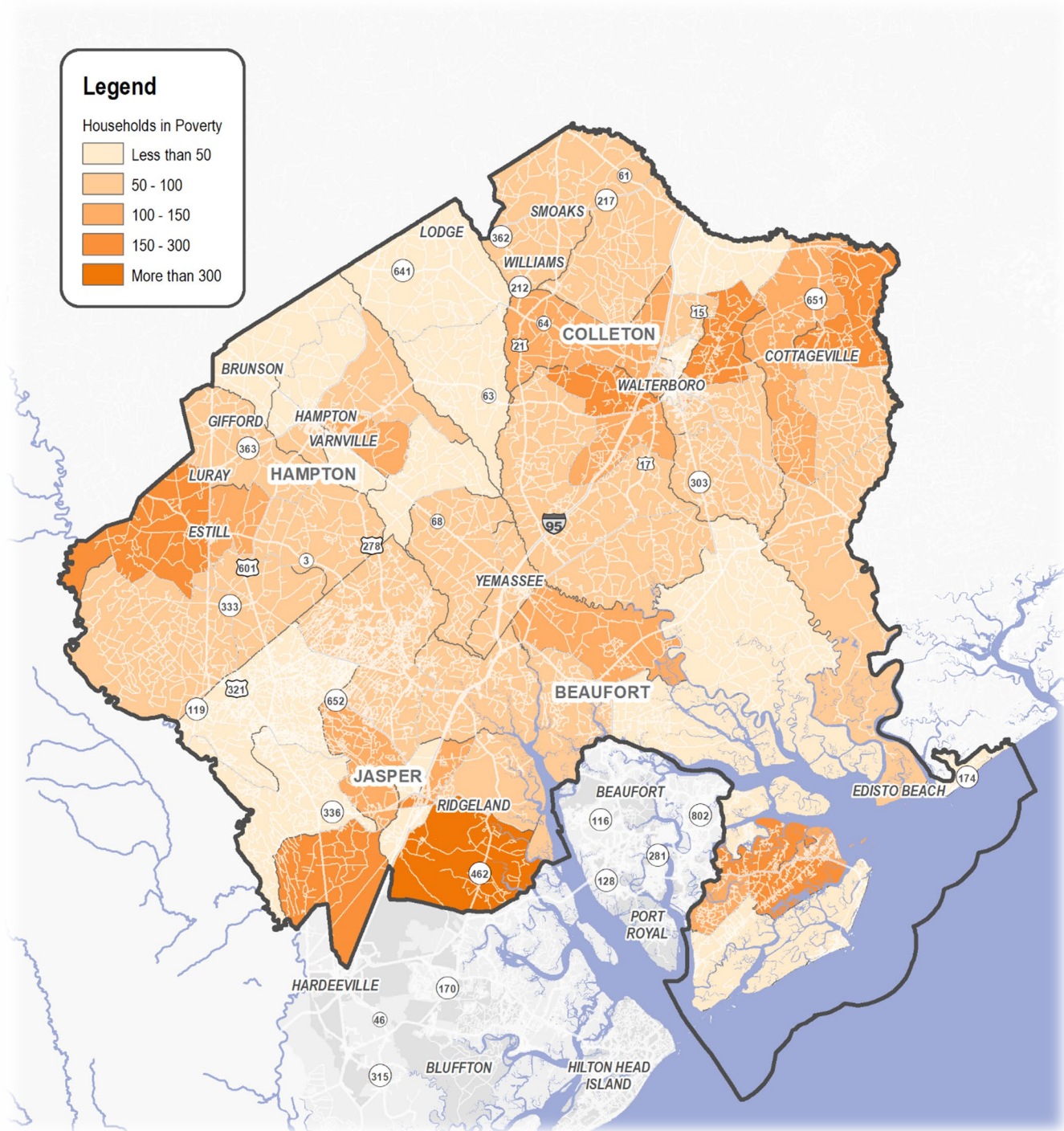




Figure 9: Households in Poverty (2019) by Census Block Group



Transportation Characteristics

Vehicle Ownership

The Lowcountry Rural Area is home to 42,540 households. Of these, a total of 2,637 (6.2%) are households without a vehicle. The highest percentage of households without vehicles in the Lowcountry Rural Area are located within Hampton County and Northern Jasper County, both with 6.8% of households without a vehicle.

Figure 10 illustrates the concentration of households without personal vehicles by Census block group. The highest percentage of households without personal vehicles is near the City of Walterboro in Colleton County, eastern Hampton County, and northern Beaufort County.

Commuting Time

Commuting time refers to the travel time to work in minutes for workers 16 years and over who do not work at home. The average travel time to work within the Lowcountry Rural Area is 29.7 minutes, which is longer than the average travel time to work in the Lowcountry region at 25.3 minutes and the state at 25.0 minutes. Commuters in Colleton County have the longest travel time to work at 32.1 minutes. The shortest travel time to work (23.8 minutes) is in Colleton County near Walterboro.

Table 5: Households Without Access to a Vehicle (2019)

| | Percentage of Households without Vehicles |
|------------------------------|---|
| Colleton County | 6.1% |
| Hampton County | 6.8% |
| Rural Beaufort County | 5.5% |
| Rural Jasper County | 6.8% |
| Lowcountry Rural Area | 6.2% |
| Lowcountry | 4.8% |
| South Carolina | 6.3% |

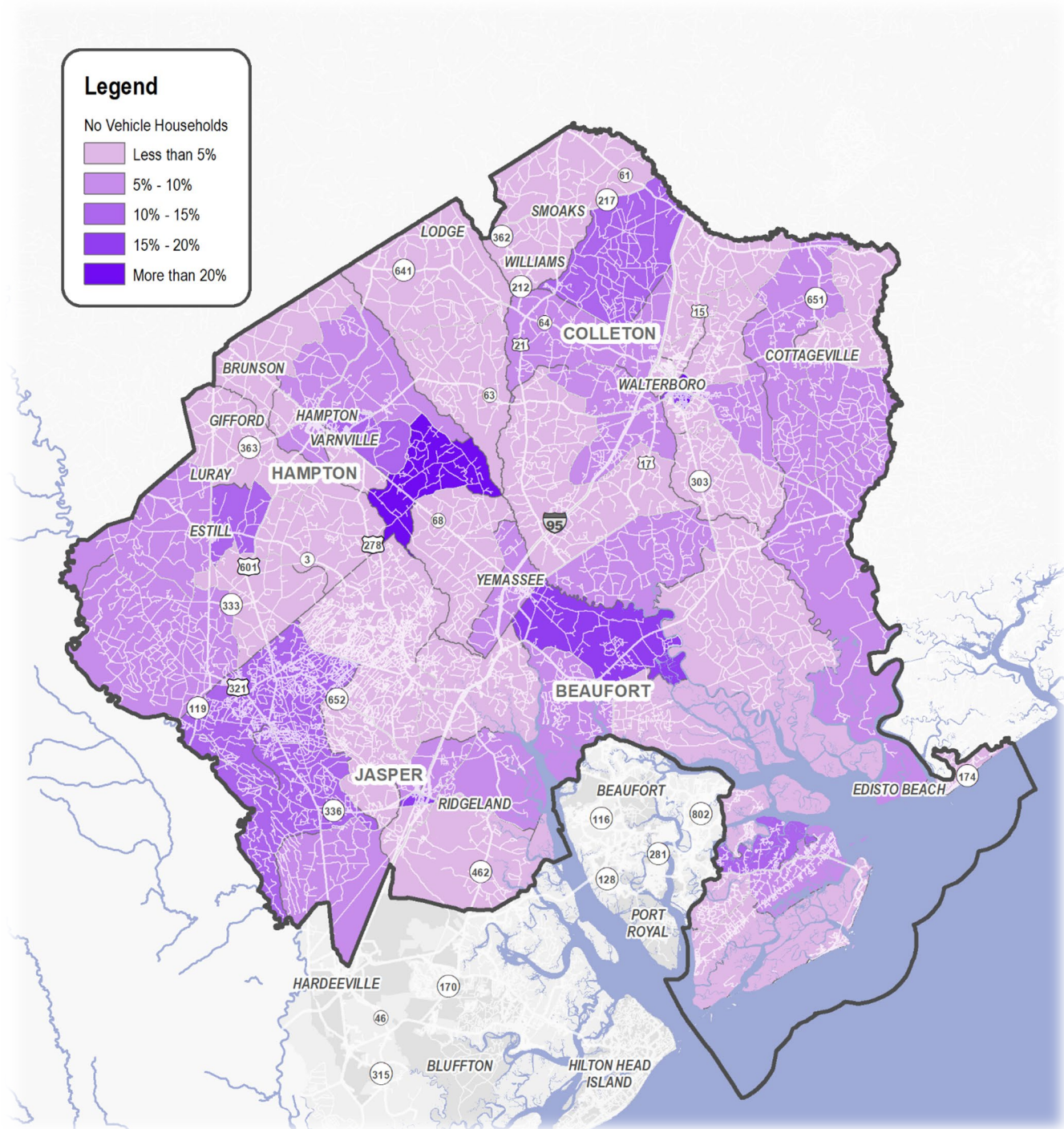
Source: U.S. Census Bureau, 2019 ACS 5-Year Estimates, Household Size by Vehicles Available Table

Table 6: Average Commute Times to Work (in minutes)

| | Average Travel Time to work (Minutes) |
|------------------------------|---------------------------------------|
| Colleton County | 32.1 |
| Hampton County | 31.7 |
| Northern Beaufort County | 26.0 |
| Northern Jasper County | 30.9 |
| Lowcountry Rural Area | 29.7 |
| Lowcountry | 25.3 |
| South Carolina | 25.0 |



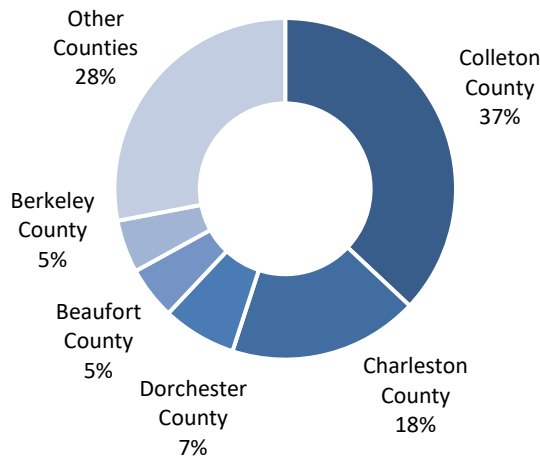
Figure 10: Household without Vehicles (2019) by Census Block Group



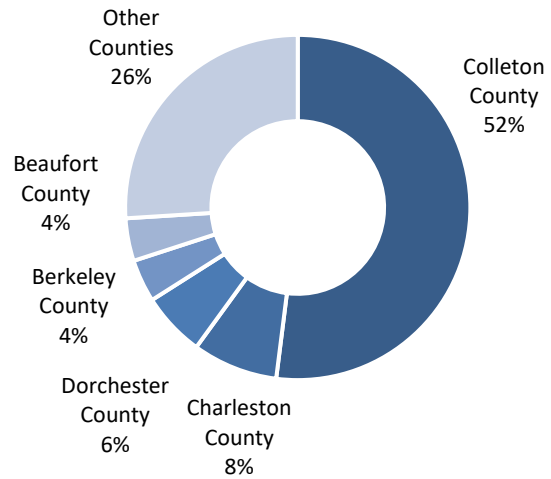
Commuting Patterns

Based on commute flows as reported by the American Community Survey, a majority of residents of Colleton, Hampton, and Northern Beaufort counties work in their home counties while a large majority of residents of Northern Jasper County work in Beaufort County.

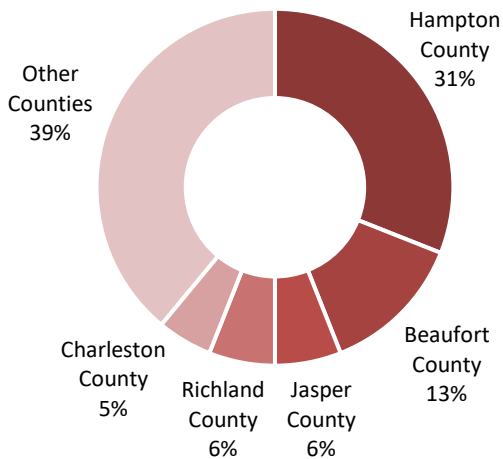
Where Colleton County Residents Work



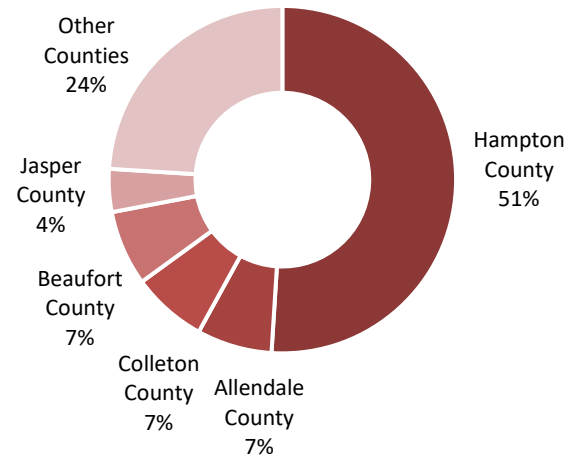
Where Colleton County Workers Live



Where Hampton County Residents Work

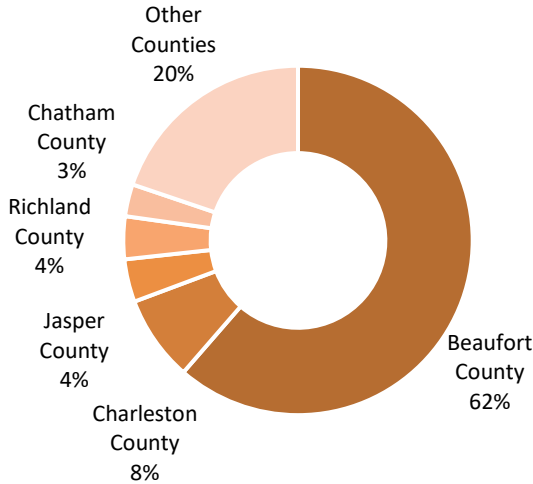


Where Hampton County Workers Live

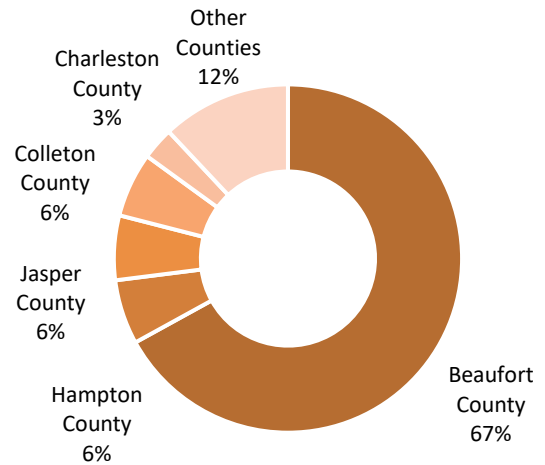




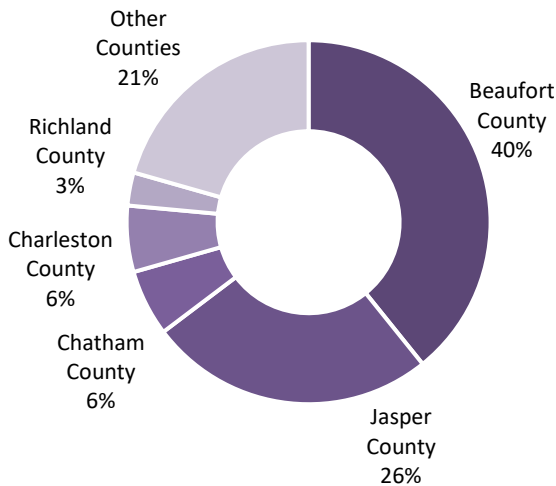
Where Northern Beaufort County Residents Work



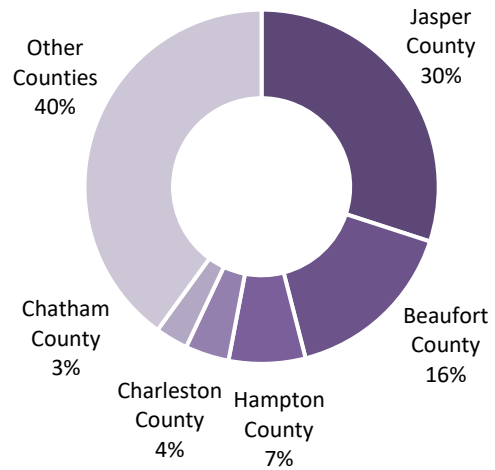
Where Northern Beaufort County Workers Live



Where Northern Jasper County Residents Work



Where Northern Jasper County Residents Work



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD), LEHD Origin-Destination Employment Statistics (LODES), 2018

Historic Properties

National Register of Historic Places

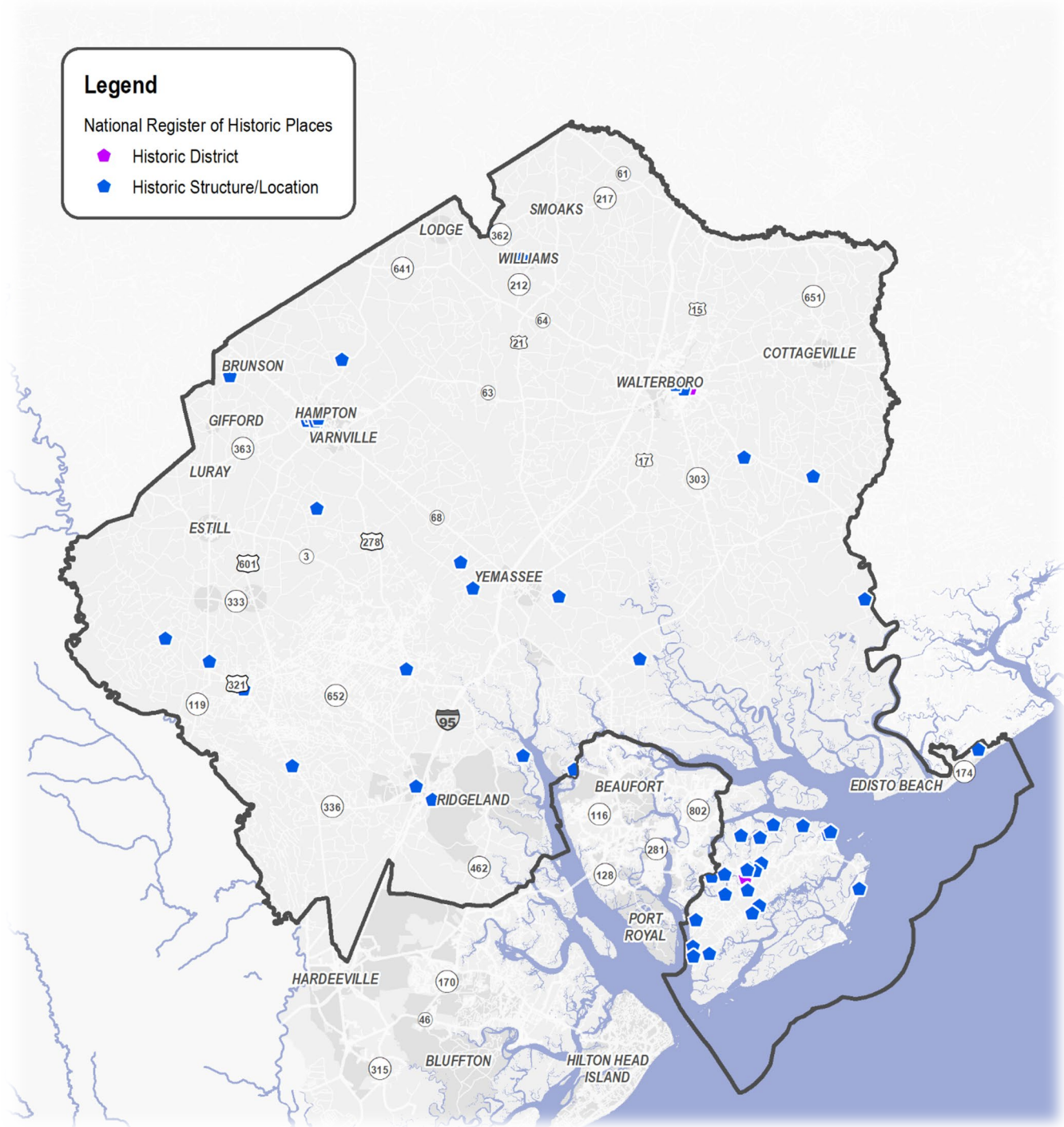
The Lowcountry Rural Area is home to many significant cultural heritage sites. **Table 7** shows a list of the National Register of Historic Places properties in the Lowcountry Rural Area, a total of 69 properties. The Lowcountry Rural Area contains 11 historic properties in Colleton County, 15 in Hampton County, 33 in Northern Beaufort County, and 10 in Northern Jasper County. **Figure 11** illustrates the locations and types of National Register places. 44 places are historic buildings, 5 historic districts, 12 historic sites, and 8 historic structures.

Table 7: National Register of Historic Places (2020)

| ID | Historic Property Name | ID | Historic Property Name | ID | Historic Property Name |
|----|---|----|--------------------------------------|----|---|
| 1 | American Legion Hut | 24 | Hickory Valley Historic District | 47 | The Pineland |
| 2 | Bank of Hampton | 25 | Honey Hill/Boyd's Neck Battlefield | 48 | Pocosobo Town |
| 3 | Church of the Holy Trinity | 26 | Hotel Albert Commercial Block | 49 | Pon Pon Chapel |
| 4 | Coffin Point Plantation | 27 | Hunting Island State Park Lighthouse | 50 | Ravenwood Plantation |
| 5 | Coffin Point Plantation Caretaker's House | 28 | Indian Hill Site | 51 | Riverside Plantation Tabby Ruins |
| 6 | Cohasset | 29 | Isaac Fripp House Ruins | 52 | Robert Simmons House |
| 7 | Colleton County Courthouse | 30 | J.C. Richardson House | 53 | Robertville Baptist Church |
| 8 | The Corner Packing Shed | 31 | Jasper County Courthouse | 54 | Sams Plantation Complex Tabby Ruins |
| 9 | The Corner Store and Office | 32 | John Lawton House | 55 | Seaside Plantation |
| 10 | Eddings Point Community Praise House | 33 | Knights of Wise Men Lodge | 56 | Sheldon Church Ruins |
| 11 | Edgar Mausoleum Fripp, St. Helena Parish Church | 34 | Palmetto Theatre | 57 | Sinclair Service Station |
| 12 | Emanuel Alston House | 35 | Lawtonville Baptist Church | 58 | St. Helena Parish Chapel of Ease Ruins |
| 13 | Fort Fremont Battery | 36 | Little Barnwell Island | 59 | St. Helenaville Archaeological Site (38BU931) |
| 14 | Fort Fremont Hospital | 37 | Mary Jenkins Community Praise House | 60 | St. James the Greater Catholic Mission |
| 15 | Frogmore Plantation Complex | 38 | Oak Grove | 61 | Stoney Creek Independent Presbyterian Chapel of Prince William Parish |
| 16 | Gifford Rosenwald School | 39 | The Oaks | 62 | Tillman School |
| 17 | Gillisonville Baptist Church | 40 | Old Brass | 63 | Tom Williams House |
| 18 | Gravel Hill Plantation | 41 | Old Colleton County Jail | 64 | Tombee Plantation House |
| 19 | The Green | 42 | Old House Plantation | 65 | Walterboro Historic District |
| 20 | Hampton Colored School | 43 | Orange Grove Plantation | 66 | Walterboro Historic District (Boundary Increase) |
| 21 | Hampton County Courthouse | 44 | Palmetto Theatre | 67 | Walterboro Library Society Building |
| 22 | Hampton County Jail | 45 | Penn Center Historic District | 68 | White Hall Plantation House Ruins and Oak Avenue |
| 23 | Hattie J. Peoples House | 46 | Pine Island Plantation Complex | 69 | Dr. York Bailey House |



Figure 11: National Register of Historic Places (2020)



Natural Resources

Wetlands

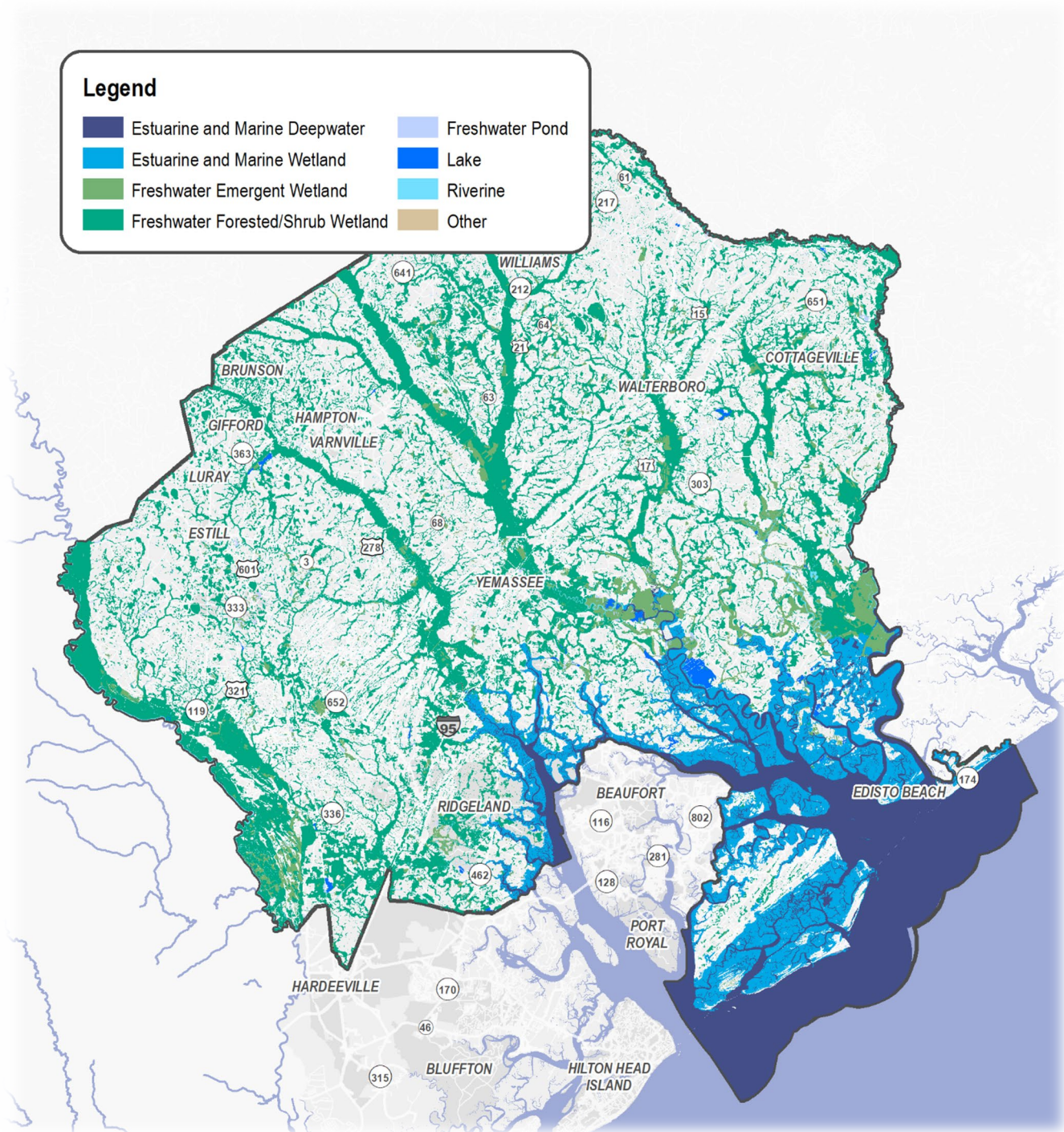
The variety of wetlands is one of the vital assets of the beautiful Lowcountry region. Moreover, diverse wetland ecosystems are home to various species of plants and animals including many threatened and endangered species.

The Lowcountry Rural Area contains approximately 558,770 acres of wetlands accounting for 79.5% of the Lowcountry region's wetlands. Of 558,770 acres, 65.7% are forested/shrub wetland, 21.4% are estuarine and marine wetland, 9.2% are freshwater emergent wetland, 1.4% are riverine, 1% are freshwater pond, 0.8% are lake, and 0.5% are estuarine and marine deep water. **Figure 12** illustrates the wetland areas throughout the Lowcountry Rural Area.





Figure 12: Wetlands within the Lowcountry Rural Area



Natural Protected Areas

As shown in **Table 8**, the Lowcountry Rural Area is home to five state parks, nine wildlife management areas, and one wildlife sanctuary. Eight natural protected areas exist in Colleton County, four in Hampton County, two in Northern Beaufort County, and one in Northern Jasper County.

Emergency Preparedness

Evacuation Routes

The Lowcountry is vulnerable to natural emergencies including hurricanes, flooding, tropical storms, and earthquakes. The South Carolina Department of Natural Resources (SCDNR) states that more than half of South Carolina's earthquakes occur on the Coastal Plain. While the Lowcountry is susceptible to earthquakes, the concentration and intensity of the earthquakes is typically minor.¹

The South Carolina Emergency Management Division (SCEMD) provides statewide guidance on natural disasters. In 2021, the SCEMD prepared a Hurricane Guide to outline warning signs, storm categories, emergency zones, and evacuation routes.² Since 1851, there have been 40 recorded tropical cyclones that made landfall.³ Six coastal South Carolina counties have more than 200 miles of coastline including Beaufort, Jasper, and Colleton. The hurricane evacuation routes and lane reversal systems are preemptive measures that have been identified to respond to emergency situations in the Lowcountry. **Figure 13** shows the evacuation routes in the region. For more information, check the [Hurricane Guide for South Carolina](#).

Table 8: Natural Protected Areas 2021

| Area ID | Area Name | County |
|---------|---|-------------------|
| 1 | Bear Island Wildlife Management Area | Colleton |
| 2 | Colleton State Park | Colleton |
| 3 | Crosby Oxypolis Heritage Preserve | Colleton |
| 4 | Donnelley Wildlife Management Area | Colleton |
| 5 | Edisto Beach State Park | Colleton |
| 6 | Givhans Ferry State Park | Colleton |
| 7 | Hamilton Ridge Wildlife Management Area | Hampton |
| 8 | Hunting Island State Park | Northern Beaufort |
| 9 | Lake Warren State Park | Hampton |
| 10 | Palachucola Wildlife Management Area | Hampton |
| 11 | South Fenwick Island Heritage Preserve | Northern Beaufort |
| 12 | St. Helena Sound Heritage Preserve/Wildlife Management Area | Colleton |
| 13 | Tillman Sand Ridge Wildlife Management Area | Northern Jasper |
| 14 | Walterboro Wildlife Sanctuary | Colleton |
| 15 | Webb Wildlife Management Area | Hampton |

Source: SC Department of Natural Resources, DNR Department and Statewide GIS Data

¹ "Earthquake Guide," SCEMD. https://www.dnr.sc.gov/geology/pdfs/SCEMD_Earthquake_Guide.pdf

² "Hurricane Guide South Carolina," SCEMD. http://scemd.cdn.missc.net/media/1593/sc-hurricane-guide-2021_english.pdf

³ "Appendix 1 (South Carolina Hurricane Plan)," SCEMD. <https://www.scemd.org/media/1325/hurricane-base-plan.pdf>



Figure 13: Evacuation Routes

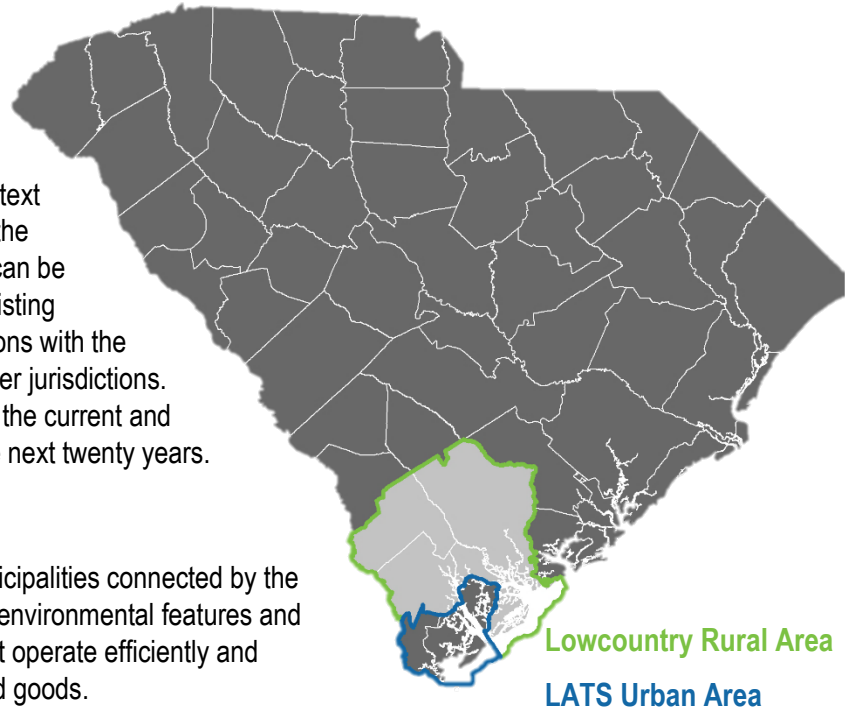


Introduction

The following chapter describes the planning process of roadway recommendations for the *2045 LCOG Rural Area LRTP*. By understanding the demographic, environmental, and historic context of the study area outline in the previous chapter, the evaluation of the existing transportation network can be further contextualized. Chapter 4 identifies the existing challenges and attempts to mitigate those limitations with the scarce resources available to LCOG and its member jurisdictions. This chapter can be used as a tool to understand the current and future needs of the Lowcountry Rural Area for the next twenty years.

Role in the Rural Area

The Lowcountry Rural Area is a collection of municipalities connected by the state-owned transportation network. With unique environmental features and community needs, the transportation system must operate efficiently and effectively to support the movement of people and goods.



Connection to the *2045 LCOG Rural Area LRTP* Goals

The *2045 LCOG Rural Area LRTP* is committed to upholding the six goals outlined in Chapter 2. The roadway recommendations detailed in this chapter are responsive to these goals with a particular emphasis on the rural and small-town context of the Lowcountry Rural Area



Access and Mobility

Improved and well-maintained roadways connect communities to essential destinations.



Resiliency

The roadway network can offer redundancy and resilience to manmade and natural disasters and other challenges.



Culture and Environment

A balanced roadway network can support other modes, embrace the rural culture, and limit negative impacts to sensitive lands.



Safety and Security

Properly designed rural transportation projects create predictability and encourage safe driver behavior.



Economic Vitality

Efficient roadways are a lifeline for economic growth by making it easier to move people and goods within and through the region.



System Preservation

The roadway network should be durably constructed and maintain a focus on existing and future needs.

Planning Considerations

Chapter 4 presents an analysis of existing conditions that highlights issues and needs as a first step in selecting roadway and intersection recommendations for the *2045 LCOG Rural Area LRTP*.

Activity Centers and Transportation Corridors

The relationship between activity centers and transportation corridors is crucial when considering the options provided for people who travel to and between those locations. Giving people more choices between travel mode or travel routes affects their quality of life and access to opportunity. **Table 1** shows activity centers in the Lowcountry Rural Area. Although no Regional Activity Centers exist in the rural area, access to these locations is essential for rural communities.

Table 1: Activity Center Type and Characteristics

| Activity Center Type | Characteristics |
|--|---|
| Regional Activity Center <u>Example</u> Downtown Beaufort <u>Transportation Crossroad</u> US 21 at SC 281 | Accessible by interstates, freeways, or principal arterials and/or public transportation Balances residential and non-residential land uses Contains high-density urban land uses and large-scale development to support the region Includes transit-supportive and employment area land uses Provides diversity of housing options |
| Local Activity Center <u>Example</u> Downtown Ridgeland <u>Transportation Crossroad</u> US 601 at US 278 | Contains medium-scale development intended to service the every-day needs and activities of surrounding towns and rural areas Includes a variety of retail, civic, educational, and social land uses Provides mostly neighborhood-style, medium-density residential Served by municipal water and sewer |
| Rural Crossroads <u>Example</u> Luray <u>Transportation Crossroad</u> US 17 at SC 46 | Connects to one or more regional transportation corridors Contains a mixture of low- and medium-density residential Contains some limited, locally-serving commercial activity Provides mixture of low- and medium-density residential |

Corridor Characteristics

Functional Classification

The functional classification system groups streets of different characteristics and functions into broad categories. These groupings help planners, policy makers, engineers, and citizens communicate details about the transportation system. It characterizes streets according to the land uses served and the traffic each street is intended to serve. The classification defines the street in terms of roadway design and features to service the movement primarily of vehicles.

In the Lowcountry Rural Area, the current street network is divided into several functional classifications including arterials, collectors, and local streets. **Figure 1** illustrates the functional classification for the Lowcountry Rural Area roadway network based on SCDOT's functional classification system.

Interstates

- Provide the most mobility and the least access
- Serve long distance travel and support regional mobility needs
- **EXAMPLE:** Interstate 95

Principal Arterials

- Provide both access and mobility throughout a region and serve medium to long distance travel
- Typically have tightly controlled access and few, if any, driveways
- Connect minor arterials and collector streets to interstates
- **EXAMPLES:** US 321, US 17, and US 21.

Minor Arterial

- Often have more closely spaced intersections and are designed for lower speeds and less traffic.
- Connect other minor arterials to principal arterials and collector streets
- Provide more access to adjacent area than a major arterial would.
- **EXAMPLES:** US 278, SC 68, and SC 303.

Collectors

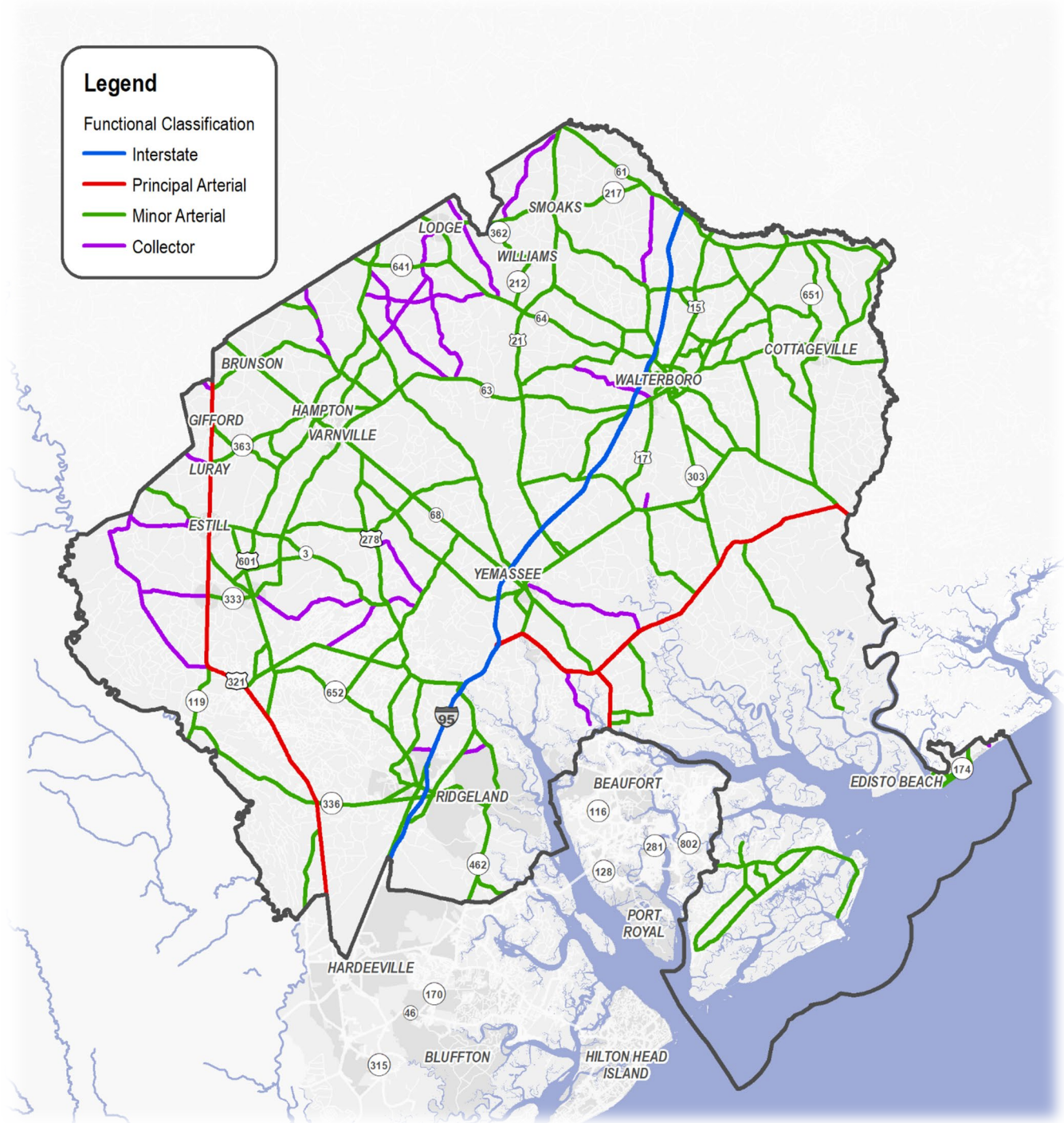
- Collect traffic from neighborhoods and disperse it to arterials
- Provide less mobility but enhanced access with a focus on shorter trips
- Typically operate at lower speeds (less than 35 mph)
- Provide more frequent and enhanced access to surrounding land uses
- Most collectors connect with one another
- Vary in their characteristics to fulfill unique needs of surrounding contexts
- **EXAMPLES:** SC 3 (west of Estill), River Road (east of Yemassee), Beach Road (south of Walterboro).

Locals

- Provide the most access and least amount of mobility
- Typically connect to one another or to collector streets
- Provide a high level of access to adjacent land uses
- Serve short trips with low posted speed limits (25 mph to 35 mph)



Figure 1: Functional Classification



Corridor Operations

Other facets of the transportation network include understanding how and where people and goods are moving.

Regional Mobility

The region benefits from having a variety of options for regional mobility. This mobility is magnified by the connectivity between regions through I-95. The routes US 321, US 21, and US 17 serve as important inter- and intra-regional transportation corridors. These corridors provide intra-region connections between the urban areas in the Lowcountry such as Beaufort and Port Royal to the rural areas, cities, and towns in the Rural Area. The Lowcountry Rural Area is also served by connections to Savannah, Charleston, and other surrounding municipalities through inter-regional routes. Despite the presence of multiple regional routes in the Lowcountry Rural Area, the general lack of network redundancy (i.e., multiple routes to the same destination like those found in a downtown setting for local trips) complicates the region's efforts to respond to disruptions ranging from vehicle accidents to natural disasters.

Annual Average Daily Traffic

The annual average daily traffic (AADT) reflects the total number of vehicles traveling along a roadway segment on an average day. **Figure 2** illustrates the AADT volumes in the study area. Some of the highest volumes of vehicles per day (vpd) can be found along I-95, US 21, and Robertson Boulevard in Walterboro. More than 56,000 vehicles use I-95 through the Lowcountry Rural Area per day. Another heavily traveled corridor is US 21, which has sections used by nearly 19,000 vehicles per day.

Congested Corridors

Rather than focusing exclusively on traffic volumes, a more well-rounded measurement is volume-to-capacity (V/C) ratios. V/C ratios are calculated by dividing the traffic volume of a roadway segment by the capacity of the roadway. This standardized traffic measure provides context across various types of roadways. In the *2045 LCOG Rural Area LRTP*, roadways were grouped into the following categories based on their V/C ratios:

Below Capacity

- V/C ratio | Less than 0.80
- Experience little to no congestion during peak travel periods
- Primarily occurs on rural roads or local streets

At Capacity

- V/C ratio | 0.80 to 1.00
- Somewhat congested during non-peak periods and congested during peak hours
- Balance operation and the cost of improvements

Above Capacity

- V/C ratio | Greater than 1.00
- Congested during both peak and non-peak periods
- Changes in capacity may create traffic gridlock of traffic

Figure 3 shows corridors by current (2019) congestion levels. Vehicle demand does not usually exceed the capacity of the Rural Area's roads, with the exception of US 21 onto St. Helena Island. Some corridors are currently at capacity.

Figure 4 shows projected congestion in 2045 if projects with committed funding are constructed. This includes roadway projects that were recently completed or have funding associated between the previous base year (2010) and the new base year (2019). This map also reflects expected changes in population, household size, dwelling units, and employment density through the year 2045. When comparing the two congestion maps, congestion is projected to worsen along several corridors, including I-95, SC 303, SC 482, and US 21.



Figure 2: Daily Traffic Volumes (vpd)

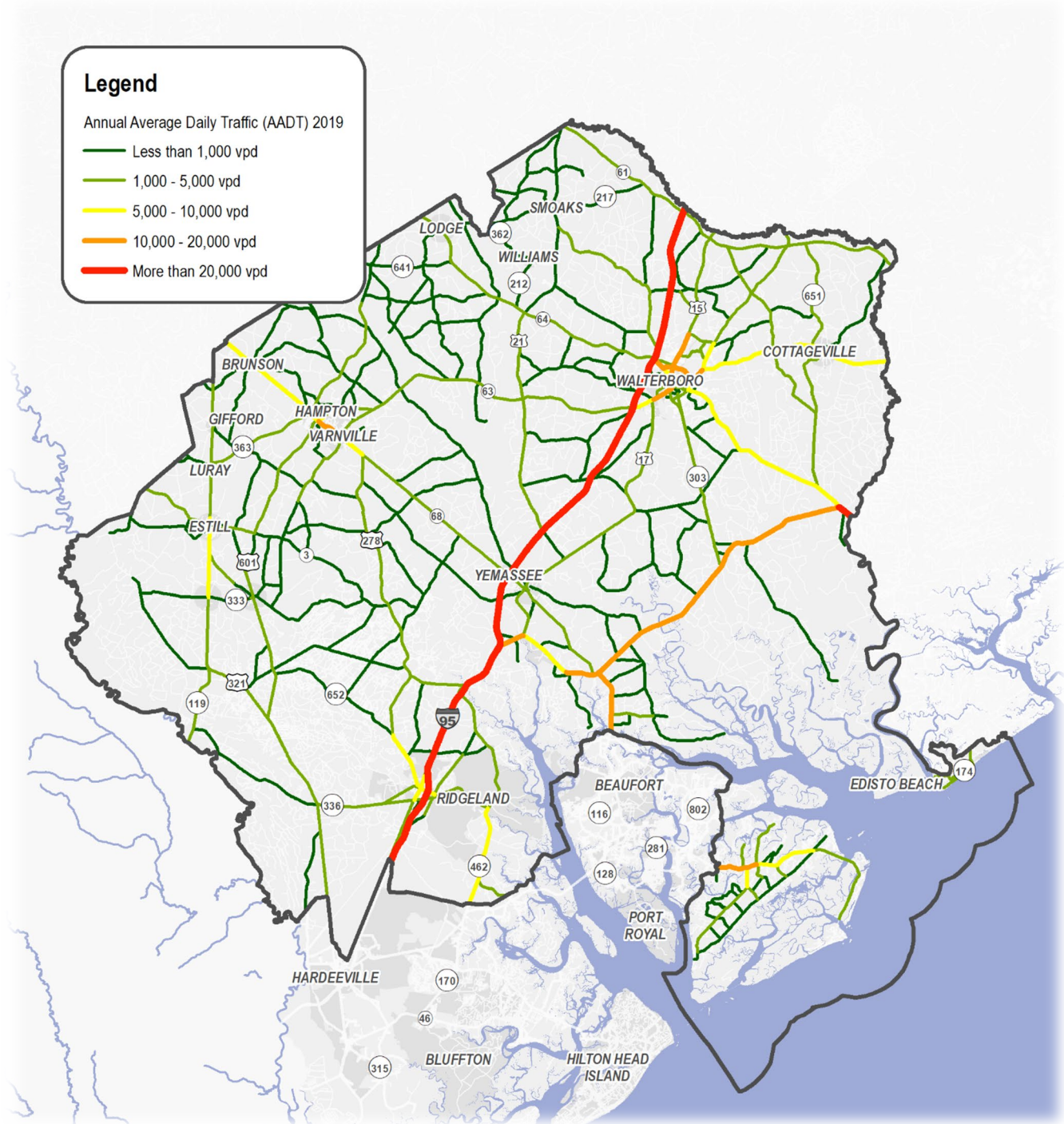


Figure 3: 2019 Base Year Congestion

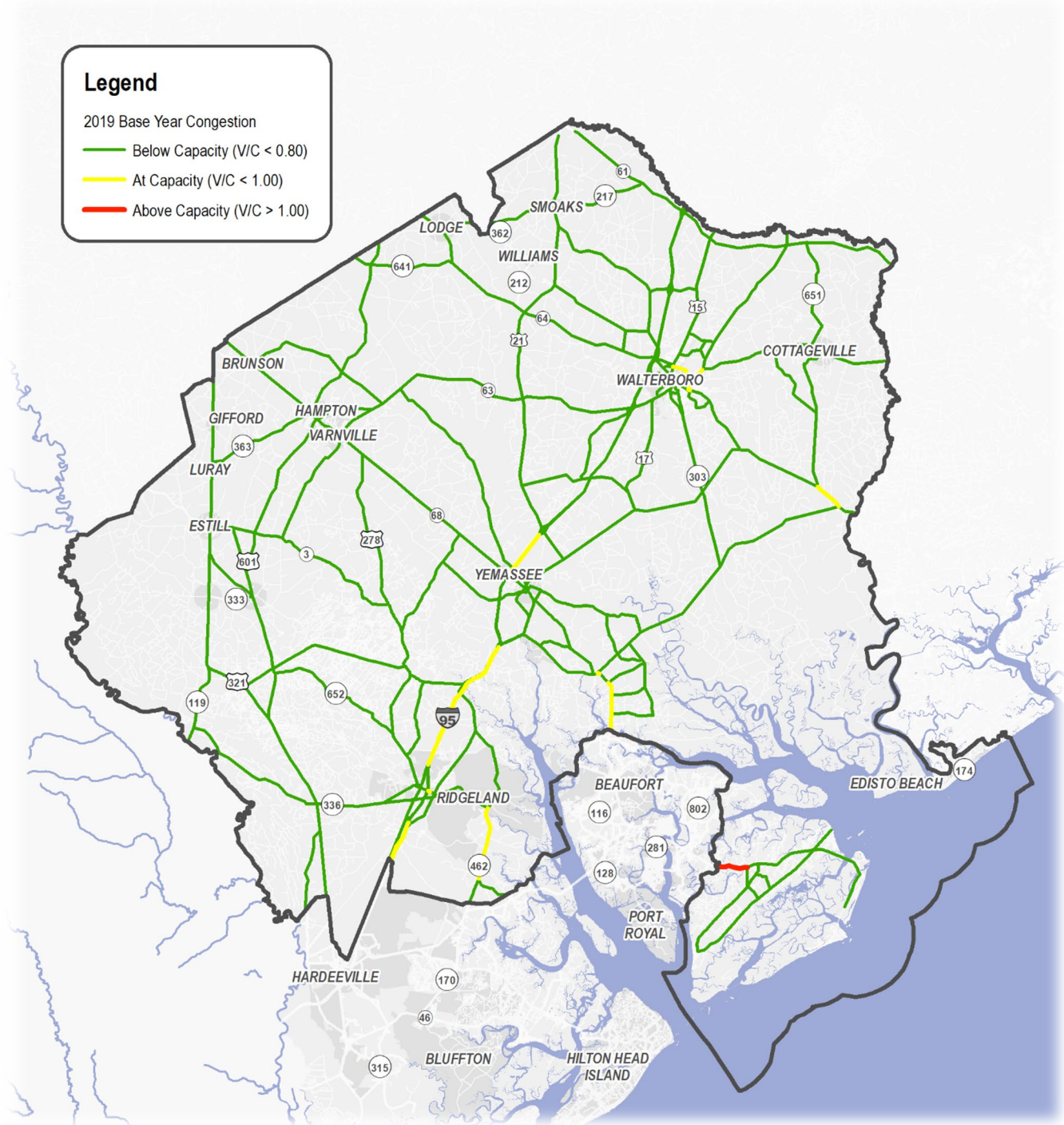
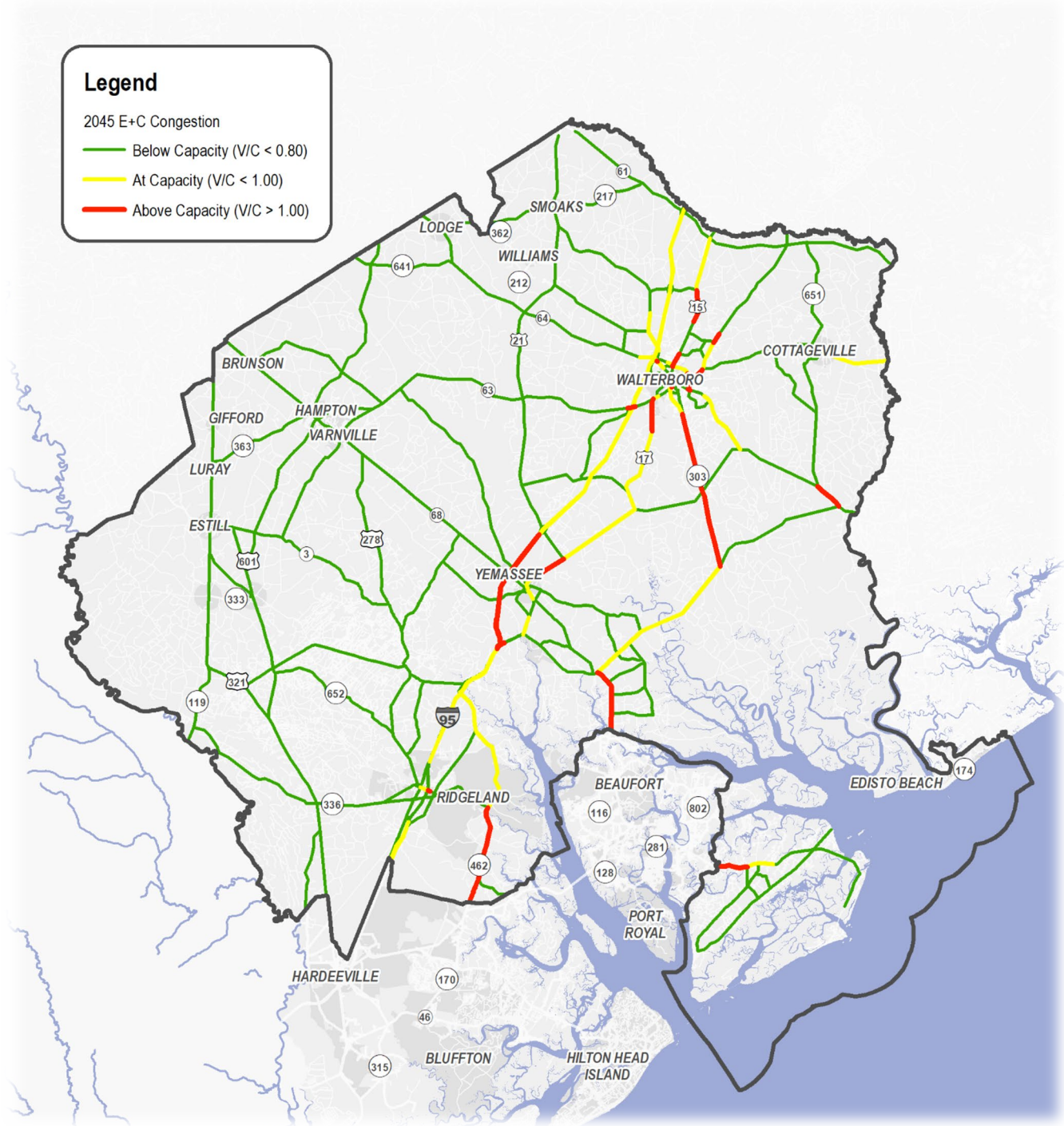




Figure 4: 2045 E+C Congestion



Traffic Safety and Crash History

An analysis of crash data provided by SCDOT helped establish the existing conditions and understanding of locations where safety improvements are needed. A traditional crash analysis includes a study of crash frequency and crash type at each location. The crash analysis for the *2045 LCOG Rural Area LRTP* focuses on severity along heavily traveled corridors and intersections where improvements are most critical.

To understand safety concerns throughout the Lowcountry Rural Area, a preliminary analysis by county helped establish the underlying context. **Table 2** shows the number of fatal and serious injury crashes by county between January 2016 and March 2021. These crashes are reflected in **Figure 7**.

Several factors of road design may contribute to a corridor or intersection's high crash frequency. These factors can include driveway access, intersection designs, and traffic congestion. The project recommendations aim to reduce congestion throughout the network in addition to promoting safety and addressing existing concerns for all modes of transportation. In addition to the design of facility, the other factors or causes of a fatal crash can be analyzed to further understand the existing conditions. **Table 3** summarizes the top four causes of fatal crashes.

Complete Streets

A “complete street” is a community-oriented street that provides accommodations for bicycling, walking, and transit in its design, construction, maintenance, and operation. The creation of a complete street requires both community support in addition to coordination among local planners, designers, engineers, and other specialists. The *2045 LCOG Rural Area LRTP* aims to integrate the goals of the SCDOT complete streets policy (adopted in February 2021) in the development of all transportation recommendations. Successful complete streets programs consider the following principles:

- Balancing demands to better accommodate walking, biking, and riding transit in safe, efficient, and accessible ways
- Blending street design with the surrounding area
- Coordinating with stakeholders (e.g., developers, property owners, SCDOT) to capitalize on private investment
- Empowering residents and visitors to be a part of the successful street design
- Encouraging walking, biking, and riding transit in the design of streets
- Fulfilling community objectives

The *2045 LCOG Rural Area LRTP* aims to achieve a balance between regional mobility needs and multimodal accessibility. Providing effective and accessible facilities for all users will be a collaborative effort between LCOG, SCDOT, and the counties and municipalities in the region.

Table 2: Fatal and Injury Crashes by County (2016 -2021)

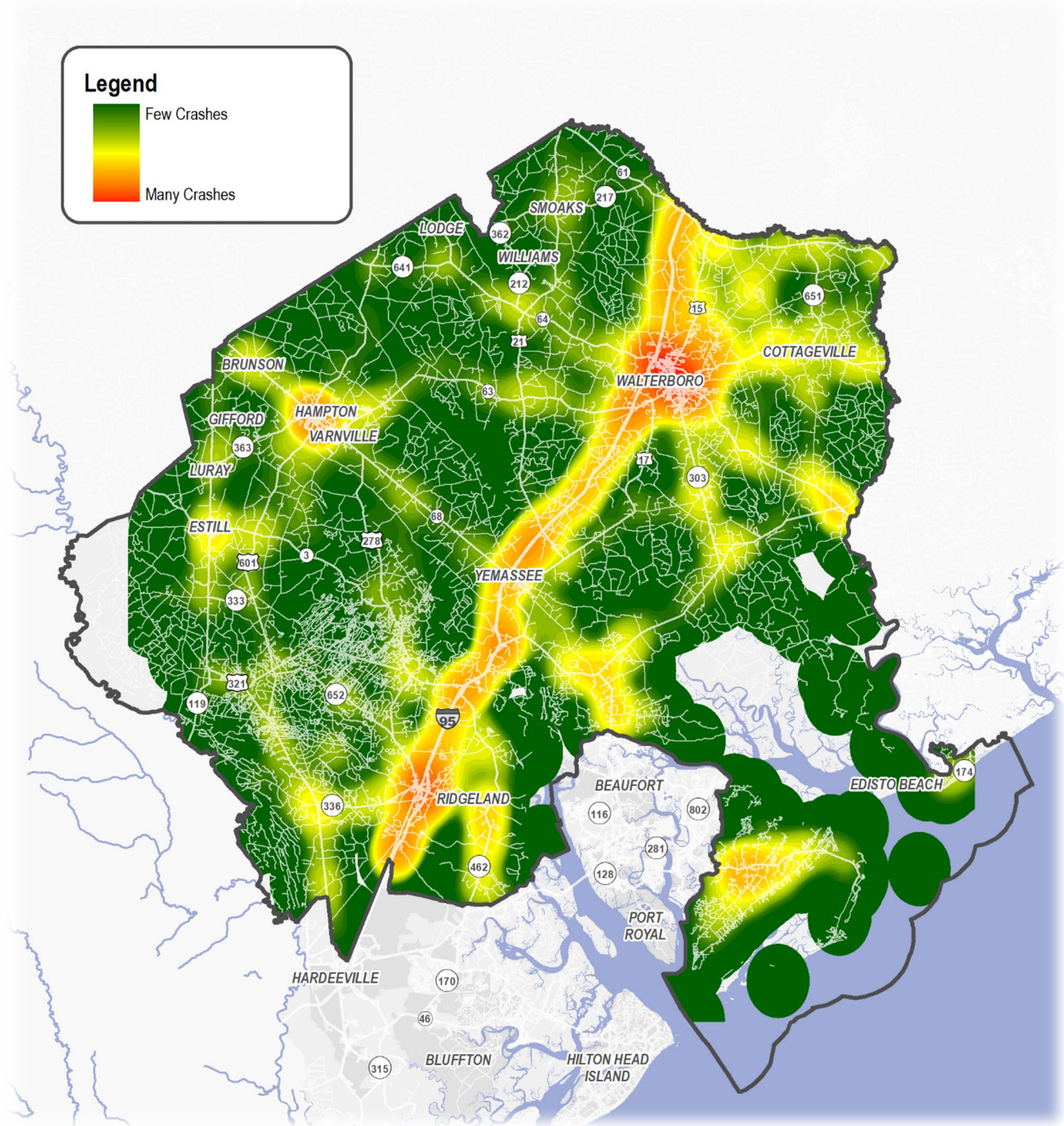
| County | Fatal | Injury |
|------------------------------|------------|--------------|
| Beaufort County | 114 | 6,767 |
| Rural Beaufort County | 15 | 346 |
| Jasper County | 88 | 2,431 |
| Rural Jasper County | 45 | 722 |
| Hampton County | 26 | 624 |
| Colleton County | 114 | 2,085 |

Table 3: Causes of Fatal Crashes (2016 -2021)

| Cause | Fatalities (Percentage) | Fatalities (Number) |
|--|-------------------------|---------------------|
| Under the Influence | 23% | 45 |
| Ran Off Road | 17% | 35 |
| Driving Too Fast | 13% | 26 |
| Lying and/or Illegally in Roadway | 8% | 16 |
| Other Causes | 39% | 78 |



Figure 7: Crash Locations



Public Outreach

Public engagement was a crucial component to help contextualize the development of the *2045 LCOG Rural Area LRTP*. The summary below focuses on the responses specific to roadway and intersection recommendations. The subsequent chapters of the *2045 LCOG Rural Area LRTP* will explore other modes of transportation.

Stakeholder Interviews + Community Workshop

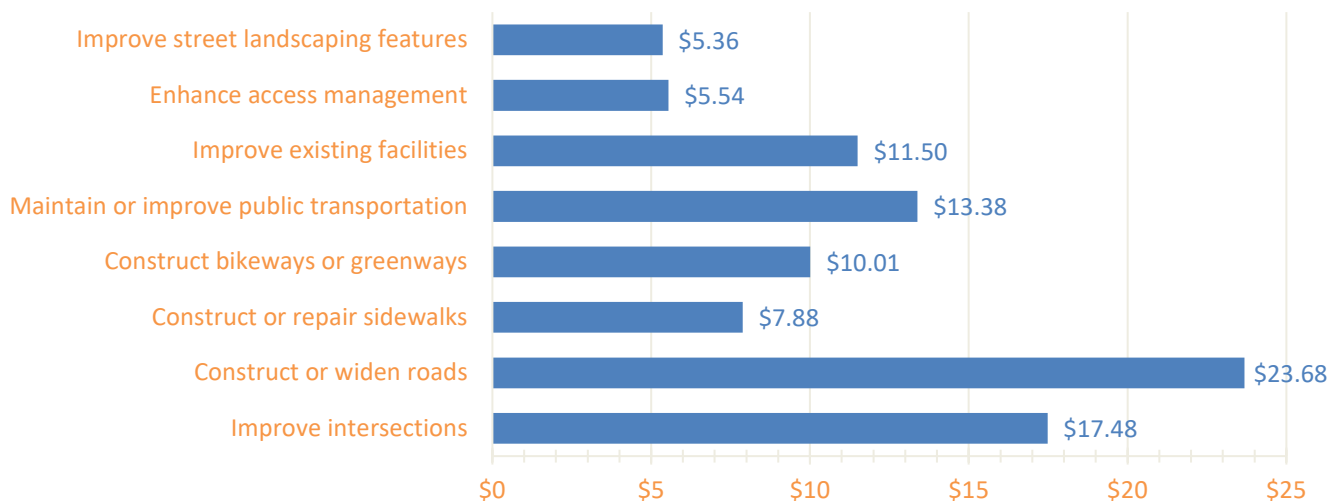
Several reoccurring themes emerged from the stakeholder interviews and community workshop.

- Concern that existing and planned future developments will strain transportation infrastructure, especially in high growth areas like Beaufort and Jasper Counties
- Enthusiasm for considering multimodal connections (i.e., greenways) in the Rural Area where appropriate
- Transportation infrastructure should reflect preferred growth patterns and community preferences, in order to capitalize on the region's growth, serve communities' needs, and preserve what residents enjoy about the Lowcountry

Online Outreach

Responses to the online survey provided additional insight into roadway needs and potential solutions.

How participants would spend transportation dollars



RURAL AREA CONSIDERATIONS: Many roads in the Rural Area are built for higher speeds than in urbanized areas. For this reason, intersection and access management improvements are especially important for preserving safety. In terms of multimodal improvements, greenways and side use paths are particularly effective in rural areas.



Recommendations

Roadway Recommendations

Recommended roadway projects for the *2045 LCOG Rural Area LRTP* include intersection and corridor improvements. The corridor improvements are categorized as access management or widening. These improvements were developed in concert with recommendations for the bicycle and pedestrian network (Chapter 5), transit (Chapter 6), and freight and aviation (Chapter 7). While some of the roadway recommendations incorporate multimodal enhancements, the consideration of bicycle and pedestrian facilities should be pursued in the development of any recommendation if applicable.

Access Management Toolbox

The Federal Highway Administration (FHWA) defines access management as “the proactive management of vehicular access points to land parcels adjacent to all manner of roadways.” When applied appropriately, access management is coordinated among government agencies and landowners. The following toolkit provides an overview of selected strategies available to mitigate congestion and other adverse effects. The purpose of this toolkit is to provide local planners and engineers with an overview of the techniques to enhance safety in the region. The solutions identified for each corridor will need to be studied in further detail to determine the appropriate treatment. The access management toolbox provides a variety of strategies to provide guidance on the types of improvements that should be considered.

Site Access Treatments

Reducing the number of vehicle conflicts as development occurs simplifies traffic movements, minimizes unnecessary conflict points, and helps manage traffic flow. Site access treatments should consider the following improvements:

- Access to Adjacent Sites
- Driveway Placement and Length
- Improved On-Site Traffic Circulation
- Number of Driveways
- Minor Street Approach Improvements

Intersection Treatments

At signalized intersections, ways to reduce driver confusion include constructing the proper curb radii and ensuring adequate travel lanes along street approaches. Treatments that enhance safety for pedestrians and bicycles can occur concurrently. Considerations include:

- Intersection and Driveway Curb Radii
- Roundabout
- Skip Marks (Dotted Line Markings)
- High-Visibility Pedestrian Crossings
- Painted Bicycle Left-Turn Box

Median Treatments

Median treatments restrict some left-turn movements to reduce conflict points, make traffic more predictable, improve traffic flow, and allow for aesthetic improvements. Corridors identified for medians should consider specific ways to provide necessary access to adjacent properties.

- Directional Cross (Left-Over Crossing)
- Improved On-Site Traffic Circulation
- Median U-Turn Treatment
- Non-Traversable Medians
- Offset Left-Turns

Intelligent Transportation Systems (ITS) Treatments

ITS solutions use computer technology to enhance traffic flow, reduce crashes, and manage emissions. By controlling the signal system remotely, agencies can share information with the public and allow emergency vehicles to have priority traveling through a signalized intersection.

- Dynamic Message Signs (DMS)
- Emergency Vehicle Preemption (EVP)
- Progressive-Controlled Signal System
- Signalization Timing

Table 4 and **Table 5** summarize the intersection and corridor projects, respectively. These recommendations are shown in **Figure 8** and **Figure 9**. The projects were prioritized to identify those that should be implemented as soon as possible. Future collector street locations and alignments should be further determined by collaboration between local jurisdictions, the state, and local developers.

Table 4: Intersection Recommendations

| Project ID | Spot Recommendation | Project Type |
|------------|-----------------------------|--------------|
| S-1 | SC 64 at Ace Basin Pkwy | Intersection |
| S-2 | Sidneys Hwy at Round O Road | Intersection |
| S-3 | US 321 at SC 336 | Intersection |
| S-4 | SC 17 at Yemassee Rd | Intersection |
| S-5 | US 28 at US 601 | Intersection |
| S-6 | SC 64 at Robertson Rd | Intersection |

Table 5: Corridor Recommendations

| Project ID | Corridor Recommendation | Project Type | Length (miles) |
|-------------|--|--------------------|----------------|
| BC-1 | US 21 from US 17 to Rural Area Boundary | Access Management | 4.0 |
| BC-2 | US 21 from Beaufort River to St. Helena Island | Access Management | 10.8 |
| BC-3 | US 17 from Gardens Corner to Colleton County Line | Widening | 5.5 |
| CC-1 | US 17 from Beaufort County Line to SC 64 (Jacksonboro) | Widening | 16.7 |
| CC-2 | US 17A from Walterboro to Colleton County Line | Widening | 15.1 |
| CC-3 | SC 64 from Jacksonboro to I-95 | Four-Lane Widening | 21.3 |
| HC-1 | SC 68 from I-95 to Varnville | Widening | 15.8 |
| HC-2 | US 321 from Steep Bottom Rd to 2 nd St | Complete Street | 1.9 |
| JC-1 | US 321 from SC 336 to Rural Area Boundary | Access Management | 10.0 |
| W-1 | Robertson Blvd from US 15 to SC 64 | Access Management | 0.7 |
| W-2 | SC 64 from SC 15 to I-95 | Access Management | 1.6 |



Figure 8: Intersection Recommendations

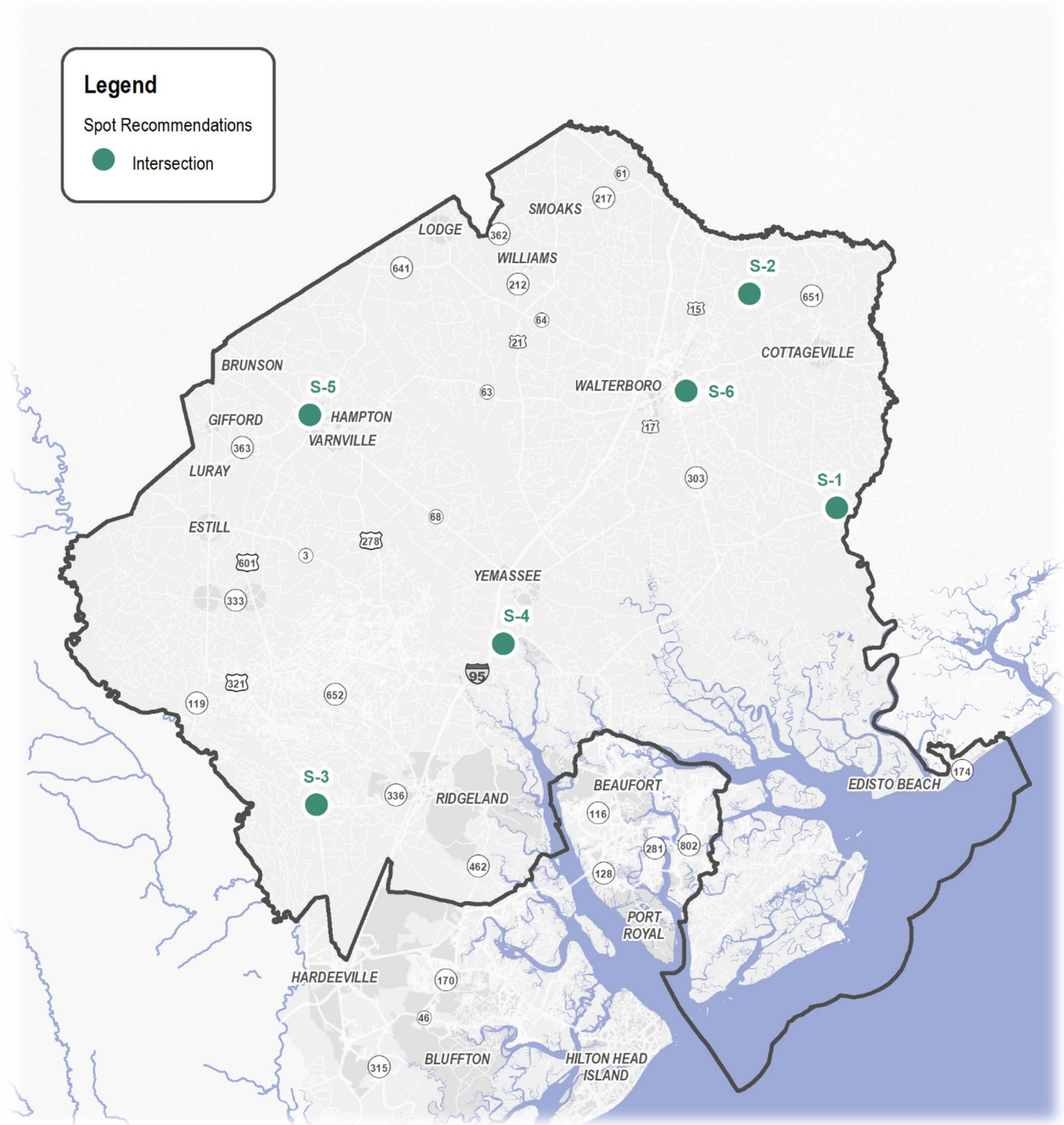
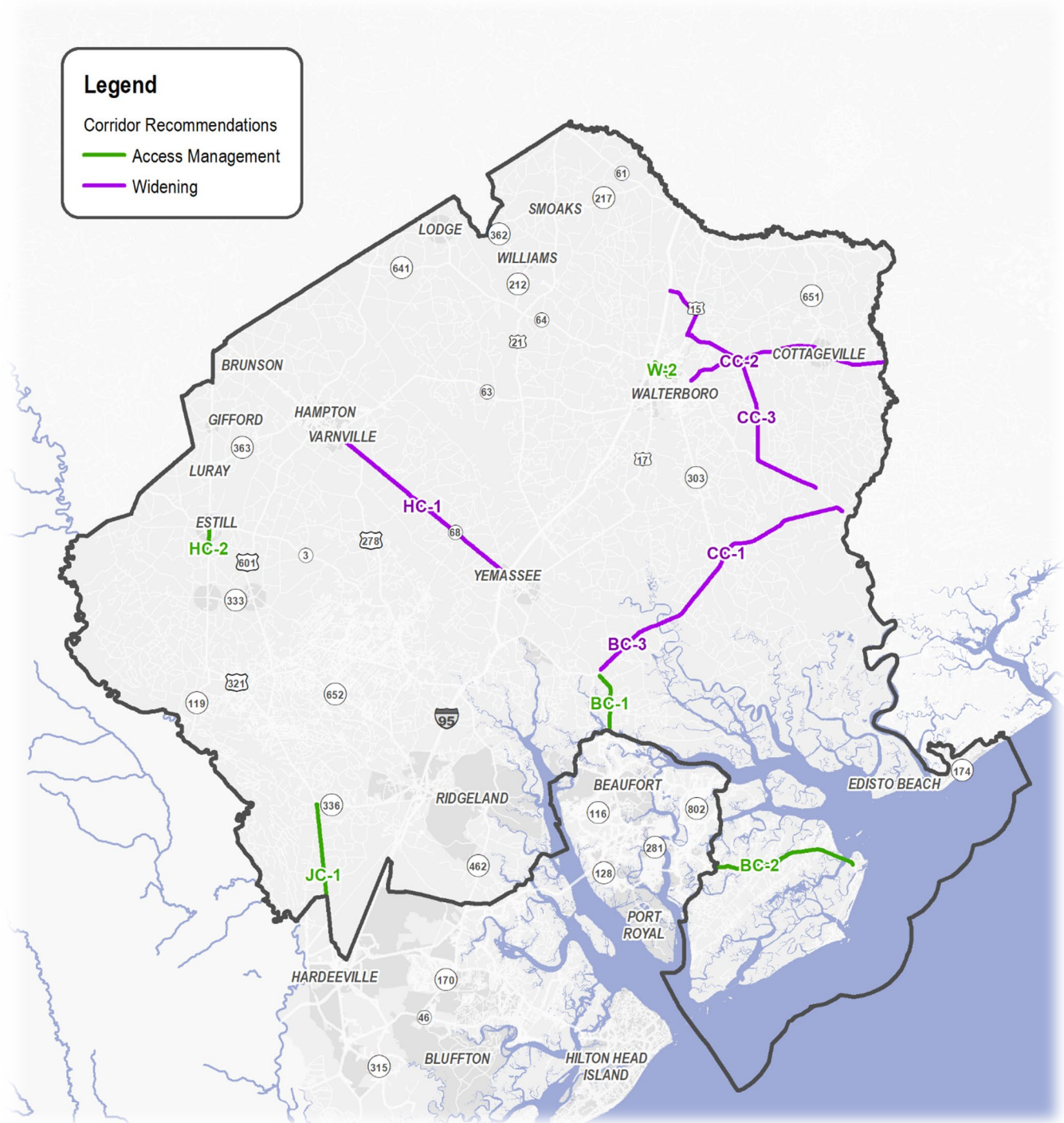


Figure 9: Corridor Recommendations





Special Studies or Other Projects

Special studies are necessary to further evaluate improvements along key corridors or to refine initiatives that address regional needs. Where funding is available, the LCOG should consider partnering with localities to determine the full scope of work. Where overlap with the LATS urban area exists, the cost of the study could be split proportionally between the urban and rural areas. Some of these studies shown below are referenced in subsequent chapters of the *2045 LCOG Rural Area LRTP*.

3rd Bridge Feasibility Study

The feasibility study would evaluate the need for a third bridge to Lady's Island.

I-95 Feasibility Study

A feasibility study for the I-95 corridor between mile marker (MM) 8 and MM 33 will identify strategies to improve capacity and address operational deficiencies along each interchange.

Regional Freight Plan

The regional freight plan would gather and analyze freight data across the region to understand existing freight corridors, understand barriers to freight mobility, and identify locations for freight improvements.

Edisto Beach Workforce Shuttle Study

This study would evaluate shuttle-style transit service between a to-be-determined location off/near Highway 17 into the Town of Edisto Beach.

Northern Beaufort County Transit Study

This study would evaluate transit and/or microtransit service in northern Beaufort County, including portions of the urbanized and rural area.

Introduction

Rural areas across the country face numerous challenges related to creating active communities with strong bicycle and pedestrian connections. For the Lowcountry Rural Area, the biggest challenges include significant distances between destinations and a deep-rooted car culture. With limited funds for projects, the focus often turns to maintaining existing roads and bridges, improving safety at intersections, and making small gains toward a more connected roadway network. Little attention—and funds—can be given to building sidewalks, constructing greenways, and building out the bicycle network. Chapter 5 of the *2045 LCOG Rural Area LRTP* approaches bicycle and pedestrian needs with an eye toward long-term advocacy and incremental improvements in locations with greatest return on investment.

Role in the Rural Area

The *2045 LCOG Rural Area LRTP* maintains a commitment to apply context-appropriate Complete Streets concepts and prioritize safety of all users is accepted throughout the Rural Area. Where applicable, the *2045 LCOG Rural Area LRTP* will carry forward locally adopted bicycle and pedestrian recommendations and build upon efforts in the urbanized area to make the Lowcountry a more active and livable place.

Connection to the 2045 LCOG Rural Area LRTP Goals

The Bicycle and Pedestrian element addresses the plan's goals in the following ways.



Access and Mobility

Active transportation helps balance the regional transportation system. These modes often provide the 'Last Mile Benefits' required for an efficient mobility system.



Resiliency

Even the smallest active transportation investments helps the network overcome interruptions, endure damages, and recover from disturbances.



Culture and Environment

People enjoy walking and biking where they can safely enjoy the built and natural environment. These places include downtowns, neighborhoods, parks and schools, and cultural centers.



Safety and Security

The safety of the transportation system can be improved by reducing bicycle- and pedestrian-related crashes. Facilities for cyclists and pedestrians should be a priority in future transportation projects.



Economic Vitality

Active transportation can foster economic growth by making it easier to move people within and through the region.



System Preservation

Bicycle and pedestrian facilities are relatively low-cost investments that minimize the need for costlier roadway projects.

Planning Considerations

The planning considerations outline topics that should be accounted for during the plan development process to ensure that active transportation decisions and investments are equitable and realistic. The following pages explore the existing conditions and relevant considerations that are crucial to understanding how to best implement bicycle and pedestrian projects.

The Five Es of Bicycle and Pedestrian Planning

Five components of bicycle and pedestrian planning represent the various ways that planners, engineers, local officials, and public can better incorporate active transportation into their communities. By considering and balancing each component with one another, the implementation of bicycle and pedestrian facilities will more likely be successful. In the LCOG Rural Area, the emphasis on providing safe and connected multimodal transportation can only be further supplemented by the considerations outlined below.



Engineering...

...refers to the planning and designing of multimodal facilities. Planners and engineers must consider the safety of people of all ages and abilities and provide connected facilities to expand the active transportation network.



Education...

...refers to the resources that are provided to all cyclists, pedestrians, and motorists to equip them with a mutual understanding of how to share the roadway network.



Encouragement...

...refers to the ways to promote biking and walking. This component both refers to the physical investment in multimodal facilities and the investment in creating attractive and safe destinations.



Enforcement...

...refers to the actions that promote the safety of all users of the roadway network. The enforcement should encourage all users to share multimodal facilities.



Evaluation/Planning...

...refers to the continuous review of existing and planned facilities. Communities that value active transportation assess existing policies and programs while outlining how to expand facilities in the future. Roadway design should continue to emphasize choices that encourage biking and walking.

Planning for All Ages and Abilities

The development of recommendations must consider people of all ages and abilities and recommend appropriate facilities that are responsive to the intended or expected users. Two crucial pieces of information help inform how the planning and design of facilities may best service the community: the trip purpose and user skill or comfort level. These considerations are specific to bicycle users—particularly the skill level—however, the themes of accessibility and safety are applicable to all types of facilities and people.

Trip Purpose

The types of users can be used to further explore the types of trips people are making throughout the region. There are two relevant categories that most trips can be grouped into:

- **Utilitarian or Non-Discretionary Travel.** Certain groups do not or cannot use a personal, motor-vehicle. In certain cases, people with disabilities or elderly people cannot operate or do not feel comfortable operating a vehicle. In the four-county Lowcountry region, more than 24% of the population is over 65 years of age according to 2019 American Community (ACS) 5-Year Estimates. Nearly 5% of households in the region do not have access to a vehicle. Often, these demographic groups must rely on biking, walking, or taking public transportation to make trips.
- **Recreational or Discretionary Travel.** Both walking and biking are excellent options for exercise. As a form of recreation, walking and biking can not only establish a healthy lifestyle, but also promote the livability of communities.

All types of travelers would benefit from a safe and connected network of bicycle and pedestrian facilities.

User Skill or Comfort Level

Bikers can further be grouped by their comfort and skill level.

Advanced Cyclists

- Typically, the most experienced on the road
- Can safely ride on typical arterials that have higher traffic volumes and speeds
- Most prefer shared roadways in lieu of striped bike lanes and paths
- Represent only 20% of adult cyclists but account for nearly 80% of annual bicycle miles traveled

Intermediate & Basic Adult Cyclists

- Less experience on the road
- Less secure in their ability to ride in traffic without special accommodations
- Casual or new adult and teenage riders
- Typically prefer multi-use paths or bike lanes that reduce their exposure to fast-moving and heavy traffic
- Represent approximately 80% of adult cyclists

Child Cyclists

- Little to no experience on the road
- Limited field of vision while riding
- Generally, keep to neighborhood streets and greenways
- Likely will ride on sidewalks along busier streets

Types of Facilities

Several types of bicycle, pedestrian, and non-motorized facilities can create the active transportation network. Planners and engineers should consider the intended types and skill levels of the users who will use these facilities. The 2045 LCOG Rural Area LRTP will provide context-sensitive bicycle and pedestrian recommendations to complement the region's overall transportation network.

Sidewalks and multiuse pathways along roadways provide standard connections between destinations. The facilities for bicycles are more varied than pedestrian facilities due to the proximity of them to roadways. The different types of bicycle facilities can be found below.



Multiuse Pathway

A multiuse pathway is typically adjacent to a roadway with enough separation—typically a planted buffer—to make all users feel comfortable. A multiuse pathway can also be found in open spaces (greenways) and reflect the natural landscape.

- Typically, between 10 feet to 14 feet wide
- Estimated cost per mile is around \$500,000
- Shared with cyclists and pedestrians



Paved Shoulder

A paved shoulder uses the extra pavement beyond the typical travel lane. The shoulder is designated by striping to indicate to both cyclists and vehicles the boundary. In rural areas, paved shoulders have the added benefit of helping preserve pavement quality.

- Typically, between 4 feet to 5 feet wide
- Estimated cost per mile is around \$300,000



Shared Lane Markings (Sharrows)

A shared lane marking indicates the shared space for both motor vehicles and bicycles. The best use of share land markings is typically on low-speed, space-constrained roadways. A shared-lane marking is usually best accompanied by additional signage.

- Between 100 feet to 250 feet
- Estimated cost per mile is around \$12,500 (~\$175 per marking)



Striped Bicycle Lanes

A striped bicycle lane is an exclusive-use area that is adjacent to the outermost travel lane for vehicles.

- Typically, between 4 feet to 5 feet wide
- Estimated cost per mile (for striping only) is around \$2,000
- Estimated cost per mile (new construction) is around \$800,000



Wide Outside Lane

A wide outside lane extends beyond the typical travel lane width and is often found on a street with curb and gutter. These types of improvements are best used on four-lane roadways with speed limits of 35 miles per hour or lower.

- Typical width for an outside lane is around 14 feet
- The cost estimate is typically determined when roadways are widened

The table below displays each bicycle facility by the skill level of its intended users.

| | Basic | Intermediate | Advanced |
|----------------------|-------|--------------|--------------|
| Multiuse Pathway | Basic | | |
| Paved Shoulder | Basic | Basic | Basic |
| Shared Lane Markings | | Intermediate | Intermediate |
| Striped Bicycle Lane | | Basic | Basic |
| Wide Outside Lane | | Basic | Basic |

Public Outreach

The single engagement process for the 2045 LATS LRTP and 2045 LCOG Rural Area LRTP included numerous conversations about the need for more walkable places and safer ways to travel by bicycle. The summary below focuses on input specific to bicycle and pedestrian recommendations with an emphasis on rural considerations.

Stakeholder Interviews + Community Workshop

Several reoccurring themes emerged from the stakeholder interviews and community workshop.

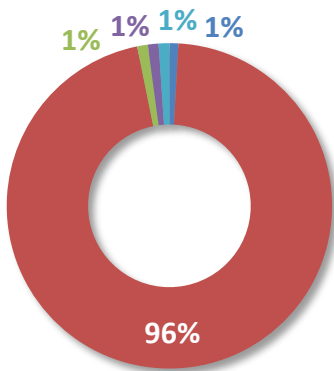
- Focus growth in existing cities/towns and create multimodal connections between these areas
- Locations noted for the Rural Area's best opportunities for multimodal corridors
- Recognition of the economic impact of investments in active transportation
- Bicycle and pedestrian improvements are goals related to land use, sustainability, and economic development

Online Outreach

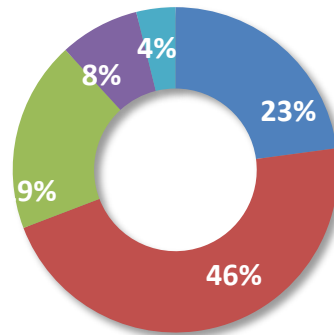
The online survey offered an additional way for community members to provide input on regional transportation issues, particularly goals, trade-offs, and project ideas. While most survey responses focused on the urban area covered in the 2045 LATS LRTP, input received is relevant to Rural Area considerations.

When asked how they currently travel versus how they would like to travel, participants said the following:

How do you travel?



How would you like to travel?

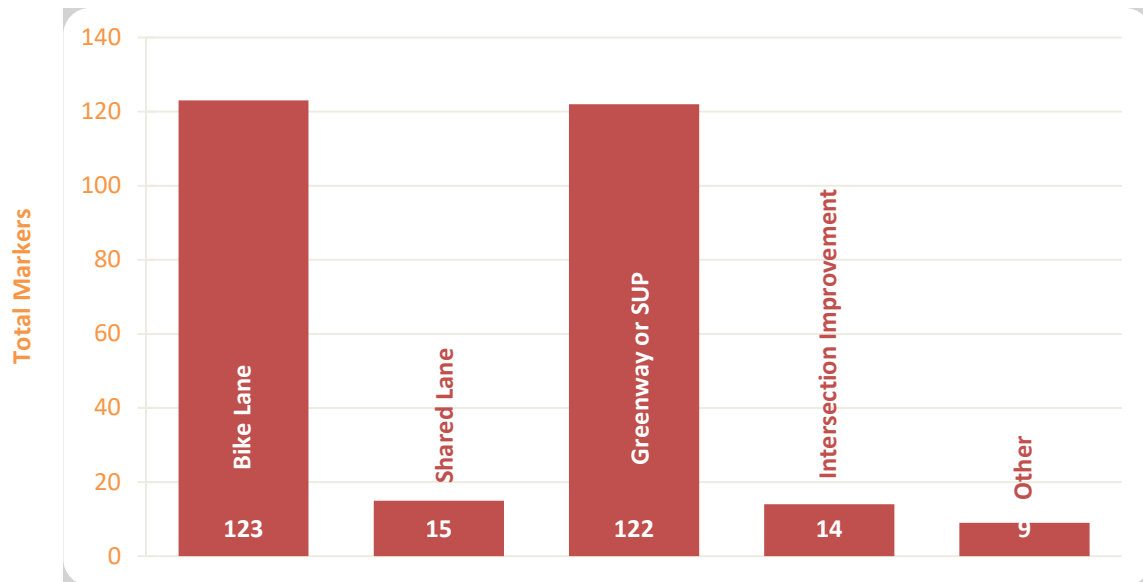


RURAL AREA

CONSIDERATIONS: While this question captures participants from the urban and rural areas of the region, it is understood that the demand exists regionwide for better options to bike and walk, especially for short trips in rural town centers.

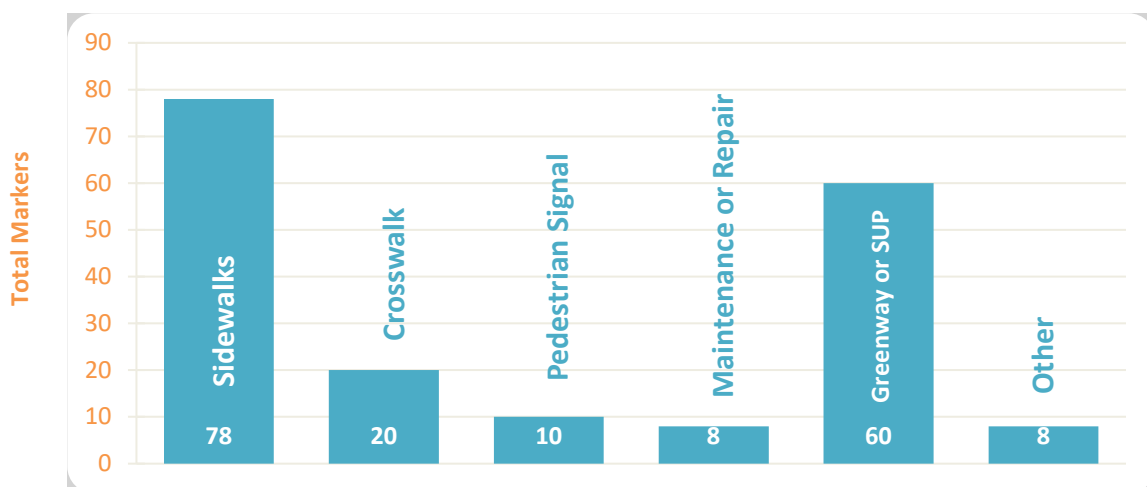


Participants were asked to map ideas. The project types that were recommended for bicycle facilities are summarized below.



RURAL AREA CONSIDERATIONS: Determining the appropriate facility type requires consideration of a range of factors, including roadway characteristics, surrounding land uses, and distance between destinations. Greenways and side use paths are particularly effective in rural areas.

Participants were asked to map ideas for pedestrian facilities. The project types that were recommended for are summarized below.



RURAL AREA CONSIDERATIONS: While fewer potential projects were identified by participants in the Rural Area, strategic sidewalk and trail connections can have a positive impact on mobility, accessibility, and economic investment.



Existing Facilities

The existing bicycle and pedestrian network in the Rural Area is understandably limited. However, previous planning efforts for the larger region—including the urbanized and Rural Area—provide a strong foundation for enhancing opportunities to move on foot and by bike. These plans identify a vision for active transportation and make a strong case for these investments and the contribution they make to broader community initiatives.



Downtown Walterboro



Elm Street West through Hampton



Palmetto Boulevard in Edisto Beach



US 21 and Salkehatchie Rd in Yemassee



US 21 and SC 217 in Smoaks



Main Street in Ridgeland

Recommendations

Stakeholders engaged as part of the *LCOG Rural Area LRTP* envisioned a network of trails and bike paths that connect communities throughout the Rural Area with additional emphasis on the places that are most likely to rely on walking and bicycling as common parts of everyday life. People of all ages and abilities deserve access to safe, comfortable, and convenient walking and bicycling infrastructure and see the benefits of enhanced quality of life, healthier lifestyles, greater economic opportunity. The *LCOG Rural Area LRTP* embraces a culture of safety and respect for the well-being of people traveling on foot or by bike through strategic **Multimodal Connections**, an emphasis on **Priority Pedestrian Areas**, more attention to **Rural Design Considerations**, and continued collaboration on the **East Coast Greenway**.

Multimodal Connections

The Rural Area is home to numerous cities, towns, and destinations that would benefit from multimodal connections. The *2045 LCOG Rural Area LRTP* highlights the need to fill gaps between existing these places and create a regional active transportation spine network over time. Improvements should provide safer connections to a variety of destinations including town centers; large employment sites; parks and recreation facilities; and public facilities such as schools, libraries, and grocery stores. These multimodal connections will promote sustainable growth throughout the Rural Area while embracing the unique character of the region's communities.

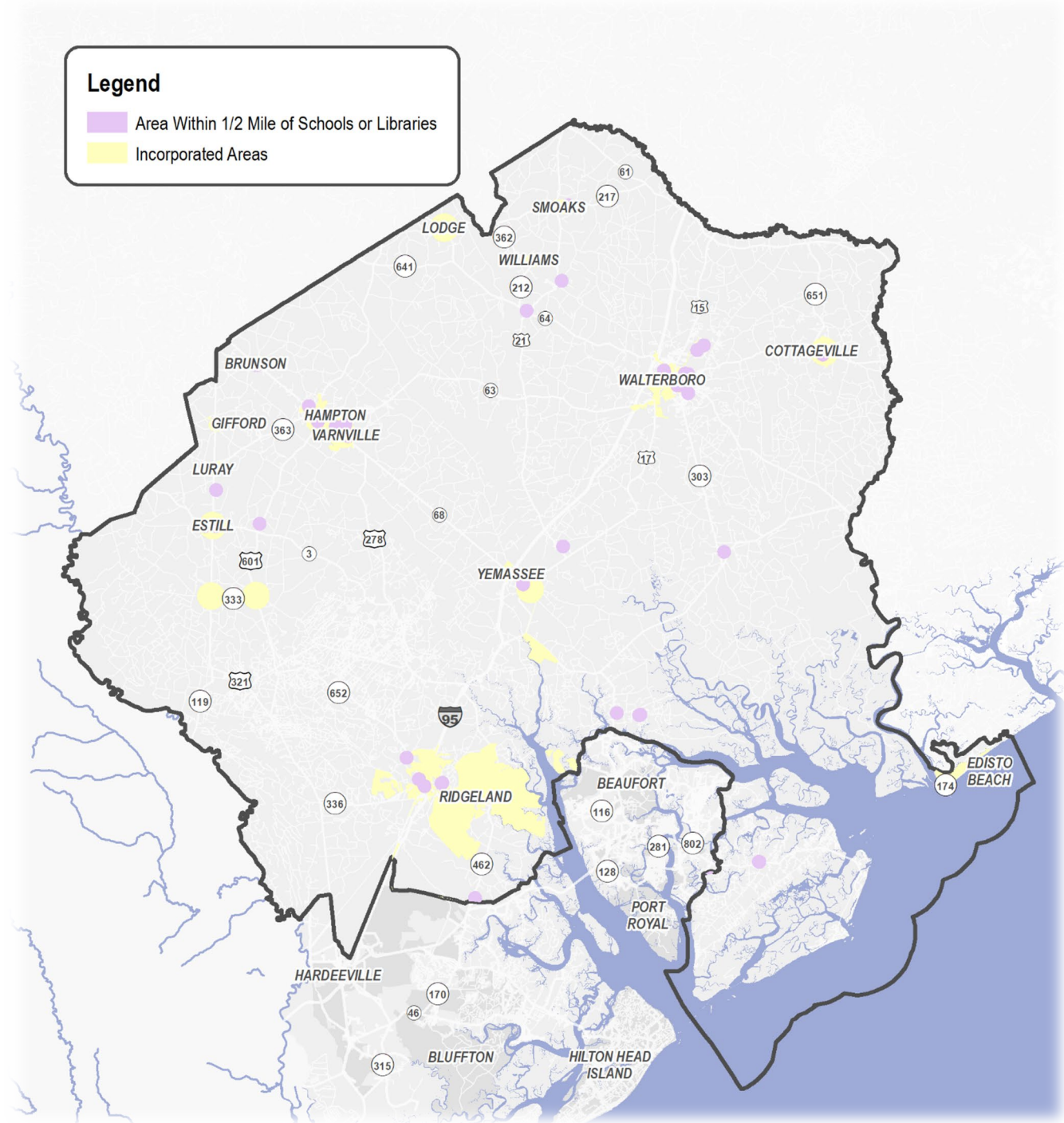
Rural multimodal connections should focus on connecting the larger towns in the area, including Ridgeland, Yemassee, Walterboro, and Hampton/Varnville. These places would benefit from connections to the urban area centers of Beaufort, Bluffton, Hardeeville, and Hilton Head Island. They also would benefit from connections outside the Lowcountry region, including Augusta, Charleston, and Summerville. Once the rural-to-urban connection is made, users can take full advantage of the current multimodal network (and anticipated enhancements) within the urbanized area. While careful consideration will be necessary to the selection and design details of the multimodal connections, the corridors likely would include a mix of state routes (SC 68, SC 63) and US highways (US 321, US 278, and US 17 Alt).





Priority Pedestrian Areas

While the 2045 LCOG Rural Area LRTP is not designed to specify specific sidewalk needs, it does emphasize the need for walkability near schools and within the regional town centers. These areas should reinforce the emphasis placed on the Multimodal Connections introduced on the previous page. The LRTP recommends a priority area policy for sidewalks within a half-mile of elementary, middle, and high schools as well as central business districts throughout the region.



Rural Design Considerations

The proper design of bicycle and pedestrian infrastructure in rural areas is an essential component of a safe, efficient, active transportation network.

Design for Bicyclists

Similar to motor vehicles, bicyclists and their bicycles exist in a variety of sizes and configurations. These variations occur in the types of vehicle (such as a conventional bicycle, a recumbent bicycle, or a tricycle), and behavioral characteristics (such as the comfort level of the bicyclist). The design of a bikeway should consider reasonably expected bicycle types, skill levels, and traffic levels on and around the facility and utilize appropriate dimensions.

Design for Pedestrians

The Rural Area network should accommodate pedestrians of all ages and abilities. These factors affect the pedestrian's physical characteristics, walking speed, and environmental perception and should be taken into consideration when designing pedestrian infrastructure. Sidewalks should be provided on both sides of major roadways within and near Priority Pedestrian Areas.

Intersections

Intersections can either facilitate active transportation or be a barrier to it. If a bicyclist is aware of an uncomfortable intersection, they will be less apt to bike there. Well thought-out design must promote safety through increased visibility, accessibility, separation from traffic, and lighting. Pedestrian safety must be a priority at intersections, with well thought-out design that increases visibility, accessibility, and separation from traffic.

Bicycle Parking

Plentiful, convenient, and attractive bicycle parking should be provided to encourage bicycling. While specific bicycle parking locations are not identified in this planning effort, ample bicycle parking should be provided at popular bicycling destinations such as parks, schools, retail areas, and other gathering places. Local jurisdictions should include bicycle parking as part of their requirements for new development.





East Coast Greenway

The East Coast Greenway continuous 3,000 mile of shared-use paths from Maine to Florida. The East Coast Greenway is still in development and intended to follow existing roadways where greenways have not been developed in the public right-to-way. The East Coast Greenway Alliance is a non-profit that coordinates efforts to promote and complete the East Coast Greenway. When finally completed, the East Coast Greenway will provide a continuous network for people of all ages and abilities.

In South Carolina, 258 miles are proposed to create the spine route. With over 50 miles of protected greenway, the majority of the trail will be on-road facilities. The on-road facilities include bicycle lanes, sharrows, wide outside lanes, and paved shoulders. The off-street facilities are multi-use pathways that are completely separated from traffic. The design and development of the East Coast Greenway is still underway. The opportunity to leverage and create connections branching off of the spine route can successfully expand the active transportation network throughout the Lowcountry. Currently in the state, approximately 20% of the spine route has been completed as a traffic-separated multiuse pathway. In Beaufort County, there are three completed segments of the East Coast Greenway spine route. The connections include the Gardens Corner Greenway, the Spanish Moss Trail, and the side path along SC-180. The construction segments are ten to twelve feet pathways, that are consistent with the requirements outlined in the Greenway Guide.



Source | Beaufort County Connects: Bicycle and Pedestrian Plan 2021

Chapter 6 | Public Transportation

Introduction

Public transportation, or transit, provides an important travel option to people who cannot, or choose not, to drive. Palmetto Breeze has been serving residents, employees, and visitors in Beaufort and Jasper Counties, as well as Allendale, Colleton, and Hampton Counties with transit service for four decades. The various transit options of 20 routes made up of commuter buses, circulating shuttles, and on-demand services offered by Palmetto Breeze serve riders across the Lowcountry region, providing access to major regional employers, shopping areas, tourist destinations, health care services, social services, and universities. Chapter 6 of the *2045 LCOG Rural Area LRTP* highlights previous planning efforts in the region and pulls forward the recommendations laid out in existing adopted transit plans. The roadway, bicycle, and pedestrian recommendations from the LRTP help facilitate transit improvements and critical first- and last-mile connections.

Role in the Rural Area

This chapter of the *2045 LCOG Rural Area LRTP* views public transportation through the lens of service delivery in a large, diverse, and mostly rural region. It carries forward recommendations from previous planning efforts with additional emphasis on ways to enhance the quality of life and access to opportunity for the most vulnerable residents in the region's most remote locations.

Connection to the 2045 LCOG Rural Area LRTP Goals

The Public Transportation element addresses the plan's goals in the following ways.



Access and Mobility

Public transportation promotes connected, more efficient transportation that give people access to goods, services, and jobs.



Resiliency

A robust public transportation network provides travel options during times of distress and can assist with recovery efforts.



Culture and Environment

Taking transit helps the environment, and when executed properly, contributes to how people connect with their local community.



Safety and Security

Public transportation has long played a role in the safe and orderly evacuation of the region's most vulnerable populations.



Economic Vitality

Public transportation helps connect people to jobs, healthcare, and everyday destinations, a notable challenge in the region's more remote areas.



System Preservation

Public transportation allows people to choose how they travel, which can lead to shared rides and less traffic growth, thereby extending the lifespan of infrastructure.



Planning Considerations

A successful rural transit system looks and operates different than the fixed route systems common in the state's urban centers. Regardless, an intentional approach to transit planning in rural areas consider community needs and focuses on those that would benefit most from a more reliable and convenient service. While some planning considerations are federally mandated, others represent best practices in the transportation planning field.

COVID-19 Implications

The COVID-19 pandemic caused transit ridership to decline throughout the country. This not only altered travel patterns but also negatively impacted many transit agencies since their revenue largely comes from fares and ridership-related funds. While Palmetto Breeze was able to successfully provide continuous commuter and demand-response service despite the challenges of the COVID-19 pandemic, many transit agencies across the nation struggled to maintain service operations. The Coronavirus Aid, Relief, and Economic Security (CARES) Act is a \$2.2 trillion stimulus bill that was passed on March 27, 2020. The CARES Act is a relief bill aimed to support state and local economic recovery. The Federal Transit Administration is responsible for the allocation of \$25 billion to urbanized and rural areas. The funding is provided at a 100-percent federal share with no local matches required. The funds can be used to support operating, capital, or other expenses to respond to lost revenue generation from COVID-19.

Multimodal Connections

Even rural transit users benefit from a network of sidewalks, safe street crossings, bicycle facilities, and bicycle storage. The efficiency of transit, particularly commuter-based transit, depends on an interconnected street network and predictable travel times from rural areas to urban centers. For these reasons, transit cannot be considered in isolation, and the strategies presented in this chapter support improvements to the larger transportation system.

Types of Riders

Key to planning is understanding the audience, or who you are planning for. Transit typically serves three general categories of riders. **Occasional Riders** only use transit every so often. It's not their main form of transportation but they use transit every once and a while when needed or for special events they need to travel for. **Commuters** use transit to travel to and from work but rarely use it for other purposes. **All-Purpose Riders** use transit in their daily life for all purposes, not just to get to and from work. All-purpose riders may not have access to or are unable to use a personal vehicle and could be dependent on the transit system to travel. These include riders who may be too young to drive, the elderly, persons with disabilities, and those without the financial means to own and operate a personal vehicle. Other reasons for being an all-purpose rider include convenience, comfort, or environmental principles.

Land Use and Transit

Travelers are more likely to use transit when service is convenient, dependable, and easy to use. While this level of service requires a complete network of roads, sidewalks, and bikeways, it also demands connections to the places travelers need and want to go. Where possible, transit should occur in areas with transit-supportive land uses. In more urban areas such as Beaufort and Hilton Head, this includes development types that maximize potential transit ridership such as transit-oriented development, transit-ready development, and single-use transit destinations. In rural areas, the emphasis often shifts to creating supportive land uses near locations with express bus stops.

Public Outreach

The engagement strategy allowed participants to share their input at in-person and through virtual means. A public survey was launched in tandem with the in-person engagement to reach all members of the community. A summary of public outreach specific to public transportation is outlined below.

Stakeholder Interviews + Community Workshop

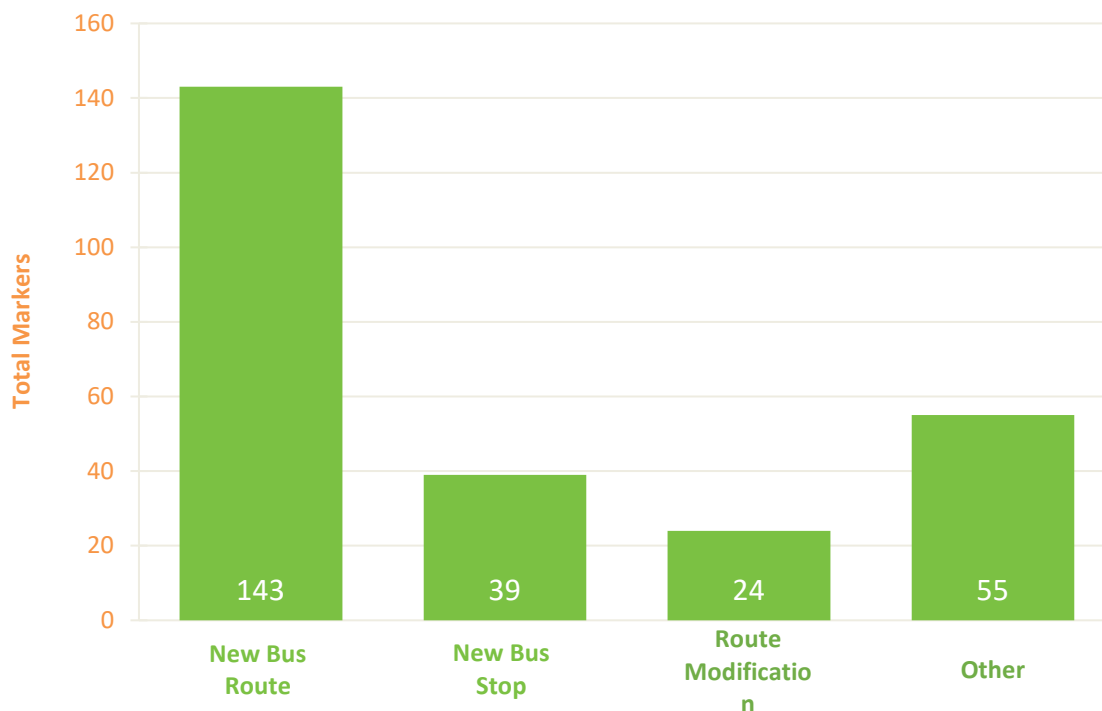
Several reoccurring themes emerged from the stakeholder interviews and community workshop.

- Dispersed population and limited employment centers in the Rural Area make expanding transit a challenge
- Distance to regional employment centers is a challenge
- Focused discussion on how to blend public transportation and other multimodal options to better connect people to destinations in places such as Hilton Head, Beaufort, and Bluffton

Online Outreach

Responses to the online survey provided additional insight into roadway needs and potential solutions.

Participants were asked to map ideas. The project types that were recommended are summarized below.



RURAL AREA CONSIDERATIONS: While many of the public transportation ideas were mapped in the region's largest cities, dozens of suggestions were identified in the Lowcountry Rural Area. These suggestions ranged from outlying bus stops to enhanced commuter service to bus routes that circulate in the outlying counties and towns.



Existing Service

Public transportation in the Rural Area provides useful service and a critical connection between outlying counties and region's urban core.

Bus and Shuttle Service

Palmetto Breeze has a total of 20 bus routes. Seven of those are commuter routes, which typically connect people to their place of employment. These are typically longer routes, with fewer stops to increase the efficiency and speed of the trip. The commuter routes are a service for many residents in the Rural Area, connecting them to job opportunities in the region's urban center of Hilton Head. The seven commuter routes are:

- **Route 302/802** – St. Helena/Beaufort to Hilton Head Commuter
- **Route 307/807** – Gifford to Hilton Head Commuter
- **Route 308** – Pineland/Ridgeland to Hilton Head Commuter
- **Route 309** – Big Estate/Sheldon to Hilton Head Commuter
- **Route 310/810** – Fairfax/Hampton to Hilton Head Commuter
- **Route 311/811** – Allendale to Hilton Head Commuter
- **Route 320/820** – Ruffin/Walterboro to Hilton Head Commuter

In addition to commuter routes, Palmetto Breeze also has circulating shuttles that serve smaller areas with more frequent stops when compared to commuter routes. The Walterboro Works (Route 429) operates Monday through Friday to connect riders with employment locations, job training centers, programs, and other crucial destinations within and around Walterboro. Like the shuttle services, Hilton Head Island has the Breeze Trolley which has two routes serving the southern and middle areas of the island. The remaining five routes are demand-response, which permits riders to schedule rides in advance. This enables the transit agency to serve riders in



more rural areas while balancing resources. Three of the demand response routes connect to the City of Beaufort, while the other two connect to Bluffton. **Figure 1** shows the Palmetto Breeze routes and service area.

ADA and Paratransit Service

To serve riders who may need special accommodations such as the disabled or elderly, all Palmetto Breeze buses are equipped with wheelchair lifts making the routes ADA accessible. Palmetto Breeze also has a paratransit service called Easy Breeze Paratransit. Paratransit is a transportation service that supplements typical fixed routes by providing rides for the individual without the limitation of specified routes or timetables. Easy Breeze Paratransit utilizes shuttles and is offered to riders who meet the criteria established under the Americans with Disabilities Act. It is a door-to-door service, complementing fixed-route bus service within $\frac{3}{4}$ of a mile of the Hilton Head Island trolleys (The Breeze) and in the city limits of Walterboro (Route 429). This paratransit service, in combination with the ADA accommodations provided on all buses, creates a more comprehensive transit system that is able to meet the needs of many users.

Figure 1: Palmetto Breeze Routes and Service Area



Recommendations

The *LCOG Rural Area LRTP* seeks to enhance access to public transportation by identifying **Priority Transit Corridors**, understanding **Market Considerations**, encouraging **Coordination Among Other Planning Efforts**, and communicating **Best Practices**.

Priority Transit Corridors

The priority transit corridors feature US and SC Highways currently used by the Palmetto Breeze commuter routes. Transportation improvements along these corridors should seek ways to provide consistent travel times in support of higher quality transit service. Together, the priority corridors connect nearly all Rural Area town centers and offer connections to the larger region’s major employment, healthcare, and educational destinations.



Market Considerations

Long-haul commuters riding a commuter bus or using a vanpool/rideshare service have the most direct effect on mitigating congestion. These services (commuter buses and vanpool/rideshare services) have the most potential for congestion reduction. In the Rural Area, commuter-oriented services feed into the urbanized routes and serve riders who would otherwise drive alone or not be able to take the trip at all. Future planning efforts—both local and regional—should align the typical target market for rural transit with available resources and account for the unique geography of the Lowcountry.

Commuter Buses. Commuter-oriented bus service provided by Palmetto Breeze connects outlying areas in Allendale, Colleton, Hampton, and Jasper Counties with regional activity centers Hilton Head Island. From there, rural commuters can connect to other routes in the Palmetto Breeze system. The commuter route corridors in the Lowcountry will continue to be stressed by high traffic volumes worsening congestion. Further expansion of commuter bus service and investment in the Priority Transit Corridors can help mitigate (but will not solve) congestion, reduce emissions, and protect commute times for all road users.

Vanpool/Rideshare Programs. Vanpool and ridesharing programs also focus on commuters traveling from outlying areas to the region’s largest job centers. These programs also can connect to large regional employment locations outside the urban core, including military bases such as Marine Corps Air Station Beaufort and Marine Corps Recruit Depot Parris Island. These programs share similar benefits (mitigating congestion, reducing emissions, and protecting travel times) as commuter bus service but with more flexibility offered to the user. They are more cost effective for transit agencies to operate and can be supported by employer contributions and subsidies.

Transportation Demand Management (TDM). TDM refers to actions that manage the demand for traveling alone in a private car. In simple terms, TDM provides people with mobility options other than driving alone to reduce vehicle miles traveled and recognize benefits related to environmental, conservation, and sustainability. Coordinated TDM efforts seek to increase vehicle occupancy, shift travel mode (or when the travel occurs), and/or reduce the need for travel. TDM programs typically vary in size, shape, and form—from statewide efforts to incentives provided by individual property owners. Programs in the LCOG area should share a common purpose while evolving over time. Through a process evaluation and adjustment, TDM programs in the Lowcountry will establish longstanding effectiveness. The Palmetto Breeze Small Urban Area Transit Development Plan references TDM efforts in the Lowcountry.

Coordination Among Other Planning Efforts

Transit planning requires continuous assessment of ridership trends, demographic shifts, technological advancements, and managerial processes. Palmetto Breeze regularly performs some of these assessments as part of state and federal reporting guidelines, and other previous planning efforts have documented this information. Transit planning is included as part of a long range transportation plan for MPOs such as LATS. Where possible, these efforts should be broadened to include issues, needs, and opportunities related to connecting rural residents in outlying counties to jobs, healthcare, and opportunities common in the urban core. Where Palmetto Breeze has undertaken more detailed study, planning processes associated with LATS urbanized area and Lowcountry Rural Area should yield to those recommendations.

The Rural Area population is mostly dispersed, making convenient transit service complex and expensive to operate. To encourage transit use, decrease dependence on the automobile, and improve access to opportunity for residents in need, the transit system needs to evaluate safe and convenient service options. Two studies are recommended.

NORTHERN BEAUFORT COUNTY TRANSIT STUDY. This study would evaluate transit and/or microtransit service in northern Beaufort County, including portions of the urbanized and rural area. The cost of approximately \$200,000 could be split between urbanized and rural funding sources.

EDISTO BEACH WORKFORCE SHUTTLE STUDY. This study would evaluate shuttle-style transit service between a to-be-determined location off/near Highway 17 into the Town of Edisto Beach. At a cost of approximately \$150,000, the effort would bring together Palmetto Breeze, Edisto Beach, LCOG, and Colleton County in a collaborative effort to improve access to opportunity.

Best Practices

While the *2045 LCOG Rural Area LRTP* does not directly suggest recommendations on behalf of Palmetto Breeze, the following best practice guiding principles can help future improvements align with the broader regional transportation vision that spans the urbanized and rural area. Local staff regularly coordinate with Palmetto Breeze to understand anticipated improvements and service changes. The vision for public transportation in the Rural Area is for it to become a more viable mode of transportation. The best practices described below promote a system that supports regional land use, improves mobility, and benefits the environment. These thoughts are based on the need to balance the issues identified for other elements presented in the *2045 LCOG Rural Area LRTP* and to support the overall plan goals.

Consider ways to integrate land use and transportation in mutually supportive ways. The transit system should support the local and regional land use vision. Making transit an option for both captive and choice riders will hinge on land uses and end-of-line amenities that make traveling by transit a viable alternative to personal automobile use. Well-designed and properly implemented rural public transportation can be central to developing or redeveloping activity centers and can target growth to specific nodes and corridors.

Prioritize mobility for rural residents just as it is prioritized for urban residents. Within the Rural Area, public transportation improvements should continue to seek ways to connect more people to more locations, reduce travel times, add frequent and reliable service, and incorporate different types of service (such as commuter routes, express routes, connecting routes within the Rural Area, demand-response service, and vanpool and rideshare options). Mobility should be measured by improved transit service that enhances the quality of life for both captive and choice riders.

Bring awareness to the wide-ranging benefits of rural public transportation. Transit improvements should be promoted as a way to improve air quality while minimizing impacts to social, cultural, and natural resources. Decision-makers should show how even small increases in transit ridership can lead to a noticeable reduction in the use of private automobiles, which in turn can lower congestion, reduce air pollution, and reduce energy consumption.

Introduction

The movement of goods, particularly by truck, rail, and pipeline, is an often-overlooked part of rural transportation planning. The ease and effectiveness with which goods can be moved to and within the region has a large effect on economic productivity. Chapter 7 of the *2045 LCOG Rural Area LRTP* shows how local decisions can enhance the movement of goods and people. Freight and aviation are important contributors to the economy of the LCOG area, and decisions made locally affect the region and beyond. As the region's needs grow while financial and environmental constraints remain, the transportation system requires a balanced approach to this important element of the transportation network.

Role in the Rural Area

The *2045 LCOG Rural Area LRTP* planning process offered ways to define the role of the freight network in the rural area, including what stakeholders and the public see—and would like to see—in various elements of the freight network. Based on public comments, the main concerns focused around improving safety and congestion caused by freight traffic.

Connection to the *2045 LCOG Rural Area LRTP* Goals

The Freight and Aviation element addresses the plan's goals in the following ways.



Access and Mobility

A balanced transportation system helps keep people and goods moving efficiently by addressing the needs of local and regional trips.



Resiliency

The on-time delivery of goods requires a transportation network designed to prevent disruptions and quickly recover from disturbances.



Culture and Environment

Rural freight transportation solutions offer consistency between transportation improvements, land use decisions, and economic development patterns.



Safety and Security

Predictability in travel times is a critical outcome that will have a significant influence on the safe and secure delivery of goods and services in outlying areas.



Economic Vitality

Making it easier to move people and freight is one way the plan supports broader economic goals and positions the region for economic competitiveness.



System Preservation

A systems management approach to transportation benefits the freight network by maximize past and future investments in the most optimal way.



Planning Considerations

FAST Act Freight Planning Goals

The Fixing America's Surface Transportation (FAST) Act was passed in December 2015, replacing the Moving Ahead for Progress in the 21st Century (MAP-21) as the guiding federal transportation legislation. While the Infrastructure Investment and Jobs Act (IIJA, also known as the Bipartisan Infrastructure Law, BIL) was passed in November 2021 and supersedes the FAST Act, the planning goals from the FAST Act are still in effect. The FAST Act established the National Multimodal Freight Policy that includes goals to guide decision-making and requires the development of a National Freight Strategic Plan and a National Multimodal Freight Network.¹ These national freight transportation goals are outlined below:

1. Identify infrastructure improvements, policies, and operational innovations that –
 - a. strengthen the contribution of the National Multimodal Freight Network to the economic competitiveness of the United States;
 - b. reduce congestion and eliminate bottlenecks on the National Multimodal Freight Network; and
 - c. increase productivity, particularly for domestic industries and businesses that create high-value jobs;
2. Improve the safety, security, efficiency, and resiliency of multimodal freight transportation;
3. Achieve and maintain a state of good repair on the National Multimodal Freight Network;
4. Use innovation and advanced technology to improve the safety, efficiency, and reliability of the National Multimodal Freight Network;
5. Improve the economic efficiency and productivity of the National Multimodal Freight Network;
6. Improve the reliability of freight transportation;
7. Improve the short- and long-distance movement of goods that –
 - a. travel across rural areas between population centers;
 - b. travel between rural areas and population centers; and
 - c. travel from the Nation's ports, airports, and gateways to the National Multimodal Freight Network;
8. Improve the flexibility of States to support multi-State corridor planning and the creation of multi-State organizations to increase the ability of States to address multimodal freight connectivity;
9. Reduce the adverse environmental impacts of freight movement on the National Multimodal Freight Network; and
10. Pursue the goals described in Title 23 U.S.C. 167 in a manner that is not burdensome to State and local governments.

The South Carolina Department of Transportation (SCDOT) updated the State Freight Plan in 2020. A requirement of the FAST Act, The State Freight Plan identifies the freight system and infrastructure available for goods movement, presents estimated demands on the freight system, and recommends potential project and policy level strategies to accomplish these goals.² Where applicable, this section of the *2045 Rural LRTP* draws on the data and recommendations of the State Freight Plan.

¹ "National Multimodal Freight Policy," USDOT. <https://www.transportation.gov/freight>

² South Carolina State Freight Plan Update (2020). South Carolina Department of Transportation.

Surrounding Area

The LCOG area is situated along the I-95 corridor between two urban centers: Charleston, South Carolina and Savannah, Georgia. Both cities have large marine ports that are vital to the southeast's economy and influence economic growth in the surrounding area.

In 2020, the Port of Charleston ranked sixth among all marine ports by cargo value, moving approximately \$72 billion worth of goods in imports and exports.³ In that same year, the Port of Savannah ranked fourth among marine ports by cargo value, moving \$122 billion worth of goods. Both the state of Georgia and South Carolina have invested heavily in these port facilities by expanding their terminal capacities, deepening harbor channel depths, increasing rail capacity, and investing in new terminal infrastructure.

Despite these investments, neither the Port of Savannah nor Charleston will be able to meet the current forecasted demand for additional containerized cargo by 2055. The Jasper Ocean Terminal Joint Venture is a partnership between the Georgia Ports Authority and the South Carolina Ports Authority to construct a new marine container terminal on an existing 1,500-acre site on the north bank of the Savannah River in Jasper County. In March 2021, Jasper County ratified an agreement to have the South Carolina Ports Authority transfer its ownership of the port's location to the County.

The U.S. Army Corps of Engineers has prepared a draft Environmental Impact Statement (EIS) to assess the potential impacts associated with the construction and operation of this facility on the environment. The area is already well-positioned to benefit from increased container cargo coming into the region from the Ports of Savannah and Charleston, but the Jasper Ocean Terminal will bring these industries even closer. The vision for the terminal includes the following components:

Table 1: Terminal, Road, and Rail Access

| Terminal Site | Road & Rail Access |
|--|--|
| <ul style="list-style-type: none"> 12,500-foot long pile supported wharf and a 210-foot wide berth | <ul style="list-style-type: none"> 4-lane divided highway to connect the terminal site to U.S. Highway 17 |
| <ul style="list-style-type: none"> 790-foot wide access channel between the proposed berth and Savannah Harbor Federal Navigation Channel | <ul style="list-style-type: none"> Double and single track rail to connect the terminal site to existing CSX Transportation and Norfolk Southern rail lines |
| <ul style="list-style-type: none"> 2,200-foot diameter turning basin to accommodate Neo-Panamax and Ultra Large Container Vessels | <ul style="list-style-type: none"> New rail bridge across the Back River near US 17 and across the Savannah River upstream of Garden City Terminal |
| <ul style="list-style-type: none"> Intermodal rail yard | <ul style="list-style-type: none"> Grade separated rail crossing and access road interchange with US 17 |
| <ul style="list-style-type: none"> Container storage yard | |

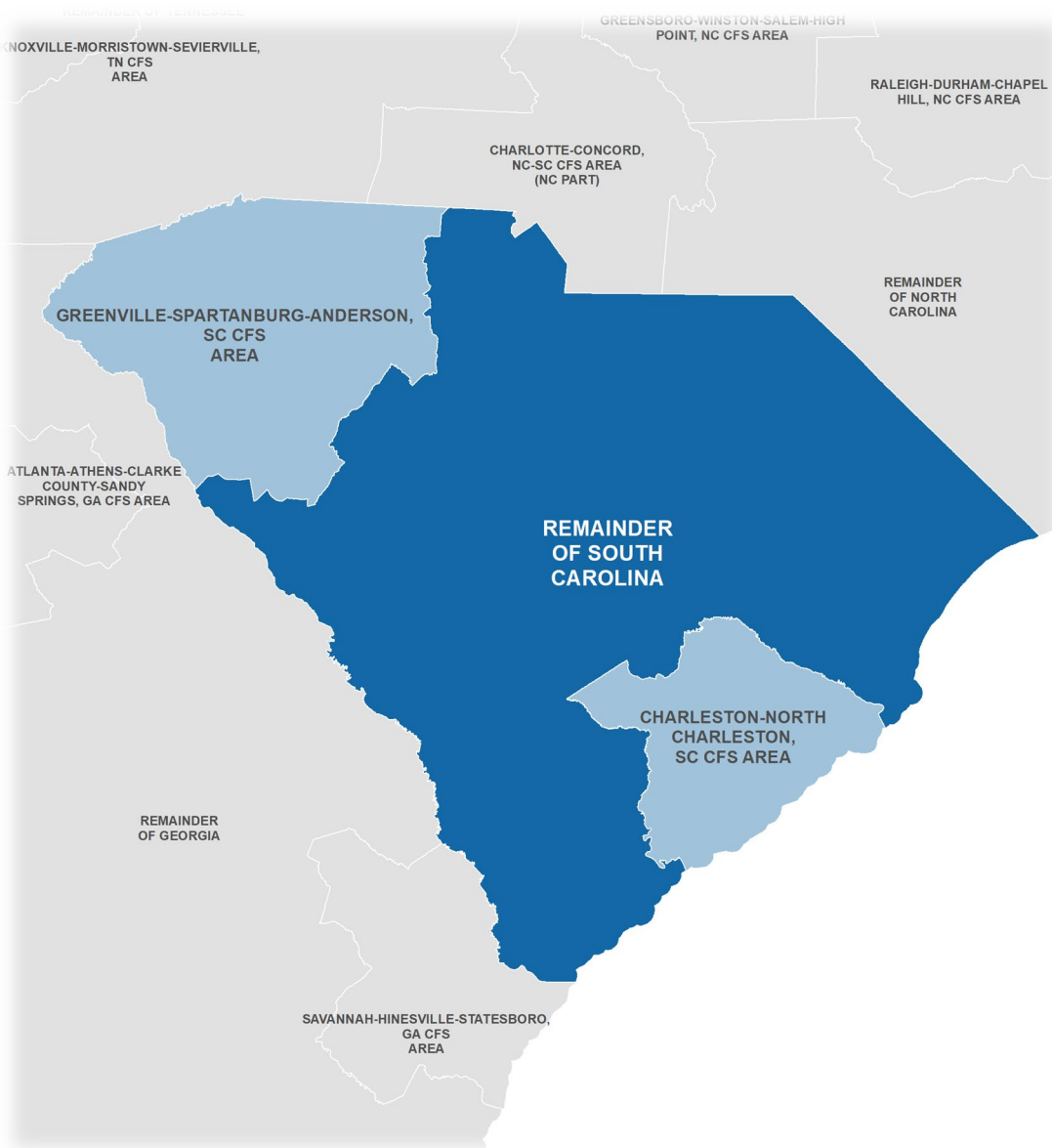
³ South Carolina Ports Authority <http://scspa.com/about/statistics/cargo-value/>



Freight Modal Profiles

The Federal Highway Administration’s (FHWA) Freight Analysis Framework (FAF) is a dataset that tracks freight movement between states and metropolitan areas by all modes of transportation. As shown in **Figure 1**, South Carolina has three distinct FAF Zones: Charleston, Greenville, and the Rest of SC. The LCOG area is within the “Rest of SC” FAF Zone, which covers all area in South Carolina not within the Greenville and Charleston FAF Zones. The following section will identify the breakdown of freight movements by mode for the Rest of SC FAF Zone. Because the LCOG area is only a small portion of the Rest of SC FAF Zone, it is possible that the area’s freight modal trends are different than the data presented here. Nonetheless, the trends for the Rest of SC FAF Zone give an indication of the general freight trends in the LCOG area. The most recent version of FAF data is version 5, released in 2021. The base year for FAF version 5 is 2017, with modal and commodity projections estimated to 2050.

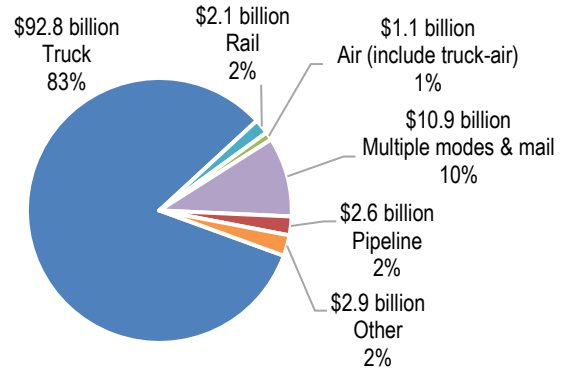
Figure 1: Freight Analysis Framework (FAF) Zones



Summary

Historically freight movement in the Lowcountry area has been predominantly done through trucks, which is in line with national trends for freight movement. **Figure 2** shows the mode split by value of goods transported in 2017. Approximately, \$112.4 billion worth of goods were transported to, from, and within the Rest of SC FAF Zone in 2017. By value, the most dominant mode of freight transportation was trucking, which represented 83% or \$92.8 billion of all goods moved. “Multiple modes & mail” includes shipments by multiple modes (intermodal transport) and by parcel delivery services, U.S. Postal Service, or couriers (capped at 150 pounds). “Multiple modes & mail” is the second most common mode of freight transport, representing 10% of the value of all goods moved. Intermodal transport is common in supply chains for a variety of goods, but usually involves trucking at some points, such as truck to rail intermodal transport. Other refers to modes not classified here, including flyaway aircraft, or shipments for which a mode cannot be determined.

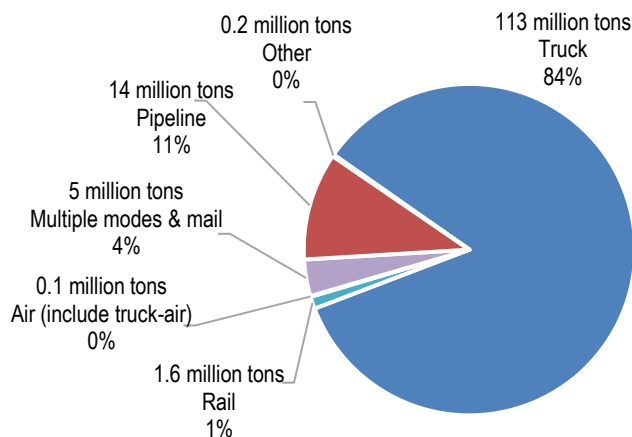
Figure 2: Freight Shipments by Mode and Value in 2017



Source: FHWA Freight Analysis Framework, Version 5.2, 2021.

Figure 3 shows the mode split by weight of goods transported in the Rest of SC FAF Zone. In 2017 approximately 134 million tons of goods were transported to, from, and within the Rest of SC FAF Zone. Trucking is still the predominant mode of transport when looking at goods transported by weight, with 84% of all tonnage being transported by trucks. Pipeline is the second most common mode for shipping goods by weight, making up 11% of total tonnage. Pipelines typically move low-value and heavy commodities long distances, as shown by the high proportion of freight moved when measured by weight and low proportion of freight moved when measured by value. Though air cargo represents a small proportion of freight moved by weight (approximately 100,000 lbs), it has the second highest value per ton of all the other modes, as shown in **Table 2**. Nationally, air cargo shipments have been increasing, mainly from an increased demand from consumers to same-day deliveries and a broader shift toward e-commerce as opposed to brick and mortar retail.

Figure 3: Freight Shipments by Mode and Weight 2017



Source: FHWA Freight Analysis Framework, Version 5.2, 2021.

Table 2: Freight Mode by Value per Ton (2017)

| Mode | Value Per Ton |
|-----------------------|---------------|
| Other and unknown | \$12,400 |
| Air | \$11,000 |
| Multiple modes & Mail | \$2,300 |
| Rail | \$1,300 |
| Truck | \$820 |
| Pipeline | \$180 |



The FAF version 5 dataset includes mode split projections to the year 2045. Mode split trends observed in 2017 are projected to remain the same in 2045, with trucking being the predominant mode to transport goods and minor fluctuations in the amount of goods transported by other modes. However, freight volumes are expected to increase significantly, both in terms of weight and value. Table 3 shows the value and weight of goods transported in 2017 for each mode, the projected value and weight of goods transported in 2045, and the change in percentage between the two points in time. The total value of goods transported to, from, and within the Rest of SC FAF Zone is expected to increase by 47%, but the weight of goods is only supposed to increase by 34%. This may likely indicates that in the future freight shipments in the Rest of SC FAF Zone will be high-value low-weight goods.

Table 3: Percent Change in Freight Shipments by Weight and Value between 2017 and 2045 (Rest of SC FAF Zone)

| Mode | Value (\$billion) | | | Weight (million tons) | | |
|-----------------------|-------------------|---------|----------|-----------------------|------|----------|
| | 2017 | 2045 | % Change | 2017 | 2045 | % Change |
| Truck | \$92.8 | \$173.2 | 46% | 113 | 169 | 33% |
| Rail | \$2.1 | \$4.2 | 51% | 1.6 | 3 | 49% |
| Air | \$1.1 | \$2.1 | 46% | 0.1 | 0.2 | 57% |
| Multiple Modes | \$10.9 | \$22.5 | 51% | 5 | 9 | 47% |
| Pipeline | \$2.6 | \$3.7 | 30% | 14 | 20 | 30% |
| Other | \$2.9 | \$6.3 | 55% | 0.2 | 0.5 | 59% |
| Total | \$112.4 | \$211.9 | 47% | 113 | 169 | 34% |

Source: FHWA Freight Analysis Framework, Version 5.2, 2021.

Highways

Trucks are the most common mode for transporting goods due to their ability to transport a variety of goods over short and long distances, and most of a truck’s time is spent travelling on highways. I-95, one of the nation’s busiest freight corridors, runs through the LCOG area and connects some of the largest metropolitan areas in the country. In its most recent Freight Plan Update (2020), SCDOT established a Statewide Freight Network. This network consists of roads and highways projected to carry at least one million tons of freight or greater in year 2040 and provide appropriate connectivity to freight generators, key intermodal facilities, and South Carolina’s Interstate Network. **Figure 4** shows highways in the LCOG rural area identified in the Statewide Freight Network. In addition to I-95, four US routes are part of the State Freight Network in the LCOG area, each of which connects to major employment and population hubs.

- **US 17** | connects the cities of Savannah and Charleston
- **US 278** | connects Hilton Head Island to I-95
- **US 321** | connects provides a more western north-south route parallel to the I-95 corridor
- **US 21** | connects Beaufort to I-95

The Truck Travel Time Reliability Index (TTTR) is a performance measure used to assess travel conditions for trucks on highways. The TTTR is defined as the 95th percentile truck travel time divided by the 50th percentile truck travel time using data from the FHWA’s National Performance Management Research Data Set (NPMRDS). **Figure 5** shows the TTTR measurements on highways for which data is available. The only corridors on which there are travel reliability issues are the US 17 and I-95 corridors. Specifically, the I-95/US 17 and I-95/ US 278 interchanges have the most unreliable travel conditions in the study area. This is hardly surprising considering US 17 and US 278 carry travelers from the two largest population centers in and around the LCOG area, Savannah and Hilton Head Island, respectively.

Rail

Rail is typically used to transport heavy bulk commodities that do not have time-sensitive schedules for delivery over long distances. The main advantages for using rail to transport goods are its cost efficiency and environmental benefits. According to the American Association of Railroads, railroads are the most fuel-efficient way to move freight over land, moving one ton of freight more than 480 miles per gallon of fuel, on average. More goods moved with less fuel means lower freight shipping rates for businesses. Moreover, railroads are three to four times more fuel-efficient than trucks and a single freight train can replace several hundred trucks.⁴

Rail is most often associated with intermodal freight transportation, or the movement of goods or one good across multiple modes. The most common form of intermodal transport is rail-truck. Both the Ports of Savannah and Charleston have Class I Freight Railroad access, meaning containers can be offloaded off of ships directly onto trains to be transported further inland. This greatly decreased the amount of local truck traffic in the area surrounding the ports, which includes the LCOG rural area.

Railroads are broken into three classifications based on annual operating revenues: Class I, Class II (Regional), and Class III (Shortline). In South Carolina there are two Class I railroads that move the majority of regional freight: CSX and Norfolk Southern. **Figure 4** shows rail lines that run through the LCOG area. The one railroad of note is the CSX line that runs parallel to I-95 through Hardeeville. This line runs between Savannah and Charleston and CSX has given track usage rights to Amtrak to run passenger trains. When completed, the Jasper Ocean Terminal is envisioned to have on-dock rail facilities and would need a new connection to tie into existing CSX and Norfolk Southern rail lines.

Though rail represents a small proportion of freight moved by both value and weight in the Rest of SC FAF Zone, increased shipping traffic at the Ports of Savannah and Charleston and an increase in on-dock rail facilities could lead to more goods being shipped over rail in the future.



⁴ "Freight Rail Facts and Figures," American Association of Railroads. <https://www.aar.org/facts-figures#:~:text=Railroads%20are%20the%20most%20fuel,can%20replace%20several%20hundred%20trucks>.



Figure 4: Freight Infrastructure in the LCOG Area

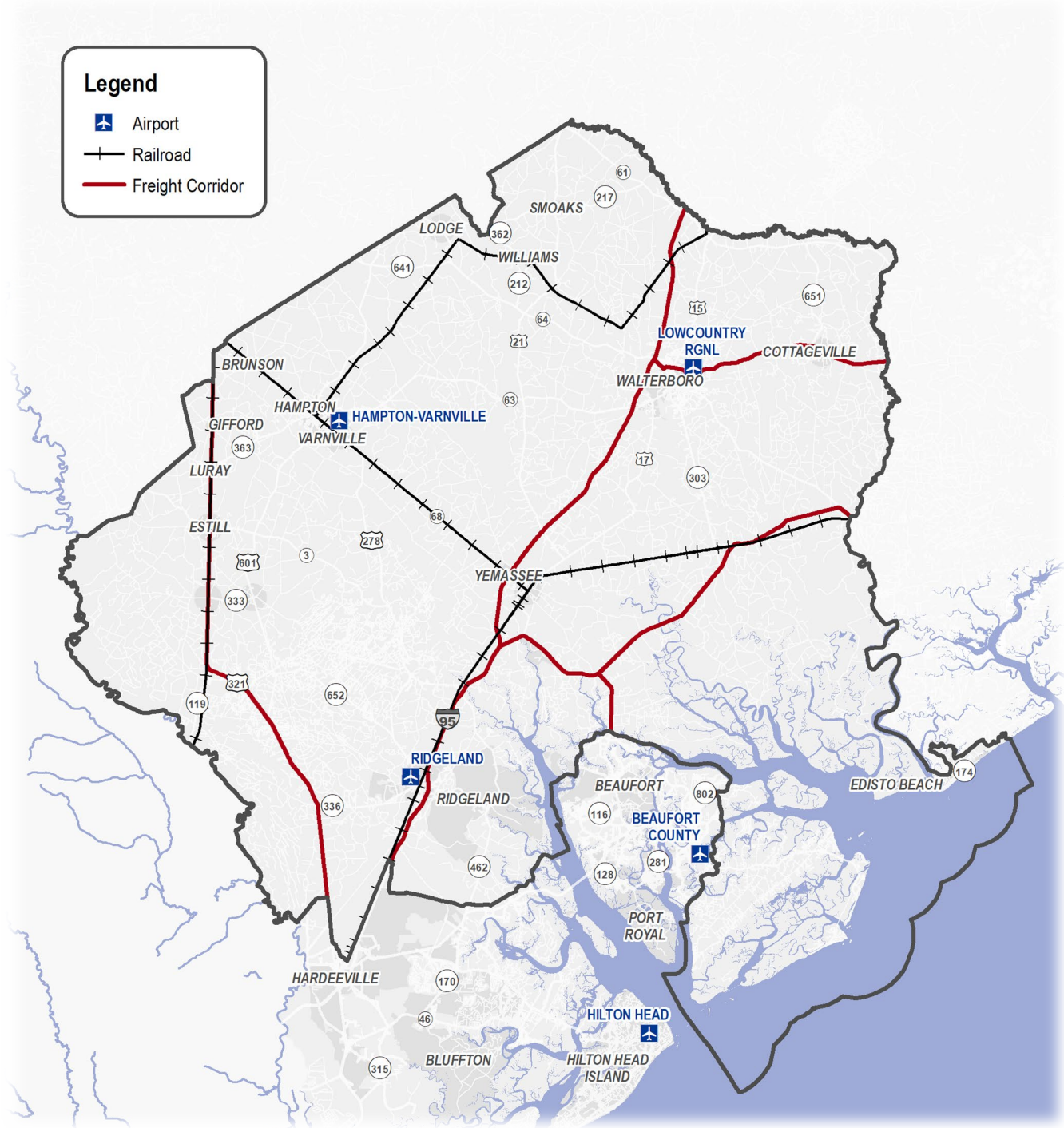
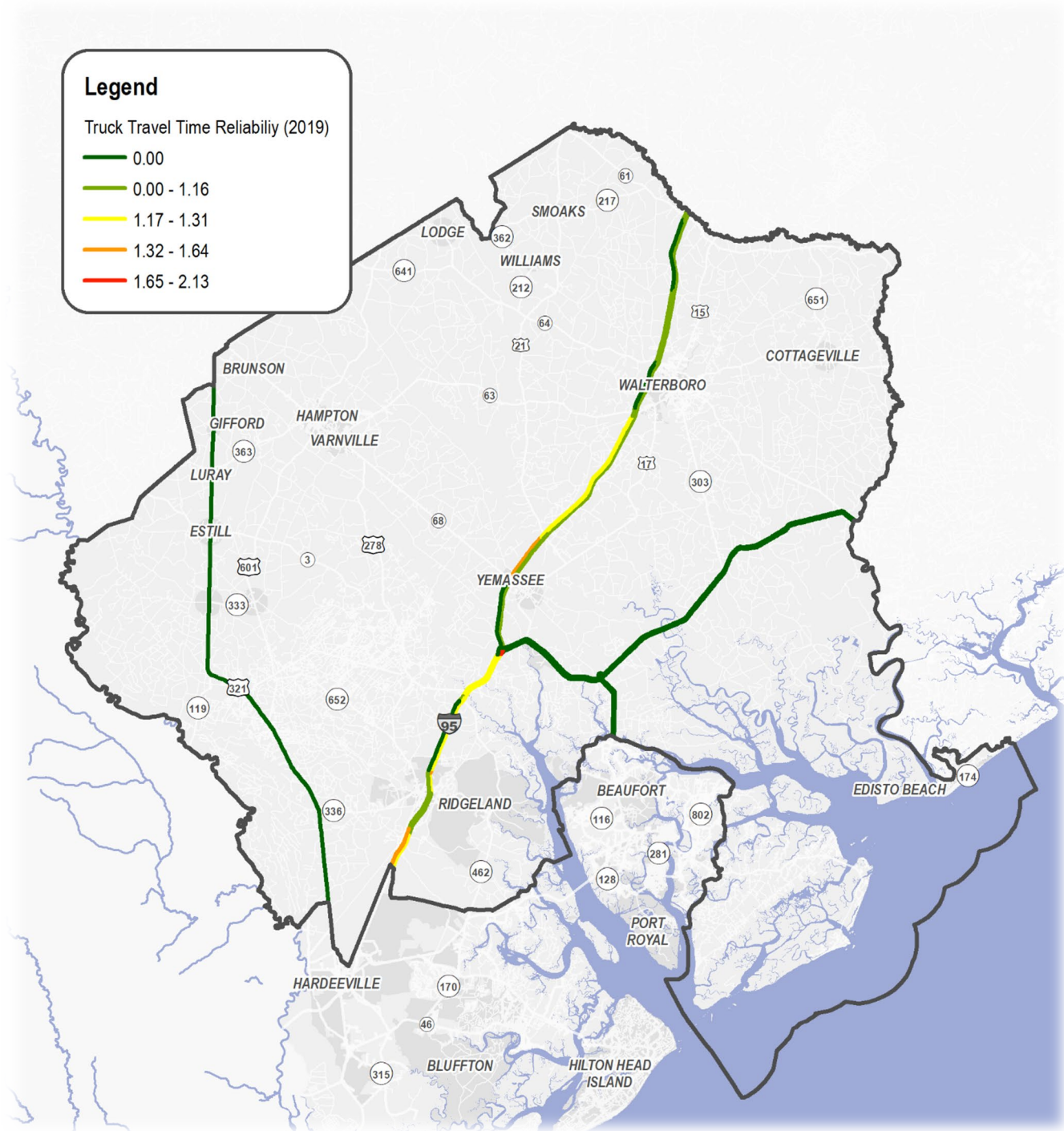


Figure 5: Truck Travel Time Reliability in the LCOG Area



Aviation

Aviation includes both the movement of cargo and people. Aviation needs are fulfilled through a combination of large and small airports across the state. Airport facilities fall into one of three categories:

- **Commercial Service/Primary Airports** include facilities that serve regularly scheduled passenger service. The three largest facilities in the state are Charleston International Airport, the Greenville-Spartanburg International Airport, and the Myrtle Beach International Airport. Other airports with scheduled passenger service in the state include the Columbia Metropolitan Airport, the Florence Regional Airport, and the Hilton Head Airport.
- **General Aviation Airports** include smaller facilities that exist in the majority of counties throughout the state. They typically have paved runways 2,000 feet to 5,500 feet in length and can accommodate small (single engine) and medium-sized (multi-engine) aircrafts. These airports often provide opportunities for businesses with suitable aircrafts to avoid the use of larger facilities and minimize air travel associated with lag time. They also have proven useful in attracting business to communities throughout the state. There are 45 general aviation airports located within South Carolina, including Lowcountry Regional Airport (Walterboro), Ridgeland Airport (Ridgeland), and Hampton County Airport (Varnville) the Lowcountry Rural Area.
- **Reliever Airports** are large general aviation airports that provide additional capacity when the area's primary commercial airport reaches capacity. The Jim Hamilton – L.B. Owens Airport in Columbia and the Rock Hill/York County Airport are the state's reliever airports.

There are five public airports in the Lowcountry as shown in **Figure 4**. The only airport with commercial airline services is the Hilton Head Island Airport located in the LATS urbanized area. The other facilities are general aviation airport, privately owned or are military bases or hospitals. Aviation is not a significant mover of people or cargo in the region, but the airport open for commercial is outlined below.

Hilton Head Island Airport

Hilton Head Island Airport (HHH), categorized as a primary commercial service airport, is the largest airport in the LATS area. American Airlines, Delta, and United operate daily nonstop flights to Charlotte, Atlanta, and Washington, DC, respectively. Each carrier offers seasonal flights to other locations on the east coast and in the Midwest. From July 2020 to July 2021, HHH had 142k arriving passengers and 140k departing passengers, which was a substantial increase from the 81,000 arrivals and 79,00 departures in from July 2018 to July 2019 before the COVID-19 pandemic.⁵

⁵ Hilton Head Airport (HHH) TranStats. Bureau of Transportation Statistics. <https://www.transtats.bts.gov/airports.asp?20=E>

Commodity Flows

In addition to estimating freight flows by mode split, the FAF5 dataset also estimates the value and weight of over 41 commodity types moved in and out of an area. **Figure 6** shows the top commodities moved by weight to, from, and within the Rest of SC FAF Zone, and **Figure 7** shows the top commodities moved by value. Each chart shows the top 10 commodities as well as the weight or value of the remaining commodity types moved in 2017. By weight gravel, logs, and coal-n.e.c. are the three predominantly moved commodities within the Rest of SC FAF Zone, representing approximately 41% of all commodities moved by weight. Coal-n.e.c. stands for “not elsewhere classified” and includes various coal and petroleum products that are not included in other commodity groups. When looking at commodities moved by value, the three most common commodities are mixed freight, plastics/rubber, and motorized vehicles, representing approximately 32% of all commodities moved by value.

Figure 6: Commodities Moved by Weight in 2017 (Rest of SC FAF Zone)

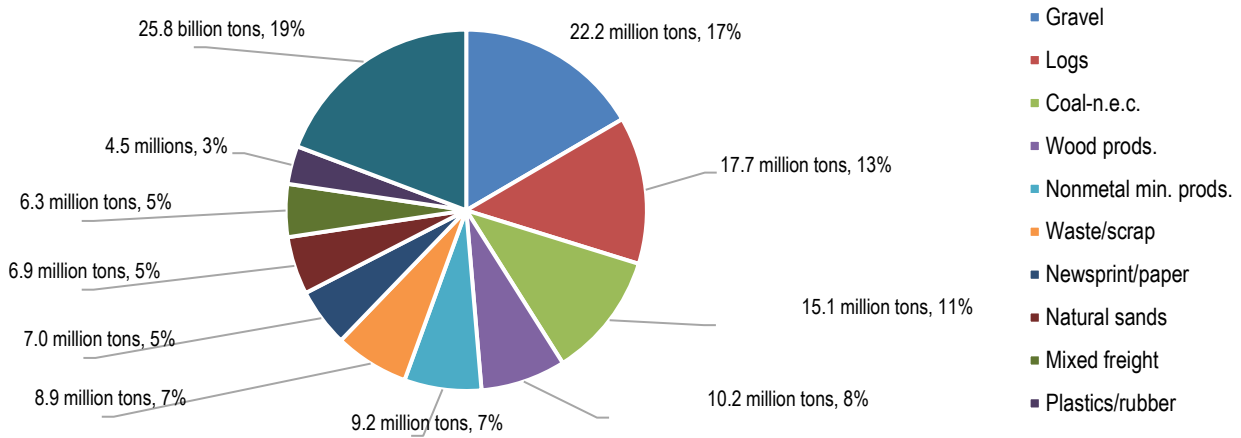
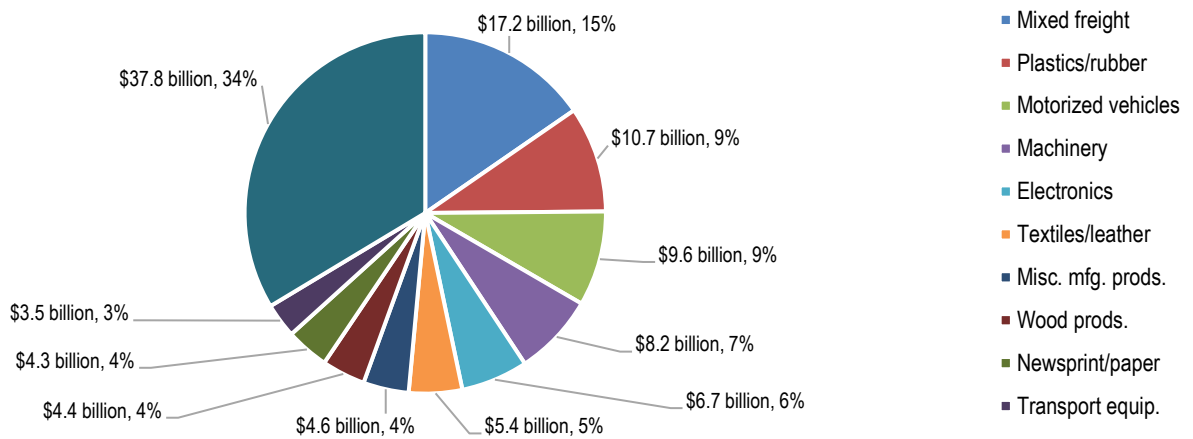


Figure 7: Commodities Moved by Value in 2017 (Rest of SC FAF Zone)



Source: FHWA Freight Analysis Framework, Version 5.2, 2021.



Figure 8 and **Figure 9** show the 2045 estimates for the top 10 commodities moved in 2017 by weight and value, respectively. Movement of each commodity is expected to grow significantly over that time with the weight and value of goods increasing between approximately 24% and 60%. By weight, the top 10 commodities moved in 2017 will also be the top commodities moved in 2045. The same is true for the top 10 commodities moved by value, except for transportation equipment, which moves out of the top 10 to the 13th most moved commodity by value, and basic chemicals moves into the top 10.

Figure 8: Projected Commodities Moved by Weight in 2045 (Rest of SC FAF Zone)

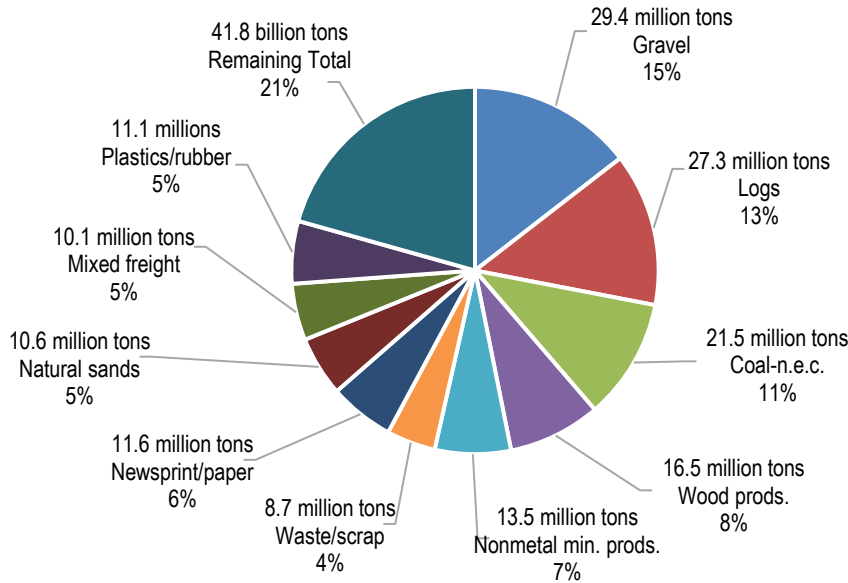
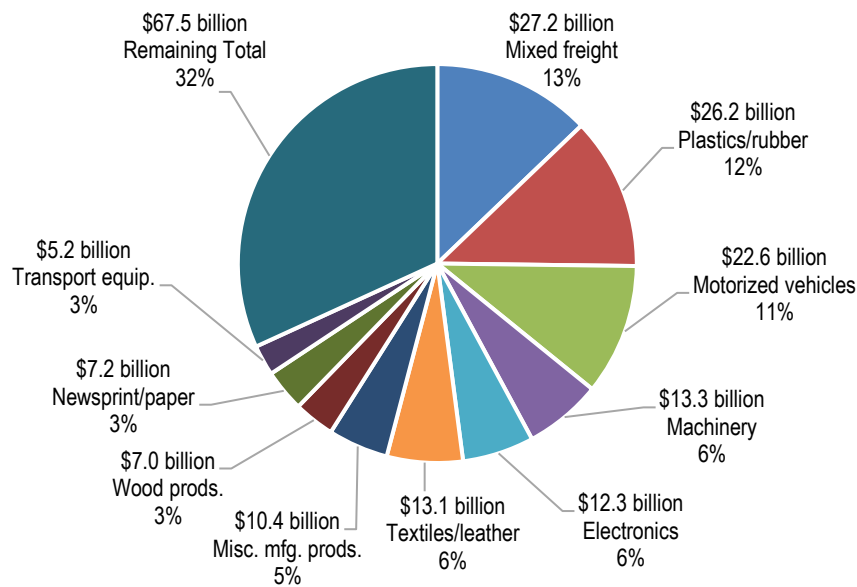


Figure 9: Projected Commodities Moved by Value in 2045 (Rest of SC FAF Zone)



Source: FHWA Freight Analysis Framework, Version 5.2, 2021.

Recommendations

Several recommendations identified in the 2045 LATS LRTP financially constrained plan address current and anticipated freight needs. While the 2045 LATS LRTP focuses on the urbanized area rather than the Lowcountry Rural Area, these recommendations will have a positive effect on the larger region. Table 4 shows roadway projects from the 2045 LATS LRTP and the 2045 LCOG Rural Area LRTP that are supportive of the freight network. The existing and projected needs for rail, water, and air transportation modes do not warrant distinct transportation action from the LATS MPO or Lowcountry Rural Area. The trends for all modes should be monitored to determine if additional improvements for air, rail, or water transportation improvements are necessary.

Table 4: Freight Supportive Improvements

| Project ID | Recommendation | Project Type | Length (miles) |
|------------|--|-------------------|----------------|
| BC-1 | US 21 from US 17 to Rural Area Boundary | Access Management | 4.0 |
| BC-3 | US 17 from Gardens Corner to Colleton County Line | Widening | 5.5 |
| CC-1 | US 17 from Beaufort County Line to SC 64 (Jacksonboro) | Widening | 16.7 |
| CC-2 | US 17A from Walterboro to Colleton County Line | Widening | 15.1 |
| HC-2 | US 321 from Steep Bottom Rd to 2 nd St | Complete Street | 1.9 |
| W-1 | Robertson Blvd from US 15 to SC 64 | Access Management | 0.7 |
| W-2 | SC 64 from SC 15 to I-95 | Access Management | 1.6 |

Lowcountry Regional Freight Plan. In addition to these project recommendations, the 2045 LCOG Rural Area LRTP—like the companion plan for the LATS urbanized area—recommends the development of a regional freight study. This study will allow for a more in-depth analysis of current freight movements within the Lowcountry Region, identify barriers to freight travel, and prioritize recommendations for improvement.

Introduction

The 2045 LCOG Rural Area LRTP outlines a vision for transportation and mobility in the Lowcountry Rural Area. The plan is the result of the coordinated efforts of LCOG staff; the staff of area cities, towns, and counties; community members; and the committees tasked with advising the Lowcountry Council of Governments. The success of this vision hinges on continued collaboration among community partners to implement the plan's recommendations. Completing the plan is a crucial first step toward continued improvements in how people travel within a large—and often remote—region. The plan is also an important step to better connecting rural residents with the jobs, education opportunities, healthcare, goods, and entertainment offered in the urban centers of Hilton Head Island, Beaufort, Bluffton, and Hardeeville.

The concluding chapter of the 2045 LCOG Rural Area LRTP sets transportation priorities with an emphasis on the plan goals that place specific emphasis on the rural context found throughout the Lowcountry.



Roadway Priorities

Transportation planning has a rich history of balancing a technical approach to transportation planning while engaging the public and elected leaders in the decision-making process. However, a common disconnect between public policy and long range planning can make it difficult to evaluate the likely positive impact of transportation projects. The 2045 LCOG Rural Area LRTP sets specific priorities to close the gap between policy and action.

Prioritization Process

Recommendations were quantitatively screened to better understand how to allocate limited funds. The prioritization process is different depending on the project type (e.g., corridor and widening projects, new location roadways, and intersection projects). By demonstrating that the projects outlined in this process address the goals of SCDOT, LCOG can better position itself for state funding. **Table 1** outlines the prioritization criteria, definition, and percentage of score.

Table 1: Project Prioritization

| Evaluation Criteria | Definition | Percentage of Score |
|--|---|---------------------|
| Intersection Improvement Projects | | |
| Traffic Volume and Congestion | Based on current and future traffic volumes and the associated level-of-service. | 35% |
| Public Safety | Based on crash rates. | 25% |
| Truck Traffic | Based on current and projected truck percentages. | 10% |
| Located on a Priority Network | Based on the project's relationship to a priority network. | 15% |
| Financial Viability | Based on estimated project cost compared to the ten-year State Transportation Improvement Program (STIP) budget. Additional consideration will be given to projects supplemented with local project funding and/or other federal and state funding. | 5% |
| Economic Development | Based on an assessment of livability, regional economic development, benefit-cost & cost effectiveness, and system performance. | 5% |
| Environmental Impacts | Based on an assessment of potential impacts to natural, social, and cultural resources. | 5% |
| Corridor and Widening Projects | | |
| Traffic Volume and Congestion | Based on current and future traffic volumes and associated level-of-service (LOS). | 35% |
| Located on a Priority Network | Based on a project's location in relationship to defined priority network. | 25% |
| Public Safety | Based on crash rates. | 10% |
| Economic Development | Based on an assessment of livability, regional economic development, benefit-cost & cost effectiveness, and system performance. | 7% |
| Truck Traffic | Based on current and project truck percentages. | 10% |
| Financial Viability | Based on estimated project cost compared to the ten-year State Transportation Improvement Program (STIP) budget. Additional consideration given to projects supplemented with local project funding and/or other federal and state funding. | 5% |
| Pavement Quality Index (PQI) | The PQI score is based on pavement condition assessment. | 3% |
| Environmental Impacts | Based on an assessment of potential impacts to natural, social, and cultural resources. | 5% |

Prioritization Results

Table 2 shows the results of the prioritization process for intersections and corridors, respectively. The top-ranking intersection projects include projects in the Town of Hampton and in Jasper County. The top-ranking corridor projects were mostly Access Management projects, including projects in Beaufort, Jasper, and Hampton Counties as well as in the City of Walterboro. These results serve as a guide to LCOG in pursuing design and construction but are not bound to a particular funding strategy.

Table 2: Project Prioritization

| Rank | Project ID | Recommendation | Project Type |
|------------------------------|------------|---|-------------------|
| Intersection Projects | | | |
| 1 | S-5 | US 278 at US 601 | Intersection |
| 2 | S-4 | SC 17 at Yemassee Rd | Intersection |
| 3 | S-3 | US 321 at SC 336 | Intersection |
| 4 | S-6 | SC 64 at Robertson Blvd | Intersection |
| 5 | S-1 | SC 64 at Ace Basin Pkwy | Intersection |
| 6 | S-2 | Sidneys Hwy at Round O Rd | Intersection |
| Corridor Projects | | | |
| 1 | BC-1 | US 21 from US 17 to Rural Area Boundary | Access Management |
| 2 | JC-1 | US 321 from SC 336 to Rural Area Boundary | Access Management |
| 3 | HC-2 | US 321 from Steep Bottom Rd to 2 nd St | Access Management |
| 4 | W-1 | Robertson Blvd from US 15 to SC 64 | Access Management |
| 5 | BC-3 | US 17 from Gardens Corner to Colleton County Line | Widening |
| 6 | CC-1 | US 17 from Beaufort County Line to SC 64 | Widening |
| 7 | W-2 | SC 64 from SC 15 to I-95 | Access Management |
| 8 | BC-2 | US 21 from Beaufort River to St. Helena Island | Access Management |
| 9 | CC-2 | US 17A from Walterboro to Colleton County Line | Widening |
| 10 | CC-3 | SC 64 from Jacksonboro to I-95 | Widening |
| 11 | HC-1 | SC 68 from I-95 to Varnville | Widening |

Performance Targets

Performance measurement uses system-wide information to make investments that achieve transportation goals for the planning area. MAP-21 and the FAST Act emphasize performance-driven and outcome-based planning. While the federal requirement for performance measures and targets is limited to urbanized areas, the SCDOT has made it a requirement through a directive that Council of Governments adopt similar targets. Given these performance targets are the same for the LATS Urban Area and the Lowcountry Rural Area, more information can be found in the System Management Plan Appendix that is shared between the two LRTPs.



Funding Considerations

With uncertain budgets affecting projects locally and across South Carolina, funds to construct improvements in the Lowcountry Rural Area will require a combination of from local, state, and federal programs. It will be important for the local jurisdictions, in collaboration with the LCOG, to continue pursuing funding resources to address local and regional transportation needs. While the *2045 LCOG Rural Area LRTP* focuses on projects of regional significance, alternatives are available to provide a wider base of financial support for improving the transportation network. This broader support for transportation funding for projects in one jurisdiction ultimately will benefit neighboring communities and the entire Lowcountry region.

Project Costs

Table 3 shows the results of the prioritization process for intersections and corridors. The table includes planning-level cost estimates that were created as one input into the prioritization process. Future plan updates should re-evaluate all funding programs, projects, and assumptions.

Table 3: Project Costs (Sorted by Priority Ranking)

| Rank | Project ID | Recommendation | Project Type | Length | Cost |
|------------------------------|------------|---|-------------------|--------|---------------|
| Intersection Projects | | | | | |
| 1 | S-5 | US 278 at US 601 | Intersection | n/a | \$1,250,000 |
| 2 | S-4 | SC 17 at Yemassee Rd | Intersection | n/a | \$1,000,000 |
| 3 | S-3 | US 321 at SC 336 | Intersection | n/a | \$900,000 |
| 4 | S-6 | SC 64 at Robertson Blvd | Intersection | n/a | \$900,000 |
| 5 | S-1 | SC 64 at Ace Basin Pkwy | Intersection | n/a | \$750,000 |
| 6 | S-2 | Sidneys Hwy at Round O Rd | Intersection | n/a | \$1,000,000 |
| Corridor Projects | | | | | |
| 1 | BC-1 | US 21 from US 17 to Rural Area Boundary | Access Management | 4.0 | \$2,330,000 |
| 2 | JC-1 | US 321 from SC 336 to Rural Area Boundary | Access Management | 10.0 | \$5,810,000 |
| 3 | HC-2 | US 321 from Steep Bottom Rd to 2 nd St | Access Management | 1.9 | \$1,080,000 |
| 4 | W-1 | Robertson Blvd from US 15 to SC 64 | Access Management | 0.7 | \$410,000 |
| 5 | BC-3 | US 17 from Gardens Corner to Colleton County Line | Widening | 5.5 | \$91,000,000 |
| 6 | CC-1 | US 17 from Beaufort County Line to SC 64 | Widening | 16.7 | \$212,490,000 |
| 7 | W-2 | SC 64 from SC 15 to I-95 | Access Management | 1.6 | \$910,000 |
| 8 | BC-2 | US 21 from Beaufort River to St. Helena Island | Access Management | 10.8 | \$6,240,000 |
| 9 | CC-2 | US 17A from Walterboro to Colleton County Line | Widening | 15.1 | \$168,790,000 |
| 10 | CC-3 | SC 64 from Jacksonboro to I-95 | Widening | 21.3 | \$212,480,000 |
| 11 | HC-1 | SC 68 from I-95 to Varnville | Widening | 15.8 | \$160,720,000 |

Funding Sources

The LCOG secures limited funding through local, state, and federal sources. Most funding for the LCOG is distributed through the Guideshare Funding Program based on regional population trends and vehicle miles traveled compared to other regions of South Carolina. As shown in **Table 4**, the funding levels are not expected to increase substantially over the life of the *2045 LCOG Rural Area LRTP*. With a total projected cost for corridor and intersection capital projects of approximately \$868,000,000, the needs of the Lowcountry exceed the amount of available funding provided by state and federal sources.

Table 4: Guideshare Revenues

| Period | Amount |
|--------------|----------------------|
| 2022-2025 | \$16,000,000 |
| 2026-2030 | \$20,000,000 |
| 2031-2035 | \$24,000,000 |
| 2036-2045 | \$54,000,000 |
| Total | \$114,000,000 |

Alternative Sources

The following alternative potential funding sources can help address unfunded roadway needs as well as investments in other modes, including public transportation, bicycle, and pedestrian facilities.

Impact Fees

The use of impact fees requires special authorization by the South Carolina General Assembly. By requiring an impact fee, developers can be expected to assist in the implementation of transportation improvements for new collector streets to address nearby traffic impacts.

Road Maintenance Fee

Road maintenance fees could be used for the construction, repairs, and maintenance of county-owned bridges and roadways. In Beaufort County, the implementation of a road fee began in 1972. Currently, Beaufort County's road maintenance fee is \$10.

Local Sales Tax

Many counties in South Carolina have introduced a "Pennies for Progress" sales tax to fund capital and transportation projects. The local sales tax is implemented at the county level and requires a voter referendum. While the sales tax is temporary—typically implemented by a fixed timeframe or dollar cap amount—it can be renewed at the time of its expiration date. The *2045 LATS LRTP* demonstrated a local sales tax in Beaufort and Jasper Counties can be an efficient and effective way to fund projects independent of the need for state or federal funds. Other regions of the state are using their sales tax funding to serve as the local match for projects, which expands the financial impact of the revenue generated.

Transportation Bonds

The use of transportation bonds is a strategic strategy to improve local roadways and active transportation. Voters must approve the use of bonds to improve the transportation system. The types of projects that have historically been funded using transportation bonds include new road construction, road extensions, sidewalks, and streetscape enhancements. Recently, some municipalities have created dedicated transportation bonds to fund bicycle- or pedestrian-specific projects and improvements. Local communities should consider implementing mode-specific transportation bonds if the desire arises.

Transportation Grants

Competitive grant opportunities exist at the federal and state level for all modes of transportation. Pursuing a grant can be a collaborative opportunity to earn funding for both rural and urban areas. The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program, formerly known as TIGER grants, aims to fund historically underserved and disadvantaged communities. The Recreational Trails Program (RTP) is administered by the South Carolina Department of Parks, Recreation and Tourism (SCPRT). The RTP grant can be used to construct new recreational trails, improve or maintain existing trails, develop or improve trailheads, and acquire trail corridors. The LCOG should continue to explore the competitive grant processes to supplement the needs of the community.

Multimodal Considerations

Implementing the 2045 LCOG Rural Area LRTP will be an ongoing process that should be reevaluated on a regular basis. Moving forward, one way the LCOG can help advance implementation is to emphasize the synergy between roadway projects and other multimodal needs.

Bicycle and Pedestrian | Overlap between roadway projects and the identified multimodal connections

- SC 68 from I-95 to Varnville (HC-1)
- US 321 from Steep Bottom Rd to 2nd St (HC-2)
- US 321 from SC 336 to Rural Area Boundary (JC-1)
- US 17 Alternate east of Walterboro (CC-2)

Transit | Overlap between roadway projects and the identified priority transit corridors

- Portions of US 17 from Beaufort County Line to SC 64 in Jacksonboro (CC-1)
- SC 68 from I-95 to Varnville (HC-1)
- Portions of US 17A from Walterboro to Colleton County Line (CC-2)
- US 321 from SC 336 to Rural Area Boundary (JC-1)

Freight and Aviation | Overlap between roadway projects and freight corridors

- US 21 from US 17 to Rural Area Boundary (BC-1)
- US 17 from Gardens Corner to Colleton County Line (BC-3)
- US 17 from Beaufort County Line to SC 64 in Jacksonboro (CC-1)
- US 17A from Walterboro to Colleton County Line (CC-2)
- US 321 from Steep Bottom Rd to 2nd St (HC-2)
- Robertson Blvd from US 15 to SC 64 (W-1)
- SC 64 from SC 15 to I-95 (W-2)

Collaborative Planning and Design

With the long range plan's focus on regional solutions, numerous agencies will need to work collaboratively for transportation projects to be planned, designed, and implemented in a timely and efficient way.

Priority Pedestrian Areas

As shown in Chapter 5, these areas recognize the inherent challenge of enhancing walkability in rural settings. By emphasizing walkability near schools and within rural town centers, the Priority Pedestrian Areas show how the intersection of policy and infrastructure can create positive change for the region's most vulnerable users. Safe Routes to School programs and local initiatives that improve downtown facades are just a few ways the pedestrian network could improve over time.

East Coast Greenway

The East Coast Greenway continues to take shape in the Lowcountry and across the length of the eastern seaboard from Maine to Florida. The LCOG and local jurisdictions should continue to coordinate with the East Coast Greenway Alliance to plan and design the spine network through the Lowcountry. Additional consideration should be given to the multimodal connections and segment branches that can further enhance the active transportation network for residents, employees, and visitors in both the urban and rural areas.

Special Studies

The long range plan offers an initial view of local transportation priorities to help staff and elected officials advocate for projects that will have the greatest impact to the region. The LCOG and its member jurisdictions will need to monitor emerging needs and changes as part of special studies that span the urban and rural areas. These studies include the 3rd Bridge Feasibility Study, I-95 Feasibility Study, Lowcountry Regional Freight Plan, and the Edisto Beach Workforce Shuttle Study.

Conclusion

The 2045 LCOG Rural Area LRTP is one part of a broader vision for a balanced, multimodal rural transportation network that supports goals related to economic vitality, resiliency, stewardship, and access to opportunity. The plan seeks transportation decisions that consider existing conditions, emerging trends, and future needs. The plan is intended to align potential projects with notable needs and reasonable expectations for funding. It also aims to align priority projects with a combination of data and community input to direct the LCOG's transportation planning decisions for its non-urbanized area. With this document, the leaders and people of the Lowcountry can set the stage for the rural area's future and how its unique needs can be met moving forward.



Appendix A | System Performance Report

In 2010, the MAP-21 legislation transformed the transportation federal aid program by establishing new requirements for performance management and performance-based planning and programming, designed to ensure the most efficient investment of federal transportation funds. The FAST Act (2015) continued the performance management and performance-based planning and programming requirements of MAP-21 with minor changes. Pursuant to this legislation, state Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. These requirements outline a systematic and objective-driven approach to transportation decision-making that supports national goals for the federal-aid highway and public transportation programs.¹

The Transportation Performance Management approach focuses investment on the achievement of the following national performance areas:

- Safety Performance
- Pavement and Bridge Performance
- System and Freight Performance
- Transit Asset Management Performance
- Public Transportation Agency Safety Plans

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Final Rule on Statewide and Nonmetropolitan Transportation Planning and Metropolitan Transportation Planning (The Planning Rule).² This regulation requires states and MPOs to adhere to the planning and transportation performance management provisions of MAP-21 and the FAST Act. The recent passage of the Bipartisan Infrastructure Law (BIL, known also as the Infrastructure Investment and Jobs Act, IIJA) on November 15, 2021 continues the commitment to performance-based planning set forth by MAP-21 and the FAST Act.

MPOs in South Carolina may establish their own performance measures and targets or adopt the statewide measures and targets set by South Carolina Department of Transportation (SCDOT).³ In accordance with The Planning Rule, the selection of performance measures and targets must be coordinated and agreed upon between an MPO and SCDOT. As part of the metropolitan transportation planning process, the MPO must publish a System Performance Report.⁴

The System Performance Report presents the baseline or current condition and performance of the transportation system with respect to these performance measures and targets, and future condition as data is available.

Role of the System Performance Report

The System Performance Report is an important component of the Transportation Performance Management (TPM) approach set forth by FHWA and FTA. Maintaining a systematic and representative performance management approach allows the LATS MPO to evaluate how well its transportation system addresses current needs and prepare itself to meet future opportunities and challenges. Since funding for transportation projects is limited, it is important that the right projects and programs are being implemented in order to address the current and projected needs of the region.

This initial system performance report establishes a baseline document which the MPO will update with each successive long-range plan update. The system performance report and subsequent updates will evaluate the condition and

¹ 23 USC §150 (b)

² 23 CFR §450.314

³ 23 CFR §450.306

⁴ 23 CFR §450.324



performance of the transportation system with respect to the required performance targets: Highway Safety, Pavement and Bridges, and System Performance. In addition, the report will document the transit asset, safety, and reliability performance and targets that are reported by transit agencies to FTA on an annual basis.

While FHWA will determine whether SCDOT has met or made significant progress toward meeting performance targets, it will not directly assess MPO progress toward meeting targets. However, FHWA and FTA will review MPO performance as part of ongoing transportation planning reviews, including certification reviews and the Federal Planning Finding associated with the approval of the six-year Statewide Transportation Improvement Program (STIP). If an MPO does not meet or achieve its established targets, the MPO is encouraged to develop a statement that describes how the MPO will work with the State and other partners to meet targets during the next performance period. Each performance area in this report includes a section called, "Strategies to Maintain and Improve System Performance."

Highway Safety | PM 1

Safety is the first national performance goal area for which states and MPOs were required to set performance targets. The Safety Performance Measures Final Rule supports the Highway Safety Improvement Program (HSIP), as it establishes safety performance management requirements for the purpose of carrying out the HSIP and assesses fatalities and serious injuries on all public roads.

The Safety Performance Management Final Rule establishes five performance measures monitored and reported for all types of public roadways:⁵

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled
- Number of serious injuries
- Rate of serious injuries per 100 million vehicle miles traveled
- Number of combined non-motorized fatalities and non-motorized serious injuries

Safety performance targets are provided annually by the States to FHWA as five-year rolling averages for each safety performance measure.

Safety Performance

MPOs can either choose to set performance targets or commit to help implement the state's targets by planning for and programming safety projects. Rather than setting its own safety targets, LATS and LCOG have chosen to support SCDOT's safety targets. The performance figures that the MPO has reported for the five safety measures reflect a five-year average for years 2018-2022. The 2014-2018 and 2016-2020 five-year averages are included in this report for reference purposes.

The LCOG safety targets are shown in [Table 1](#). The 2018-2022 targets were adopted on October 1, 2021 and are in effect until February 27, 2023. The LCOG supports the state's safety performance targets through its planning and programming activities.

⁵ 23 CFR Part 490, Subpart B

Table 1: LCOG MPO Highway Safety (PM1) Performance Targets

| Performance Measure | Baseline 2014-2018 5-Year Average | 2016-2020 5-Year Average | 2018-2022 Targets |
|--|--------------------------------------|-----------------------------|-------------------|
| Number of Fatalities | 969 | 1,011 | 1,006.1 |
| Fatality Rate | 1.80 | 1.82 | 1.820 |
| Number of Serious Injuries | 2,962 | 2,781 | 2,850 |
| Serious Injury Rate* | 5.55 | 4.98 | 4.892 |
| Number of Non-Motorized Fatalities and Serious Injuries | 392 | 380 | 500 |

*Note: *Rate per 100 million vehicle miles traveled*

Strategies to Maintain and Improve Safety Performance

- Identify the region's high-crash locations and the crash factors involved at those locations
- Prioritize safety as part of intersection improvements for all mode users.
- Identify strategies to reduce travel speed in areas where high-speed crashes occur
- Continue to coordinate with SCDOT as part of major arterial improvements

Relevant Recommendations

As part of the recommendation development process, SCDOT crash data was used to identify the high-crash locations in the study area. In accordance with Act 114 and Planning Directive 15 (PD-15), the prioritization process considered public safety based on crash rates and locations. This data-driven prioritization process demonstrates that projects considered to be high-priority are directly responsive to both state and federal goals. The following list illustrates a few examples of projects that are responsive to high-crash locations:

- **BC-1:** US 21 from US 17 to Rural Area Boundary | Access Management
- **HC-2:** US 321 FROM Steep Bottom Rd to 2nd St | Complete Street
- **S-1:** SC 64 at Aces Basin Pkwy | Intersection
- **S-5:** US 28 at US 601 | Intersection

Pavement and Bridge Conditions | PM2

Effective May 20, 2017, the FHWA published a final rule establishing performance measures for state DOTs to use in managing pavement and bridge performance on the National Highway System (NHS). State DOT targets are set based on asset management analyses and reflect investment strategies that work toward achieving a state of good repair over the life cycle of facilities. State DOTs may establish additional measures and targets that reflect asset management objectives.

The Final Rule establishes the following Pavement Performance Measures: ⁶

- Percent of Interstate pavements in Good condition
- Percent of Interstate pavements in Poor condition
- Percent of non-Interstate NHS pavements in Good condition
- Percent of non-Interstate NHS pavements in Poor condition

The Final Rule also establishes the following Bridge Performance Measures: ⁷

- Percent of NHS bridges by deck area classified as in Good condition
- Percent of NHS bridges by deck area classified as in Poor condition

Pavement and bridge condition performance is assessed and reported over a four-year performance period. The PM2 rule requires states to establish two-year and four-year performance targets for each PM2 measure. Current two-year targets represent desired pavement and bridge condition at the end of calendar year 2019, while the current four-year targets represent desired condition at the end of calendar year 2021.

State DOT requirements for setting pavement and bridge condition targets are as follows:

- Percent of Interstate pavements in good and poor condition: Four-year targets required
- Percent of non-Interstate NHS pavements in good and poor condition: Two-year and four-year targets required
- Percent of NHS bridges by deck area in good and poor condition: Two-year and four-year targets required

MPOs may either support the state DOT's four-year targets or establish their own targets within 180 days of the DOT's establishment of its targets.⁸

Pavement and Bridge Performance

Rather than setting its own pavement and bridge performance targets, the LATS MPO and LCOG have chosen to support SCDOT's pavement and bridge targets and will continue to coordinate with SCDOT in the development of pavement and bridge targets. While these targets are only directly applicable to the NHS network, the LATS MPO emphasizes these performance areas for all roadways within its jurisdiction.

The SCDOT PM2 – Pavement and Bridge Condition Performance Targets were adopted on February 22, 2018. The LCOG Pavement and Bridge Condition Performance Targets are shown in [Table 2](#).

⁶ 23 CFR Part 490, Subpart C

⁷ 23 CFR Part 490, Subpart D

⁸ 23 CFR Part 490

Table 2: LCOG Pavement and Bridge Condition (PM2) Performance Targets

| Performance Measure | Baseline 2018 | 2-Year Target (2018-2019) | 4-Year Target (2018-2021) |
|--|---------------|---------------------------|---------------------------|
| % of Pavements of the Interstate System in Good Condition | 56.5% | N/A | 71.0% |
| % of Pavements of the Interstate System in Poor Condition | 3.1% | N/A | 3.0% |
| % of Pavements of the Non-Interstate NHS in Good Condition | 7.2% | 14.9% | 21.1% |
| % of Pavements of the Non-Interstate NHS in Poor Condition | 4.3% | 4.3% | 4.6% |
| % of NHS Bridges Classified as in Good Condition | 41.6% | 42.2% | 42.7% |
| % of NHS Bridges Classified as in Poor Condition | 4.5% | 4.0% | 6.0% |

Strategies to Maintain and Improve Safety Performance

- Implement a data-driven prioritization process and direct funding based on pavement need
- Continue to coordinate with SCDOT to ensure bridge maintenance is completed on a regular and needed basis

Relevant Recommendations

As part of the prioritization process, pavement quality index (PQI) and bridge condition data were used to evaluate corridor and widening projects in addition to intersection projects. The data-drive process ensures that projects considered to be high-priority projects address state and federal goals. The following list identifies a few examples of projects on the NHS network that will likely incorporate enhancements to the existing pavement conditions and/or bridges:

- **BC-3:** US 17 from Gardens Corner to Colleton County Line | Widening
- **CC-1:** US 17 from Beaufort County Line to SC 64 (Jacksonboro) | Widening
- **JC-1:** US 321 from SC 336 to Rural Areas Boundary | Access Management
- **S-3:** US 321 at SC 336 | Intersection
- **S-4:** SC 17 at Yemassee Rd | Intersection

System Performance | PM 3

Effective May 20, 2017, FHWA published a final rule establishing measures that report on the performance of the Interstate and non-Interstate NHS to carry out the National Highway Performance Program (NHPP)⁹, and freight movement on the Interstate system to carry out the National Highway Freight Program (NHFP).¹⁰

The Final Rule establishes the following system performance measures:

- Percent of reliable person-miles traveled on the Interstate
- Percent of reliable person-miles traveled on the non-Interstate NHS
- Percentage of Interstate system mileage providing for reliable truck travel time – Truck Travel Time Reliability Index

Performance for the PM3 measures is reported over a four-year performance period. The PM3 rule requires states to establish two-year and four-year performance targets for each PM3 measure. The current two-year targets represent expected performance at the end of calendar year 2019, while the current four-year targets represent expected performance at the end of calendar year 2021.

State DOT requirements for setting system performance targets are as follows:

- Percent of person-miles on the Interstate system that are reliable: Two-year and four-year targets required
- Percent of person-miles on the non-Interstate NHS that are reliable: Four-year targets required
- Truck Travel Time Reliability (TTTR): Two-year and four-year targets required

MPOs are required to either support the state four-year targets or establish their own targets within 180 days of the state DOT's target establishment.¹¹

System Performance

Rather than setting its own system performance targets, the LATS MPO and LCOG have chosen to support the SCDOT's system performance targets and will continue to coordinate with SCDOT in the development of system performance targets. **Table 3** presents SCDOT's statewide system performance targets as well as the LCOG system performance for 2019. The SCDOT's performance targets were adopted on February 22, 2018.

Table 3: LCOG Highway Performance (PM3) Targets

| Performance Measure | Baseline 2018 | 2-Year Target (2018-2019) | 4-Year Target (2018-2021) |
|--|---------------|---------------------------|---------------------------|
| Interstate: % of Person-Miles Traveled on the Interstate that are Reliable | 94.8% | 91% | 90% |

⁹ 23 CFR Part 490, Subpart E

¹⁰ 23 CFR Part 490, Subpart F

¹¹ 23 CFR Part 490

| Performance Measure | Baseline 2018 | 2-Year Target (2018-2019) | 4-Year Target (2018-2021) |
|--|---------------|---------------------------|---------------------------|
| Non-Interstate: % of Person-Miles Traveled on the Non-Interstate NHS that are Reliable | 89.8% | N/A | 81% |
| Freight Reliability: Truck Travel Time Reliability (TTTR) Index | 1.34 | 1.36 | 1.45 |

Strategies to Maintain and Improve Safety Performance

- Continue to monitor travel time reliability as the region continues to grow
- Work with major regional employers to develop travel demand management strategies and alternative commute alternatives

Relevant Recommendations

In the study area, the movement of freight is a crucial component of the region's economy. As part of the prioritization process, SCDOT data was used to prioritize corridors that were on state freight network or were supportive of the freight network. In addition to prioritizing freight supportive corridors, highly congested corridors were also considered to be high-priority recommendations. The following project recommendations are supportive of PM3:

- **BC-1:** US 21 from US 17 to Rural Area Boundary | Access Management
- **JC-1:** US 321 from SC 336 to Rural Area Boundary | Access Management
- **S-1:** SC 64 at Ace Basin Pkwy | Intersection
- **S-4:** SC 17 at Yemassee Rd | Intersection

Appendix B | Outreach

The following pages include the public outreach summary, LCOG Rural Area Plan advertisements, and public comments received during the 30-day public comment period.



Stakeholder Interview – Military and Economic Development

Attendees

- Stephanie Rossi | LCOG
- Christian Dammel | LCOG
- Jonathan Whitehurst | Kimley-Horn & Associates
- Starla Couso | Kimley-Horn & Associates
- Neal Pugliese | Retired Marine
- Dan Frazier | Senior Planner with Beaufort
- Tony Pollen | Business Service Manager LCOG
- Mike Butler | LCOG
- Ian Scott | Beaufort Regional Chamber

Background

Stephanie introduces the 20-year Long Range Transportation Plans. There are two plans the LATS LRTP and the Rural Area LRTP. This stakeholder interview session focuses on Military and Economic Development interests.

Discussion

- Greatest Operational Challenges
- Safety Challenges
- Economic Development Opportunities

Questions

Icebreaker: What excites you about the LRTP?

- Neal Pugliese: the plans look forward. The world is everchanging. The world of communication with Starlink with SpaceX are incredible strides forward. These technologies will spread the distribution of people without needing to come to urban settings due to strides in communication technology.
- Dan Frazier: Previous planning long range experience. Beaufort has a Civic Master Plan called the Street Infrastructure Plan with cross sections and recommendations. Completed in 2014 and rolled into the Beaufort code (form-based code). Appendix C in the Street Infrastructure Plan. How can Beauforts needs interphase with the Long Range Plan. Getting funding for TAP projects (sidewalk and bicycle projects).
- Tony Pollen: First time during this process.
- Ian Scott: In the roles since 2020. Came from Charleston. Heavily involved in transportation funding and transportation planning. In Beaufort, 125 buisness. Yemassee. Transportation is taken for granted. We have

adequate capacity at our current size. We are a growing region with geography and water constraints. Capacity for crossing is limited.

- Work Force and Affordable Housing are the two most cited challenges.
- How this process might be considered when thinking about Land Use Planning.

In one word, describe transportation in the LATS/LCOG region today.

- Ian: Can you define the region?
 - Jonathan: We are talking about both the urban and rural area. Please distinguish
- Ian: Heavily car centric and transit light
- Mike: We have same challenges of small rural areas. Main transit focuses on Beaufort. It runs through Jasper and Hampton. Have some kind of mass transit that expands counties.
- Neal: When we talk about the different population sets that require transportation to get to and from work. It is difficult for people that are living in the far reaches (far from economic centers) to get to economic centers. If we see the median income \$68,000 per year. That displaces people that might not have access to a car. Moreslaw is firmly in place. Thinking about five-years will be important.
- Neal: Looking at the beltway area in Washington D.C, it is too expensive to live near workplace. In the long term, we have challenges, but we can't think about transportation solely from the vehicular perspective.
- Mike: Those challenges will be addressed, by good work conducted by strategies for economic development. There will always be challenges, but there are industries that are coming in.
- Ian: I agree with Mike. Diversifying the economic base is the highest priority. We saw the vulnerability of our economy during the economic shut down. We are trying to use that anxiety to create momentum forward. Military being the single biggest economic driver. Beaufort and Yemassee are prime for industrial growth.
 - Port of Charleston
 - Port of Savannah
 - Include the assets outside of our region. Connecting assets outside of our region to other places is a prime opportunity. Ensuring long-term connectivity between the two ports.
- Ian: Something that has not come up is that way water defines us. For the urbanized part, all of our transportation issues are defined by major waterways. Anytime there is an issue or failure, it is a failing at crossings.
 - Evacuations is another area of concern. At some point we will need to move hundreds of thousands of people out. Not a matter of if, but rather when.



When recruiting is going on, how does transportation come into the conversation when you are competing with other regions?

- Dan: LCOG went through one cycle of updating the LRTPs. Beaufort sees economic growth on a small scale due to tourism. We recognize we need to capitalize on infill development or smart annexation. I've heard criticisms that the City caters to tourism rather than natives.
 - Lady's Island has access management issues. The bridge needs to provide more capacity. It's a slow transition away from an auto-centric region. How are we going to provide safe access in and out of the region?
- Dan: If we can educate the local population to work at new opportunities.

Can anyone speak to the Military Interests in this region?

- Neal: We need to focus on the issue of resiliency. Looking at New Orleans or Tennessee, transportation is critical in creating a resilient environment.
 - In New Orleans, transmission lines were down and complicated the response time. We need to think about our supporting infrastructure like electrical, communication, and utilities. The more resilient a community is, the more attractive it is to military interests (having an ingress and egress).
 - Take a look at all the components of the transportation corridor (drainage, sewer, communications, etc.).
- Jonathan: How would you rate the region?
 - Neal: Its evolving in a positive direction. The market is going to drive where things go in the future. Communication, transportation, and the delivery of services will all change in the future.
- Dan: ARRA funds. We used for sidewalk connections. We should better capitalize on those opportunities. The recently passed infrastructure bill will include funds for transit, broadband, and other infrastructure. We should capitalize on federal funding.
 - What are your thoughts on the new infrastructure bill, Kimley-Horn?
 - Jonathan: the LRTP is financially constrained, but also has an unconstrained vision plan. As we move from where we are currently, we will be putting recommendations into a prioritization process.
- Neal: This is the time to think big! Don't play it safe. If you think its big, double it!
- Ian: Does the Long Range Transportation Planning process look at the viability of existing infrastructure? The existing life span of critical infrastructure.
 - Beaufort River crossing into Lady's Island Downton. It's a recognizable symbol but it is old. It is a vital link between downtown and the sea islands.
 - Jonathan: We will consider that as a project to see what the status of that is.
 - Ian: It would be worth looking at a current engineering assessment is.

How would you characterize safety traveling throughout the region?

- Neal: North of the broad, it would appear that safety is better. When you make the transition 170 to 278 is a problem area. Development has been so aggressive that development zoning and transportation has taken a back seat.
 - Boundary Street Project – TIGER grant. The road was engineered with safety in mind. The safety
- Dan: Other areas north of the broad include Robert Smalls Parkway and Parris Island. This is specifically talking about the urban area of Beaufort. Robert Smalls Parkway is a vehicular safety concern.
- Stephanie: Access management issues along 170.

Public Engagement

We will be launching an Online Survey on September 8.



Stakeholder Interview – Staff

Attendees

- Stephanie Rossi | LCOG
- Maleena Parkey | LCOG
- Allison Fluit | Kimley-Horn & Associates
- Helen Schuda | Kimley-Horn & Associates
- David Prichard | Director of Community & Economic Development, City of Beaufort
- Shawn Colin | Senior Advisor to Town Manager, Town of Hilton Head Island
- Anne Cyran | Senior Planner, Town of Hilton Head Island
- Bryan McIlwee | Engineer, Town of Bluffton
- Carla Harvey | Engineer, Colleton County
- Craig Winn | Lowcountry Program Manager, SCDOT
- Katie Woodruff | Planning, City of Hardeeville
- Chief Steve Camp | Fire Department, City of Hardeeville
- Chief Sam Woodward | Police Department, City of Hardeeville
- Breana Snowden | Planning, City of Hardeeville
- Heather Colin | Growth Management | Town of Bluffton
- Kraig Gordon | Beaufort County Transportation Committee
- Noah Krepps | Planning, Town of Port Royal
- Robert Merchant | Planning and Zoning, Beaufort County
- Chief Steve Miano | Police Department, Town of Edisto Beach
- Carrie Gorsuch | Projects Coordinator, Beaufort
- Stephen Steese | Town Manager, Town of Bluffton
- Michelle Knight | Council of Governments Community & Economic Development Director
- Elizabeth Sanders | Beaufort County Maintenance, SCDOT

Background

Stephanie introduces the 20-year Long Range Transportation Plans. There are two plans the LATS LRTP and the Rural Area LRTP. This stakeholder interview session focuses on Military and Economic Development interests.

Discussion

- Greatest Operational Challenges
- Safety Challenges
- Economic Development Opportunities

Questions

What are the biggest transportation challenges in the LATS/LCOG Region?

- David P: major subdivisions near Island Causeway off Lady's Island Blvd, 450. Subdivision along Salem Rd near Robert Smalls that's 300, total close to 800. People are concerned about increase in traffic on Robert Smalls and Lady's Island Parkway.
 - Could take better advantage of Spanish Moss Trail and other low traffic roads for bikes to get people across main corridors, crossing challenges
- Hardeeville: Argent Boulevard. Similar development pressure. Multijurisdictional coordination needed for cohesive strategy.
- Kraig: 462 needs serious consideration, not within MPO
- Several comments about I-95 and widening, lack of capacity, maintenance, safety. Truck traffic going through, not as much freeway commuting. Exits 5 and 8.
- Craig Winn: there will be some interchange improvements planned by SCDOT 2024 to 2025. I-95 from 33 to 68 will be reconstructed. 8-18 section will start in 4 or 5 years.
- Shawn C: Adaptive signal technology, Hilton Head working on this. Signals can be adjusted in real time.
 - Kraig Gordon: Island doesn't have any adaptive signaling. Done up to island.
 - Anne Cyran: development pressure will make this extra important on the Island. May be downstream effects of bridge replacement.

What specific congestion issues exist in your communities?

- Rob M: 170 is growing in traffic, county is concerned for those who live in Beaufort and works in Savannah/HH/Bluffton, had a plan for that corridor but access management approach was in flux
 - Kraig G: Beaufort & Jasper (& Hardeeville) - AECOM did study of 170 and recommended near term, intermediate, long term improvements. In design for near term, 4 intersections (170 and 278 is the worst one)



- Hardeeville: Argent & 170, 278 & 170, US 17 every weekend and any time I95 is shut down
- Anne C: Exit 8 during the summer
- David P: 21 Lady's Island Sea Island turning onto 802 queue lane not long enough
- Noah K: going north on Rebow road and turning right onto bridge. Turning lane long but people stay in right lane, causes backup.
- Heather: Mayriver Rd in Bluffton near intersection of Bluffton Rd, development pressure from New Riverside and 170. Also Bluffton Pkwy toward Bluffton, 5B. N/S connector from 278 to Parkway needed. Turning movements.
- David P: Carteret going onto the bridge.
- Shawn C: Seapine Circle now that toll is gone on Cross Island Pkwy.

What specific safety issues exist in your communities?

- David P: Island Causeway (McTier Bridge) this is a curve, he hears complaints that it feels dangerous. Worried about intersection remaining unsignalized. Align with Meridian (cut across marsh?). Drive thru restaurants have had queuing onto highways (121, Robert Smalls). Land use solution?
- Noah K: Port Royal, other side of bridge (Ladys Island and Rebow), intersection of Paris and Rebow, left turn egress that allows shooting out across lanes right by light. Seeing increase in accidents. Paris Island Gateway & Savannah seems unsafe. Left turn in curve in road at light.
- Anne C: US 278 Gateway Corridor Project safety issues should be addressed.
- Comments: safety issues related to access management is an overall theme
- Hardeeville: I-95, Argent, and US 17 especially in southern portion of the County have safety issues

What specific multimodal improvements are needed in your communities?

- Rob M: have identified several corridors to do master plan and look at multimodal and access management (Sea Island Pkwy on Lady's Island), penny sales tax. Bike lanes/multi-use paths. Ribaut Road from Boundary Street to Russell Bell Bridge Complete Streets and AM.
- Anne C: HH is looking at new paths to provide access both sides of US 278 and fill in gaps part of overall system. Main St, Shelter Cove Ln.
- David P: Cyclists going across to Bay.
- Noah K: Spanish Moss Trail will be crossing Rebo Rd. Details still being tossed around in Town of Port Royal. Conundrum with SCDOT, need to prove signal is necessary. Long strip of grass and wooded area along the st on Ribaut Rd, there are no crossings. Big safety issue for peds. Need ped facility on Naval Hospital side.

- David P: Intersection of Ribaut and Ladys Island, intersections should be improved for cyclists to access the Spanish Moss Trail.
- Rob M: central part of Ladys Island has been seeing improvements but need paths to connect to northern Lady's Island.
- Anne C: there is a strong segment of people who road bike, would like more on road facilities.
- David P: interested in off road single track (bike shop owner)
- Rob M: emphasis on off road facilities to encourage all riders. Appropriate cross sections, rumble strip locations in rural areas.

If you had a chance to do one project in your area, what would it be?

- Noah Krepps: redesign/road diet of Ribaut Rd from Russell Bell Bridge to Mossy Oaks Rd to Beaufort. Would be nice gateway into communities in northern part of the county.
 - David: redo Ribaut from Boundary into Port Royal.
- Hardeeville: widen Argent Blvd
- Carla H: widen 17A from Colleton Co to Dorchester Co
- Heather C: complete Bluffton Parkway 5B, improve May River Rd for safety and traffic volumes

Public Engagement

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Stakeholder Interview – Staff

Attendees

- Stephanie Rossi | LCOG
- Christian Dammel | LCOG
- Maleena Parkey | LCOG
- Allison Fluit | Kimley-Horn & Associates
- Helen Schuda | Kimley-Horn & Associates
- Glenn Stanford | Town Council, Town of Hilton Head Island
- Harry Williams | City of Hardeeville

Background

Stephanie introduces the 20-year Long Range Transportation Plans. There are two plans the LATS LRTP and the Rural Area LRTP. This stakeholder interview session focuses on Military and Economic Development interests.

Discussion

- Greatest Operational Challenges
- Safety Challenges
- Economic Development Opportunities

Questions

What are the key transportation issues in the LATS/LCOG region today?

- Glenn S: what will happen with the 278 corridor project? Fluid at the moment, have preferred alternative from DOT but is not publicly accepted. Town has consultants to evaluate it. Citizens want to design the road for us.
 - His opinion is we are built out on HHI, doesn't expect explosive growth to continue. Lots of conversation about park and ride lots on 285, etc. Doesn't see this as feasible in this small a population area. Too many gated communities.
 - What will be the impact of self-driving vehicles? Modern high-speed ferries between cities in the area?
 - Traffic projections for HHI are based on extension of past, expects traffic count to flatten. Bluffton is growing a lot. Would like extension of bluffton parkway out to I-95. Access to marine terminal.
 - Extension of airport runway length has changed a lot recently. Regional jets are arriving. More in June 2021 than in entire year of 2019.
 - Not in an ideal place but it is what it is
 - SC has more state owned roads per capita in the country, puts maintenance burden on the state.

- Value and potential changes in Palmetto Breeze (transit). Bringing in workers from more rural areas.
- Concern about e-bikes and wanting to regulate them. They can go very fast on the trails. State has declared that e-bikes are bikes. East Coast Bikeway. 25,000 bicycles available for rent and they run out on the 4th of July.
- Harry W:
 - Hardeeville and Bluffton increased from 15,000 to 34,000 2010-2020. Projected to be near 60,000 in 2030. Will start to dwarf HHI.
 - Almost all tourists go through Hardeeville and Bluffton.
 - Highway 278, 170, Argent Blvd are major roads that serve population and workforce. Workers coming from Georgia and even Florida. They use 278 corridor. Lots of heavy trucks. Cascading effect on the region.
 - I-95 (hopefully widening will be completed in next 10 years)
 - Bluffton Parkway - look at alternative routes to get onto the island. Can't just widen I-70 and put more lights on Argent Blvd. Need more route/mode diversity to accommodate the growth in Bluffton and Hardeeville.
 - Look at funding issue concurrently with the needs issue. Beaufort County and Hardeeville got funds from the state infrastructure bank, total \$200 million. Significant change in the ability of this region to secure state funding.
 - Add in more projects that can be funded by the state infrastructure bank, we have a lot of unfunded projects and need a more defined plan for securing funding
 - Local matches are a key factor in getting funding
 - Need to look at participation of developer in setting aside funds to remedy traffic situation

If you could implement one project today, what would it be?

- Glenn: build another bridge to HHI, extend Bluffton Pkwy
- Harry: widen 4 miles of Argent Blvd from 2 to 4 lanes. Main route between Savannah and Beaufort.

Public Engagement

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Stakeholder Interview – Bicycle/Pedestrian and Special Interests

Attendees

- Stephanie Rossi | LCOG
- Christian Dammel | LCOG
- Jonathan Whitehurst | Kimley-Horn & Associates
- Starla Couso | Kimley-Horn & Associates
- Fred Leyda | Human Services for Beaufort County
- Jessie White | Coastal Conservation League
- Juliana Smith | Long Range Planner for Beaufort County
- Deborah Slayk | Access Health and Beaufort Hospital
- Scott Donahue | Office of Public Transit
- Frank Babel | Bicycle Advocate for Hilton Head
- Brenda Dooley | Hilton Head Regional Habitat for Humanity
- Susan Zellman | Chair of LRTA
- Brett Vice | East Coast Greenway Alliance

Background

Stephanie introduces the 20-year Long Range Transportation Plans. There are two plans the LATS LRTP and the Rural Area LRTP. This stakeholder interview session focuses on Bicycle, Pedestrian, and Special interests' groups.

Discussion

- Greatest Operational Challenges
- Safety Challenges
- Economic Development Opportunities

Questions

Icebreaker: What excites you about the LRTP?

- Frank: Part of the Beaufort County Bicycle Task Force. Fundamental Cycling Club.
- Fred: Human services Alliance. Composed of two dozen work groups. Children and Vulnerable Adults. Multi-disciplinary team to craft recommendations. Transportation and affordable housing are the biggest challenge the region faces.

- Juliana: Bicycle and Pedestrian Plan. Interconnected and multimodal so everyone can access key destinations (hospitals, schools, etc.).
- Juliana: Following transportation projects throughout the region. Concerned with transportation and how it increases development and long-range problems associated with development. Identifying needs and ways to redirect resources to new or appropriate areas.
- Brenda: Cost of housing and affordable housing is heavily impacted by transportation
- Deborah: Primary care and specialty. Transportation is a huge barrier to health services. Be a liaison to the hospital. Beaufort County coalition works with Palmetto Breeze.
- Brett: Coordinate with communities and envision a 3,000 trail from Canada to Key West. Greenway to serve as a spine to serve as regional network to be safe for all ages and abilities

What are the biggest transportation challenges in the region?

- Fred: Disparities in terms of economy, education, and health. These manifest when it comes to transportation. We are not going to have a completely subsidized transit system. Huge disparities in wealth in the area. The levels of poverty are juxtaposed by the huge amount of wealth.
- Frank: The area is focused on growth. There isn't the planning for infrastructure and transportation in place to accommodate growth. When growth is anticipated, we need to have a strategy. We don't have enough strategies to identify connectivity. Pedestrian and bicycle infrastructure provides equitable means to enhance mobility and alleviate income gaps.
- Jessie: Climate change and what that means for our road network. Flooding issues on existing roads. What do we do about that? How do we address resiliency? Being intentional about planning for existential threats.
- Juliana: How we have developed in the past. Housing diversity and where incomes are. Have a mass transit system so that people do not have to rely on cars. Hilton Head is a great example of people needing to commute in from rural areas. If we can limit the single-person trips, we can alleviate congestion. Our Comprehensive Plan identifies projects that would connect.
- Susan: Chair of LRTA and experience in affordable housing.
- Debbie: Two growing populations (the old-old). The growth over 75 is extremely high. That will create mobility issues. The second is in Beaufort and poverty. Highest growth areas in the mid-term census data. Work force relies on transportation access.
- Frank: More sensitive to our environment. More cognizant of our environmental issues. We're paving over paradise.
- Fred: Together for Beaufort County. We looked at the water quality. Tourism is one of the three biggest legs of our economy. If we destroy our environment, we shoot ourselves in the foot. Looked at where the problems were. The problem was development. We fill in the marsh and that creates the biggest problem. Forcing wildlife to move into smaller pockets of environment.

- Juliana: Loosing ecosystem services. A freshwater wetland. Especially in Jasper and Beaufort County. Thinking about water quality.

How would you rate the Lowcountry with multi-jurisdictional coordination for land use?

- Fred: Not well
- Juliana: Historically, not well. From my perspective, it is starting to change.
- Jessie: Especially with smaller communities, we want to get ours. There is a sense of entitlement to grow quickly without careful planning ahead of time. That attitude is starting to change (stormwater standards). See that driving down 170.
- Frank: Self-interest, lack of control, and lack of incentives. Everyone works on what they are paid for.
- Debbie: The structure of land use. There is a lack of communication and definition as to what develops where. Along 278. We don't know which is in Beaufort and which one is in Bluffton. Do they worry about each other?
- Juliana: Historic annexation wars. There is not much forward thinking as to how and where they will grow. No thought to the regional impact.
- Fred: Watching people come from other parts of the country and wanting to change the area to be what they want it to be. People not communicating or thinking about the bigger picture.
- Debbie: Power and wealth is relocating to Hilton Head and northern Beaufort. The power of developers can get around the LRTPs. Real estate interests should not be on Planning Committees.
- Frank: You have to follow the money.
- Jonathan: There is no understanding of moving from one jurisdiction to another.

How do you see bicycle and pedestrian planning being a unifier?

- Brett: A singular facility to provide connection from the north to the south. The great thing about a shared-use path (MUP) is that it is accessible for all ages and abilities. It is sustainable tourism and sustainable development. Sharing the experience of being in nature with everyone not just localized in one area. Greenway would be the spine to a larger regional system. Success in Beaufort County to create multi-use paths. SC 170 and across the bridge to Hilton Head. Our area has committed to investing in bicycle and pedestrian infrastructure.
- Frank: One of the most expensive parts of the greenway will be built at the end. The spine should be put down first and then build off of that. If we don't have the basic framework, it will be so much harder later on.
- Fred: When building the bridge to Hunting Island there was no consideration putting a bicycle lane across. Those conversations have to be had in the planning stages rather than after development.
- Jessie: Last year, DOT passed down the directive for complete streets. Referencing complete streets policies.

- Juliana: Local plans would consider complete streets.
- Debbie: Compliance with complete streets should be a part of the project prioritization criteria.
- Frank: Complete streets is a philosophy. AASHTO compliance, NACTO, and MUTCD are standards we should use.
- Juliana: Complete streets often consider access to all users. A complete street should be a network wide mentality. Having one complete street does not solve anything.

What areas/locations in the region experience the greatest safety issues?

- Frank: There are no silver bullets. It is an unrelenting focus to address safety for all people. Pedestrian safety islands at every signalized intersection. We are implementing complete streets. We are investing millions into safety improvements.
 - Vision Zero is a big idea and part of a philosophy. It's not accepted yet.
- Brett: Just check the box. Acknowledge the safety issues both perception and reality. The perception of danger is what keeps people from using poorly throughout bicycle and pedestrian infrastructure. We need more physical separation has be implemented if speed limits are higher.
- Frank: Speed kills.
- Juliana: Along the SC-21 corridor (rural and does not have any sidewalks). Fatal pedestrian crashes there because there is no sidewalk. Down 170 is another place of concern. There are lots of vehicular accidents.
- Frank: Prado analysis. Measure where there are bike and car crashes. Focus on correcting those crash locations. Analyze what the data is telling us.
 - Safety education. Old people, tourists, alcohol, service workers, bicycles and it creates a toxic mix of road users.
- Jessie: Maintenance of pathways that have already been created. St. Helena sidewalks are overgrown. This is not a safe option.

Public Engagement

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Stakeholder Interview – Rural Area

Attendees

- Stephanie Rossi | LCOG
- Christian Dammel | LCOG
- Jonathan Whitehurst | Kimley-Horn & Associates
- Starla Couso | Kimley-Horn & Associates
- Charles “Buddy” Phillips | Hampton County Council
- Dan Wood | Town of Bluffton
- Danny Lucas | Jasper County Development Services
- Esther Black | Colleton County
- Stephen Murray | Mayor of the City of Beaufort

Background

Stephanie introduces the 20-year Long Range Transportation Plans. There are two plans the LATS LRTP and the Rural Area LRTP. This stakeholder interview session focuses on Bicycle, Pedestrian, and Special interests’ groups.

Discussion

- Greatest Operational Challenges
- Safety Challenges
- Economic Development Opportunities

Questions

In one word, describe transportation in the LATS/LCOG region today.

- Stephen: Worried. There is a perception that the south of Beaufort is growing while the north is not. This perception is not necessarily accurate. Lady’s Island is looking at a potential 8,000 new units. There is a perception of a traffic issue. We’ve approved more density than our current transportation infrastructure allows. Beaufort County, Town of Port Royal have done well in form-based code. Thicken up our existing urban areas and have multimodal connections between existing urban areas. Think about community development.
- Danny: You don’t solve traffic problems by building additional lanes.
- Dan: Scenic Highway 46 is grid-locked every day. The parkway has alleviated congestion on SC-278. Mount Pleasant = “grid lock.” I’m excited to participate in the Long-Range Plan.
 - Growth that Jasper and Beaufort are experiencing is the pressure on existing roadways.

- Charles: I am also worried. With the growth that is anticipated at Early Branch in Hampton County, I am concerned. This is the New Agriculture Tech Campus in Hampton County. Between Yemassee and Hampton.
- Danny: Transit and multimodal is an option. In the south, it is hard to get traction for multimodal amenities. Jasper has roadways that experience problems that are being highlighted here. SC-462 is a short cut to get to 270 and 278. It's a two-lane country road that has a lot of traffic.
 - US-278
 - US-17 at Exit 33: Gateway to Charleston and Bluffton
 - I-95: add additional lane to each side to Exit 33
 - Multimodal is a challenging conversation

Are you all included in the transportation decision-making process?

- Danny: I focus on Jasper and Beaufort. The frustration that most of us feel is that there is not enough emphasis on solving the problems. Kicking the can down the road. Building single-family detached homes.
- Stephen: New Mayor. I have not really been involved. I'm getting up to speed on long range transportation planning. There are lessons to be learned in the urban area that we can address in rural areas.
 - How do we look 20-years out?
 - Growth in rural areas inform the decisions we make today.
- Danny: This effort can help inform local jurisdictions only if local jurisdictions are willing to cooperate. There is a disconnect between the Comprehensive Land Use Plan, transportation planning, and school planning. Building permits are being handed out like "candy."

What are the struggles of the rural and urban areas?

- Danny: Jasper has all three: urban, rural, and suburban areas.
- Stephen: Most people consider Bluffton a rural area. With the growth projects, we will become an urban area. We have to think "urban" in nature because we are moving towards that.
- Danny: Urban is considered a pejorative. The northern part of Jasper is rural, and they want to stay that way. If migration patterns continue, the four counties will be substantially suburban or urban in the future.
- Esther: Colleton has a congestion problem with I-95 (Walterboro).

How should this plan consider multimodal needs?

- Dan: I'm excited about the prospect of including multimodal. If you build a city for cars, you will get cars. If you build a city for people, you will get people. I don't see how you can create a plan without transit.



- Bluffton and Palmetto Breeze is setting up a route.
- Why are we not connected to Hilton Head? Baby steps.
- It has to be widely used in the region or else it is not going to work.
- Stephen: The issue with public transportation is that we don't have the density to support having public transportation.
 - Working on a greenway. Greenville Road is not friendly to bicycle or pedestrians. A complete remake of that road. Connect to the Spanish Moss Trail.
 - Habersham or around the Air Station. Where are the residential and commercial nodes?

What is the region's best opportunities for multimodal corridors?

- Reblot Road
- SC-21
- SC-170
- Sea Islands
- There are concerns about Yemassee's annexation practices
 - Charles: Yamasees is bumper to bumper. There is a single roadway in and out.
- Colleton and Jasper Counties

Are you looking at connectivity to the Port in Savannah? (Dan)

- Jonathan: Yes, it came up in a previous stakeholder discussion that focused on economic development. We're updating the travel demand model to capture changes in population and employment.

When talking about multimodal improvements, how should we consider transit?

- Danny: We are having discussions with Palmetto Breeze. We have seen some resistance to the expansion of service. There is a resistance to transit. People speaking out against transit and multimodal facilities.
 - It is easier to convince people from the northeast to take transit because they're used to it.
- Stephen: Southern Carolina Alliance will continue to challenge the notion transit not working. A hundred years ago we had boats. Taking a boat might be able to take pressure off of road networks.
- Danny: If we can get more involvement from local officials, that will really help this process gain traction.

How should we consider Economic Development in relation to transportation planning?

- Stephen: In Beaufort County, the Economic Development Corporation there will be new jobs and new industries emerging. There are tremendous investments made in Hampton County. How will those impact transportation networks? How do we couple housing and economic development to take strain off of the transportation network?
- Danny: Hilton Head is critical as a form of tourism and jobs for essential workers. From an affordable housing perspective, that needs to be centered around transit locations. We're just starting to have those conversations in Jasper County.
 - It is expensive to own and operate a car. Transportation and housing costs eat up all the money from poor people.
 - Use our means to help service workers and first responders. Transportation will help solve that long range problem.
- Stephen: We have not capitalized on being in-between two of the largest ports on the east coast. Why don't we have an in-land port? That would take freight off of roadways. Those infrastructure improvements will help make the Jasper Port a reality.

Are there any parting thoughts?

- Dan: Bluffton RDU is 70% build out.



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For Immediate Release
September 1, 2021

THE LOWCOUNTRY COUNCIL OF GOVERNMENTS IS HOSTING A PUBLIC MEETING FOR THE LONG RANGE TRANSPORTATION PLAN UPDATE

The Lowcountry Council of Governments (LCOG) is working to update the 2045 Long Range Transportation Plan (LRTP) and Rural Area LRTP. These plans will identify transportation needs for the urbanized and rural areas and provide a set of multimodal strategies to address these needs.

LCOG and our regional planning partners will work together to create a Long Range Transportation Plan that identifies projects and funding sources to help create a transportation system that is safe, efficient, and equitable for everyone. The LRTP is a comprehensive “blueprint” for area transportation services aimed at meeting mobility needs through the next 20+ years.

When: Wednesday September 8th from 5pm-7pm

Where: Technical College of the Lowcountry New River Campus Conference Room (100 Community College Drive). Virtual option upon request.

What: A interactive event to help shape the vision of the plan and identify the incremental steps to achieve it.

For more information visit www.lowcountrycog.org

Contact Stephanie Rossi Planning Director for the Planning Department at Lowcountry Country Council of Governments at 843-473-3958 or srossi@lowcountrycog.org.

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PREVIEW FOR AD NUMBER IPL00395150**THE LOWCOUNTRY COUNCIL OF GOVERNMENTS IS HOSTING A PUBLIC MEETING FOR THE LONG RANGE TRANSPORTATION PLAN UPDATE**

The Lowcountry Council of Governments (LCOG) is working to update the 2045 Long Range Transportation Plan (L RTP) and Rural Area L RTP. These plans will identify transportation needs for the urbanized and rural areas and provide a set of multimodal strategies to address these needs.

LCOG and our regional planning partners will work together to create a Long Range Transportation Plan that identifies projects and funding sources to help create a transportation system that is safe, efficient, and equitable for everyone. The L RTP is a comprehensive "blueprint" for area transportation services aimed at meeting mobility needs through the next 20+ years.

When: Wednesday September 8th from 5pm-7pm

Where: Technical College of the Lowcountry New River Campus Conference Room (100 Community College Drive). Virtual option upon request.

What: A interactive event to help shape the vision of the plan and identify the incremental steps to achieve it.

For more information visit www.lowcountrycog.org

Contact Stephanie Rossi Planning Director for the Planning Department at Lowcountry Council of Governments at 843-473-3958 or srossi@lowcountrycog.org.

W00000000
Publication Dates

[<< Click here to print a printer friendly version >>](#)

ACCOUNT INFORMATION

LC COUNCIL OF GOVERNMENT IP

P.O. BOX 98

YEMASSEE, SC 29945-0098

843-473-3958

gkozak@lowcountrycog.org

LC COUNCIL OF GOVERNMENT

TRANSACTION REPORT**Date**

September 1, 2021 11:10:36 AM EDT

Amount:

139.00

SCHEDULE FOR AD NUMBER IPL00395150

September 5, 2021

The Island Packet (Hilton Head)



Lowcountry
COUNCIL OF GOVERNMENTS



2045 LATS

LONG RANGE TRANSPORTATION PLAN



LCOG RURAL AREA

LONG RANGE TRANSPORTATION PLAN

Survey Summary

September 15 – October 20, 2021

Overview



What is MetroQuest?

An online survey designed to educate the public about LATS and LCOG Rural Area LRTPs and collect feedback using five interactive screens

How long was the survey active?

September 15, 2021 to October 20, 2021

What were participants asked?

- 1) To learn about the LATS and LCOG LRTPs
- 2) To rank the draft 2045 LRTP goals
- 3) To identify investment priorities by making tradeoffs on improvements
- 4) To map multimodal solutions

Key Takeaways



The public prioritizes Safety & Security and Access & Mobility.



The public wants more multimodal options that include transit, biking, and walking.



The public wants to invest in constructing or widening roads, improving intersections, and enhancing public transportation.

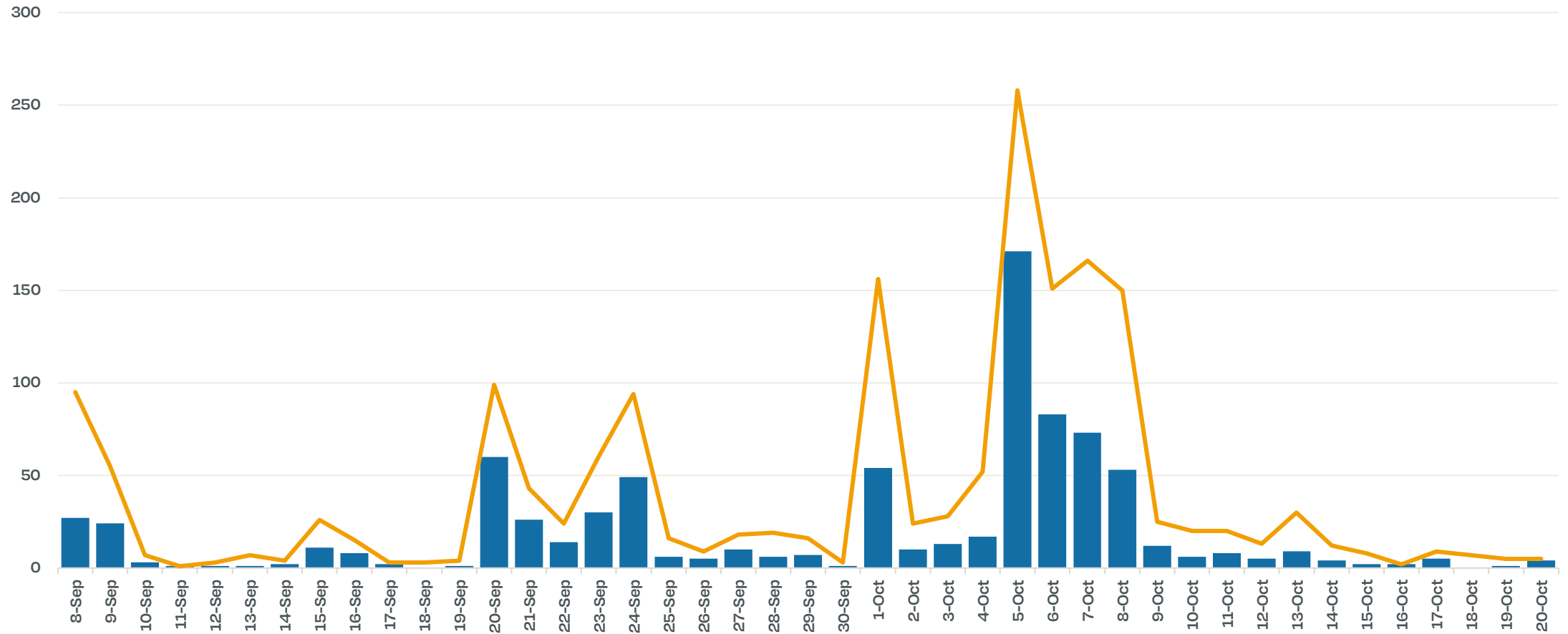


The public has identified several high priority corridor.

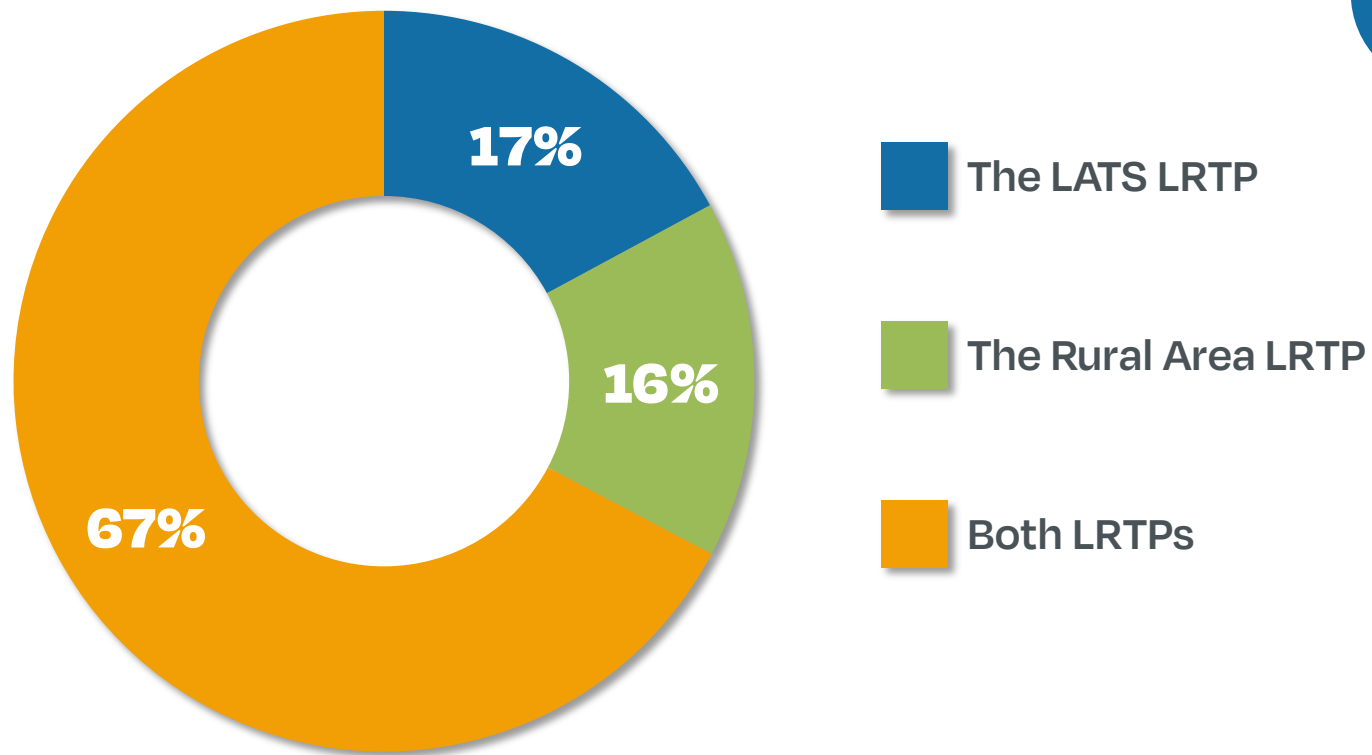


The public thinks transportation improvements need to reflect the incoming growth throughout the planning area.

Timeline of Participation



What are you most interested in?

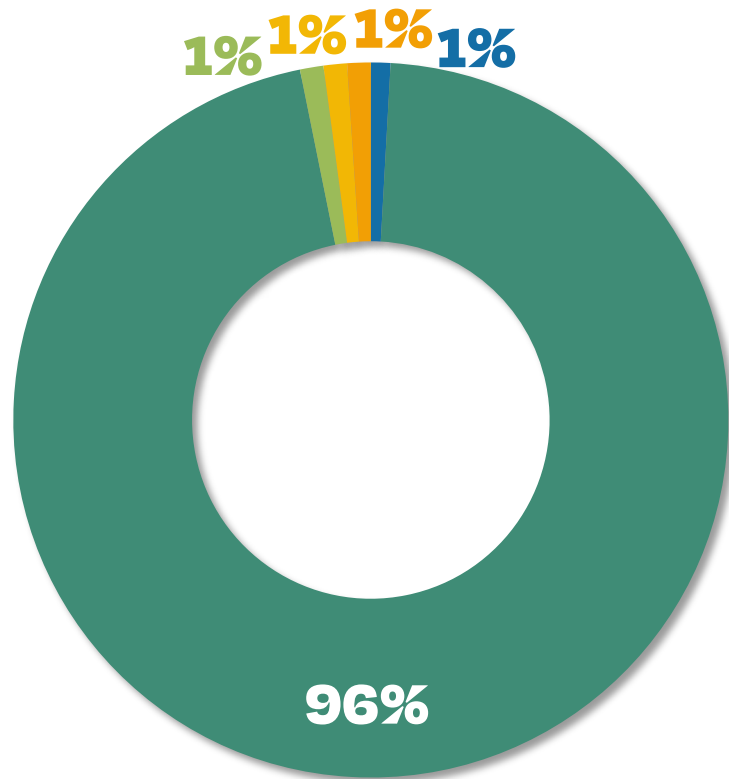


LRTPs

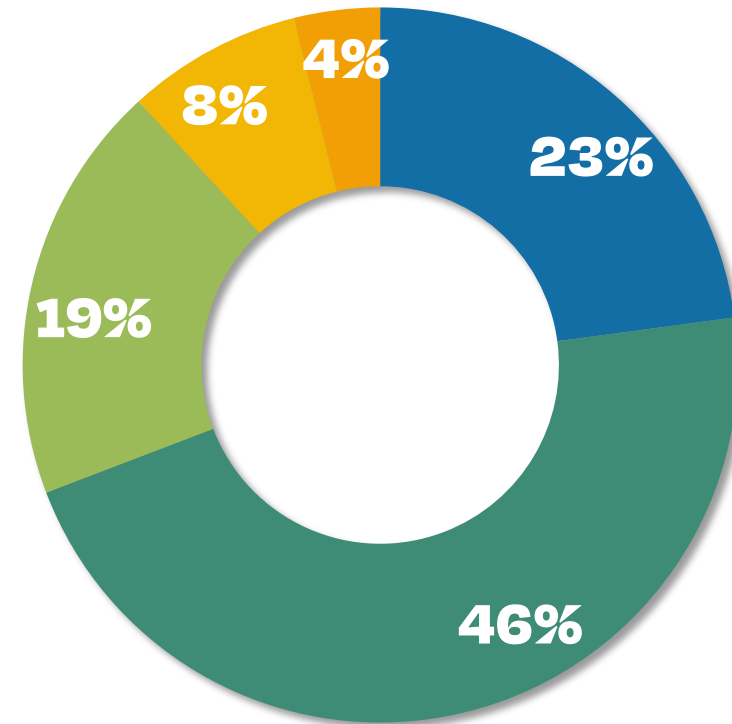
Most participants were interested in both the LATS and Rural Area LRTPs. The following summary considers input for both LRTPs.

Travel Characteristics

How do you travel?



How would you like to travel?



Comments on Mode Split

"Would love to have more options for biking, walking, and public transit."

"We really need to be looking ahead at a lower-carbon future. [T]ransit should be all electric, more walking and biking paths to reduce car travel, which would reduce congestion as well as emissions."

"Our area is in desperate need of mass transit. We cannot keep widening roads."

"Affordable transportation is needed in our area."

"I prefer walking, biking and public transportation to driving. I drive only because it is not safe to do otherwise."

"Transit options need to be expanded to include the many retirement communities being built in the area."

"We are in desperate need of more sidewalks/bike paths in outer areas of Summerville..."

2045 Goals

Help us rank and prioritize the preliminary goals

Goals

The screenshot shows a web application interface for ranking goals. The main heading is "Rank the 2045 Goals" with a sub-instruction: "Please rank 5 of the 6 items above the line in your preferred order." The interface is divided into five vertical sections: 1. WELCOME, 2. GOALS, 3. TRADE-OFFS, 4. SOLUTIONS, and 5. STAY INVOLVED. In the "GOALS" section, there is a list of six goals: Culture & Environment (highlighted in yellow), Access and Mobility, System Preservation, Resiliency, Economic Vitality, and Safety & Security. To the right of the list is a blue box with a white icon of a hand holding a leaf and a network of people, representing "Culture & Environment". Below this icon is a text description: "Coordinate decisions for transportation and land use in ways that protect the region's treasured natural resources, promote the Lowcountry quality of life, and provide predictability for future growth and development." There are also navigation icons at the top right of the main content area.



Ranking

Participants were asked to rank their top goals for the 2045 LRTPs.

The goals for the LATS and Rural Area LRTP are the same.

Draft 2045 Goals



Access & Mobility

Promote an efficient, interconnected, multimodal, and accessible transportation network for people, goods, and the delivery of services.



Culture & Environment

Coordinate decisions for transportation and land use in ways that protect the region's treasured natural resources, promote the Lowcountry quality of life, and provide predictability for future growth and development.



Economic Vitality

Encourage economic development through targeted transportation investments that enable competitiveness, productivity, and efficiency.



Resiliency

Encourage improvements to the transportation network that prevent interruptions, endure damages, and quickly recover from disturbances.



Safety & Security

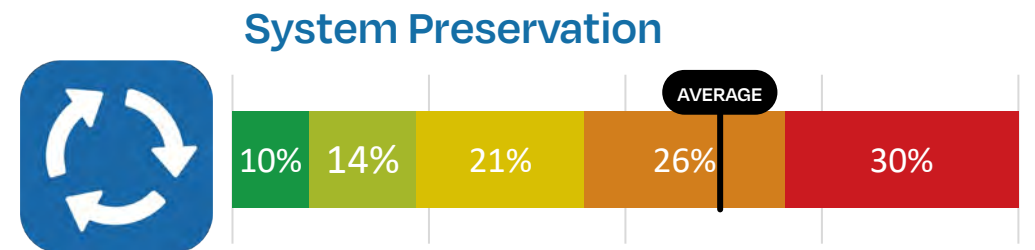
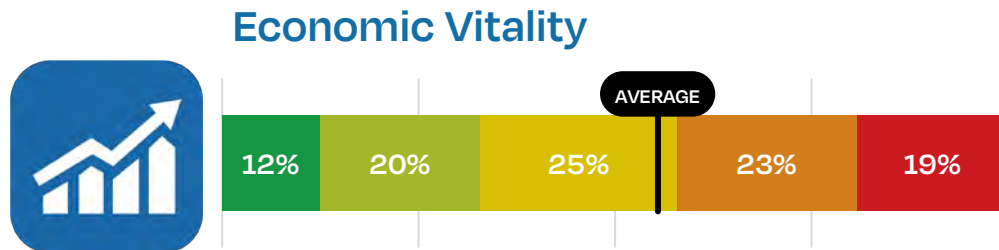
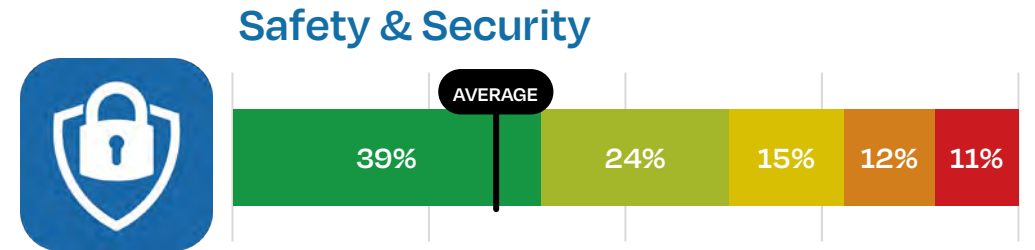
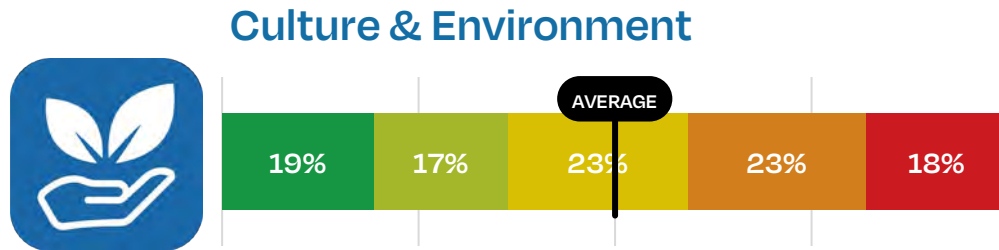
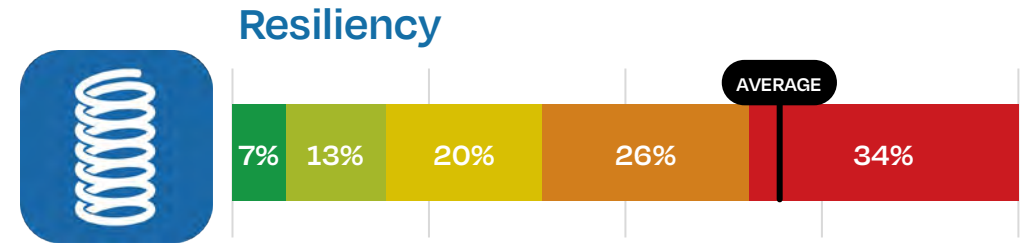
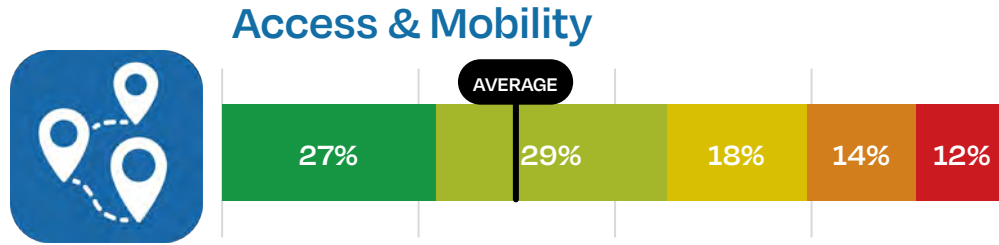
Improve safety for all users as they move around the region, protect the region's infrastructure from threats, and provide for efficient emergency evacuation.



System Preservation

Support and strengthen the current transportation network in ways that extend the functional life of transportation facilities, embrace current and emerging technologies, and make travel more efficient.

Goal Ranking



TOP PRIORITY

LOWER PRIORITY



Investment Priorities

Like most places, our transportation needs exceed our ability to pay for them.

Trade-Offs

The screenshot shows a web-based interface for budget allocation. At the top, it says "Investment Priorities" and "Please distribute the budget into the categories:". Below this is a grid of eight categories, each with a coin icon and a numerical value. On the left, there are two stacks of coins: one labeled "1" with a value of "10" below it, and another labeled "10" with a value of "90" below it. The categories and their current values are:

| Category | Value |
|--|-------|
| Improve intersections (signals, turn lanes, or pedestrian crossings) | 0 |
| Construct or widen roads | 0 |
| Construct or repair sidewalks | 0 |
| Construct bikeways or greenways | 0 |
| Maintain or improve public transportation | 0 |
| Improve existing facilities | 0 |
| Improve traffic flow (control driveways or add medians) | 0 |
| Improve street aesthetics (street trees or street lights) | 0 |

The interface also features a navigation menu on the left with options: WELCOME, GOALS, TRADE-OFFS (selected), SOLUTIONS, and STAY INVOLVED.



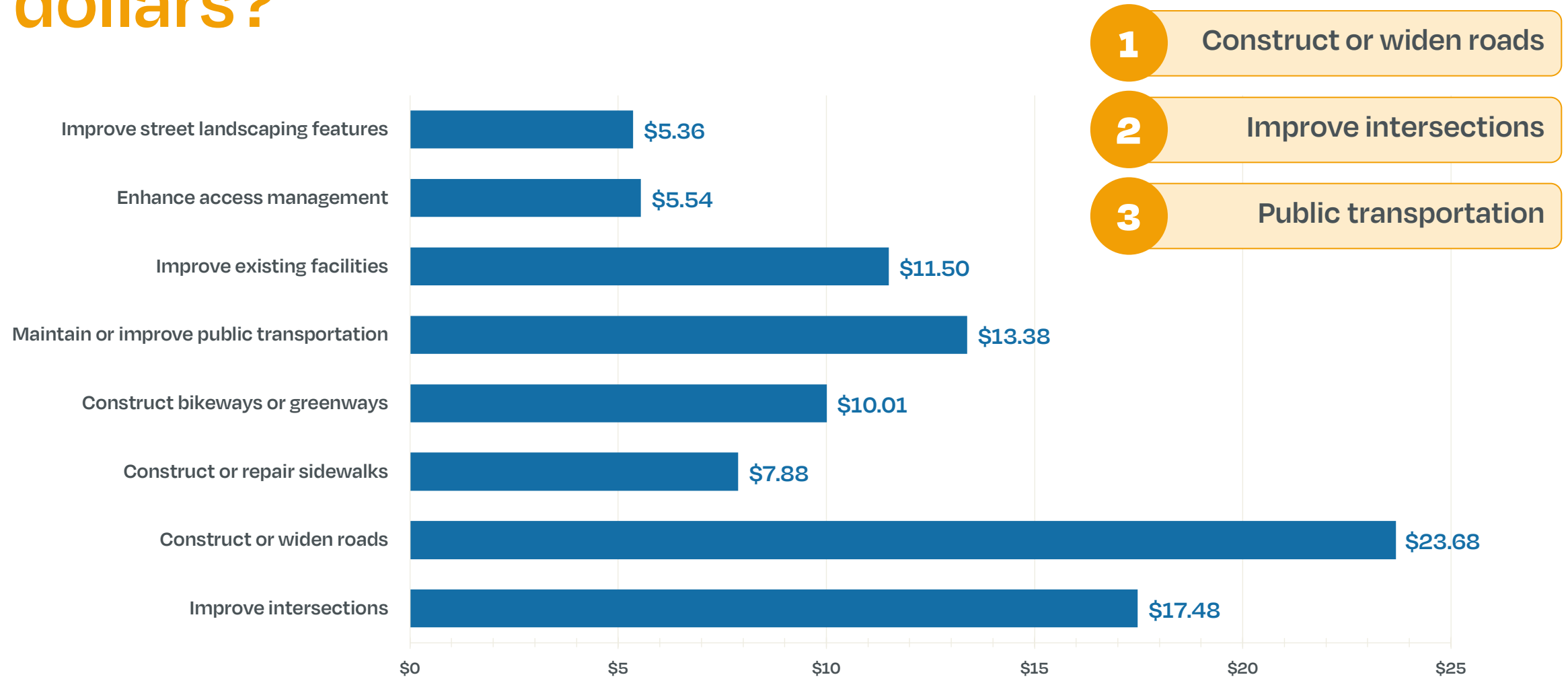
Trade-Offs

Participants were asked to allocate \$100 among the eight budget categories. The results will be considered in project development and prioritization.

Potential Improvements

| Improvement Type | Example(s) |
|---|--|
| Improve intersections | Consider realignments, signalization, improve crossings |
| Construct or widen roads | Build new connections, widen congested roadways |
| Construct or repair sidewalks | Build new sidewalks, use funds for maintenance projects |
| Construct bikeways or greenways | Build bicycle lanes, sharrows, shared-use pathways |
| Maintain or improve public transportation | Invest in public transportation routes, invest in bus stops |
| Improve existing facilities | Consider maintenance on facilities |
| Enhance access management | Consolidate driveways, add medians, increase driveway length |
| Improve street landscaping features | Add native plants, add signage, add benches |

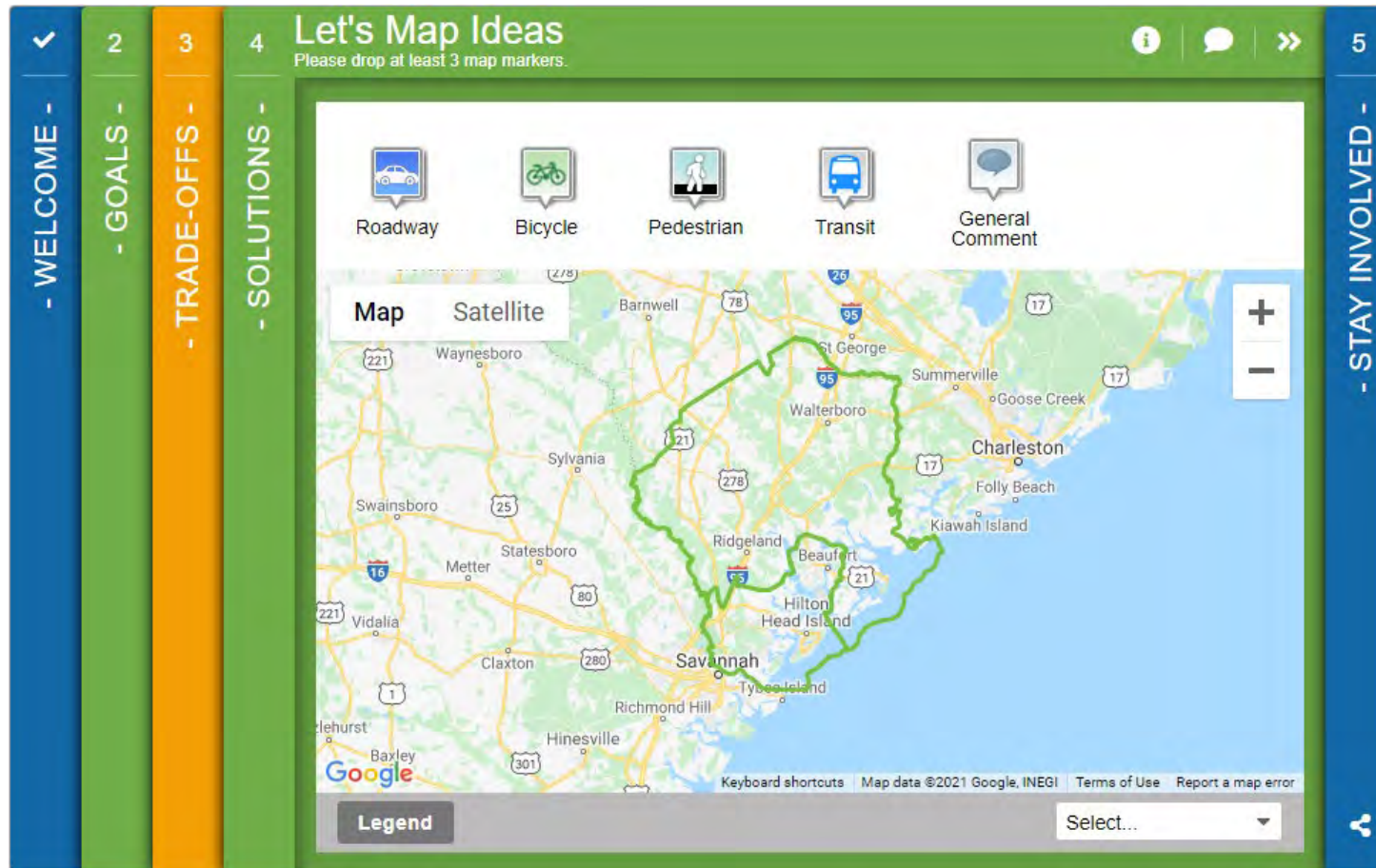
How would you spend transportation dollars?



Let's Map Ideas

Help identify needs by dragging markers to specify locations

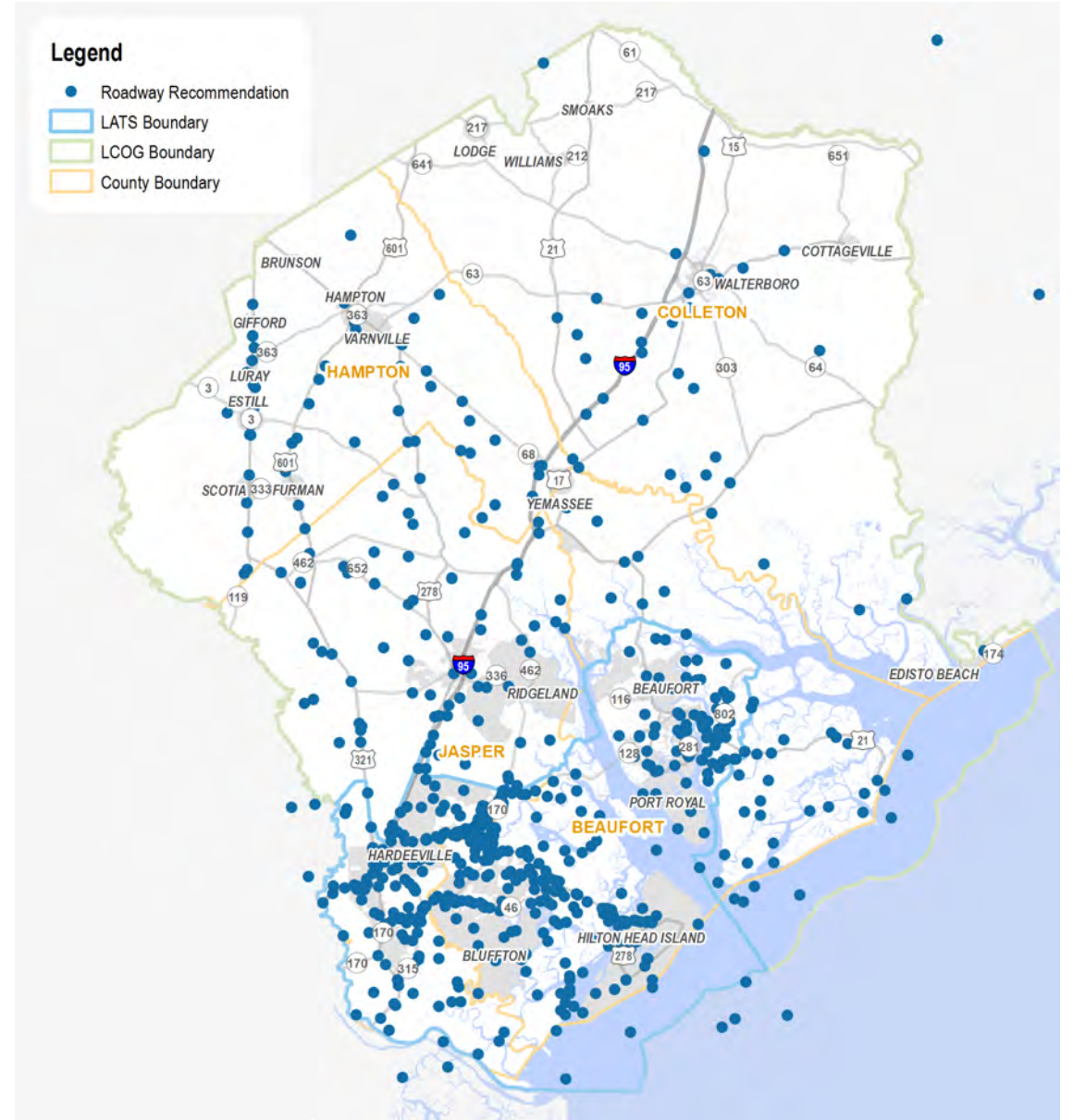
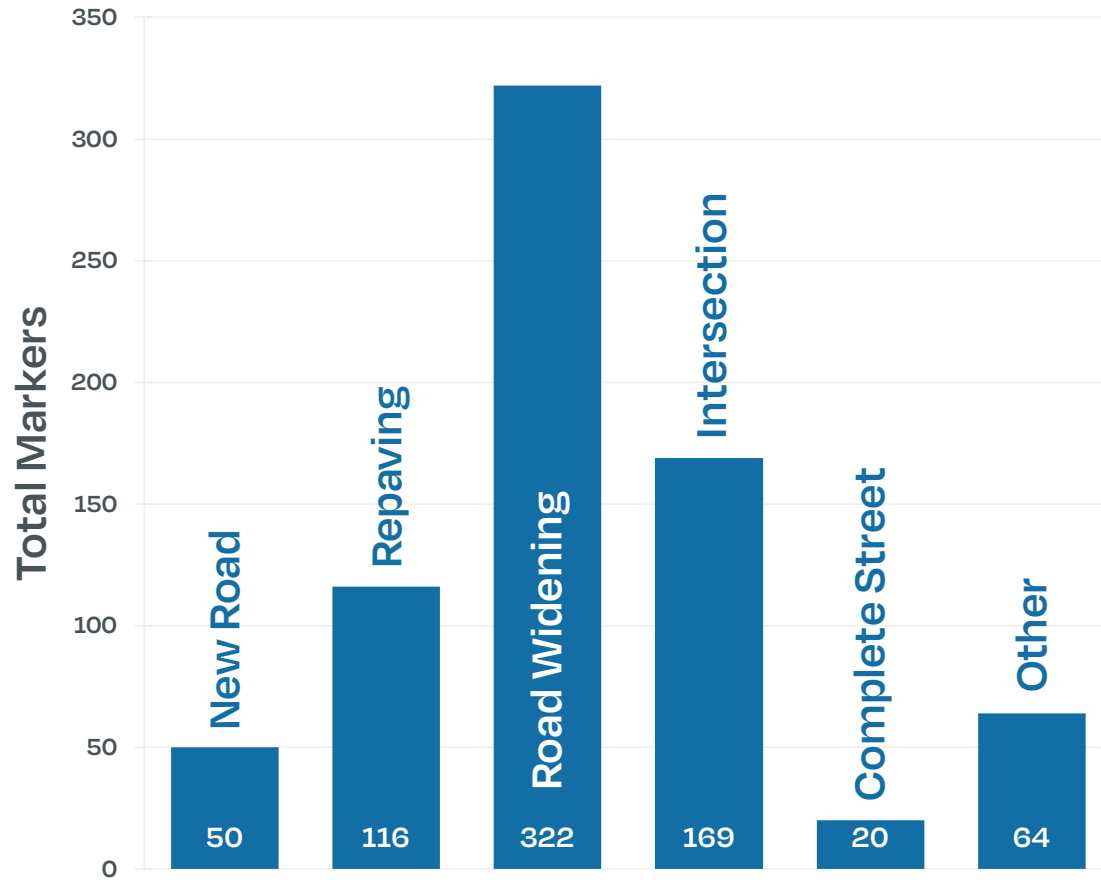
Screen 4



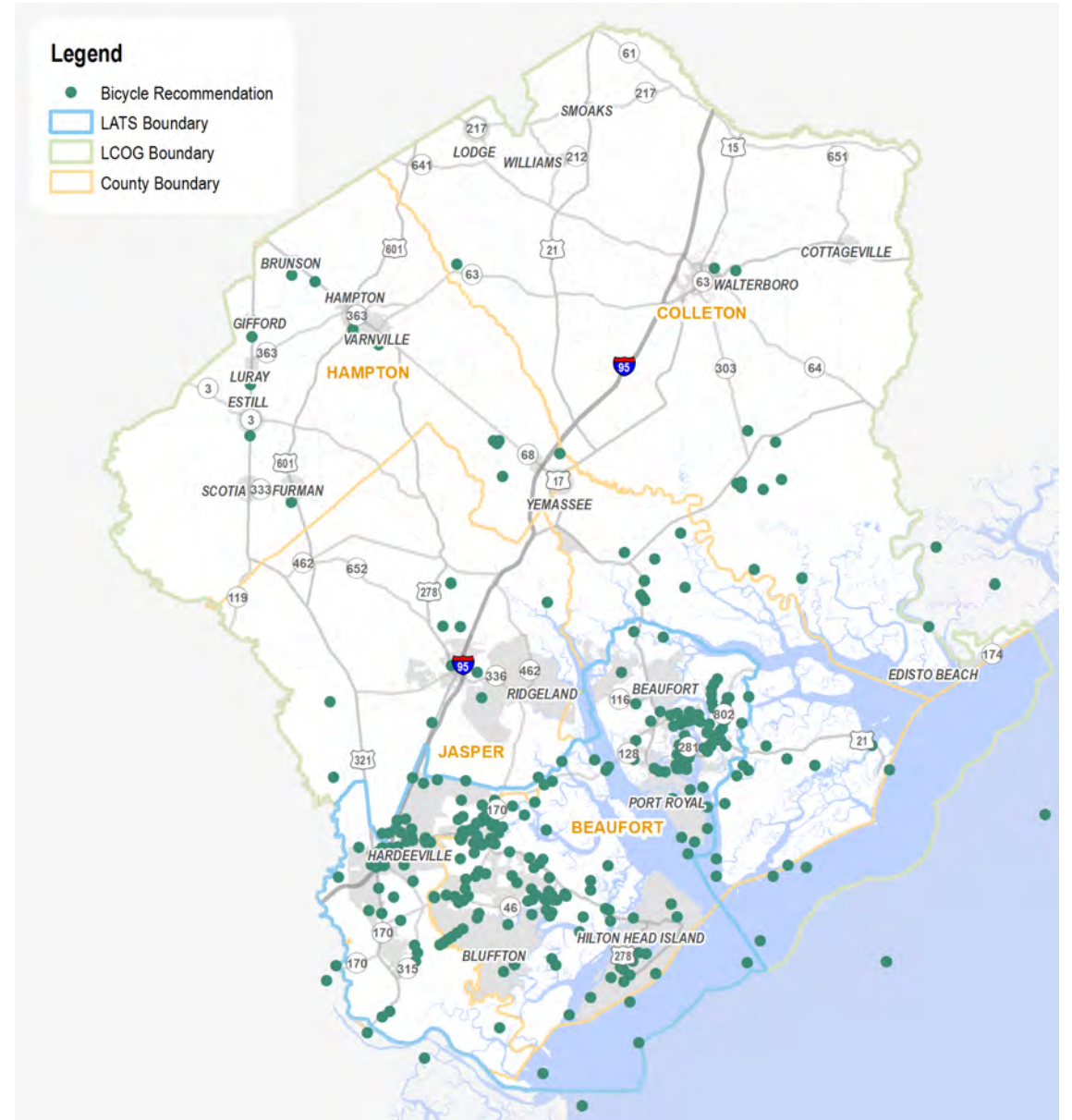
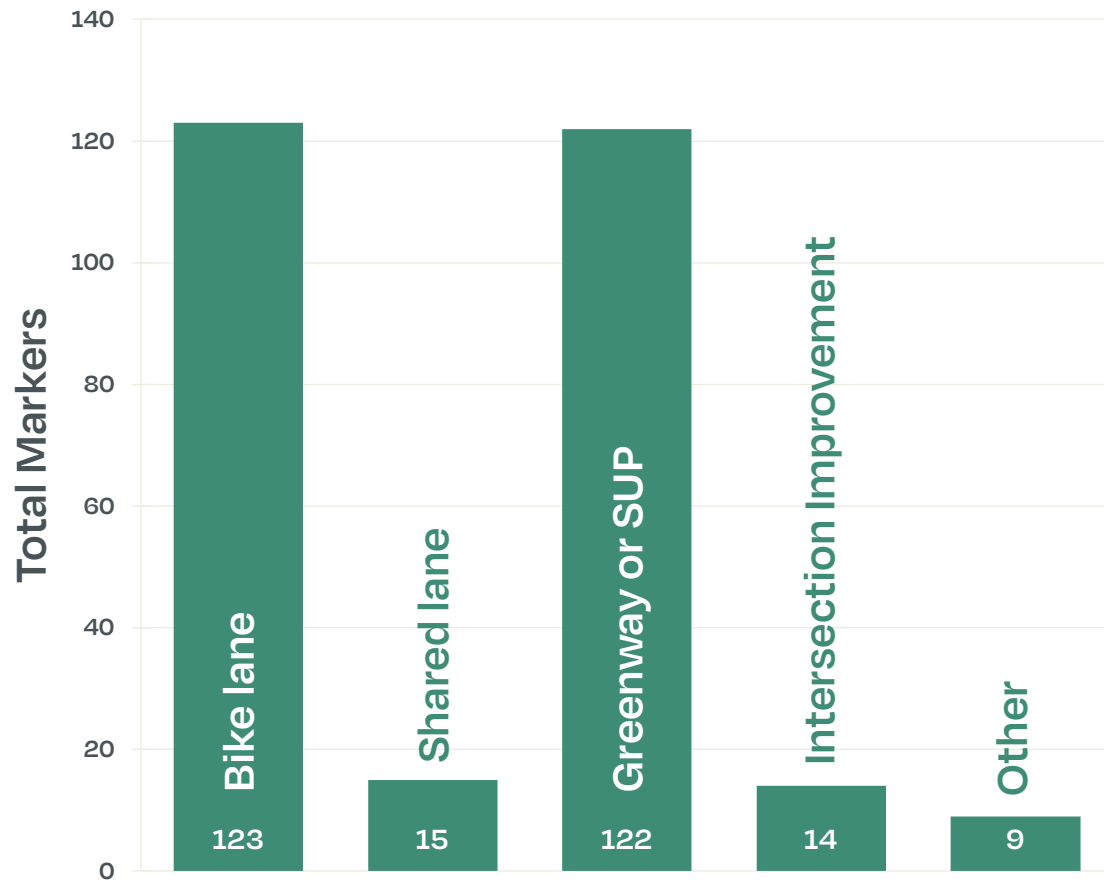
Mapping

Participants were asked to map ideas for roadway, bicycle, pedestrian, and transit recommendations. Other general comments were also considered.

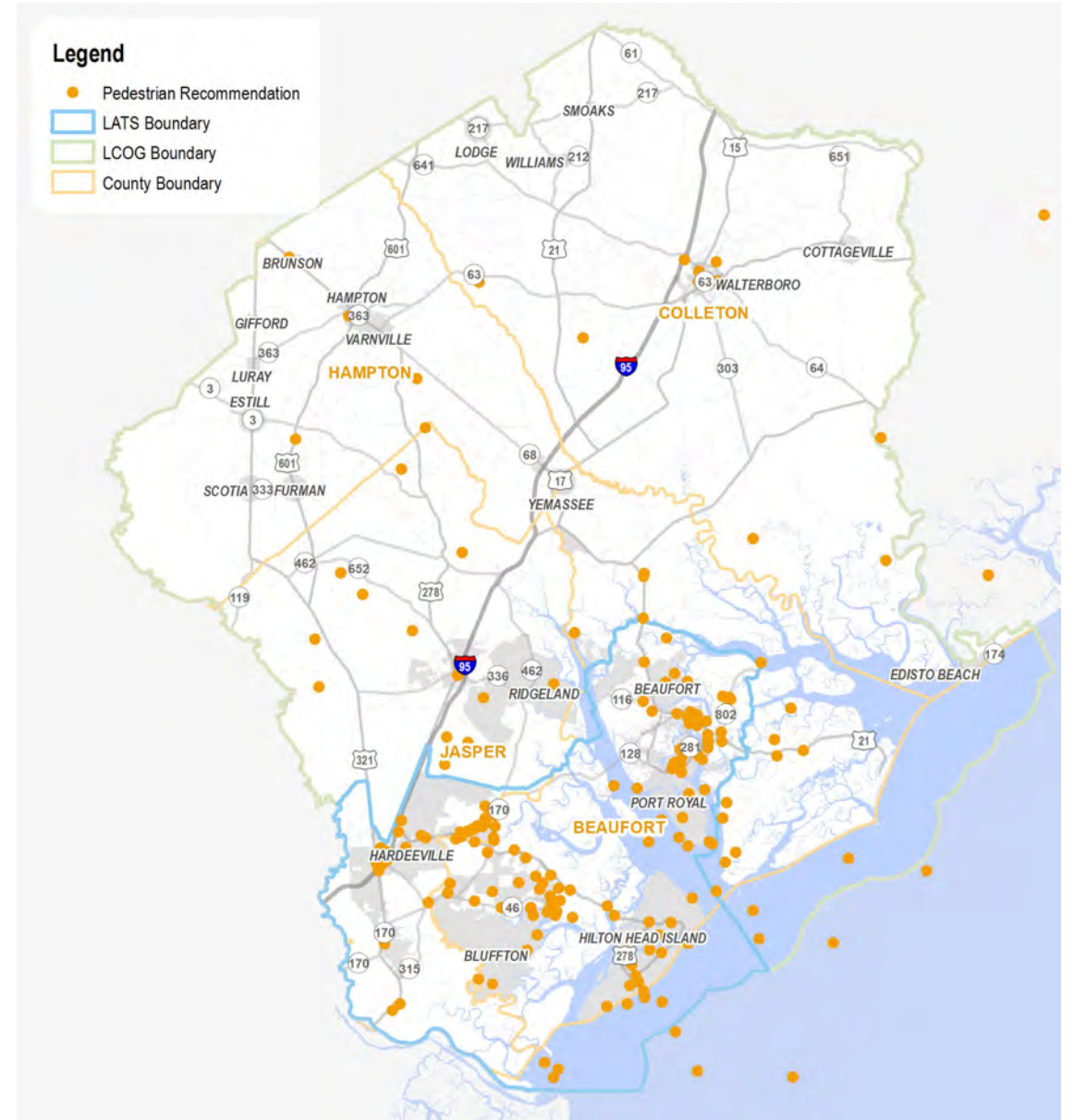
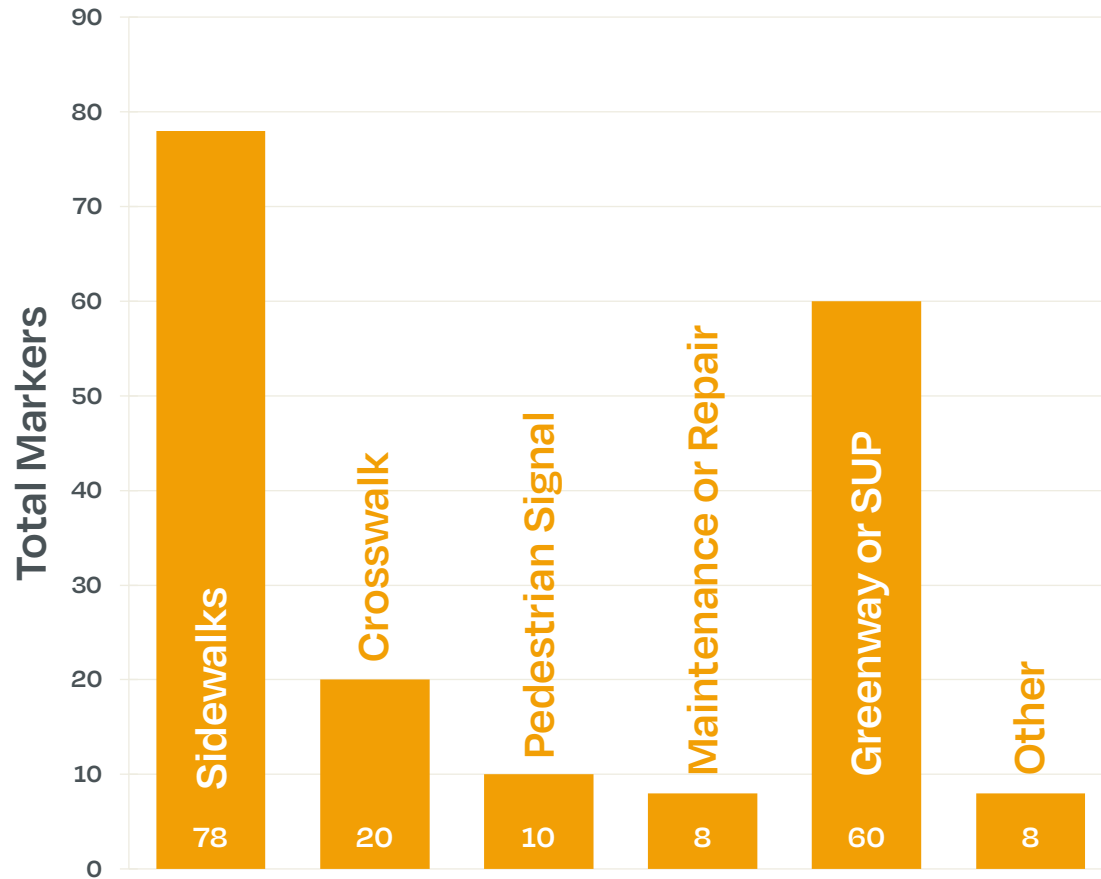
Roadway



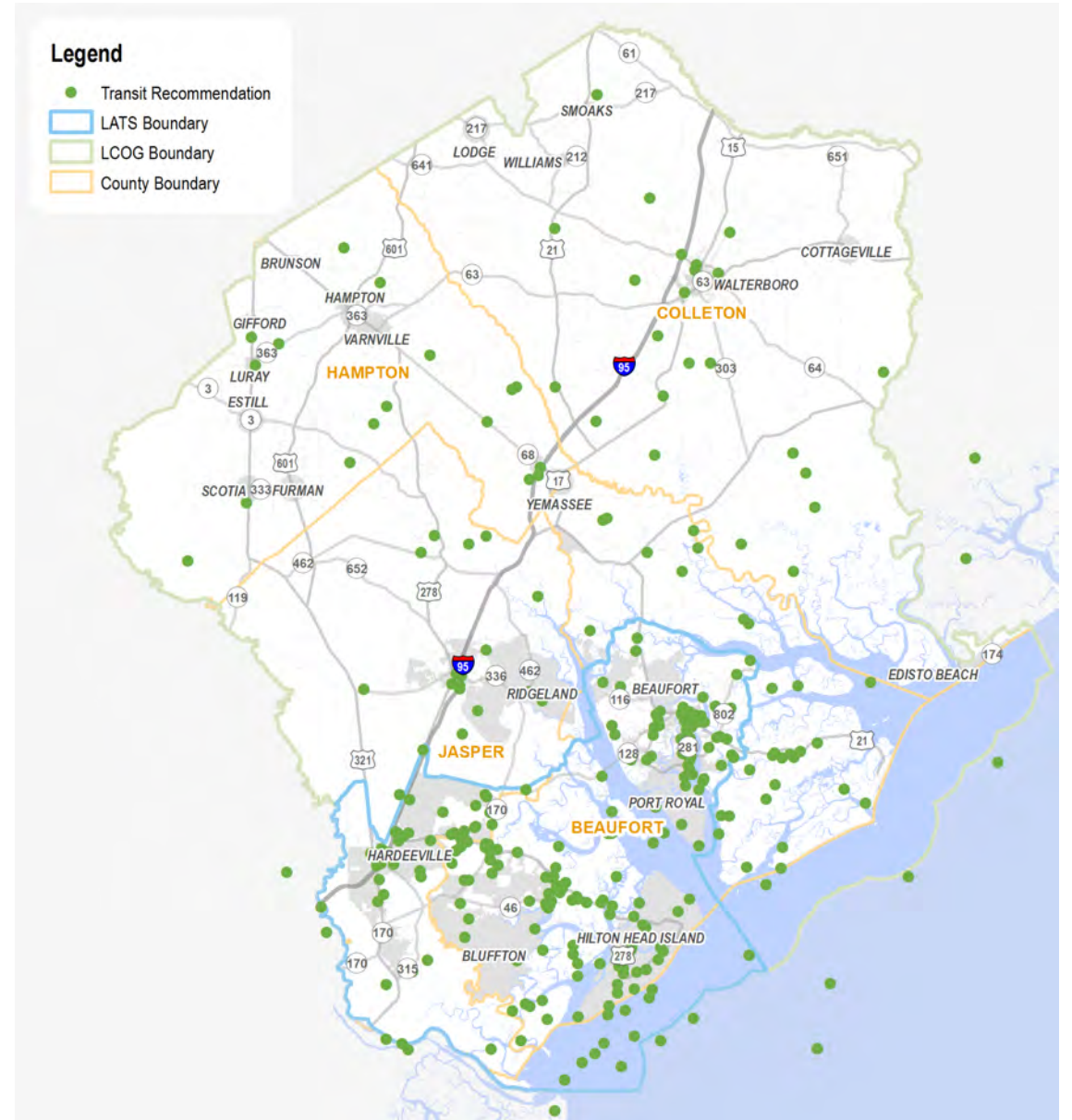
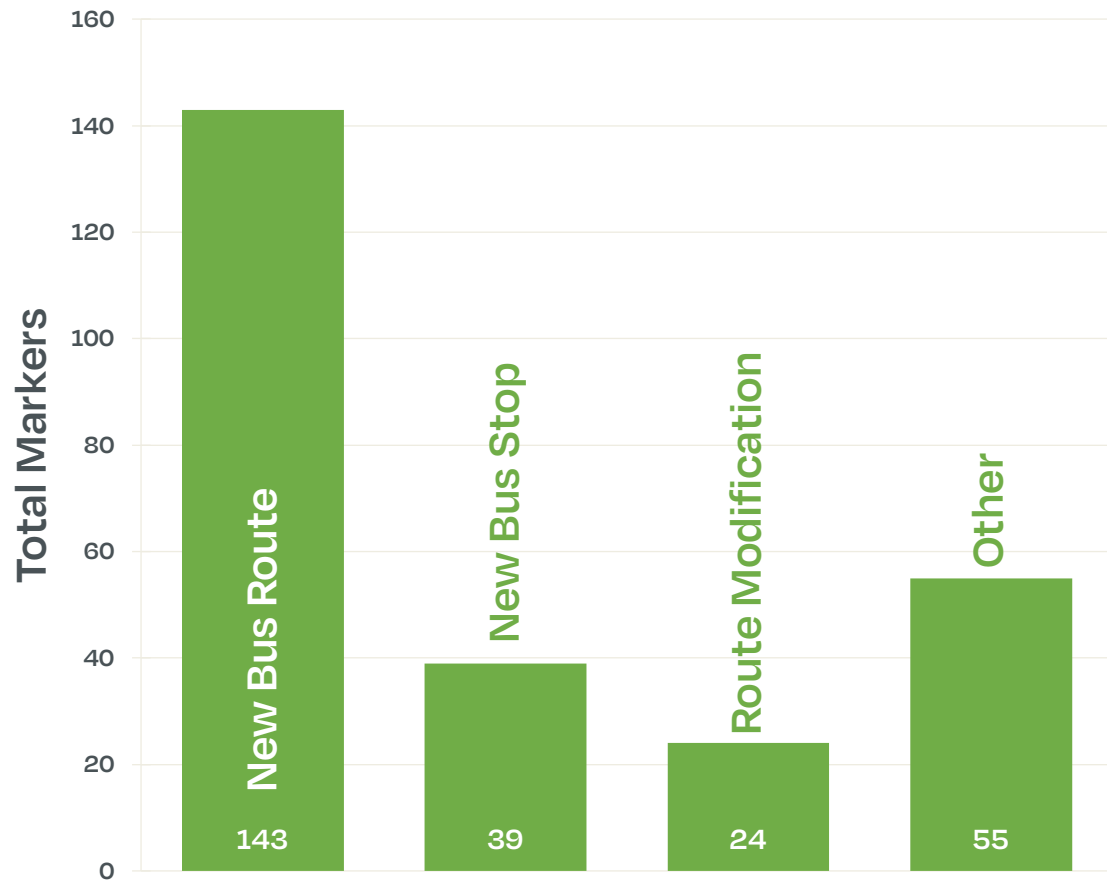
Bicycle



Pedestrian



Transit



General Comments

Other Comments



1,298

Written Comments





Beaufort Gazette
 Belleville News-Democrat
 Bellingham Herald
 Bradenton Herald
 Centre Daily Times
 Charlotte Observer
 Columbus Ledger-Enquirer
 Fresno Bee

The Herald - Rock Hill
 Herald Sun - Durham
 Idaho Statesman
 Island Packet
 Kansas City Star
 Lexington Herald-Leader
 Merced Sun-Star
 Miami Herald

el Nuevo Herald - Miami
 Modesto Bee
 Raleigh News & Observer
 The Olympian
 Sacramento Bee
 Fort Worth Star-Telegram
 The State - Columbia
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Sun News - Myrtle Beach
 The News Tribune Tacoma
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 San Luis Obispo Tribune
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Attention: CAROL STONEBRAKER
 LC COUNCIL OF GOVERNMENT
 P.O. BOX 98
 YEMASSEE, SC 299450098

**Lowcountry Council of Governments
 Notice Public Comment Period &
 Public Hearing**

The Lowcountry Council of Governments (LCOG), the rural transportation planning agency for Beaufort, Colleton, Hampton, and Jasper Counties is requesting public input and comments on the Long Range Transportation Plan (LRTP) update. The LRTP is the comprehensive "blueprint" for area transportation services aimed at meeting mobility needs through the next 20+ years. The DRAFT plan will be available for review on or before April 12th, 2022 at the Lowcountry Council of Governments office and on the LCOG website at www.lowcountrycog.org.

Any changes to the report will be posted on the website. The comment period starts on April 12th, 2022. Written comments on the proposed LRTP updates will be accepted until close of business on May 25th, 2022. Please send your comments to Stephanie Rossi at 634 Campground Road, Yemassee, SC 29945 or srossi@lowcountrycog.org.

Public comments can be made in person at the LCOG Executive Board meeting on May 26th at 6:30 pm at the Lowcountry Council of Governments Building (634 Campground Road, Yemassee). Virtual option upon request.

Disclaimer statement: Lowcountry Council of Governments does not discriminate on the basis of age, sex, race, color, religion, national origin, disability or familial status in the admission, access, treatment or employment in its federally funded programs or activities. You may call 843-473-3990 to request special accommodations 48 hours in advance of a public meeting or to file a discrimination complaint.
 IPL0067920
 Apr 10 2022

STATE OF)
 SOUTH CAROLINA) AFFIDAVIT
 COUNTY OF BEAUFORT)

I, Tara Pennington, makes oath that the advertisement, was published in The Island Packet and The Beaufort Gazette, a newspaper published in Beaufort County, State and County aforesaid, in the issue(s) of

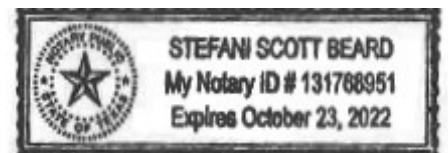
No. of Insertions: 1
 Beginning Issue of: 04/10/2022
 Ending Issue of: 04/10/2022

Tara Pennington
 Tara Pennington

Sworn to and subscribed before me this 11th day of April in the year of 2022

Stefani Beard

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
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Comment Response

The following comments were received during the public comment period for the Lowcountry Council of Governments Rural Area Plan.

Comment I have a question about project S-6 on page 96. What is involved in the safety enhancement at Hwy 64 and Roberston in Colleton County?

Response: A safety enhancement can consist of a variety of treatments. Enhancements can include high-visibility crosswalk striping, pedestrian signage, bicycle boxes, protected bicycle lanes, skip-line striping, signal re-timing, or other improvements. The specific recommendation at this intersection should be further studied in future planning efforts. With over 60 crashes in the project's vicinity, the improvements at SC 64 and Robertson Blvd should promote safety for all users.

Comment I realize you use 2019 Census data but on page 23 Edisto Beach Census in 1,033. We feel the 2010 census was flawed.

Response: Page 16 of the PDF (3-3) shows the total population in Edisto Beach in 2019 as 604 people as of 2019. Page 23 of the PDF is showing the Hispanic Population and Page 3-3 is showing Natural Protected Areas and Emergency Preparedness. The 2010 Census Data is not referenced in this report for Edisto Beach.

Comment Page 36 I believe that more than 20% have vehicles on Edisto Beach.

Response: Page 29 of the PDF (3-16) is showing households without access to a vehicle; meaning that yes, more than 20% of households in Edisto Beach have access to a vehicle.



LCOG RURAL AREA
LONG RANGE TRANSPORTATION PLAN