

Environmental Justice Plan
OF
THE COASTAL REGION METROPOLITAN PLANNING
ORGANIZATION

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Executive Summary

Environmental Justice (EJ) is a federal requirement of federal, state, and local agencies and has legal basis in Title VI of the Civil Rights Act of 1964, Executive Order 12898 of 1994, and National Environmental Policy Act (NEPA). These regulations require that all agencies receiving federal assistance demonstrate compliance with related laws and regulations so that all the populations in the agency's study area enjoy the same benefits of the federal investments, bare the same burdens resulted from the federal projects, and have equal participation in the local and state issues.

The Coastal Region Metropolitan Planning Organization (CORE MPO) is the Metropolitan Planning Organization (MPO) for the Savannah area. CORE MPO is responsible for transportation planning and project selection in the region.

This document details the CORE MPO's approach to Environmental Justice in the CORE MPO metropolitan transportation planning area.

- The regulatory framework for the CORE MPO EJ Plan was outlined at first, including the EJ laws and important terms.
- The potential benefits and burdens of transportation projects were identified and the CORE MPO EJ target populations and target areas were then defined.
- In the next step, the potential burdens and benefits were correlated with the target populations and target areas to evaluate whether Environmental Justice concerns arise in the CORE MPO planning area, particularly in the long-range transportation planning process. Where EJ concerns do happen, mitigation strategies were discussed.
- Since equal public participation is one of the most important requirements for the EJ analysis, the public involvement process of the transportation plan update is discussed.
- The final chapters of this document discuss overall findings, conclusions and recommendations of the CORE MPO's Environmental Justice program as well as the EJ plan update.

Chapter 1: Introduction to Environmental Justice

1.1 Definition of Environmental Justice (EJ)

The U.S. EPA Office of Environmental Justice (EJ) defines EJ as

“The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies.”

In general, this means that for any program or activity for which any federal funds will be used, the agency receiving the federal funds:

- Must make a meaningful effort to involve low-income and minority populations in the processes established to make the decision about the use of the federal funds; and
- Must evaluate the nature, extent, and incidence of probable favorable and adverse human health or environmental impacts of the program or activity upon minority or low-income populations.

1.2 Regulations of Environmental Justice

Recognizing that the impacts of federal programs and activities may raise questions of fairness to affected groups, President Clinton in 1994 signed Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations. This Order served to amplify the provisions of Title VI of the Civil Rights Act of 1964.

Title VI of the 1964 Civil Rights Act states that “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Title VI bars intentional discrimination as well as disparate impact discrimination (i.e. a neutral policy or practice that has a disparate impact on low income and minority groups).

The Environmental Justice Executive Order amplifies Title VI by providing that “each Federal agency shall make achieving Environmental Justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low-income populations.”

In compliance with the Executive Order, the U.S. Department of Transportation (USDOT) issued the Departmental Order 5610.2(a) - Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The DOT Order 5610.2(a) was published on April 15, 1997 and revised on October 30th, 1997. It sets forth the U.S. DOT policy to consider environmental justice principles in all (U.S. DOT) programs, policies, and activities. It describes how the objectives of environmental justice will be integrated into planning and programming, rulemaking, and policy formulation. The Order sets forth steps to prevent disproportionately high and adverse effects to minority or low-income populations through Title VI analyses and environmental justice analyses conducted as part of Federal transportation planning

and NEPA provisions. It also describes the specific measures to be taken to address instances of disproportionately high and adverse effects and sets forth relevant definitions.

In response, the Federal Highway Administration (FHWA) issued its action statement to address Environmental Justice in 1998, outlining specific issues to be addressed about EJ to assure that States and MPOs are in compliance with EJ guidelines.

In response to the USDOT Order 5601.2(a) and the FHWA guidelines, the Georgia Department of Transportation (GDOT) developed Environmental Justice Planning Guidelines to guide GDOT and the local transportation planning agencies in the State of Georgia to address EJ issues.

The Coastal Region Metropolitan Planning Organization (CORE MPO) was designated a Transportation Management Area (TMA) in 2002 and is subject to the FHWA/FTA certification review process. CORE MPO prepares this Environmental Justice Plan not only in response to the federal and state requirements, but also to facilitate the fair transportation planning process in the Savannah area.

In order to get a full understanding of Environmental Justice issues, the EJ terms must be defined. Below are the definitions of the EJ demographic and impact terms.

1.2.1 Demographic Terms

Demographic Indicators

The first step in EJ compliance is to identify the EJ target populations. Six Demographic Indicators for EJ analysis have been recommended by GDOT (see below).

- Percent low-income
- Percent minority
- Less than High School education
- Linguistic Isolation
- Individuals under age 5
- Individuals over age 65

These indicators provide a guidance on which EJ target populations should be involved in the transportation decision-making process and who may be impacted by the expenditure of federal transportation funds. CORE MPO's EJ analysis and Title VI Plan overlap with these indicators but have some differences.

- The definition of low-income is defined in this chapter, but the percentage of low-income population is further clarified in Chapter Three of this EJ Plan (Page 18).
- The definition of minority is defined in this chapter, but the percentage of minority population is further clarified in Chapter Three of the EJ Plan (Page 18).
- CORE MPO has decided not to use Less than High School Education in the EJ analysis.
- The Linguistic Isolation indicator overlaps with the Limited English Proficiency (LEP) indicator. CORE MPO has a separate Language Assistance Plan (LAP) dedicated to serving the needs of the LEP persons. Like this EJ Plan, the LAP is a part of the CORE MPO's Title VI Plan. Linguistic

Isolation is not covered in this EJ Plan. Instead, it is covered in the LAP (available at <https://www.thempc.org/Core/TitleVi>).

- Individuals over age 65 are identified as the Elderly Population in the CORE MPO's EJ Plan.
- Individuals under age 5 are included in the Children category in the CORE MPO's EJ Plan.

Demographic Terms

What constitutes low-income and minority populations are defined by the Environmental Justice Guidelines as follows:

- *Low-Income* means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.
- *Low-Income Population* means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed USDOT program, policy or activity.
- *Minority* means a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition); and (5) Native Hawaii or Other Pacific Islanders (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands). Additionally, any person who responded to the US Census as being either solely or a mix of one of these minority groups qualifies as being in the minority population.
- *Minority Population* means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed USDOT program, policy or activity.

Besides the minority and low-income populations, CORE MPO considers the Elderly, Children, Disabled and other populations for the transportation planning process. In this analysis, these populations are defined as below:

- *Disabled Population* includes people with mobility limitation, self-care limitation, or people with both mobility limitation and self-care limitation.
- *The Elderly Population* refers to the people that are 65 years and older.
- *Children* refers to the people who are 10 years and younger.

In addition, the CORE MPO's transportation planning process takes into consideration one particular segment of the minority population – the people with Limited English Proficiency (LEP) in its Language Assistance Plan (LAP), which is a separate document available for review on the MPO's website at <https://www.thempc.org/Core/TitleVi>.

1.2.2 Disproportionate Effects Tests and Benefits

After the target populations have been identified, the actual EJ analysis or “test” for disproportionately high and adverse effects and equal benefits should be conducted. The definitions of these concepts are contained in the federal and state Environmental Justice Planning Guidelines as follows:

- *Adverse Effects* means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: mental or physical impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or non-profit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, and activities.
- *Disproportionately High and Adverse Effect on Minority and Low-Income Populations* means an adverse effect that: (1) is predominately borne by a minority population and/or a low-income population, or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Besides disproportionately high and adverse human health or environmental effects, Executive Order 12898 also applies to the need to demonstrate equal benefits from transportation investments. EJ tests and analysis should also evaluate the benefits of projects and positive benefits from transportation plans.

- *Benefits:* For a specific project, corridor or sub-area, benefits should include all of the benefits listed in the purpose and need statement. For a metropolitan transportation system, benefits should refer to how the Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP) promote the safety, mobility, economic productivity, human environment, natural environment, and other goals identified in State and local plans for all populations served by the transportation agency.

When evaluating adverse impact or proportionate benefits, two questions must be addressed:

- 1) What type of impacts should be identified and evaluated, and
- 2) How can the positive and negative impacts be “tested” quantitatively?

1.3 CORE MPO’s Approach to Environmental Justice

1.3.1 Objective

As the designated Metropolitan Planning Organization (MPO) that does transportation planning for the Savannah area, the Coastal Region Metropolitan Planning Organization (CORE MPO) determined to assess the impacts of the transportation planning process, the Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP) on minority and low-income populations. Besides, CORE MPO defined the other target populations (the disabled, the elderly, and children), identified their transportation needs, and tried to explore ways to satisfy these needs.

CORE MPO identified three principles to ensure that Environmental Justice considerations are properly integrated into the transportation planning process.

1. Adequate public involvement of the target populations (low-income, minority, the disabled, the elderly, and children) in regional transportation decision-making.
2. Assess whether there are disproportionately high and adverse impacts on the target populations resulting from federal programs.
3. Assure that the target populations receive a proportionate share of benefits of federal transportation investments.

1.3.2 Procedures

CORE MPO followed the process from the federal and state EJ planning guidelines to address the Environmental Justice issues in the CORE MPO transportation planning area. The process includes the following procedures:

1. Identify the potential burdens and benefits;
2. Identify the target populations within the study area;
3. Correlate the identified burdens and benefits to the target populations;
4. Note possible mitigation strategies for identified disproportionate burdens;
5. Determine which public participation methodologies to use;
6. Make Environmental Justice recommendations; and
7. Evaluate the implementation of the EJ process.

Chapter 2: Identify Potential Burdens and Benefits

2.1 Establishment of Objectives and Goals

The first step in identifying and addressing potential burdens and benefits on EJ populations occurs during the establishment of goals and objectives in the planning process. CORE MPO developed its EJ objectives and goals corresponding to the FHWA guidelines (Publication NHI-02-034), thus the overall goals that address EJ in the planning process include the following:

- Enhance accessibility and mobility;
- Promote system preservation;
- Enhance quality of life and health;
- Improve safety;
- Promote economic development; and
- Improve operational efficiency.

2.2 Identification of Performance Measures

The next step involves establishing meaningful performance measures to determine burdens and benefits. These measures are developed to test against the planning goals defined above.

The federal and state EJ Guidelines suggest some performance measures such as average number of jobs within 20 minutes by driving, average number of jobs within 40 minutes by bus, transit ridership per capita, frequency of transit service, number of high-accident locations, accidents per year, average travel time for home-based work trip, average travel time for home-based other trips, percent of population close to a hospital, percent of population close to a college, percent of population close to a major retail destination, etc.

Even though these measures are comprehensive, it is difficult to determine how some of them can be correlated to the EJ target populations and the MPO's planning products. CORE MPO decided to perform the EJ analysis by ensuring fair public involvement and by comparing the total proposed improvements within and outside of the EJ target areas. Specifically, the performance measures include the following transportation modes:

- Highway
 - Highway Investments
 - Displacement from Highway Projects
- Public Transit
 - Fixed Route Bus Service
 - Paratransit Service
 - Shuttle Bus and Van Pool
 - Water Ferry Service
- Bike Routes and Pedestrian Accessibility
- Other Modes

2.3 Identification of Benefits and Burdens in the Study Area

With the performance measures established, the potential benefits and burdens can be identified. The following table lists some of the benefits and burdens and possible mitigation strategies identified by CORE MPO.

Table 2.1: Potential Benefits and Burdens

Proposed Project Type	Possible Benefits	Possible Burdens	Possible Mitigation Strategies
Highway System			
New Road	Enhance accessibility and mobility; Promote economic development; Improve safety; Improve operational efficiency.	Limited to populations with motor vehicles; Increase in noise and air pollution; Might impact existing neighborhoods.	Signal synchronization, pedestrian crosswalks, bike lanes, bus route addition, etc.; Select Rights-of-Way (ROW) for minimum impacts; Try to incorporate context-sensitive design to maintain the neighborhoods.
Resurface/Upgrade of existing roadways Operational improvements	Promote system preservation; Improve safety; Improve operational efficiency.	Expansion of shoulder width impinges on residential property; Diverted traffic during project construction causes heavy traffic and dangerous conditions on city streets; Noise and air pollution during construction.	Build curbing and sidewalks rather than shoulders; Close large section of roadways on weekends to increase resurfacing productivity; Reroute traffic to major streets if possible.
Public Transit			
Fixed Route Bus Service and Water Ferry Service	Enhance accessibility by transit to EJ populations; Reduce reliance on motor vehicles and improve air quality; Increase mobility to EJ populations.	Bus environment is not always maintained in a good condition; Bus headways in certain routes might be too long; Possible capacity problems with ferry boats; Some bus shelters are not wheelchair accessible.	Try to create a comfortable environment for the bus and ferry boat riders; Improve transit frequency if possible; Bus routes should be within walking distance of EJ populations; Install bus shelters accessible by wheelchairs.

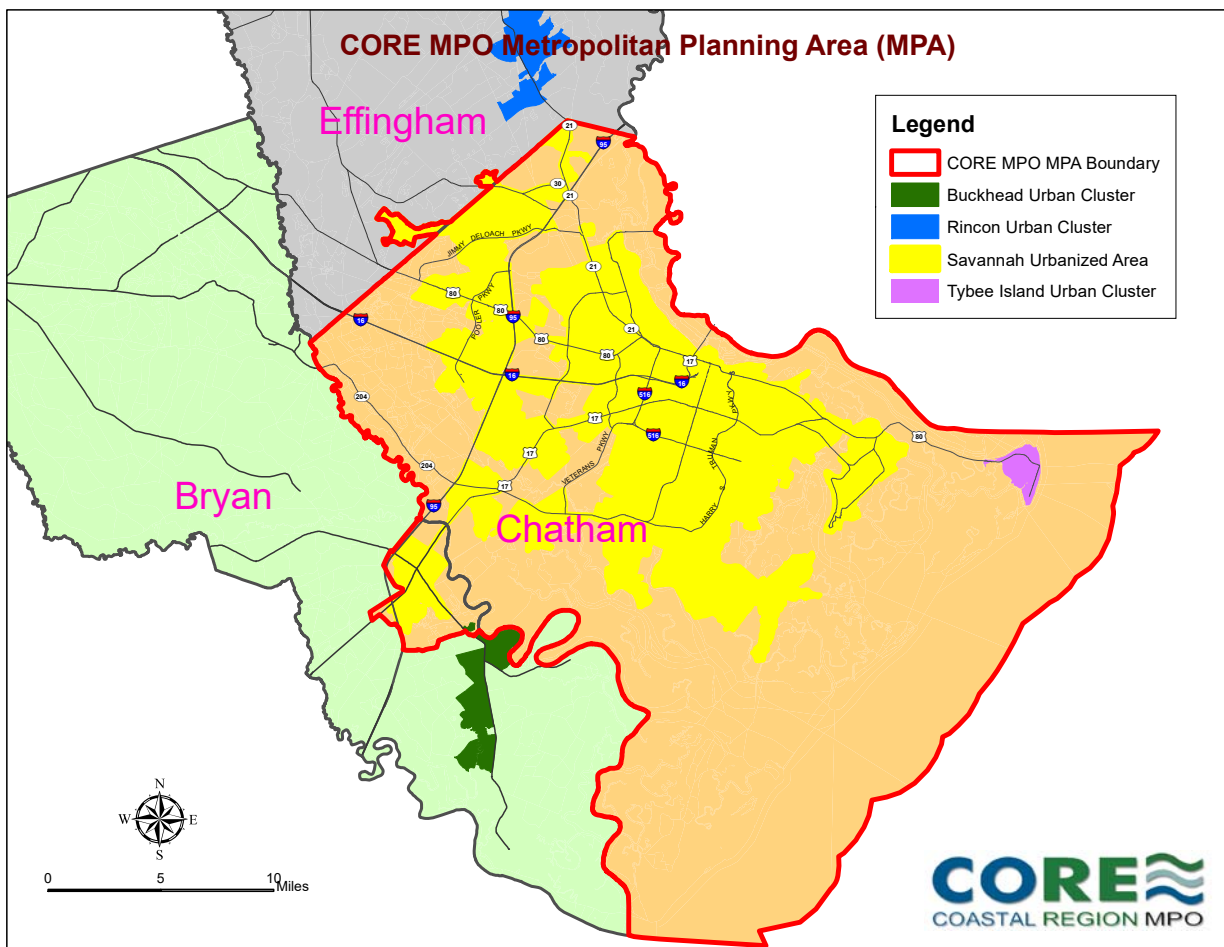
Paratransit Service and Van Pool	Provide transportation for people with mobility limitations; The service can be enjoyed by the EJ target populations not living in the EJ target areas.	There might be problems with ride reservation /cancellation; Riders are sensitive to driver’s comments and behavior; Very expensive to operate.	Improve the ride reservation system; Provide appropriate training to both drivers and riders; Provide appropriate training to riders so that those who can will use the fixed route services instead.
Pedestrian and Bicycle Projects/Features			
Addition of Pedestrian Amenities and / or Safety Provisions; Addition of Bike Routes to Existing Roads	Improve quality of life, health and environment by encouraging people to use the bike/pedestrian facilities; Improve safety to pedestrians and bike riders; Provide an alternative to motor vehicles.	“Bump-outs” and traffic calming measures make commercial deliveries difficult; Bike routes takes space for passing turning cars at intersections and reduce on-street parking.	Need to come up with some original improvement plans to accommodate both motor vehicle traffic and bike/pedestrian usage.
Other Transportation Projects			
Multi-modal connections ITS improvements CMP strategies	Enhance mobility and accessibility; Improve safety; Enhance system preservation and operational efficiency.	Some ITS projects might be expensive to implement.	Multi-modal incorporates transit stations and other modes; Have a comprehensive design before any ITS projects are implemented.

Chapter 3: Identify the EJ Populations and Their Needs

The basic step of the CORE MPO Environmental Justice analysis is defining the target populations and areas in the Savannah area where the Environmental Justice in transportation planning might be a concern. The result of this analysis will be used to help determine criteria for the selection of transportation improvements. It will also provide a methodology for conducting Environmental Justice analysis on the Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP).

3.1 Determine the Physical Components of the CORE MPO EJ Planning Area

The current CORE MPO Metropolitan Planning Area (MPA) boundary includes all of Chatham County, the portion of the 2010 Savannah Urbanized Area located in Effingham County, the City of Richmond Hill, and the portion of the 2010 Savannah Urbanized Area located in unincorporated Bryan County (see map below).



Due to the irregularity of the CORE MPO MPA boundary, availability of census data, the large percentage of inter-county commutes, and the fact that travels follow no specific geographic boundaries, the CORE MPO’s EJ planning area will cover the Savannah Metropolitan Statistical Area (MSA) that includes all of Bryan, Chatham and Effingham Counties.

For the purpose of identifying the CORE MPO EJ populations, the physical components of the CORE MPO EJ planning area must be determined. These components are useful in determining the target population's transportation needs.

According to the federal and state Environmental Justice Guidelines, the facilities in the study area that are suggested to be identified include: business areas, schools, hospitals, other Medical facilities, fire/police stations, libraries, recreation facilities, existing roads, trails/transit lines/subways and related stations, hazardous materials sites, transfer stations, landfills, water and sewage treatment facilities, large generators or attractions for transportation such as sports arenas/stadiums, theme parks, major industrial or business sites, universities/colleges, shopping malls, religious institutions such as churches, monasteries and nunneries, airports, intermodal facilities, ports, bus depots, power plants, other industrial facilities, parks, bodies of water/wetlands/preserves, governmental buildings/complexes, and utility substations (electric, gas generators, water storage, phone, etc.).

Of all these physical components, the employment centers, medical facilities, educational facilities, law enforcement units, fire departments, transit routes, bikeway routes and sidewalks are considered most germane to the CORE MPO Environmental Justice analysis.

3.2 Define the CORE MPO EJ Planning Areas and the EJ Populations

The US Census Bureau provides population and household information on its website. Since most data are available at the census tract level, the CORE MPO Environmental Justice analysis uses census tracts as the basic geography. Maps were produced to highlight the areas of concern that contain concentrations of populations targeted for consideration in the Environmental Justice regulations. These maps were later used to compare with the 2045 Metropolitan Transportation Plan in targeted and non-targeted areas as a basis of analysis for beneficial investment or disproportionate negative impact.

The target EJ populations in the CORE MPO transportation planning area include minority populations (African Americans, Hispanic populations, Asian Americans, American Indians and Alaskan Natives, Native Hawaiian or Other Pacific Islanders, and people with two or more races) and Low-Income populations (persons below poverty). The concentrations of elderly, children and disabled populations are not used in the analysis, though their distributions are defined, and their needs are identified through the process. This information is used for the equitable public involvement process and for planning other related transportation improvements.

The suggested thresholds used for defining the EJ populations come from the federal and state Environmental Justice Planning Guidelines - using the regional average as a standard. Thus, this study identifies those census tracts that have a larger minority concentration or a larger percentage of poverty concentration than the regional average.

3.2.1 Data

The data for the CORE MPO EJ analysis in the transportation planning area is divided into two parts: digital maps and tabular data.

The Digital Map:

- The digital maps for census tracts and roadways are from the 2010 Census Tiger files.
- The highway project layer comes from the CORE MPO's 2045 Metropolitan Transportation Plan which was adopted on August 7, 2019.
- The transit layers were developed through the cooperation between CORE MPO and the Chatham Area Transit Authority (CAT).
- The bikeway layers, sidewalk layers and roadway amenity layers were developed by CORE MPO.

The Socio-Economic Data:

- Detailed race and ethnicity data (100% count data) is available at the census tract level. The latest information is from the 2010 decennial census. The 2010 Census data divides people into more than 70 categories based on the combinations of various race and ethnicity. For this EJ analysis, the minority persons are defined as those that are not "non-Hispanic white". People with two or more races are included in the minority category. Since seniors over 65 and children under age 10 are more vulnerable in their transportation needs, they are singled out in the data extraction process.
- The poverty data is extracted from the 2008-2012 American Community Survey (ACS), which is also available at the Census tract level. The ACS data contains high margins of error (MOE) due to its sampling method and is a lot less reliable at a smaller geography such as census tract. The ACS data is more reliable at the County level.
- It should be noted that because of the sampling method and the years the data were collected, the ACS data does not match exactly to the 100% decennial population count data both county wise and tract wise. The percentages were calculated based on the respective data sources.
- The 2000 decennial census data and the latest ACS data were used to understand the socio-economic trends in the Savannah Statistical MSA to better help the EJ analysis.

3.2.2 CORE MPO EJ Populations and EJ Target Areas

The demographic profiles of the Savannah MSA as well as the Environmental Justice thresholds are listed in **Table 3.1** and **Table 3.2** respectively.

Table 3.1: Demographic Profiles of the Savannah MSA

2010 Census Population	Chatham		Bryan		Effingham		Savannah MSA	
	Counts	Pct	Counts	Pct	Count	Pct	Count	Pct
Total Population	265,128	100.00%	30,233	100.00%	52,250	100.00%	347,611	100.00%
Population by Race								
White alone	140,010	52.81%	24,254	80.22%	43,182	82.64%	207,446	59.68%
American Indian and Alaska native alone	691	0.26%	98	0.32%	156	0.30%	945	0.27%
Asian alone	6,311	2.38%	486	1.61%	427	0.82%	7,224	2.08%
Black or African American alone	106,392	40.13%	4,286	14.18%	7,048	13.49%	117,726	33.87%
Native Hawaiian and Other Pacific native alone	254	0.10%	25	0.08%	26	0.05%	305	0.09%
Some other race alone	5,771	2.18%	326	1.08%	431	0.82%	6,528	1.88%
Two or more races	5,699	2.15%	758	2.51%	980	1.88%	7,437	2.14%
Population by Hispanic or Latino Origin (of any race)								
Persons of Hispanic or Latino Origin	14,370	5.42%	1,336	4.42%	1,501	2.87%	17,207	4.95%
Persons Not of Hispanic or Latino Origin	250,758	94.58%	28,897	95.58%	50,749	97.13%	330,404	95.05%
Population by Age								
Persons under Age 10	35,001	13.20%	4,702	15.55%	7,821	14.97%	47,524	13.67%
Persons over Age 65	32,864	12.40%	2,715	8.98%	4,763	9.12%	40,342	11.61%
2008 – 2012 American Community Survey	Chatham		Bryan		Effingham		Savannah MSA	
	Counts	Pct	Counts	Pct	Count	Pct	Count	Pct
Persons Below Poverty Level (2008 – 2012 ACS)								
Total Estimated Persons	257,301	100.00%	30,433	100.00%	51,767	100.00%	339,501	100.00%
Total Estimated Persons Below Poverty	48,591	18.88%	3,686	12.11%	5,472	10.57%	57,749	17.01%

Source: US Census Bureau

Table 3.2: Thresholds of CORE MPO EJ Target Populations

Census Population	Chatham	Bryan	Effingham	Savannah MSA	Threshold
2010 Total Population	265,128	30,233	52,250	347,611	
Not Hispanic or Latino – White Alone	133,492	23,446	42,311	199,249	
Minority – All Others	131,636	6,787	9,939	148,362	42.68%
Persons under Age 10	35,001	4,702	7,821	47,524	
Persons over Age 65	32,864	2,715	4,763	40,342	
Age Under 10 or Over 65	67,865	7,417	12,584	87,866	25.28%
2008-2012 ACS Total Estimated Persons for Poverty	257,301	30,433	51,767	339,501	
2008-2012 Estimated Persons Below Poverty Level	48,591	3,686	5,472	57,749	17.01%

Source: US Census Bureau 2010 Decennial Census and 2012 ACS 5-year Estimates

Demographic Profile

In the Savannah MSA, Chatham County is the population center. It has a more diverse population composition than Bryan and Effingham Counties. The African Americans compose most of the minority populations in the area. There is a much larger African American concentration in Chatham County. Bryan County and Effingham County are dominated by non-Hispanic white population. Percentage wise, Bryan County is more diverse than Effingham County in race and ethnicity.

Chatham County is also the employment center of the Savannah MSA. However, it has the highest poverty rate among the three counties. Effingham County has the lowest poverty rate.

Bryan County has the highest concentration of children under Age 10, followed by Effingham County and Chatham County. On the other hand, Chatham County has the highest concentration of seniors over 65 years of age and Bryan County has the lowest concentration of senior citizens.

EJ Thresholds

The minority threshold is updated every 10 years based on decennial census. The low-income/poverty threshold is updated based on the ACS data coinciding with the latest decennial census. The threshold is calculated as the average which is derived by dividing the total EJ population of the whole region by the total regional population.

Minority Concentration

The minority concentrated areas were defined as those census tracts with a minority percentage greater than the regional average of 42.68%. In the Savannah MSA, the African Americans compose most of the minority population, followed by Hispanic/Latino and Asian. People of two or more races are also increasing.

The minority concentrated areas are located mostly in Chatham County. Bryan County and Effingham County are more homogenous in race and ethnicity, so their minority concentrations have not reached the threshold. The minority populations are concentrated in the Savannah urban cores except the downtown area, the north side of Ardsley Park, and several neighborhoods just south of DeRenne Avenue. Some other minority concentrated areas include Garden City south of Smith Avenue along SR 21 and SR 25, areas along Veterans Parkway, Hunter Army Airfield, and areas south of Montgomery Cross Road that are along SR 204. Because of the rapid development in the Westside of Chatham County, the minority concentrated areas also expand into Port Wentworth, Pooler and West Savannah along the SR 21 corridor (see **Figure 3.1** – EJ Target Populations).

Low Income

The low-income areas were defined as those census tracts with persons below poverty level larger than the regional poverty concentration average of 17.01%. Some of these areas are consistent with the minority concentrated census tracts – in the Savannah urban core, in Garden City, and in areas around the Savannah Mall and around the US 17/SR 204 interchange area, but there are some differences. Downtown Savannah is identified as a low-income area but not a minority area. This might be due to the concentration of SCAD students in this area. Hunter Army Airfield and the areas along Veterans Parkway are not considered low-income areas even though there is a large minority concentration here. The areas around the City of Richmond Hill in Bryan County and those census tracts north of Fort Steward are identified as low-income areas. In Effingham County, the areas around the City of Guyton are identified as low-income areas (see **Figure 3.1** – EJ Target Populations). There is some correlation between low-income and senior citizenship in all three counties.

EJ Target Areas

The EJ target areas are defined as those census tracts that meet either of the two criteria: 1) minority concentration larger than 42.68%, or 2) Poverty concentration larger than 17.01%. The map is shown in **Figure 3.2**, EJ Target Areas. The data shows that most of the people in Chatham County reside in EJ target areas (68.95%). On the other hand, most people in Effingham County live in non-EJ target areas. For Bryan County, it’s almost even split (**Table 3.3**).

Table 3.3: EJ vs. Non-EJ Area Populations

Census Population	Chatham	Bryan	Effingham	Savannah MSA	Pct
2010 Total Population	265,128	30,233	52,250	347,611	100.00%
EJ Area Population	182,802	14,878	3,474	201,154	57.87%
Percentage	68.95%	49.21%	6.65%		
Non-EJ Area Population	82,326	15,355	48,776	146,457	42.13%

Other Areas

Besides the EJ target areas defined above, CORE MPO delineated the concentrated areas for elderly people over 65 years and children below Age 10. Though these areas are not part of the official EJ target areas, their delineation helps CORE MPO and CAT (the Chatham Area Transit Authority – the public transportation provider for the Savannah Urbanized Area) to plan for efficient transportation systems to serve these populations.

Some of the minority concentrated areas and poverty concentrated areas also coincide with areas where young children and senior citizens live – in the Savannah urban core and the Hunter Army Airfield area, for example. In other urban centers such as Richmond Hill and Pembroke in Bryan County and the Guyton area in Effingham County, both poverty and age-related populations are concentrated. However, it seems that the age-related population is more widely distributed. The Island areas and Bloomingdale in Chatham County, as well as the Southwest corner and Springfield in Effingham County all have concentrations of these populations (see **Figure 3.1** – EJ Target Areas).

Demographic Trends

The CORE MPO’s original EJ analysis was conducted for Chatham County only using mostly the 2000 decennial census data (see various maps in the **Appendix**). Though the 2010 census data and the 2000 census data have different data collection methodologies, it’s useful to compare both datasets to derive demographic and socio-economic changes and trends. It is also useful to compare the decennial census data to the latest ACS data to understand the recent demographic trends.

From the comparison table below (see **Table 3.4**), it is apparent that the largest minority group of Chatham County – African Americans – has decreased in total population percentage. At the same time populations of Asians, two or more races, and Hispanic or Latino origins have increased, of which the populations of Hispanic origins increased mostly rapidly.

Table 3.4: Census Data Comparisons for Chatham County

Chatham County, Georgia - Overview	2000 Census		2010 Census		2013 - 2017 ACS	
	Counts	Pct	Counts	Pct	Counts	Pct
Total Population	232,048	100.00%	265,128	100.00%	285,506	100.00%
Population by Race						
American Indian and Alaska native alone	580	0.25%	691	0.26%	918	0.32%
Asian alone	4,013	1.73%	6,311	2.38%	7,228	2.53%
Black or African American alone	93,971	40.50%	106,392	40.13%	113,486	39.75%
Native Hawaiian and Other Pacific native alone	151	0.07%	254	0.10%	349	0.12%
Some other race alone	2,073	0.89%	5,771	2.18%	4,854	1.70%
Two or more races	2,981	1.28%	5,699	2.15%	7,758	2.72%
White alone	128,279	55.28%	140,010	52.81%	150,913	52.86%
Population by Hispanic or Latino Origin (of any race)						
Persons of Hispanic or Latino Origin	5,403	2.33%	14,370	5.42%	17,845	6.25%
Persons Not of Hispanic or Latino Origin	226,645	97.67%	250,758	94.58%	267,661	93.75%

3.2.3 CORE MPO EJ Map Production

Several maps were produced to demonstrate the EJ target population distributions and to delineate respective EJ target areas. In order to display the comprehensive information, an overall “EJ Target Populations” map (see **Figure 3.1**) was produced. Another map showing only the minority concentrated areas or poverty concentrated areas is produced to show “EJ Target Areas” (see **Figure 3.2**). This “EJ Target Areas” map was later overlaid with the planned roadway improvement projects, bus routes, bikeway layers and other information for further analysis.

Figure 3.1: EJ Target Populations for the Savannah MSA

Environmental Justice Target Populations

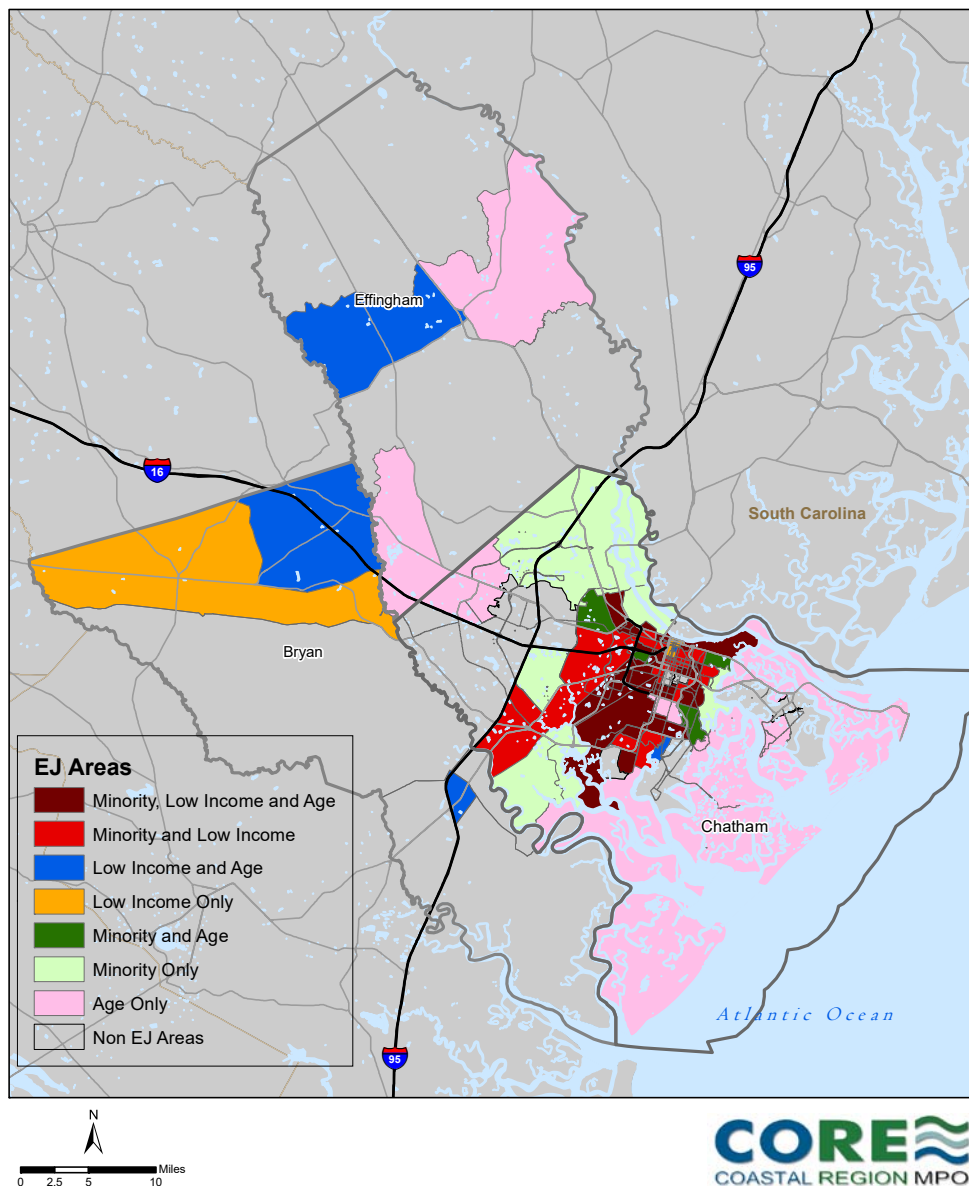
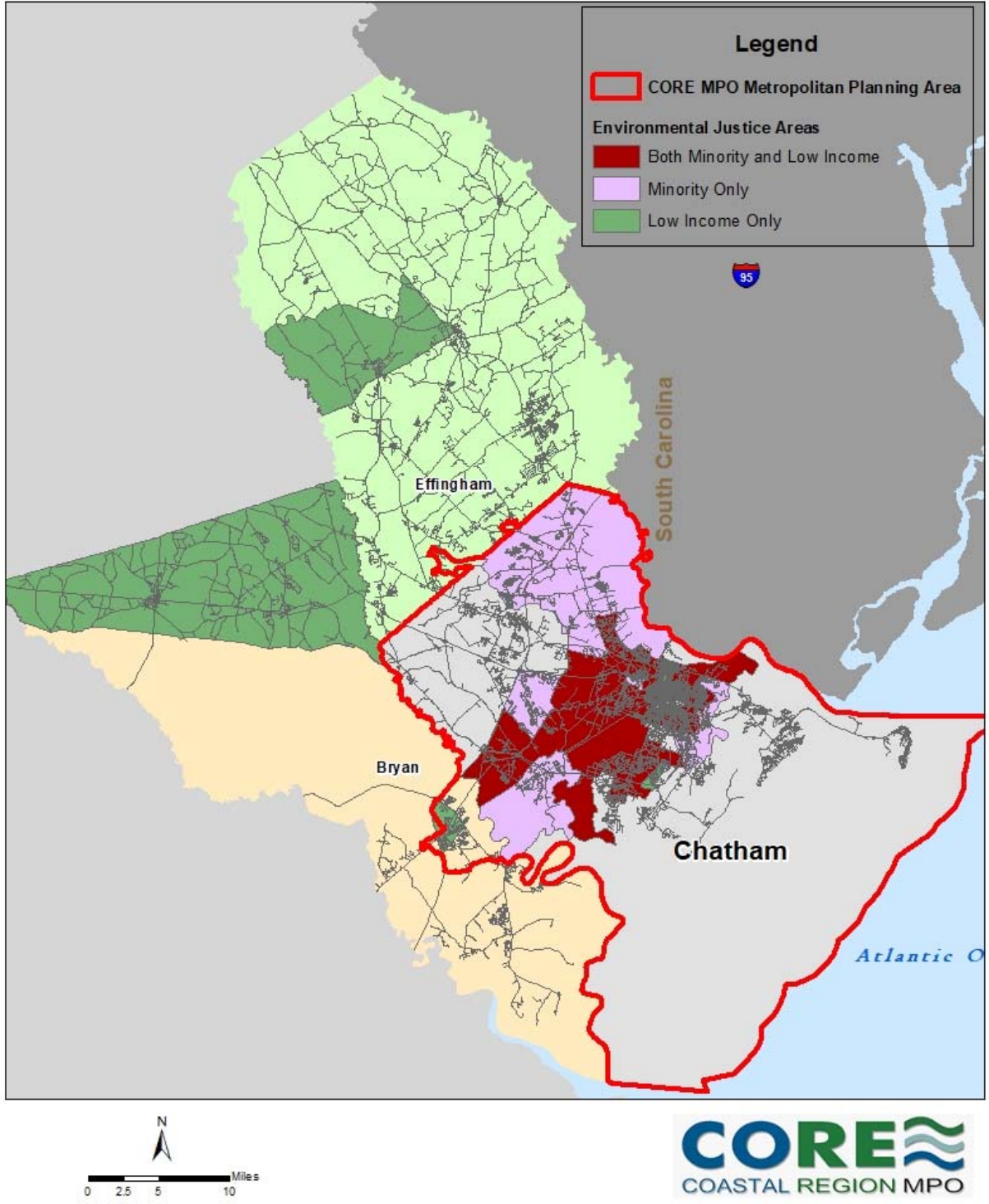


Figure 3.2: EJ Target Areas

Environmental Justice Areas



3.3 Identification of the Transportation Needs of EJ Target Populations

Identifying the transportation needs of the EJ target populations is an ongoing process. The needs identified below might be expanded and refined in the future.

3.3.1 Typical Transportation Needs of Low-Income Populations

The transportation needs of the low-income populations might include the following:

1. There is a lack of a reliable, accessible, affordable, convenient and timely transportation system that can respond to an individual's full range of daily activities.
 - Geographical mismatch between the locations of candidate workers and entry-level jobs poses a problem.
 - Access to employment centers, community activities, family and friends, medical facilities and shopping that are located in the outlying areas continue to be a problem.
 - Commute by transit to any destination should not be time prohibited. Commuters are reluctant to take transit to a destination that requires a travel time of more than 45 minutes.
 - Pedestrians are exposed to inclement weather, automobile emissions from high volume traffic, and barriers such as freeways, buildings, and high-speed roads with multiple lanes. Pedestrian facilities should be provided which makes it safe, convenient, continuous and comfortable and eliminate barriers to walking.
 - Bus stops along roads without sidewalks, the absence of curb cuts on paths leading to bus stops, and platforms that have no means of access from the ground or street level or those that do not have tactical warnings at their edges all pose barriers to riders with mobility limitations.
2. There is a lack of commitment to transportation and public transit by employers and the general public.
 - Some employers are reluctant to assist in the planning and/or coordination of transportation services.
 - General public needs to support local sales tax to help low-income people.
3. There is a lack of alternative modes of transportation.
 - There is a lack of sidewalks in growing and new growth areas and a lack of transportation bikeways in the planning area.
 - There are barriers to walking and biking that need to be eliminated.

3.3.2 Typical Transportation Needs of Minority Populations

The transportation needs of the minority population with higher income are not easy to be discerned. In the Environmental Justice study, it has been identified that analyses must be conducted to ensure that none of the minority communities are disproportionately adversely impacted as a result of federal investments. In addition, all of the minority populations should be actively engaged in the public involvement process. The increase of minority groups (e.g. Hispanic/Latino persons) might mean the increase of Limited-English-Proficient (LEP) speakers that require translation services in the transportation planning process and public transportation services.

3.3.3 Transportation Needs of Other Populations

The transportation needs of people with mobility limitations can be identified through the low-income population's needs as mentioned above, but accessibility by wheelchairs must be emphasized.

The access to bus stops, schools, community and recreational centers, and safe pedestrian/bike facilities are very important to children.

The wider transportation needs for the elderly people are difficult to define, but appropriate signage (such as large backlit signs that are easy to read) along the roadways, accessibility to hospitals and retail centers, and convenient bus services and pedestrian facilities might help to serve this population. Also because of the correlation between senior citizens and low-income households, many of the transportation needs identified for the low-income population are also the needs of some senior citizens.

Chapter 4: Correlation of Benefits and Burdens to EJ Target Populations

The ultimate result of the MPO planning process is the Metropolitan Transportation Plan (MTP). The Transportation Improvement Program (TIP) is the subset or short-range programming document of the MTP that has specific funding identified and project scheduled over four years. CORE MPO adopted the 2045 MTP on August 7, 2019. In this CORE MPO Environmental Justice analysis, funding or investments are applied to the set of projects in the 2045 MTP to compare the relative treatment of and the impacts on the target EJ populations and non-target EJ populations in the planning area. This should provide some information on whether or not the transportation investments being made in the region are having disproportionate adverse impacts on the EJ target populations or if the benefits from these investments are equally distributed.

4.1 Identification of Measures

In order to find out whether there are any adverse or disproportionate impacts on the EJ target populations, measures need to be identified. These measures would compare the relative treatment of the target vs. non-target populations and areas in the planning process, and in the 2045 MTP. They are not intended to measure how the implementers carry out the plan. For the measures to be meaningful and capable of being applied, CORE MPO determined to use the following indicators.

- Highway Investments in EJ Target Areas vs. Non-Target Areas
- Displacement from Highway Projects in EJ Target Areas vs. Non-Target Areas
- Planned Bike/ped Investments in EJ Target Areas vs. Non-Target Areas
- Public Transit Services in EJ Target Areas vs. Non-Target Areas

4.2 Application of Measures

The CORE MPO’s 2045 Metropolitan Transportation Plan is a multi-modal plan that is based on the socio-economic development of the Savannah region and is intended to provide efficient transportation services to all the residents in this area. Its multi-modal approach incorporates highway development, transit services, freight movement, bike/pedestrian improvements, and other related transportation investments. The EJ analysis is performed according to these modes. **Table 4.1** shows the funding allocation summary of these travel modes in the 2045 MTP. **Table 4.2** shows the mode split for work trips in the Savannah MSA.

Table 4.1 2045 MTP Financially Constrained Plan Transportation Investments

2045 MTP Funding Allocation Summary	Total Investments	% of Total Funding
Highway Projects	\$1,417,604,203	69.09%
Highway Maintenance	\$232,135,141	11.31%
Highway Operational Improvements	\$140,178,281	6.83%
Transit Capital Projects	\$239,642,236	11.68%
Non-Motorized Investments	\$22,337,828	1.09%
2045 MTP Total Investments	\$2,051,897,688	100.00%

Table 4.2 Work Trip Mode Split

Location	Drive Alone	Carpool	Public Transit	Walk	Bicycle	Worked at Home
Chatham	78.5%	9.5%	2.7%	2.5%	1.2%	4.1%
Savannah	73.6%	10.1%	4.4%	4.2%	2.1%	3.7%
Richmond Hill	85.5%	8.1%	0.0%	0.2%	1.1%	2.6%
Bryan	85.3%	8.0%	0.0	1.5%	0.6%	2.6%
Effingham	86.7%	8.6%	0.2%	0.8%	0.0%	2.1%

**Commuting Characteristics 2013-2017 ACS 5-year estimates (2017)*

Table 4.3 shows the travel characteristics of the three counties related to work. Chatham County is the employment center of the Savannah MSA, so more than half of the work force in Bryan County and Effingham County commute to Chatham County for work.

Table 4.3 Work Trip Commuting Patterns

Location	Work In County of residence	Work Outside County of residence
Chatham	92.2%	4.9%
Savannah	94.1%	3.6%
Richmond Hill	26.2%	72.1%
Bryan	27.5%	69.7%
Effingham	31.1%	64.4%

**Commuting Characteristics 2013-2017 ACS 5-year estimates (2017)*

4.2.1 EJ Analysis for Highway Improvements

The EJ analysis for highway projects of the 2045 MTP is performed by virtue of highway investments and displacements on the financially constrained plan that includes high priority projects and various category expenditures to addresses the most significant highway traffic problems. The 2045 MTP mappable highway projects are overlain with the EJ target areas in **Figure 4.1**.

Highway Investments

Highway investments are represented by the construction costs of the highway projects in the 2045 MTP financially constrained plan. These projects include construction of new roads, road widenings, interchange reconstruction, new interchange construction and bridge replacements. A tabulation of the proportion of construction costs proposed in low income and minority neighborhoods against total highway investments in non-EJ areas are shown in **Table 4.4**. For this analysis, a project's construction cost within target areas is determined by multiplying the percentage of the project length that lies within the target areas by the total construction cost. Where the proposed project is located at the border of the EJ and non-EJ areas, the percentage is defined as 50% to 50%.

Maintenance (resurfacing or repaving) of the transportation system and operational improvements category expenditure are not included in this analysis because roadways of good repair benefit all modes of travel, be it highway, transit or bike/ped travel. The set aside expenditures for transit and non-motorized

improvements are not included in the analysis either as specific projects are to be identified for these categories.

Table 4.4 2045 MTP Financially Constrained Plan Construction Costs in Neighborhoods

	% of Population	% of Total Dollars
E. J. Target Areas	57.87%	72.18%
Non E. J. Areas	42.13%	27.82%
Savannah Region	100.00%	100.00%

Highway Displacements

Highway projects can have adverse impacts on the quality of life within the EJ target and non-target areas. One measure of negative impact on an area is the amount of real estate actions that are imposed upon the area, referred to as right-of-way acquisition. **Table 4.5** lists the percentages of right-of-way (ROW) costs in the EJ target areas and non-target areas for the 2045 MTP financially constrained plan. It should be noted that:

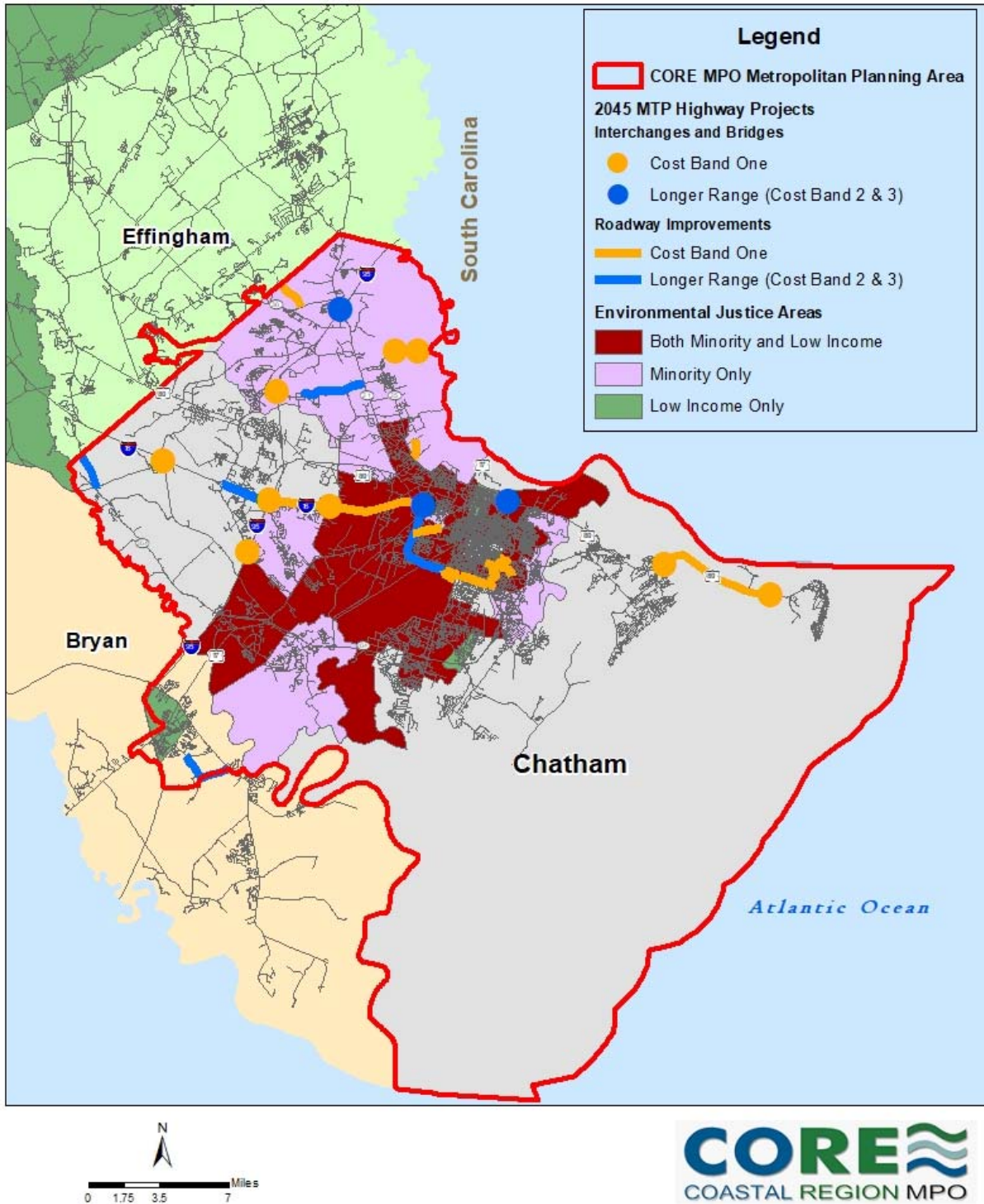
1. A project’s ROW cost within EJ target areas are determined by multiplying the percentage of the project length that lies within the target areas by the total right-of-way cost of the project. Where the proposed project is located at the border of the EJ and non-EJ areas, the percentage is defined as 50% to 50%.
2. Right-of-way costs include both acquisition costs for residential areas and commercial areas.
3. The set-aside category expenditures for Maintenance (resurfacing or repaving), operational improvements (signal improvements, intersection improvements, etc.), transit and Non-Motorized improvements are not included in this analysis because they normally do not include ROW or have limited impacts on ROW. In addition, specific projects are to be determined for these categories, so their locations cannot be identified.

Table 4.5 2045 MTP Financially Constrained Plan Right-of-Way Costs in Neighborhoods

	% of Population	% of Total Dollars
E. J. Target Areas	57.87%	71.99%
Non-E. J. Areas	42.13%	28.01%
Savannah Region	100.00%	100.00%

Figure 4.1: EJ Target Areas and Highway Projects

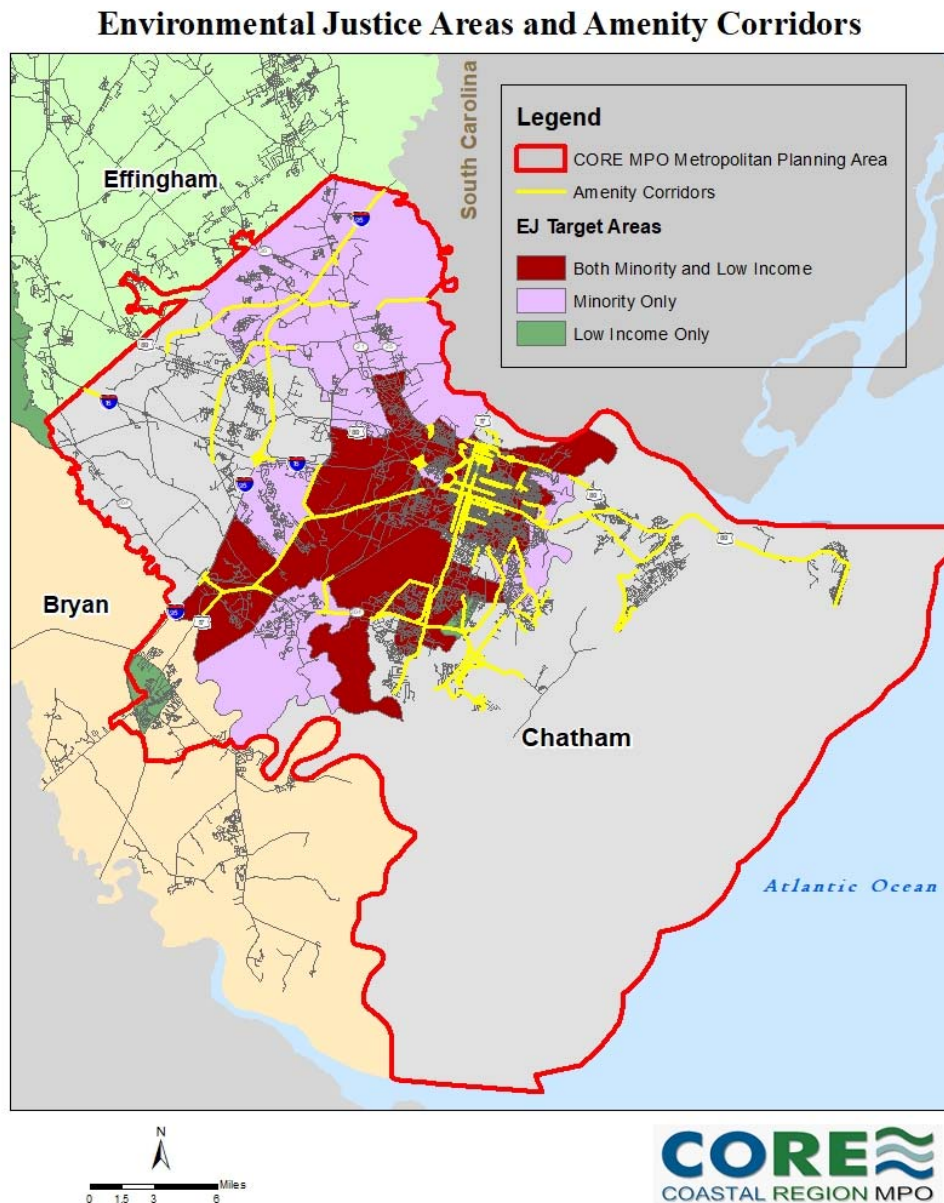
2045 MTP and Environmental Justice



Amenity Corridors

In the 2030 MTP, CORE MPO has delineated a series of amenity corridors. The highway Investments include protection of these amenity corridors which consist of canopied roadways, palm-lined causeways, historic road segments, scenic vistas, gateways to the communities, etc. These roadways are targeted for preservation and should not be impacted by widening or new project construction. Improvements to them will focus on improving operational efficiency and maintenance. The most typical of amenities in the Savannah region are canopy roadways and historic roadway segments. Gateways to the communities are also important to travelers. Later MTP updates carried forward this amenity corridor concept. **Figure 4.2** shows where these amenity corridors are located in comparison to the EJ target areas.

Figure 4.2: EJ Target Areas and Amenity Corridors



4.2.2 EJ Analysis for Transit Improvements

Since the low-income populations and some of the minority populations don't have access to motor vehicles, the transit system provides the means for these EJ populations to get to their employment centers, do shopping, and travel to other destinations. The transit system also provides transportation for children to go to school, for the elderly to go to the medical facilities, and for people with mobility limitations to reach their destinations.

The transit service in the Savannah region is provided mostly by the Chatham Area Transit Authority (CAT) which is divided into various parts: fixed route bus service, shuttle bus and van pool service, paratransit service and water ferry service. The Coastal Regional Commission (CRC) also provides limited transit service in the Savannah region which can supplement the CAT operations outside of the Savannah urbanized area.

2045 MTP Transit Capital Investments

CAT's priority transit capital improvement projects included in the financially constrained 2045 MTP are listed in **Table 4.6**. These transit investments will benefit both EJ target and non-EJ target populations. CORE MPO has also set aside some highway revenues from the 2045 MTP to make transit improvements.

Table 4.6 2045 MTP Transit Capital Improvements

Draft 2045 MTP Cost Feasible Transit Capital Improvements			
Project Description	Cost Band One (2020 - 2027)	Cost Band Two (2028 - 2036)	Cost Band Three (2037 - 2045)
Vehicle Replacement/Expansion - Fixed Route	\$33,720,752	\$41,286,865	\$45,154,837
Vehicle Replacement - Paratransit	\$5,255,182	\$6,434,317	\$7,037,117
Intelligent Transit System (ITS)	\$2,715,177	\$3,324,397	\$3,635,844
Upgraded Farebox and Payment System	\$3,722,421	\$4,557,641	\$4,984,625
Electric Vehicle Infrastructure	\$3,503,455	\$4,289,544	\$4,691,412
Passenger Amenities	\$1,751,727	\$2,144,772	\$2,345,706
Facility Improvement Project - ITC	\$1,532,761	\$1,876,676	\$2,052,493
Facility Improvement Project - Gwinnett	\$1,532,761	\$1,876,676	\$2,052,493
Vanpool Capital	\$788,277	\$965,147	\$1,055,568
Park & Ride Capital	\$4,379,318	\$5,361,931	\$5,864,264
Facility Construction - Ferry Maintenance	\$569,311	\$697,051	\$762,354
Facility Construction - Ferry Dock	\$1,270,002	\$1,554,960	\$1,700,637
Ferry Boat Construction	\$1,401,382	\$1,715,818	\$1,876,565
Total	\$62,142,529	\$76,085,794	\$83,213,913

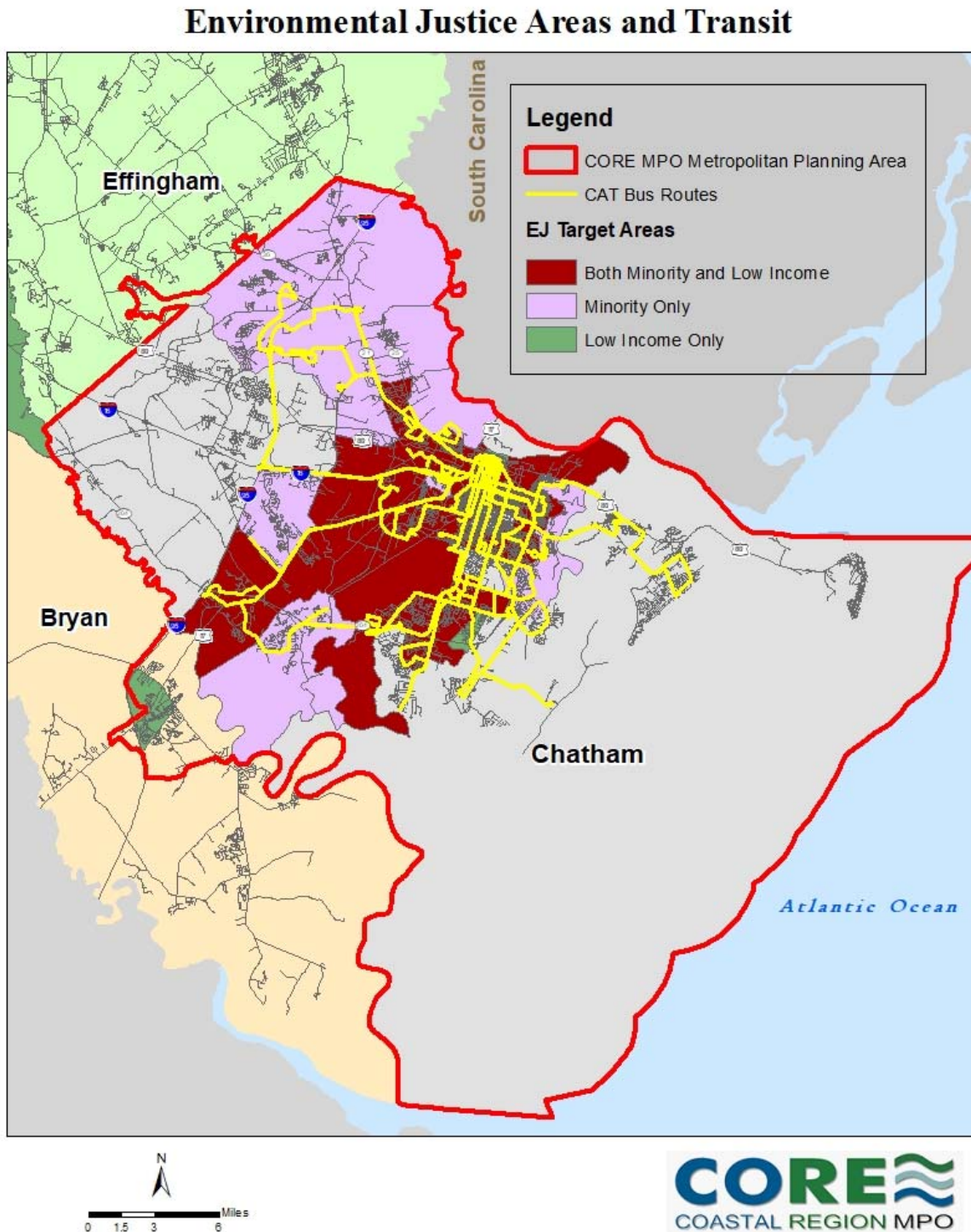
Fixed Route Bus Service

The CAT service area includes the City of Savannah, part of Garden City, and the unincorporated Chatham County between them. CAT is working on expanding its service area into other municipalities within Chatham County, especially on the Westside where a lot of entry-level jobs are located. **Figure 4.3** shows the current fixed route bus coverage within EJ and non-EJ areas. Most of the bus routes are located in EJ areas. Many bus routes overlap with one another, so headways for these areas are smaller.

It should be noted that CAT is working on a system redesign to revise its fixed route coverage and schedule. Two options are being discussed: wider geographic coverage or more frequent service in heavy use areas. If the frequent service option is selected, the EJ populations should receive better service due to reduced

headways. This study is expected to be completed by the end of 2019. The CORE MPO's EJ Plan will be updated in the future after CAT completed the System Re-design project.

Figure 4.3: EJ Target Areas and Fixed Route Bus Service



Shuttle Bus and Van Pool Service

Besides the fixed route bus service, CAT provides free shuttle service in the historic downtown area – also an EJ target area. This service provides a means of affordable transportation to the low-income populations as well as visitors in Downtown Savannah and serves as connectors or transfer stations to the fixed route bus services.

In addition, the vanpool program serves those employment sites not currently served by CAT’s fixed route bus service. It provides flexible service within all of Chatham County and regionally to adjacent Georgia and South Carolina counties. There are three (3) vans to provide the services, each with a capacity of 15 passengers and with 5 trips per day.

Paratransit Service

The CAT Mobility transportation system is a door-to-door transportation service and serves eligible disabled persons in Chatham County that include persons who are unable, due to a permanent or temporary physical or mental disability to use the fixed-route public transportation system. The service area is countywide.

Through the New Freedom program implemented under SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users), CAT was able to purchase several accessible taxi vehicles to complement the CAT Mobility service. Half of the fares can be reimbursed through the New Freedom grant funds.

Water Ferry Service

The Savannah Belles Ferry Service provides water transportation from Savannah’s Historic Downtown District (an EJ target area) to Hutchinson Island. The service is provided by three ferry boats daily with 30-minute headways and each with a capacity of eighty-five (85) passengers. The ferries take people (including the low-income and minority populations) to Hutchinson Island to work and get them back at the end of the day. The EJ populations and others can utilize the transit services via various bus routes within Chatham County to reach downtown, and then they can take advantage of the water ferry service.

Coastal Region Commission (CRC) Transit Services

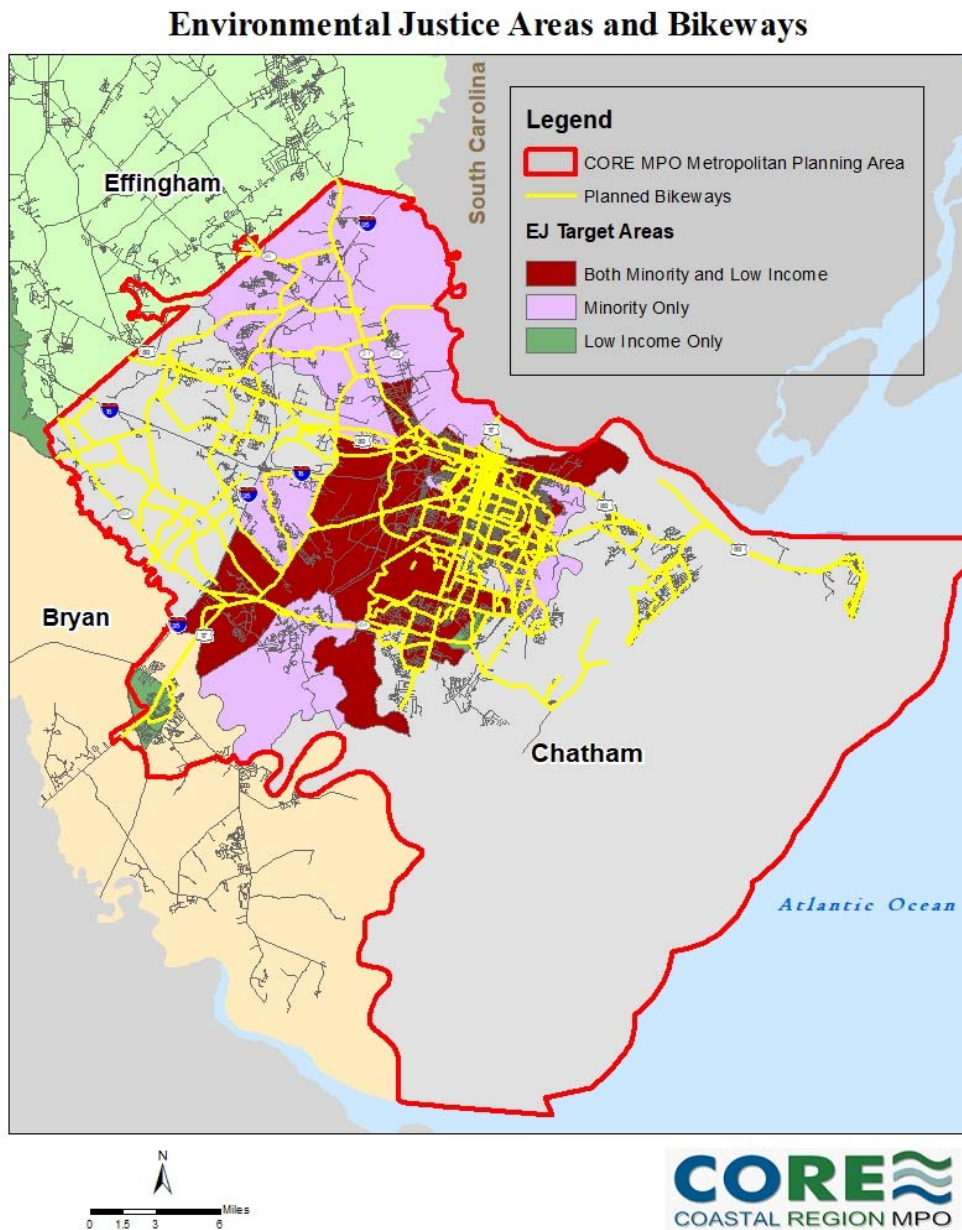
CRC operates the Coastal Regional Coaches which is part of the regional rural public transit program that provides general public transit service in the ten coastal Georgia counties including Bryan, Chatham and Effingham. This demand-response, advance reservation service is available to anyone, for any purpose, and to any destination in the coastal region. CRC also operates the shuttle service from the Savannah’s Civic Center (located in the EJ area) to Tybee Island, providing a means for people including low-income persons without motor vehicles to enjoy the beaches.

4.2.3 EJ Analysis for Bike/Pedestrian Improvements

The Non-Motorized Transportation Plan is an important part of the CORE MPO’s planning products. Convenient bikeways and pedestrian sidewalks provide an affordable means of transportation to low-income populations who don’t have access to motor vehicles. Bike travel can be combined with transit services to provide means to employment centers, recreational facilities, shopping centers, schools, etc.

Figure 4.4 shows the planned bikeways in the CORE MPO’s planning boundary within and outside of the EJ target areas. The bikeway map demonstrates that a lot of the proposed bikeway improvements are located in the EJ target areas and will benefit EJ target populations. The 2045 MTP financial plan includes a category expenditure of about \$22 million to help implement the bike/ped/trail needs identified in the Non-Motorized Transportation Plan. A Call for Project will be conducted during TIP development to allocate Transportation Alternatives (TA) funds to implement selected priority bike/ped/trail projects from the Non-Motorized Transportation Plan. CORE MPO is going to amend the Non-Motorized Transportation Plan and have the amendments adopted in 2020. The EJ Plan will be updated after the Non-Motorized Transportation Plan is amended.

Figure 4.4: EJ Target Areas and Planned Bikeways



4.3 Findings and Conclusions

In the CORE MPO's endeavors to address the Environmental Justice in the Savannah area, there are some findings derived from the analysis performed above. For the 2045 Metropolitan Transportation Plan, different modes are addressed below.

1. The highway system shows proportionate benefits and impacts in and out of the EJ areas.

For the highway system, project costs and displacement costs are approximately proportionate to each other within the EJ target areas. This makes a lot of sense considering that the EJ target areas are located in the Savannah urban core and that there are many limitations for new development or system expansion. In this area the preservation of the existing system weighs more heavily than in the non-EJ target areas. This can be particularly reflected in the amenity program in which the historic roadway segments, canopy roads and community gateway areas will all receive proportionate investments for protection as well as management as the population composition in the EJ areas.

To improve highway traffic flow in the EJ areas, management strategies (signal coordination and synchronization, etc.) and high-tech investments such as ITS measures will be applied. A large percentage of the highway maintenance and operational improvement funds will be invested in the EJ areas.

2. The transit system caters to the transportation needs of the EJ populations and receives more funding than its mode share percentage.

Overall, the transit system gets 11.68% of the total 2045 MTP funding while its existing work trip mode share is less than 5%. Since the majority of the transit system users are EJ target populations, the study results show that the 2045 MTP transit system doesn't have EJ concerns and that the transit services are overall proficient to serve the EJ target populations.

The fixed route bus service not only provides a means of public transportation to the target minority and low-income populations, but also serves school children and the mobility limited populations. At least fifty-two (52) schools are located on the bus lines and all the buses are low-floor and accessible to wheelchairs. In addition, the bus routes are located within walking distance of major universities, entertainment centers and theaters, major government buildings and facilities, hospitals and nursing homes, hotels, post offices, libraries, shopping centers, subdivisions and apartments, and various points of interest. In the EJ target areas, the bus routes are more interconnected, and headways are shorter than non-EJ areas, which makes transfer a lot easier. Besides, the bus routes extend outward to various destinations as listed above and provide an affordable means of transportation to the EJ populations who need to go back and forth between EJ and non-EJ areas. The bus service plays the role of multi-modal connector as well since all the buses have racks for bicycles.

The free shuttle service in the historic downtown enhances the transferability of the fixed route bus system and makes the bus headways in this area shorter.

The vanpool service and water ferry service provide additional conveniences for all of the EJ populations to commute between home and work regardless whether these destinations are within or outside of the EJ areas.

The CAT Mobility service caters to the people with mobility limitations, who are considered expanded EJ target populations.

The CRC's Coastal Regional Coaches service provides supplemental transportation to EJ populations outside of the target EJ concentrated areas.

3. The other modes help to satisfy the transportation needs of EJ populations.

The federal law requires that any new road construction or widening project will incorporate bike lanes and sidewalks. It is also one of the objectives of the CORE MPO's plans and programs. Bikeways and sidewalks will be a part of the roadway design where appropriate.

The planned bikeway system in the Savannah region is designed to provide a convenient transportation means to the EJ and non-EJ populations. The bike travel can be combined with the transit services to satisfy transportation needs of the EJ populations. The planned bikeways in the Savannah area are mostly located within the EJ target areas. The planned on-road priority bikeway corridors connect the EJ area to the outlying areas. Overall, there are no disproportionate burdens to the minority and low-income populations in the EJ target areas.

Construction of sidewalks will benefit both EJ and non-EJ target populations that are located either within or outside of the EJ target areas.

The 2045 MTP's set aside category expenditure for Non-Motorized improvements will help implement the priority stand-alone bike and/or pedestrian project that the local government entity wish to carry out.

Chapter 5: Discussion of Possible Mitigation Strategies

Though there are no significant EJ problems in terms of transportation investments in the Savannah region, no plan or service is perfect. There are some strategies that need to be explored to address the transportation needs in the Savannah region and certain actions would be taken to provide better services to the EJ target populations.

5.1 Possible Mitigation Strategies

There are various strategies to move traffic more efficiently, be it highway, transit, or other modes. With regards to Environmental Justice, generally there are four mitigation strategies, including avoidance of projects, minimize the impacts, mitigation strategies for unavoidable impacts, and offsetting enhancements. In the CORE MPO planning area, these strategies are all explored.

The CORE MPO EJ area is located mostly in the Savannah urban core that has a lot of limitations for further development. There is a large concentration of identified historic roadways and canopied roadways. The residents of these areas would like to keep the neighborhoods intact and preserved, thus some projects are not included in the plan to preserve the natural and cultural resources.

For some areas that a highway project is inevitable, efforts will be made to minimize the impacts, such as retrofitting a project to include desired landscaping that is consistent with the neighboring areas. The CORE MPO amenities program addresses these issues directly. In addition, traffic management and ITS strategies would be applied more in the EJ target areas due to its development limitations.

Development of efficient multi-modal programs is another mitigation strategy. Though the transit and bikeway travel in the CORE MPO planning area are providing a fair amount of transportation to the EJ populations, improvements can still be made.

CORE MPO also included a discussion about overall EJ mitigation in the 2045 MTP.

There are three fundamental principles of Environmental Justice. These principles include the avoidance of unusually high adverse health, social and economic impacts on minority and low-income populations; the inclusion of all potentially affected communities in the decision-making process; and to prevent the denial of benefits by minority and low-income communities and populations.

MPOs can mitigate the adverse effects of projects on Environmental Justice communities in a variety of ways, including the utilization of advanced analytical capabilities to ensure compliance; the early identification of impacts on low-income and minority populations and to ensure the fair distribution of both the burdens and the benefits associated with transportation investments; and to have an inclusive and active public participation process that does not provide barriers to participation by minority and low income populations in the decision making process.

5.2 Actions Taken

In order to provide better transportation services to the EJ populations in the CORE MPO planning area, some actions have been taken.

CORE MPO has made many efforts to initiate the roadway amenities program that was developed during the 2030 MTP process and carried forward to later MPTs. So far, the City of Savannah, Chatham County, and the Metropolitan Planning Commission have all passed the resolution to dedicate staff and funding for this program. Various roadways for protection have been identified and mapped resulting from coordination from all concerned parties, and funding is being pursued to implement the program. The MPO has developed a Context Sensitive Design (CSD) Manual for reference by the implementation agencies. In the 2045 MTP, the section on Thoroughfare Plan further outlines the design features to incorporate CSD. The MPO staff and the MPC staff have worked cooperatively in developing the New Zoning Ordinance (NewZO) to make sure that the amenity corridors are protected in the legal document.

CORE MPO has made a great effort to engage the target populations in all plans and programs and the transportation planning process and outlined these procedures in its various public involvement documents – Participation Plan, Language Assistance Plan, Title VI Plan, and Environmental Justice Plan.

CORE MPO has utilized the existing committee structure to engage the target populations in the planning process. The Advisory Committee on Accessible Transportation (ACAT) focuses on meeting the transportation needs of EJ populations in particular.

CORE MPO has identified and ranked all the on-road bikeways and will assist in implementing the plan as funds become available.

CORE MPO has made it a policy and passed a resolution to provide sidewalks and curb cuts as appropriate.

CAT has replaced all the old buses with the low-floor fleet that are accessible to wheelchairs and has improved the CAT Mobility reservation and complaint system.

CAT has purchased three water ferryboats to move people to and from Hutchinson Island.

CAT has expanded the fixed-route bus service to the outlying employment centers where a lot of entry-level jobs are located. The agency is working diligently to analyze the transportation needs and to design the most efficient bus routes.

CAT has installed wheelchair accessible bus shelters to protect the passengers who are waiting for the transit service in many bus stops. Funding is being pursued and programmed to install more bus shelters and other transit amenities.

Chapter 6: Public Participation Activities

Recognizing the importance of involving the public in planning for the future of the Savannah region, CORE MPO developed a Participation Plan (PP), a Language Assistance Plan (LAP), an overall Title VI Plan, and the Coordinated Public Transit – Human Serviced Transportation Plan (HST), providing the opportunity for the community to play an integral part in the transportation planning process. The CORE MPO’s Advisory Committee on Accessible Transportation (ACAT) also provides input on the MPO’s planning process and the CAT’s transit services. These MPO plans and ACAT input provide guidance to the CORE MPO’s and CAT’s public participation process and outline specific procedures for the public to participate in, to review, and to comment upon the formulation of transportation plans, policies, projects and proposed changes.

6.1 Participation Selection

The efforts to obtain meaningful public input for EJ consists of various components including participation through appropriate committees and through resident participation.

Committee Participation

The CORE MPO’s Citizens Advisory Committee (CAC) is representative of all cross-sections of the community and functions as a public information and involvement committee. The CAC is entrusted with informing the CORE MPO Board of the community’s perspective while providing information to the community about transportation policies and issues.

The Advisory Committee on Accessible Transportation (ACAT) serves as the forum for cooperative decision-making with regard to accessible transportation related issues in the Savannah area. ACAT acts as a liaison between the MPO’s transportation planning process and the traditionally underserved communities, including those communities with high concentrations of minority, low-income, disabled and elderly populations. ACAT ensures that the transportation planning process is current and responsive to all applicable laws, rules, and regulations, including the EJ related laws and regulations.

The Technical Coordinating Committee (TCC) and the Economic Development and Freight Advisory Committee (EDFAC) are distributed the Title VI planning documents (including the EJ Plan) for review, comment and discussion before they endorse them.

The CORE MPO Board has the final adoption of the Title VI Plan (including EJ Plan) by signing a supporting resolution.

All of the CORE MPO plans and programs go through these committees for review and comment before they can be adopted by the CORE MPO Board.

Resident Participation

Besides the committees that represent various populations and communities in the Savannah region, CORE MPO makes efforts to involve all the transportation system users (motorists, transit riders, bicyclists, pedestrians, etc.) in the public involvement process. CORE MPO has made a particular effort to include

the EJ target populations in the 2045 MTP development process, including minorities, low-income persons, disabled people, elderly populations, child advocates or school personnel, and LEP persons.

6.2 Outreach Methods

CORE MPO involves the advisory committees in each step of the development and update of the Metropolitan Transportation Plan, the Transportation Improvement Program, the Congestion Management Process, the Unified Planning Work Program, as well as the other special studies and projects. The project development status reports and related materials are emailed to the committee members for review and posted on the MPO website before the committee meetings. Then the CORE MPO staff members present the information to the committees at their respective meetings, invite comments and answer questions. All of the comments from the committees are then investigated in the plan development process and finally incorporated into the plan.

The public involvement of the Savannah region residents includes sending the draft plans and programs to all the review agencies and libraries; advertising the public meeting notices on newspapers and magazines and TV/radio stations; sending invitations to all the neighborhood associations (including the EJ population concentrated neighborhoods); advertising the meeting notices on the MPC/CORE MPO websites and community calendars; developing surveys, brochures, maps, graphics, games, handouts, etc. to help conduct the public involvement process; hosting public meetings; making presentations at meetings hosted by governments, agencies, organizations, and neighborhood associations, etc.

The public involvement of the EJ populations include advertising public meeting notices on the minority-owned newspapers and magazines as well as radio stations serving these populations, advertising the meetings in the churches located in the target areas, advertising the meetings on buses and paratransit vehicles, holding the public meetings in the EJ target areas where it's accessible to all the people, making presentations at the EJ area's neighborhood association meetings, etc. **Table 6.1** shows the relationship between Environmental Justice areas and public information meetings the CORE MPO hosted or presented during the 2045 MTP development process.

Table 6.1 EJ Areas and 2045 MTP Public Meetings

Venue	Census Tract	% Minority	% Elderly	% Children	% Persons Below Poverty Level	% of Hispanic LEP	Transit within 0.25 Mile
First Presbyterian Church (Chatham Crescent)	13051053000	15.52	10.42	9.89	14	N	N
St. Luke Baptist Church	13051011400	50.49	17.53	5.58	36.91	N	Y
City Hall of Garden City	13051010501	55.79	5.38	9.68	31.03	N	N
City Hall of Richmond Hill	13029920305	20.36	8.05	15.35	5.95	N	N
Live Oak Public Library at Savannah Mall	13051010901	61.46	14.03	15.15	20.15	Y	Y
Armstrong Center	13051004212	42.49	13.25	7.83	10.51	N	Y
Pooler Recreation Center	13051010803	35.15	10.07	14.39	10.38	N	N
Moses Jackson Center	13051000601	79.11	10.25	10	30.33	N	Y
Chatham County Commission Chamber	13051000300	27.89	7.05	3.98	31.87	N	Y

Environmental Justice Thresholds: Minority **42.68%** (i.e., 42.68% of Savannah MSA population are minority); Persons Below Poverty Level **17.01%**; Elderly **11.61%** (i.e. **11.61%** of Savannah MSA population are 65 years and above); Children **13.67%** (persons under Age 10); Limited English Proficiency (LEP) - Persons of Hispanic or Latino Origin (**4.95%** of total regional population) is the only group that meets the Safe Harbor Rule for LEP consideration.

Source: US Census Bureau 2010 Decennial Census and 2012 ACS 5-year Estimates

In addition, CORE MPO has translated some vital documents to Spanish to help LEP persons (a segment of the minority group) such as the 2045 MTP survey, the Title VI/Non-discrimination Notice to the Public, and Title VI/Non-discrimination Complaint Form and Procedure. CORE MPO staff is working on translating the Executive Summary of the 2045 MTP to Spanish in the near future.

CORE MPO staff has made a lot of efforts to attend neighborhood association meetings after work and assisted in preparing mapping and statistical information to facilitate these meetings.

CAT has translated its bus route brochures into Spanish to assist the transit users with English Proficiency limitations.

6.3 Public Outreach Contacts

The CORE MPO's public outreach contacts include the local news media, consultation agencies, neighborhood associations, people who have come to the CORE MPO public meetings before, people who have sent comments to CORE MPO before about their transportation needs, as well as stakeholders identified through the development of a special study.

6.4 Information Presentation Methods

Besides giving formal presentations with visualization tools (pictures, maps, videos, etc.), CORE MPO staff members prepare information boards with maps and descriptions, take questions on the floor, and have face-to-face conversations with the participants at or after the public meetings. Staff also distribute comment sheets to the participants so that they can either write down their comments right at the meetings or bring back to their neighborhoods for distribution.

For the 2045 MTP development, CORE MPO has documented all of the received comments, categorized them, and responded appropriately. Where CORE MPO felt that the issues raised are beyond the CORE MPO responsibilities, these questions and comments were forwarded to the appropriate agencies that are responsible for the projects or programs.

CORE MPO will utilize written translation or verbal interpretation services per the LAP plan where funding allows and where LEP persons are involved.

6.5 Discussion of Issues Raised Regarding EJ

CORE MPO has developed a Title VI / Non-discrimination Complaint Form to handle Civil Rights complaints that arise from the MPO's transportation planning process (Title VI Plan, Appendix E at <https://www.thempc.org/Core/TitleVI>). After a complaint is received, CORE MPO will follow through the process, including identifying problems and resolving them.

Chapter 7: Overall EJ Findings, Conclusions, and Recommendations

The Coastal Region Metropolitan Planning Organization (CORE MPO) goes through a federal certification review every four years. FHWA/FTA issued the following statement regarding the CORE MPO's environmental justice process in the 2009 certification report.

Review Team Findings

The CORE MPO strives to include all segments of the population during the transportation planning process. Toward this goal, the MPO provides opportunities for public participation and access to information by minority and low-income communities. All MPO meetings are accessible by transit. The ACAT committee is a standing committee of the MPO that provides the nexus between transportation planning and those populations that are traditionally underserved. Additionally, the CORE MPO completed a detailed Environmental Justice (EJ) analysis for the MPO area. This report identified low-income and minority populations who may be impacted by the transportation planning process through a burdens and benefit analysis. The CORE MPO summarized the EJ analysis in tabular form and digital maps.

Notable Strength

The MPO is commended for producing a detailed in-house analysis of Environmental Justice areas in Chatham County.

Recommendation

The MPO process for handling Title VI complaints needs to be developed and clearly documented.

MPO Follow Up Actions

CORE MPO developed a process for handling Title VI complaints and a Limited English Proficiency (LEP) Plan after the 2009 federal certification review. Satisfied with these new developments, the 2013 and 2016-2017 federal certification reviews did not make any specific recommendations regarding the CORE MPO's Environmental Justice program.

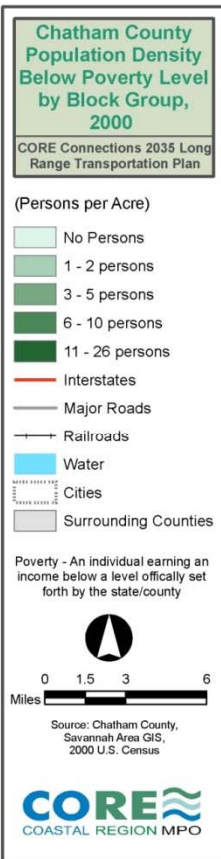
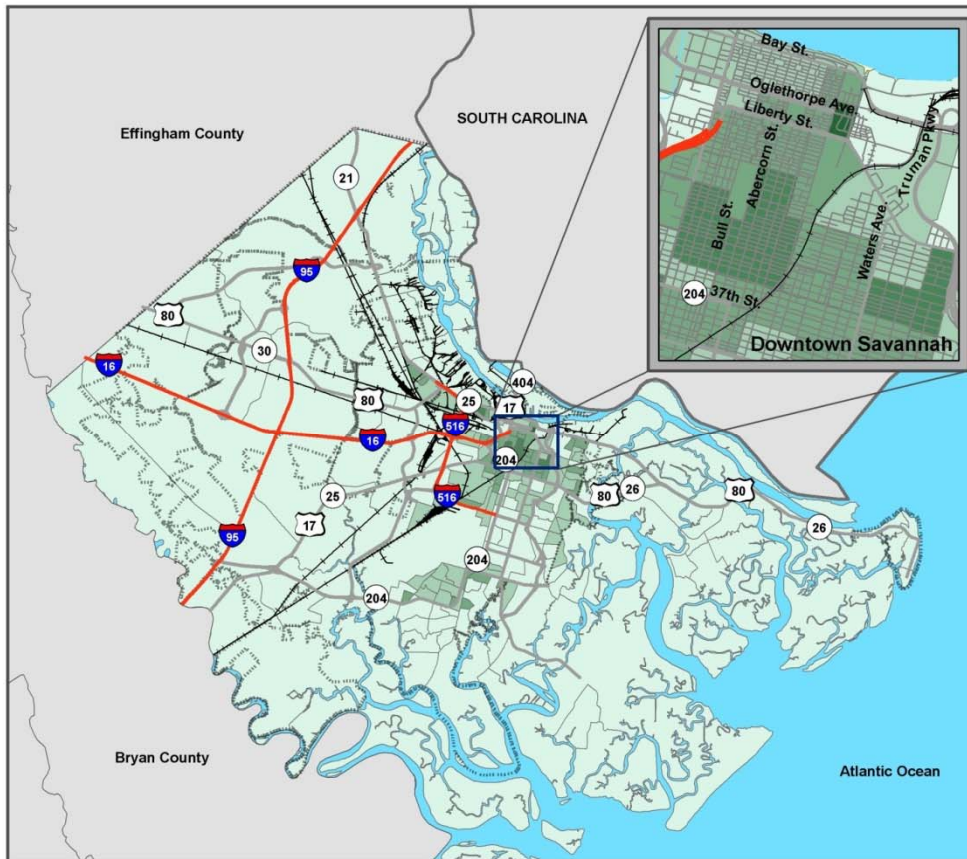
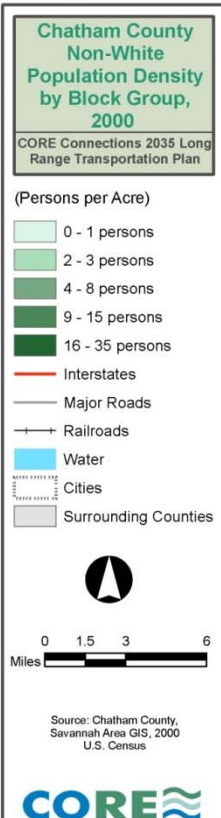
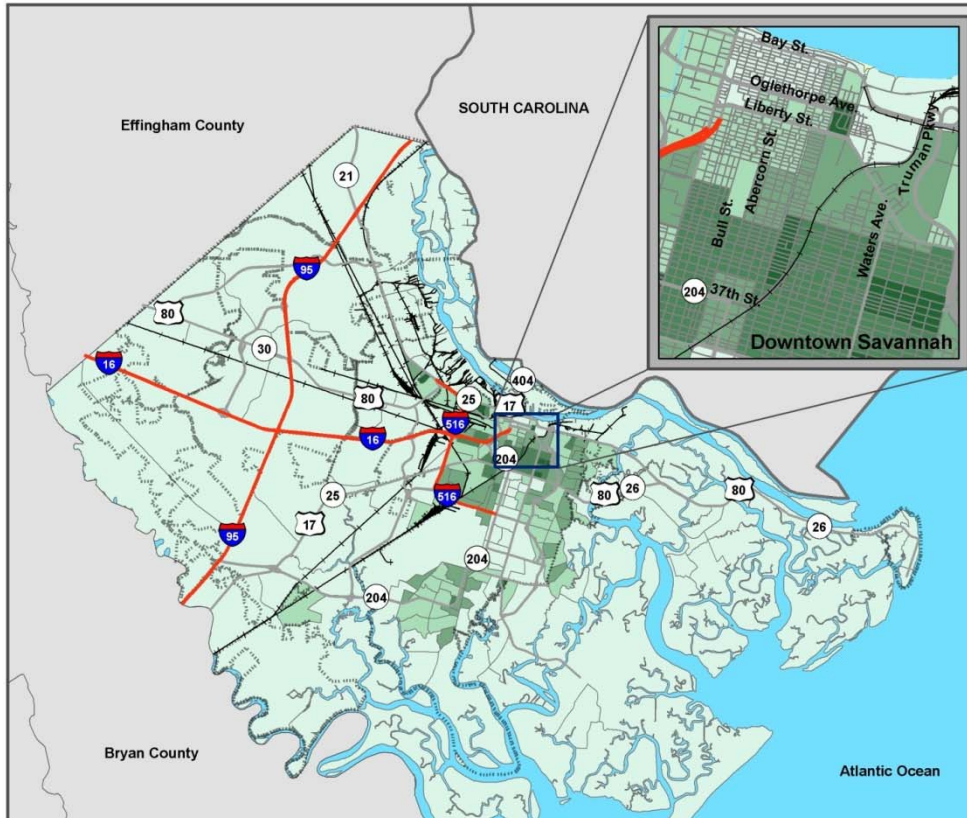
Chapter 8: EJ Plan Maintenance and Update

The Coastal Region Metropolitan Planning Organization (CORE MPO) maintains the EJ Plan and updates it when new information becomes available. The following lists some of the efforts that the MPO has undertaken.

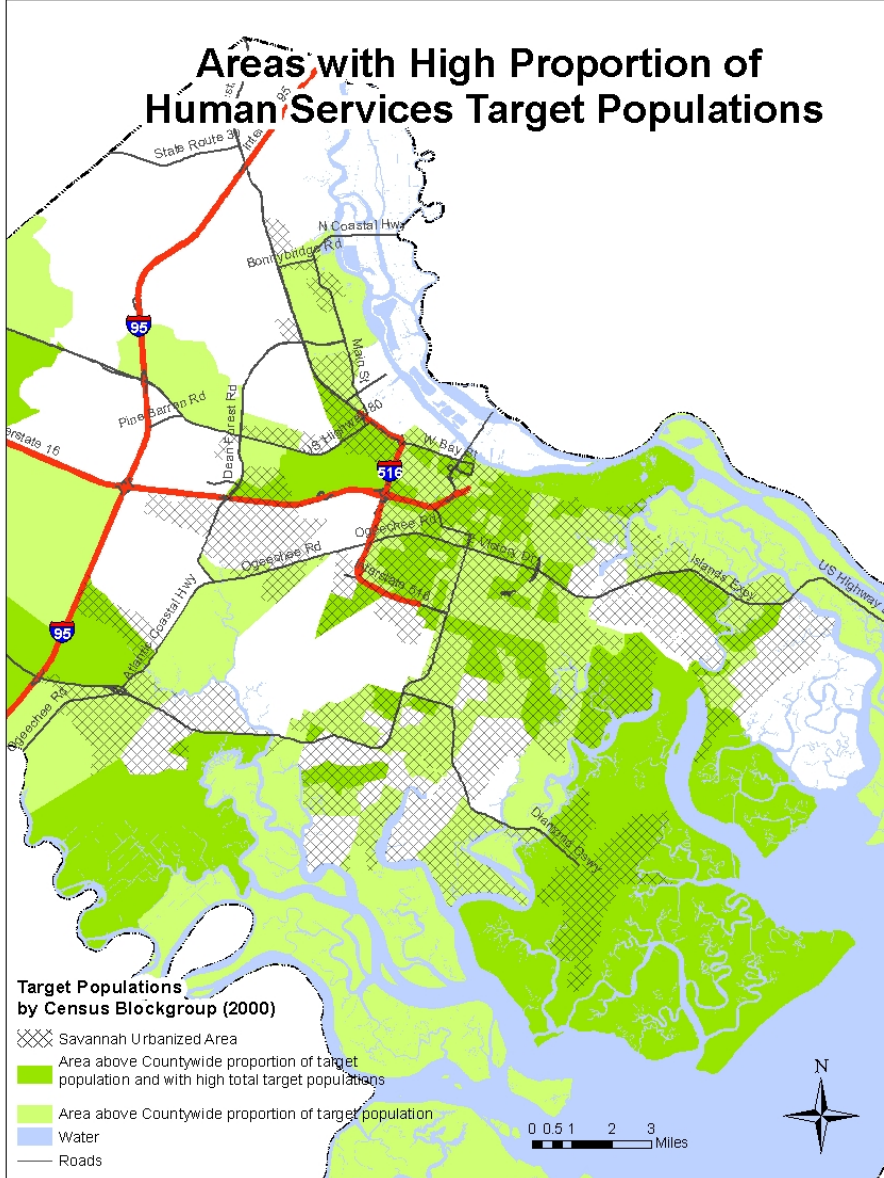
- With the release of the 2010 census data, the MPO compared the maps and statistics between the censuses to determine the EJ focus area change in Chatham County.
- The MPO updated its Metropolitan Planning Area (MPA) boundary in 2015, and the staff then updated the EJ maps and statistics that reflect the multi-county boundary.
- The MPO updated the 2040 MTP to reflect the new MPA. The MPO's public involvement targeted any new EJ areas (if any) to make sure all the residents in the Savannah area will have an opportunity to participate in the CORE MPO planning process.
- The MPO strives to make the Title VI Plan, the Environmental Justice Plan, the Language Assistance Plan and the Participation Plan an integral part of the public participation process. The MPO strives to make sure that no EJ populations will be negatively impacted by the MPO's plans and programs.
- In 2016 CORE MPO updated its Title VI Plan to respond to the revised MPO planning boundary that expanded to the three-county area after the 2010 census. The updates included revising the Measures of Effectiveness (MOEs) in the Participation Plan, revising the EJ analysis and LEP based on updated census data for a three-county analysis, and revising other Title VI components such as the Title VI complaint process. FHWA, FTA and GDOT were fully involved in this Title VI Plan update. As a result, The Title VI Plan passed the 2016 – 2017 certification review with flying colors.
- In 2019 CORE MPO updated its Title VI Plan to respond to GDOT request to convert all Title VI plans in the state of Georgia to the GDOT template. As a part of this update, the EJ Plan has been revised as well to incorporate the latest census data and the results of the EJ impacts analysis conducted for the 2045 MTP projects. The Title VI Plan (including the EJ Plan) was adopted by the CORE MPO Board on August 7, 2019.

Appendix: Historic EJ Related Maps

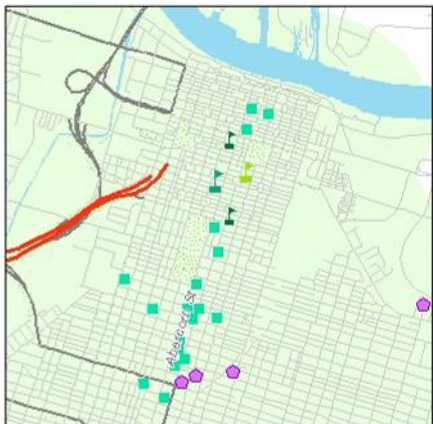
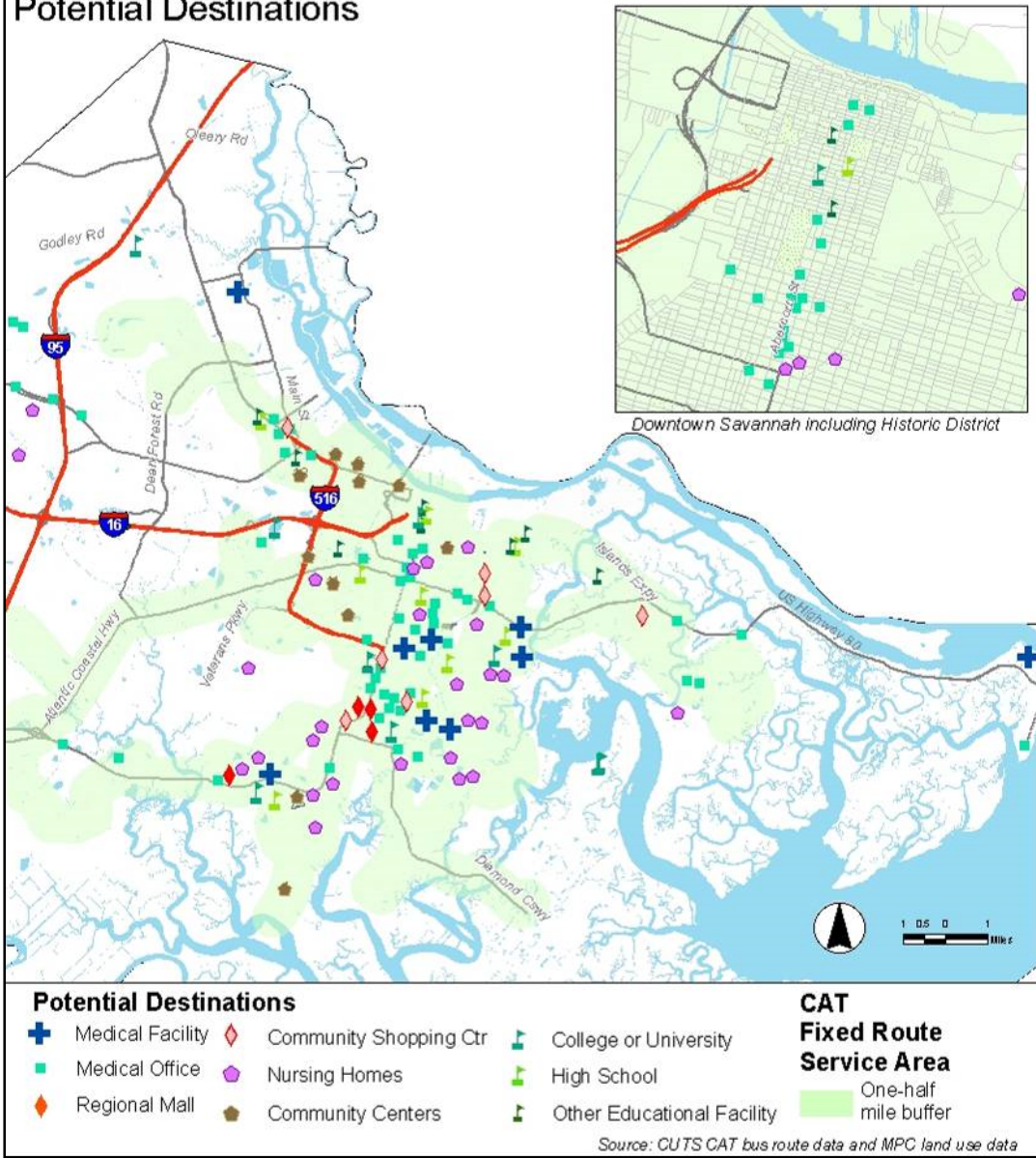
The Coastal Region Metropolitan Planning Organization (CORE MPO) has utilized a series of maps besides the EJ delineation map included in the EJ Plan to facilitate the EJ analysis, human services – public transportation needs analysis and LEP analysis. The following lists some of the example maps that have been created in the past.



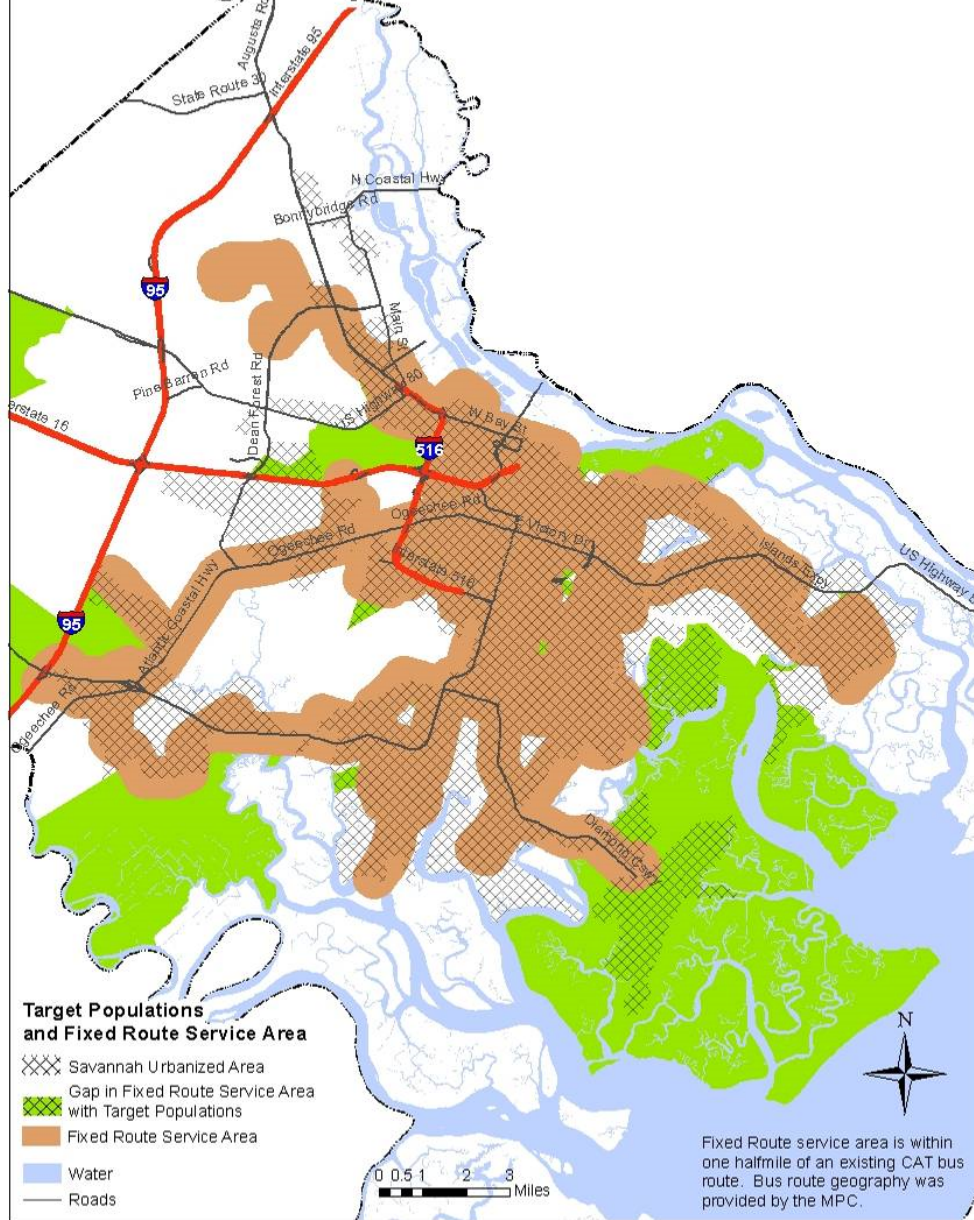
Areas with High Proportion of Human Services Target Populations



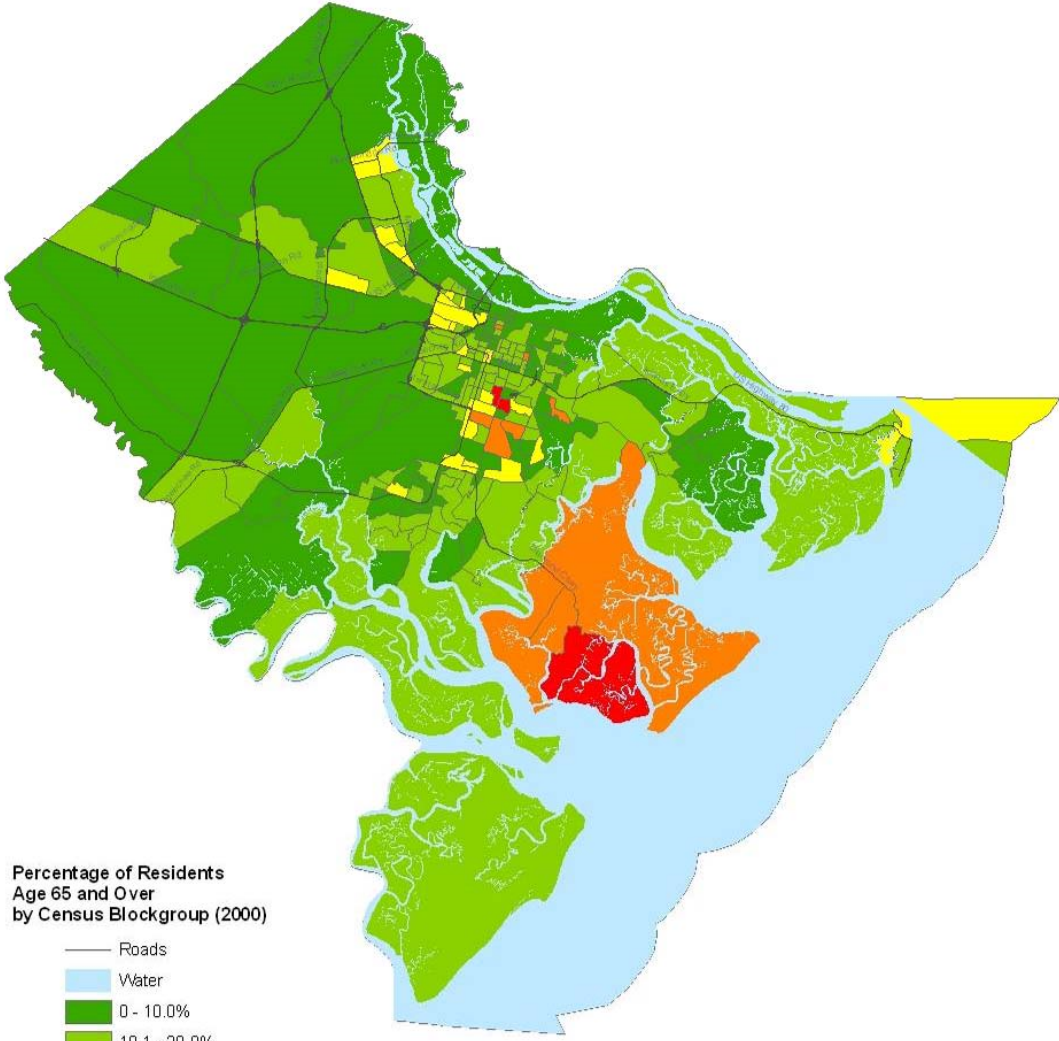
Savannah Chatham County Human Services Transportation Potential Destinations



Target Populations and Service Area

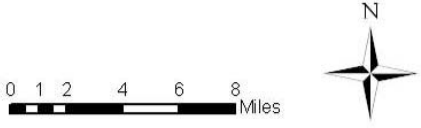


Percentage of Residents Age 65 Years and Over in Chatham County

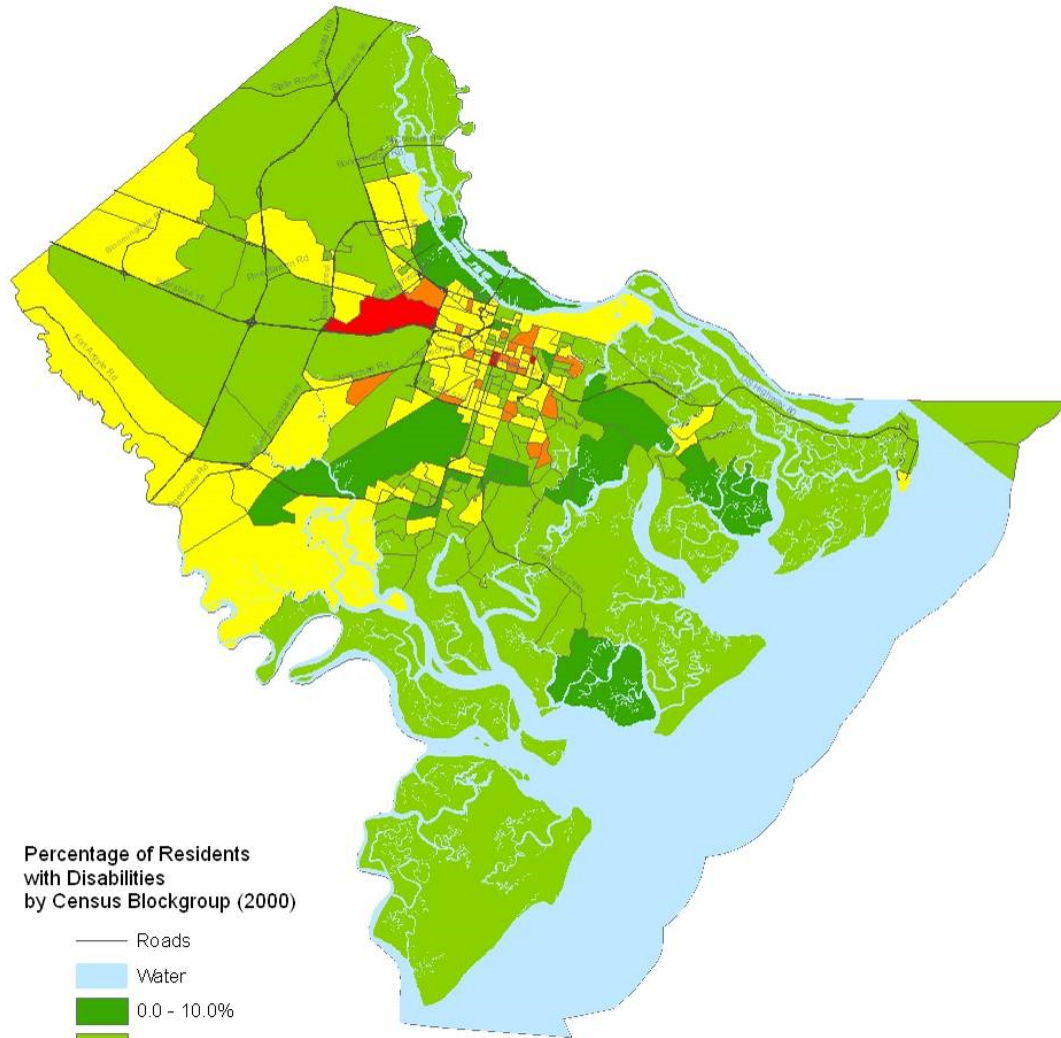


Percentage of Residents
Age 65 and Over
by Census Blockgroup (2000)

- Roads
- Water
- 0 - 10.0%
- 10.1 - 20.0%
- 20.1 - 30.0%
- 30.1 - 40.0%
- 40.1 - 55.0%



Percentage of Residents with Disabilities in Chatham County



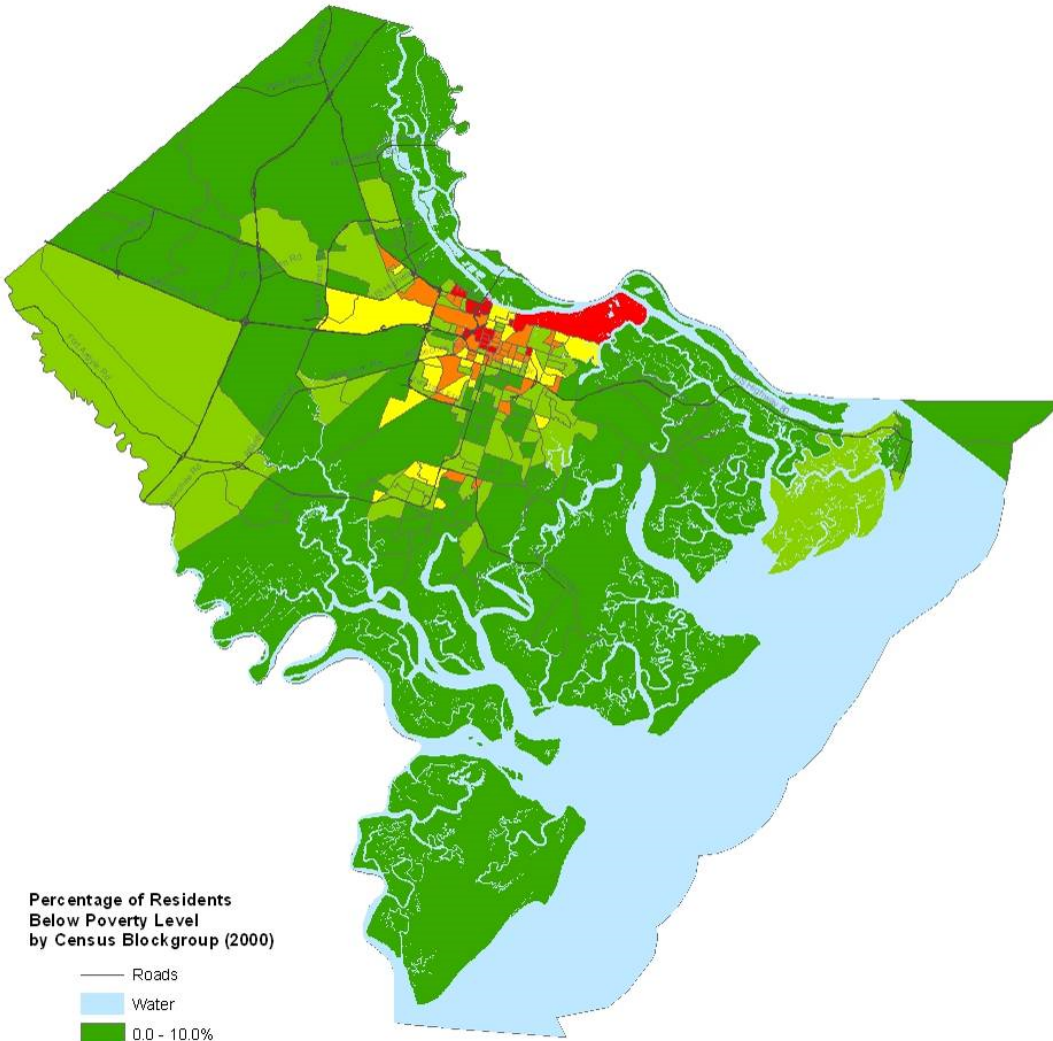
Percentage of Residents with Disabilities by Census Blockgroup (2000)

- Roads
- Water
- 0.0 - 10.0%
- 10.1 - 20.0%
- 20.1 - 30.0%
- 30.1 - 40.0%
- 40.1 - 55.0%

0 1 2 4 6 8 Miles



Percentage of Residents Below Poverty Level in Chatham County



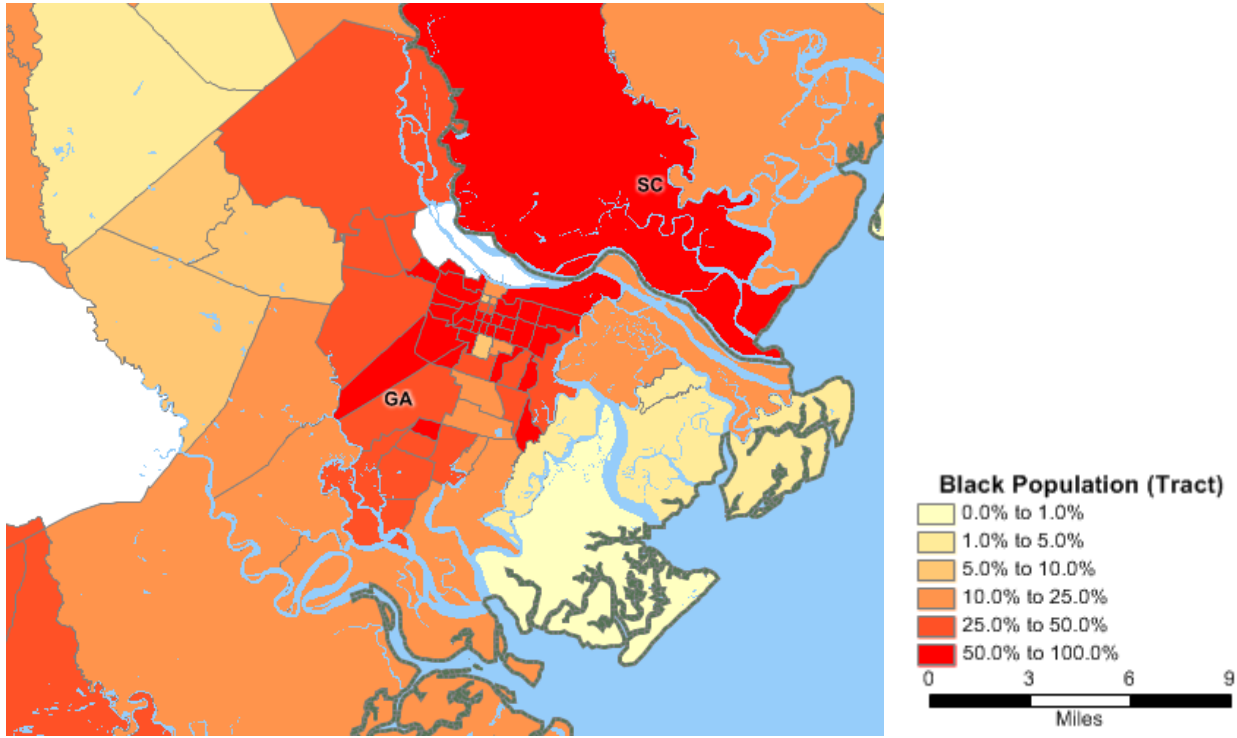
Percentage of Residents
Below Poverty Level
by Census Blockgroup (2000)

- Roads
- Water
- 0.0 - 10.0%
- 10.1 - 20.0%
- 20.1 - 30.0%
- 30.1 - 50.0%
- 50.1 - 85.0%

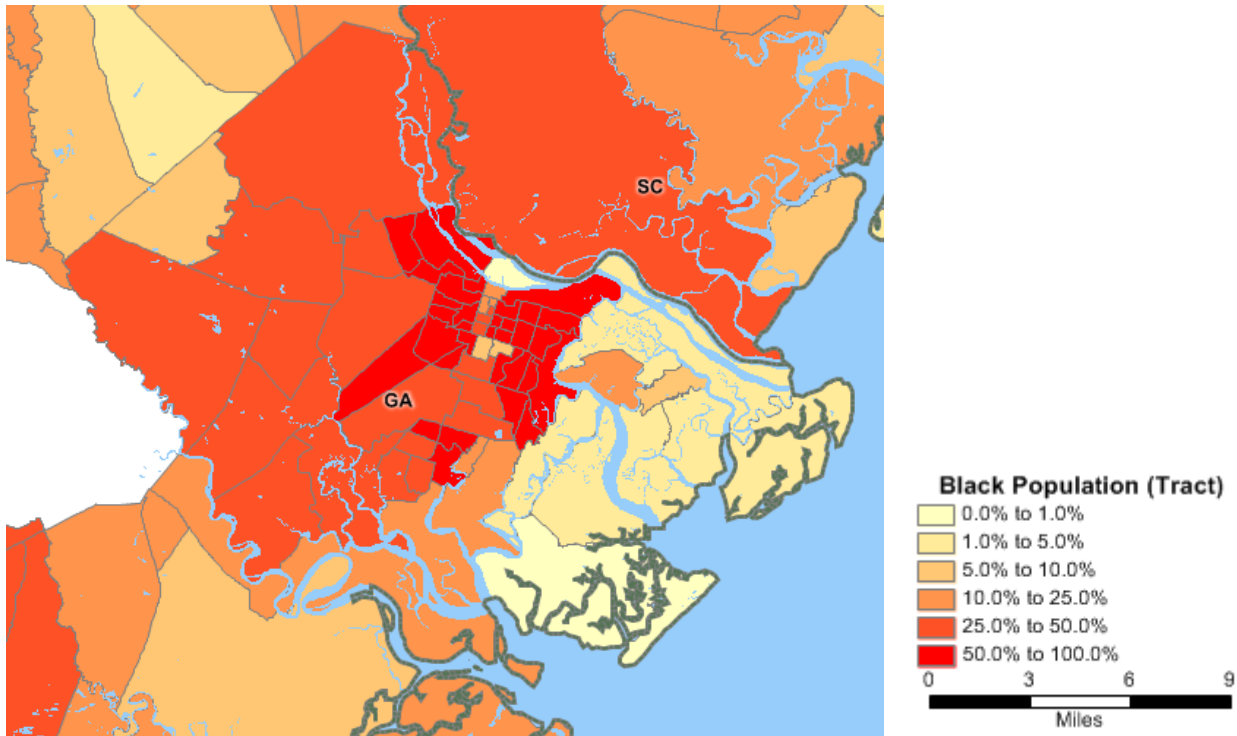
0 1 2 4 6 8 Miles



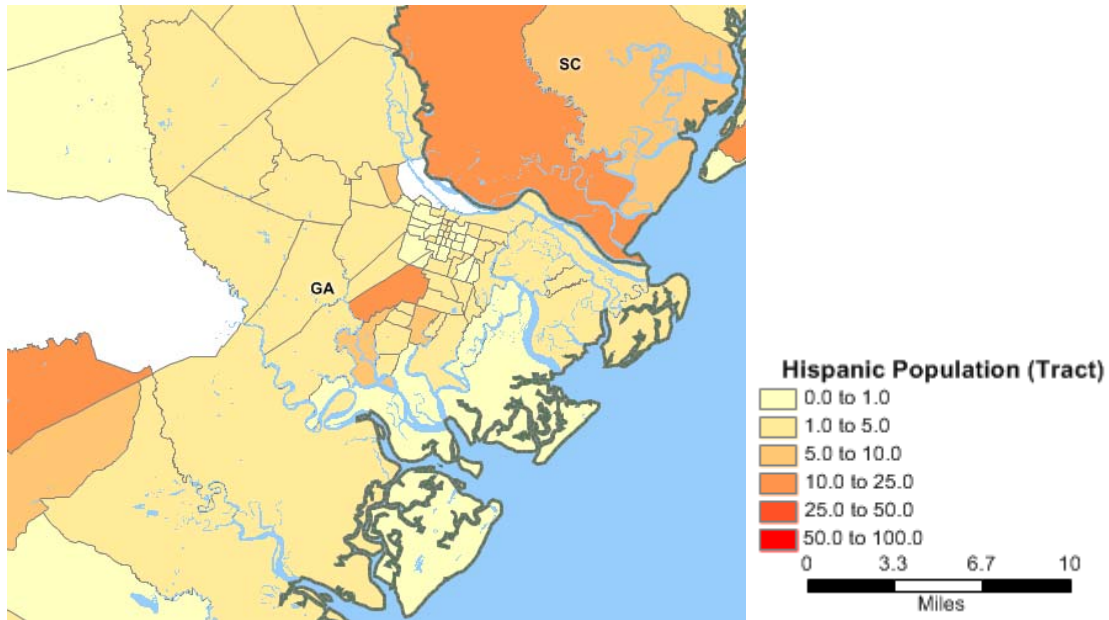
Black Population 2000 - FHWA HEPGIS Maps



Black Population 2010 - FHWA HEPGIS Maps



Hispanic Population 2000 - FHWA HEPGIS Maps



Hispanic Population 2010 - FHWA HEPGIS Maps

