



### 3.3 Environmental Justice

#### 3.3.1 What is Environmental Justice?

*Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*, requires that each Federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment to identify and avoid “disproportionately high and adverse” effects on minority and low-income populations.

FHWA defines minority and low-income populations as the following:<sup>52</sup>

Minority means a person who is:

- (1) Black (having origins in any of the black racial groups of Africa);
- (2) Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
- (3) Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
- (4) American Indian and Alaskan Native (having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition).

Minority population means any readily identifiable groups or minority persons who live in a geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy or activity.

Low-Income means a household income at or below the U.S. Department of Health and Human Services (USHHS) poverty guidelines.

Low-Income population means any readily identifiable group of low-income persons who live in a geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy or activity.

#### Disproportionate

**Disproportionate is defined in two ways:**

- The impact is predominately borne by the minority or low-income population group or,
- The impact is “more severe” than that experienced by non-minority or non-low income populations.

<sup>52</sup> FHWA, Order 6640.23, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (December 2, 1998).



FHWA has identified three fundamental environmental justice principles:<sup>53</sup>

- “To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.”
- “To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.”
- “To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.”

To identify minority and low-income populations, information from the 2000 U.S. Census was collected for each block group within the project study area between I-95 and U.S. Route 74. Delineated by the U.S. Census Bureau, a block group is the smallest geographic unit for which demographic data are readily available. Demographic data include the physical characteristics of a population such as age, sex, race, marital status, family size, education, geographic location, and occupation. The information collected for each block group included the total population, total minority population, and total population living below the poverty level. From this data, the percentage of persons classified as minority and the percentage of persons below the poverty level were calculated. For the purposes of identifying low-income populations in the project study area, the USHHS poverty thresholds were used (refer to Table 3.14).

**Table 3.14**  
**2000 USHHS Poverty Thresholds**

Size of Family Unit	Weighted Average Thresholds
1	\$ 8,794
2	\$ 11,239
3	\$ 13,738
4	\$ 17,603
5	\$ 20,819
6	\$ 23,528
7	\$ 26,754
8	\$ 29,701
9	\$ 35,060

Source: U.S. Census Bureau, Housing and Household Economic Statistics Division, Last Revised: December 7, 2005

Once the baseline minority and low-income populations were identified, the block group data was compared to the populations within the state, county and the area of each county within the project study area. Since the characteristics of the four counties varied, the percentage of minority and low-income populations within the project study area in each individual county was used as the threshold. The threshold was then utilized for determining if a block group potentially contained high concentrations of environmental justice populations. The project study area was chosen as the

<sup>53</sup> FHWA, Environmental Justice Website, “An Overview of Transportation and Environmental Justice,” <http://www.fhwa.dot.gov/environment/ej2000.htm> (December 15, 2006).



unit of analysis so as not to artificially dilute or inflate the affected populations, as stated in Executive Order 12898.

Efforts were made to include low-income and minority populations within the project study area in the project development process. The Public Involvement efforts are described more fully in Chapter 4, Public Involvement and Agency Coordination, but include:

- Public information meetings in central locations, including Bennettsville and Hamlet;
- Stakeholder meetings, including National Association for the Advancement of Colored People (NAACP) representatives;
- Distribution of surveys through small community grocery and convenience stores; and,
- Door-to-door surveys within low-income and minority communities to ensure input.

### Executive Order 12898

**“The selection of the appropriate unit of analysis may be governing body’s jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as not to artificially dilute or inflate the affected minority population.”**

#### 3.3.2 Are there minority populations in the project study area?

There are a total of 56 block groups within the project study area, including 11 block groups in Dillon County, 29 block groups in Marlboro County, 12 block groups in Richmond County, and four block groups in Scotland County (refer to Figure 3-32, page 3-107). The portions of each county located within the project study area had the following percentages of their population defined as minority: Dillon (60 percent), Marlboro (56 percent), Richmond (36 percent), and Scotland (46 percent). These percentages were used as the minority thresholds for each county and project study area.

There are 24 block groups located within the project study area that have minority populations at or above the threshold percentage for their respective counties (six in Dillon, 11 in Marlboro, five in Richmond, and two in Scotland). The percent of the total population of the project study area defined as minority in the year 2000 was estimated at approximately 50 percent. This rate is 15 percent higher than South Carolina (35 percent) as a whole, 22 percent higher than North Carolina (28 percent) as a whole, and 25 percent higher than the United States (refer to Table 3.15, page 3-106).

#### 3.3.3 Are there low-income populations in the project study area?

In the project study area, the percentages of the population considered to be low-income or living below the poverty level in each county are as follows: Dillon County (27 percent), Marlboro County (20 percent), Richmond County (17 percent), and Scotland County (18 percent). Figure 3-32 (page 3-107) identifies these block groups for each county.



**Table 3.15**  
**Minority Population, 2000**

	Total Population	Total Minority Population	Percent Minority Population
South Carolina	4,012,012	1,411,528	35 %
North Carolina	8,049,313	2,244,657	28 %
Project Study Area (PSA)	56,926	28,684	50 %
Dillon County	30,722	15,780	51 %
Dillon Co. PSA	6,545	3,915	60 %
Marlboro County	28,818	16,203	56 %
Marlboro Co. PSA	28,818	16,203	56 %
Richmond County	46,564	17,690	38 %
Richmond Co. PSA	13,498	4,845	36 %
Scotland County	35,998	17,886	50 %
Scotland Co. PSA	8,065	3,721	46 %

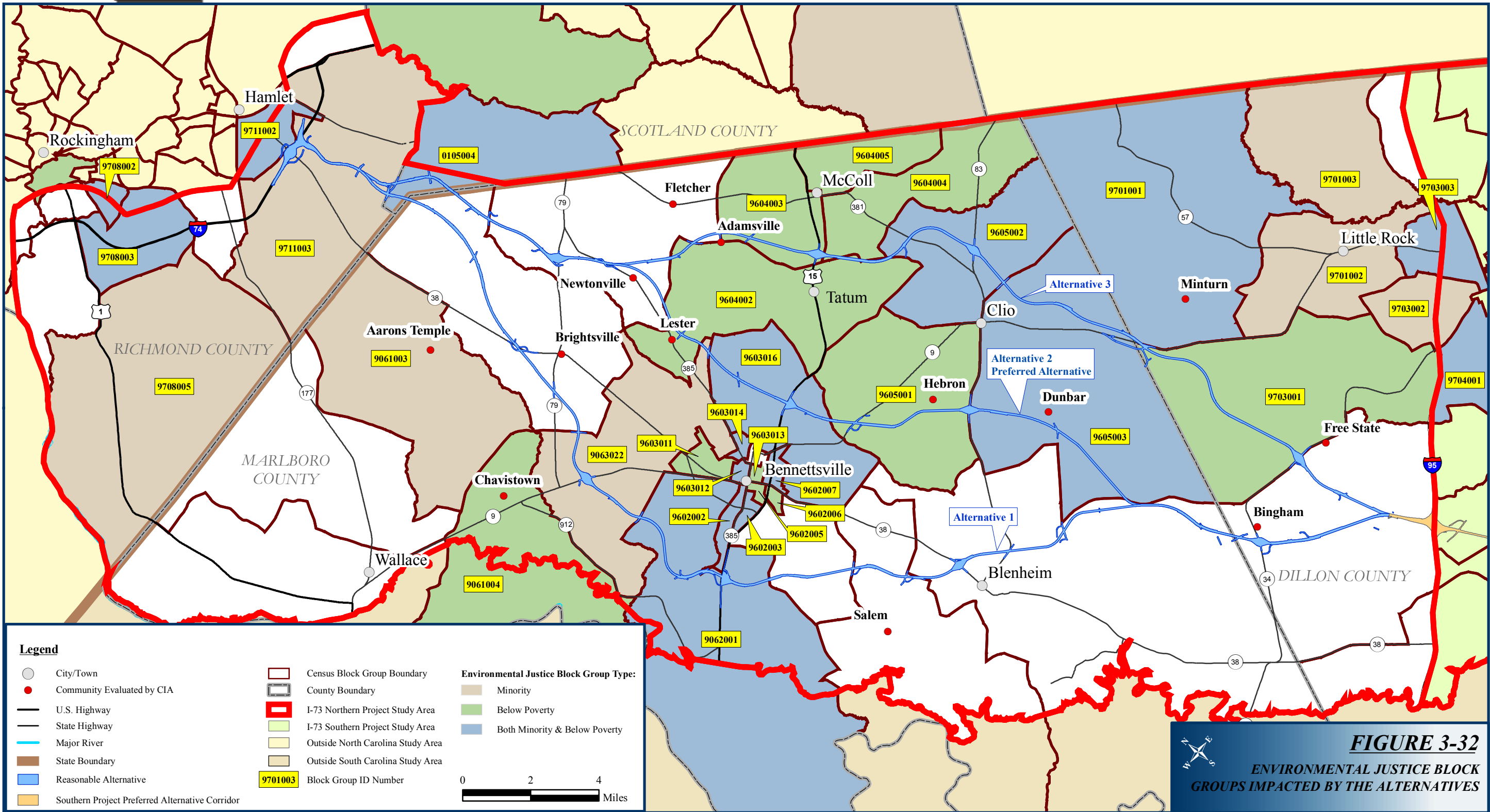
Source: U.S. Census Bureau, 2000

Of the total 56 block groups within the project study area, 29 block groups represent areas of low-income populations (four in Dillon, 19 in Marlboro, four in Richmond and two in Scotland). Twenty percent of the total population within the project study area was found to be living at or below the poverty level in the year 2000. This rate is six percent higher than South Carolina, eight percent higher than North Carolina, and 12 percent higher than the United States (refer to Table 3.16, page 3-108).

According to the FHWA definitions, minority and/or low-income populations do reside within the project study area (refer to Figure 3-32, page 3-107). Twenty-four block groups represent areas of minority population, while 29 block groups represent areas where the population is living below the poverty level in the project study area (refer to Table 3.17, page 3-108). Sixteen block groups meet both the minority and low-income thresholds set forth by the FHWA.

### 3.3.4 How were potential environmental justice impacts evaluated?

Executive Order 12898 requires that the proposed project be reviewed to determine if there would be disproportionately high or adverse effects on environmental justice populations. It also requires the review of the goals to achieve a fair distribution of benefits and burdens to all communities impacted by the Build Alternatives while allowing the population within the project study area to participate in the transportation decision-making process.



**FIGURE 3-32**  
 ENVIRONMENTAL JUSTICE BLOCK GROUPS IMPACTED BY THE ALTERNATIVES



**Table 3.16**  
**Low-income Population, 2000**

	Total Population	Total Below Poverty	Percent Below Poverty
South Carolina	4,012,012	547,869	14 %
North Carolina	8,049,313	958,667	12 %
<b>Project Study Area (PSA)</b>	<b>56,926</b>	<b>11,375</b>	<b>20 %</b>
Dillon County	30,722	7,311	24 %
Dillon Co. PSA	6,545	1,741	27 %
Marlboro County	28,818	5,882	20 %
Marlboro Co. PSA	28,818	5,882	20 %
Richmond County	46,564	8,754	19 %
Richmond Co. PSA	13,498	2,300	17 %
Scotland County	35,998	7,212	20 %
Scotland Co. PSA	8,065	1,452	18 %

Source: U.S. Census Bureau, 2000

**Table 3.17**  
**Total Number of Block Groups with EJ Populations**

	Total Block Groups	Minority Block Groups	Low-Income Block Groups	Low-Income & Minority Block Groups
Dillon County	11	6	4	3
Marlboro County	29	11	19	9
Richmond County	12	5	4	3
Scotland County	4	2	2	1
<b>Project Study Area</b>	<b>56</b>	<b>24</b>	<b>29</b>	<b>16</b>

Source: U.S. Census Bureau, 2000 U.S. Census.

Block groups with concentrations of environmental justice populations above the county and project study area thresholds were identified during project development. The Build Alternatives have been shifted and modified to avoid and/or minimize impacts to communities, including the low-income and minority areas in Aarons Temple, Adamsville, Bennettsville, Bingham, Blenheim, Chavistown, Clio, Dunbar, Free State, Hamlet, Lester, McColl, Minturn, Newtonville, and Tatum.

Although these areas were specifically identified, low-income and minority block groups make up 66 percent of all block groups within the project study area and environmental justice populations are widely spread throughout the four counties.



A block group analysis was conducted to identify the number of minority and low-income areas that would be impacted by the Build Alternatives. The Build Alternatives were then examined to determine whether disproportionate patterns or concentrations of adverse effects would occur in areas with environmental justice populations when compared to impacts in other areas of the project study area.

### 3.3.5 Are there any minority and low-income populations impacted?

The effects of the No-build Alternative on populations within the project study area would be essentially the same for all environmental justice areas. No relocations or visual impacts would occur. However, under the No-build Alternative, traffic volumes on local routes such as S.C. Route 38 would continue to increase and local travel patterns and accessibility in environmental justice communities could be affected. Other negative effects of the No-build Alternative may be the lack of increased development and employment opportunities within the project study area.

In total, there are 56 block groups in the project study area, of which 37 block groups (66 percent) meet the established thresholds for low-income and/or minority (refer to Figure 3-32, page 3-107). Combined, the Build Alternatives pass through 21 of the 56 block groups within the project study area. Of these 21 block groups, 15 (71 percent) meet the established thresholds to qualify as low-income and/or minority, including two in Dillon County, 10 in Marlboro County, two in Richmond County, and one in Scotland County. Environmental justice populations also exist in 22 other block groups within the project study area, but these are not directly impacted by the Build Alternatives.

Ten block groups of the 21 directly impacted by the Build Alternatives have minority populations over their respective county thresholds including the following: one minority block group in Dillon County, six in Marlboro County, two in Richmond County, and one in Scotland County (refer to Table 3.18). Thirteen of the 21 total block groups directly impacted have block groups that meet their respective county thresholds for low-income populations, including two in Dillon County, nine in Marlboro County, one in Richmond County, and one in Scotland County (refer to Table 3.18).

Alternative 1 impacts the lowest percentage of minority and/or low income block groups (58 percent), while Alternative 3 impacts the highest percentage of minority and/or low-income block groups (77 percent) (refer to Table 3.18). The percentage of environmental justice census block groups impacted by the Build Alternatives (between 58 and 77 percent) would not be disproportionate when compared to the composition of the project study area as a whole (66 percent).



**Table 3.18  
Block Groups Impacted by Build Alternatives**

Block Group	Percent Minority	Percent Low Income	1	2 (Preferred)	3
<b>Dillon County</b>					
450339701001	76%	39%			X
450339703001	51%	35%			X
450339706001	37%	19%	x	x	x
<b>Marlboro County</b>					
450699602001	58%	21%	X		
450699602002	79%	34%	X		
450699602004	54%	13%	x		
450699603016	78%	27%		X	
450699603021	46%	12%	x	x	x
450699603022	69%	9%	X	X	
450699604001	52%	9%		x	x
450699604002	50%	21%		X	X
450699604003	35%	20%			X
450699604004	47%	20%			X
450699605001	52%	20%		X	
450699605002	71%	22%			X
450699605003	69%	33%	X	X	X
450699606001	37%	12%	x		
450699606002	34%	17%	x	x	
<b>Richmond County</b>					
371539711002	78%	35%	X	X	X
371539711003	41%	11%	X	X	X
<b>Scotland County</b>					
371650105004	62%	20%	X	X	X
Total number of block groups impacted per alternative			12	12	13
Number of minority/low-income block groups that are impacted by alternative			7	8	10
Percent of block groups per alternative that are EJ			58%	66%	77%

Notes:  
**Bold text** signifies that area qualifies as an EJ area.  
**X** signifies EJ block group impacted by Alternative; **x** signifies non-EJ block group impacted by Alternative.





### 3.3.6 What other methods were used to consider impacts to environmental justice populations in the project study area?

Due to the rural nature of the area, block groups are very large and development can be sparse. The Build Alternatives pass through block groups that are considered to contain environmental justice populations, but do not impact these populations or communities. It also was evident based on field observations, community impact studies, survey data, and block level census data, that some communities that fell within low-income or minority block groups were not actually low-income or minority populations. Other communities were identified to have concentrations of low-income and minority populations, but did not fall within the identified low income and/or minority block groups. For these reasons, a community-based analysis of impacts was conducted to identify the location of potential disproportionate effects associated with the Build Alternatives. Issues that were considered when evaluating the potential for environmental justice impacts included the following:

- relocations;
- effects on community cohesion;
- economic impacts;
- access and mobility issues;
- noise impacts;
- change of visual character; and,
- impacts to parks and community facilities.

In general, comments and surveys received from environmental justice communities played an important part in establishing whether effects on the communities of concern were positive or negative, as well as determining the magnitude of the potential impacts.

#### 3.3.6.1 Relocations

Areas with known concentrations of environmental justice populations were identified during the EIS analysis. Concerted efforts were made to shift Build Alternatives to avoid or minimize impacts to these communities, including low-income and minority areas in Adamsville, Bennettsville, Chavistown, Clio, Dunbar, Free State, Hamlet, Lester, McColl, and Tatum. In many instances, the Build Alternatives were shifted from known environmental justice areas to minimize relocations and direct impacts to environmental justice populations in these communities.

For the purpose of the community-based study, relocations that fell within both environmental justice block groups and community boundaries, as defined by survey responses of citizens in the project study area, were included in Table 3.19. Total relocations within environmental justice block groups were tallied for each of the Build Alternatives.