4.4 ENVIRONMENTAL JUSTICE

4.4.1 INTRODUCTION

This Chapter describes the environmental justice populations within and adjacent to the South Coast Rail alternatives corridors, and discusses the potential impacts to environmental justice populations that could occur as a result of the proposed South Coast Rail alternatives. The environmental justice analysis was prepared to address the requirements of the policies referenced in Section 4.4.1.2.

Section 4.4.1 provides general information about environmental justice and associated policies. Section 4.4.2 starts by identifying the South Coast Rail project study area and provides a regional overview of environmental justice communities, followed by a description of existing conditions within the study area, relative to environmental justice populations. Section 4.4.3 presents the impacts to "environmental justice populations" that may result from implementing each of the proposed South Coast rail alternatives. This section also includes the summary of a separate report on the indirect benefits, in terms of improved access to transit to jobs and reduced travel time to Boston, resulting from each alternative. The potential impacts are summarized for each alternative as a set of related elements (transportation corridor, stations, and layover facilities) in Section 4.4.3.13. The South Coast Rail public outreach program is outlined in Section 4.4.4.

Background information on the proposed project and a summary of each of the proposed alternatives are provided Chapter 3, Alternatives, and in the November 2008 Environmental Notification Form (ENF).[1]

4.4.1.1 RESOURCE DEFINITION

Environmental justice is an important element of policy-making in transportation planning. Environmental justice policies focus on improving the natural environment in disadvantaged communities, addressing disproportionate adverse environmental impacts that exist in those communities, and providing opportunities for residents to participate in the decision-making processes that may affect them. One of the South Coast Rail project's goals is to improve transit services to provide benefits to these environmental justice populations in terms of air quality, mobility, and improved regional access.

Massachusetts's environmental justice policy[2] characterizes environmental justice populations as neighborhoods, comprised of block groups defined by the U.S. Bureau of the Census, which meet one or more of the following criteria:

- Median annual household incomes are at or below 65 percent of the statewide median ($30,515 in 2000);
- Minority residents are 25 percent or more of the population;
- Foreign-born residents are 25 percent or more of the population; or
- Residents lacking English language proficiency are 25 percent or more of the population.

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1 EOT. 2008. South Coast Rail Environmental Notification Form. Commonwealth of Massachusetts, Executive Office of Transportation and Public Works.

2 Executive Office of Energy and Environmental Affairs (EEA). 2002. Environmental Justice Policy of the Massachusetts Office of Energy and Environmental Affairs. Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs.

4.4.1.2 REGULATORY CONTEXT

The *Environmental Justice Policy*[3] of the Massachusetts Executive Office of Energy and Environmental Affairs[4] (EEA) is an effort to protect the environment and public health in the Commonwealth. Environmental justice is based on the principle that all people have the right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment. EEA's *Environmental Justice Policy* makes environmental justice an integral consideration in the implementation of all state environmental programs including, but not limited to, granting financial resources, implementing and enforcing laws, regulations, and policies, and providing access to both active and passive open space. The policy focuses attention on high-minority/low-income neighborhoods in Massachusetts (as defined in Section 4.4.1.1 above) where residents are likely to be unaware of or unable to participate in environmental decision-making or to gain access to state environmental resources.

This chapter addresses the requirements of the statutes, regulations, and guidance documents listed below.

- Executive Order 12898[5] states "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."
- The Army Corps of Engineers in complying with EO 12898 utilizes the guidance provided by the Environmental Protection Agency (EPA). EPA defines environmental justice 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 groups 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."[6] EPA has responsibility for the consideration of environmental justice in Clean Air Act reviews.
- The Federal Transit Administration (FTA), Federal Railroad Administration (FRA) and Federal Highway Administration (FHWA) are U.S. DOT agencies which are Cooperating Agencies for this Federal Action. Department of Transportation (DOT) Order 5610.2,[7] Environmental Justice in Minority and Low-Income Populations, requires all DOT agencies to determine whether activities will have an adverse impact on minority and low-income populations. DOT agencies must determine if adverse effects are predominantly borne by a low-income or minority population and if adverse effects are appreciably more severe than the adverse effect that would be suffered by the non-minority or non-low-income population.

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[3] EEA. 2002. Environmental Justice Policy of the Massachusetts Office of Energy and Environmental Affairs, Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs.

[4] Formerly known as the Massachusetts Executive Office of Environmental Affairs.

[5] Clinton, President William J. 1994. Executive Order: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The White House: Washington, DC.

[6] Environmental Protection Agency. 1998. Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis. EPA, Office of Federal Activities. Washington, DC.

[7] US Department of Transportation. 1997. Department of Transportation (DOT) Order to Address Environmental Justice in Minority Populations and Low-Income Populations. Federal Register, Vol. 62, No. 72, pages 18377-18381. Washington, DC.

An overview of each of the proposed alternatives is presented in Chapter 3 – *Alternatives* and in the ENF.[8] Details regarding each train or bus station are described in Chapter 3 – *Alternatives* and in the *Station Siting Report*.[9]

The Secretary of EEA issued a Certificate on the ENF on April 3, 2009. Included in the Certificate are a number of requirements defining the scope of the forthcoming Draft Environmental Impact Report (EIR), including environmental justice:

- The Draft EIR should define, and include maps identifying the location of, environmental justice populations in the project area.
- The Draft EIR should describe specifically how the project will provide tangible benefits to the environmental justice communities identified in the ENF.
- The Draft EIR should identify any potential for disproportionate impacts on environmental justice communities that may result from the proposed project, and any proposed mitigation.
- The Draft EIR should discuss the project in the context of the *Environmental Justice Policy* including strategies to enhance public participation in the environmental review process.

4.4.1.3 METHODOLOGY

This section summarizes the methodology used to evaluate the potential direct and indirect effects of the South Coast Rail project to environmental justice populations.

As required by the National Environmental Policy Act (NEPA) Council on Environmental Quality (CEQ)[10], the analysis of the environmental consequences requires discussion of the direct and indirect effects of a proposed action, and their significance. Direct effects are defined as those "which are caused by the action and occur at the same time and place."[11] Indirect effects are defined as those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."[12]

Similarly, the Massachusetts Environmental Policy Act (MEPA) requires "a detailed description and assessment of the negative and positive potential environmental impacts of the Project and its alternatives. The EIR [Environmental Impact Report] shall assess (in quantitative terms, to the maximum extent practicable) the direct and indirect potential environmental impacts from the Project that are within the Scope. The assessment shall include both short-term and long-term impacts for all phases of the Project (e.g., property acquisition, development, and operation) and cumulative impacts of the Project, any other Projects, and other work or activity in the immediate surroundings and region."[13]

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8 EOT. 2008. South Coast Rail Environmental Notification Form. Commonwealth of Massachusetts, Executive Office of Transportation and Public Works.

9 EOT. 2008. *Station Siting Report: EOT's Final Recommendations*. Commonwealth of Massachusetts, Executive Office of Transportation and Public Works.

10 EPA. 2009. Code of Federal Regulations (CFR), Title 40: Protection of the Environment, Part 1502- Environmental Impact Statement, Section 1502.16 Environmental Consequences (40 CFR 1502.16).

11 40 CFR 1508.8(a).

12 40 CFR 1508.8(b).

13 Massachusetts Environmental Policy Act Office. 2009. Code of Massachusetts Regulations, Title 301, Chapter 11.00: MEPA Regulations. Section 11.07- EIR Preparation and Filing, (6) Form and Content of EIR, (h) Assessment of Impacts. (301 CMR 11.07(6) (h)). EEA, Massachusetts Environmental Policy Act Office: Boston.

Evaluation of Direct Effects

Potential direct effects to environmental justice populations were evaluated for residence or job losses due to property acquisition, neighborhood fragmentation, increases in noise levels and impacts to other resources. If any impacts to these resources in environmental justice neighborhoods were found to be substantive, then a comparison of impacts to non-environmental justice neighborhoods was made to determine if the significant adverse impact would be predominantly borne by EJ populations or whether it is appreciably more severe or greater in magnitude than the adverse impact that will be suffered by the non-EJ population in the same community.

Table 4.4-1 lists the communities that the South Coast Rail alternatives would pass through and in which some portion of the population meets environmental justice criteria. Environmental justice neighborhoods were defined at the US Census block level based on the criteria related to median household income, and percent of minority, foreign-born residents and residents lacking English language proficiency.

Table 4.4-1 Environmental Justice Communities

Municipality	Total Population	Percent Meeting Environmental Justice Criteria	Environmental Justice Population	Non-Environmental Justice Population
Attleboro	42,068	10.1	4,249	37,819
Canton	20,775	4.9	1,018	19,757
Fall River	87,395	57.3	50,077	37,318
Mansfield	22,414	8.7	1,950	20,464
New Bedford	93,065	68.2	63,470	29,595
Stoughton	27,149	10.9	2,959	24,190
Taunton	55,976	12.7	7,109	48,867
TOTAL	**348,842**	**37.5**	**130,833**	**218,009**

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

Property acquisition requirements in environmental justice neighborhoods were identified by reviewing areas where construction would be required for each of the alternatives with respect to environmental justice neighborhoods to determine where the rail or highway corridors, stations, or layover facilities would pass through or be located in these neighborhoods. For the purposes of this evaluation, "construction" is defined as upgrading existing rail lines, reconstructing removed rail lines along out-of-service railroad alignments, constructing new railroads, replacing existing railroad bridges and culverts, constructing new permanent or temporary railroad bridges, reconfiguring at-grade road/railroad crossings, constructing new grade-separated road/railroad crossings, constructing dedicated bus lanes and any associated highway widening, and replacing any highway interchange ramps. Environmental justice neighborhoods were outlined by US Census blocks according to the criteria cited above, and plotted on aerial photographs with the preliminary plans of each alternative for the evaluation.

"Property Acquisition" is defined as taking a greater than 500-square-foot portion, or a sliver great than 10 feet wide, of any parcel outside of the existing rights-of-way to accommodate permanent construction impacts, and is based upon preliminary engineering plans. Temporary construction

impacts outside of the existing rights-of-way would not require property acquisition and are not considered in this evaluation. Narrow slivers of parcels or temporary construction easements were not considered in the evaluation of property acquisition because, given the scale and accuracy of the preliminary engineering plans, these are likely to be eliminated in final design. Maps and aerial photographs were examined in reference to preliminary engineering plans to identify encroachments into environmental justice neighborhoods. Final engineering plans may show an increase or decrease of the actual area of acquisition required. Adverse impacts to environmental justice populations were determined if the property acquisition would result in loss of residences or jobs; these impacts would be further characterized as substantive if they would be substantive in relationship to the population or workforce of the affected environmental justice neighborhood.

Neighborhood fragmentation was evaluated by examining aerial photographs and observing environmental justice neighborhoods to qualitatively determine if neighborhood continuity across the alignments would be disrupted by any of the alternatives.

Selected other environmental impacts to environmental justice populations were also studied. Because disproportionate impacts to environmental justice communities are predicated on the potential for significant impacts in other environmental categories, only the environmental impact categories with significant impacts under the Build Alternatives were studied in detail in this analysis. Direct impacts to environmental justice populations from changes in these other resources were evaluated in relationship to the environmental justice neighborhoods. These analyses included changes in land uses, increases in noise or vibration, decreases in air quality, and changes to cultural resources or open spaces. The study areas for these analyses necessarily varied according to the resource: noise, vibration, and air emissions all disperse from the source to some variable distance into the surrounding area, whereas land use, cultural resources, and open spaces are all fixed in location and therefore are only affected by property acquisition as described above. Temporary impacts to these other resources (specifically increases in noise, vibration, and air emissions) resulting from construction activities would occur within the same location as the permanent impacts but are all assumed to occur at lower levels than the permanent impacts. Accordingly, temporary impacts to other resources are not considered in this evaluation.

Separate chapters on land use, noise, vibration, air quality, open space, and cultural resources support these evaluations:

- *Chapter* 4.2 - *Land Use and Zoning*, and Chapter 4.3 - *Socioeconomics*, identify general land uses and zoning designations (such as residential, industrial, commercial, and undeveloped land), neighborhood fragmentation, and potential job or residence losses that would result from property acquisition. Neighborhood fragmentation is discussed for each alternative alignment in Section 4.4.3 below; other results from this analysis are cited as appropriate in this section.
- Chapter 4.6 - *Noise*, identifies where increases in noise levels would adversely impact sensitive receptors, including those in environmental justice neighborhoods. Increases in noise levels are discussed for each alternative alignment in Section 4.4.3 below;
- Chapter 4.7 - *Vibration*, identifies where increases in vibration levels would adversely impact sensitive receptors, including those in environmental justice neighborhoods. This analysis concluded that all vibration impacts could be mitigated by using ballast mats beneath the rail lines, “frogs” at selected switch locations with nearby sensitive receptors, and special pile-driving methods at selected locations with nearby sensitive receptors during construction. Based on this conclusion, it is assumed that no environmental justice populations would be impacted by vibration resulting from any of the alternatives.

- Chapter 4.8 - *Cultural Resources*, identifies where impacts to cultural resource sites would adversely impact these properties, including those in environmental justice neighborhoods. As appropriate, impacts to cultural resource sites within environmental justice neighborhoods are discussed for each alternative alignment, station, or layover facility in Section 4.4.3.
- Chapter 4.9 - *Air Quality*, includes a review of ambient air quality and modeled emissions from the trains to identify where adverse impacts to air quality would occur, including within environmental justice neighborhoods. The study concluded that the electric train alternatives would not adversely impact local air quality, and the diesel train alternatives' impact would be very small (less than a 1.5-percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the National Ambient Air Quality Standards (NAAQS). Based on this conclusion, there would be no air quality impacts to environmental justice populations.
- Chapter 4.10 - *Protected Open Space and Areas of Critical Environmental Concern*, identifies where acquisition of protected open space or publicly owned parcels within Areas of Critical Environmental Concern (ACECs) would adversely impact these properties, including those in environmental justice neighborhoods. As appropriate, impacts to open spaces within environmental justice neighborhoods are discussed for each alternative alignment, station, or layover facility in Section 4.4.3;

For each of these resource areas, substantive adverse impacts in environmental justice neighborhoods were compared with impacts in non-environmental justice neighborhoods to determine if environmental justice populations would be disproportionately impacted. This comparison of adverse impacts was conducted on a regional basis (the South Coast Rail study area) to coincide with the evaluation of regional benefits that would be realized by environmental justice populations as indirect effects, described below.

Evaluation of Indirect Effects

Potential indirect effects to environmental justice populations were also evaluated based upon the review of station alternatives with respect to environmental justice neighborhoods. This analysis also included a review of indirect impacts to environmental justice populations in nearby communities likely served by the stations. Potential benefits to environmental justice communities are an indirect effect of the South Coast Rail Project. A study[14] conducted by the Central Transportation Planning Staff (CTPS) of the Boston Metropolitan Planning Organization examined how the South Coast Rail alternatives would affect travel accessibility and mobility for environmental justice populations in Taunton, Fall River, and New Bedford. Results of that study are incorporated in this chapter, and the study is provided in Appendix 4.4-A.

As described in the *South Coast Rail Economic Development and Land Use Corridor Plan,*[15] TOD in the vicinity of train or bus stations would provide further benefit to environmental justice populations. TOD emphasizes "compact, generally mixed-use development at or near transit stops whose design encourages walking and transit use." Environmental justice populations generally have less access to automobiles than the statewide average; improved access to transit and jobs resulting from TOD would specifically benefit these populations.

[14] CTPS. 2009. *South Coast Rail Environmental Justice Study*. Memorandum from CTPS to the South Coast Rail Project Interested Parties. Boston Metropolitan Planning Organization, Central Transportation Planning Staff: Boston.

[15] EOT. 2009. *South Coast Rail Economic Development and Land Use Corridor Plan.* Commonwealth of Massachusetts, Executive Office of Transportation and Public Works, and Executive Office of Housing and Economic Development. Prepared by Goody Clancy, Inc.: Boston.

Environmental justice populations may also benefit from increased property values in the vicinity of station sites, and TOD could further amplify that effect. Conversely, property values may decrease along the alignments, due to negative impacts of increased noise from train operations. There may also be a "gentrification" effect, whereby environmental justice populations (specifically, those defined as low income) are displaced from homes if property becomes unaffordable. As described in the Corridor Plan, TOD may offset this effect if affordable housing is a required component.[16] Overall property value changes are discussed in Chapter 4.3 - *Socioeconomics*. The report includes a qualitative review of where such changes may occur, but does not quantify those changes. A separate analysis of property value changes within environmental justice neighborhoods was not conducted.

Further analysis of indirect benefits to environmental justice populations from induced growth can be found in the Chapter 5, Summary of Indirect Effects and Cumulative Impacts and Chapter 4.3 - *Socioeconomics*.

4.4.2 EXISTING CONDITIONS

This section discusses the presence of minority, foreign-born, low-income and limited English language proficiency populations within the study area for the South Coast Rail project.

4.4.2.1 REGIONAL OVERVIEW

Study Area

Table 4.4-2 lists the communities that would be served or that could be impacted by the alternatives under consideration. The South Coast Rail alternative railroad or highway alignments pass through or near these 27 communities, and new station sites are within or near each. Potentially affected environmental justice populations within each of these communities, relative to the alternative alignments and station sites, are listed in Section 4.4.3.

Table 4.4-2 Environmental Justice Study Area Communities

Acushnet	Foxborough	Raynham
Attleboro	Freetown	Rehoboth
Berkley	Lakeville	Rochester
Canton	Mansfield	Sharon
Dartmouth	Mattapoisett	Somerset
Dighton	Middleborough	Stoughton
Easton	New Bedford	Swansea
Fairhaven	North Attleborough	Taunton
Fall River	Norton	Westport

[16] Ibid.

Regional Context

The existing environmental justice communities in the South Coast Rail environmental justice study area are generally in densely populated urban neighborhoods. These neighborhoods are frequently near contaminated sites, abandoned sites, and large sources of air pollution.

Portions of the following ten municipalities within the South Coast Rail environmental justice study area include environmental justice neighborhoods that may be affected by the project:

Attleboro	Fall River	Stoughton
Canton	Mansfield	Swansea
Dartmouth	New Bedford	Taunton
Fairhaven		

Tables 4.4-3, 4.4-4, and 4.4-5 summarize the environmental justice neighborhood area (acreage), environmental justice populations, and minority populations, respectively, in these ten communities. Due to urban density, the breakdown of actual environmental justice populations differs somewhat from the breakdown of areas alone. As a whole, less than three percent of the area of the 27 South Coast communities under study has an environmental justice neighborhood designation. These environmental justice neighborhoods contain approximately 21 percent of the population of the 27 communities. Approximately 84 percent of the total environmental justice population within the study area is in Fall River or New Bedford, and approximately 45 percent of the environmental justice neighborhood area is within these two communities. The environmental justice populations and areas within these two cities result primarily from low income designations.

To describe the regional character further, Table 4.4-5 lists the racial breakdown of each municipality as a whole. All ten cities have predominantly white populations, with varying proportions of Black or African American, Asian, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, multiracial, and Hispanic or Latino residents, based on definitions from the U.S. Office of Management and Budget[17] and data from the U.S. Census.[18] Overall, minority populations represent less than 10 percent of the total population in each of the ten communities, with the exception of New Bedford, which consists of approximately 21 percent minorities, and Stoughton, which consists of 11.5 percent minorities. Each of the ten communities within the environmental justice study area, except New Bedford, has a smaller percentage of minorities than the statewide average of 15.5 percent. The most common minority population in Attleboro, Fall River, New Bedford, and Taunton is of Hispanic origin; Fairhaven and Swansea's minority population is predominantly multiracial; and the minority population in Dartmouth is identified as "other." The most common minority populations in Mansfield are of Asian origin.

People who are physically, economically, or socially disadvantaged often have less access to an automobile, and face barriers to mobility. The correlation between automobile access and environmental justice populations was evaluated for the South Coast Rail environmental justice study area. Registered motor vehicle data were reviewed for each of the South Coast communities in the environmental justice study area (Table 4.4-6). U.S. Census Bureau data from 2000 reveals a negative

[17] http://www.whitehouse.gov/omb/fedreg_1997standards
[18] "Overview of Race and Hispanic Origin" March 2001.http://www.census.gov/prod/2001pubs/c2kbr01-1.pd

Table 4.4-3 State-Listed Environmental Justice Areas in South Coast Communities

City	Total Acreage	Acreage within state-listed Environmental Justice area	Fraction of City Area Designated as Environmental Justice Area[1]				
				Defined By Specific Criteria			
			Defined by Any Criterion	Foreign-Born	Low Income	Minority	English Proficiency
Attleboro	17,773	304	1.7%	0.5%	0.0%	1.7%	0.0%
Canton	12,489	190	1.5%	0.0%	0.0%	1.5%	0.0%
Dartmouth	39,653	1,044	2.6%	1.6%	1.0%	0.0%	0.0%
Fairhaven	7,942	223	2.8%	0.0%	2.8%	0.0%	0.0%
Fall River	24,668	3,705	15.0%	4.5%	13.5%	1.9%	0.2%
Mansfield	13,072	879	6.7%	0.0%	0.0%	6.7%	0.0%
New Bedford	12,979	4,091	31.5%	11.6%	26.2%	20.8%	2.6%
Stoughton	10,538	1,685	16.0%	12.3%	0.0%	3.0%	0.0%
Swansea	14,694	999	6.8%	0.0%	6.8%	0.0%	0.0%
Taunton	30,878	1,165	3.8%	0.0%	2.3%	2.6%	0.0%

Source: US Census data (2000), MassGIS.

1 Environmental justice areas can be designated based on multiple independent criteria. The table presents the cumulative environmental justice areas for all criteria as well as the total area designated by the specific criteria indicated.

Table 4.4-4 State-Listed Environmental Justice Populations in South Coast Communities

City	Fraction of City Population Living in Environmental Justice Areas[1]				
	Defined by Any Criteria	Defined By Specific Criteria			
		Foreign-Born	Low Income	Minority	English Proficiency
Attleboro	10.1%	0.8%	0.0%	3.5%	0.0%
Canton	4.9%	0.0%	0.0%	4.9%	0.0%
Dartmouth	11.8%	7.5%	4.3%	0.0%	0.0%
Fairhaven	9.7%	0.0%	9.7%	0.0%	0.0%
Fall River	57.3%	21.6%	51.9%	8.7%	2.8%
Mansfield	8.7%	0.0%	0.0%	2.5%	0.0%
New Bedford	68.2%	29.1%	55.2%	41.7%	7.2%
Stoughton	10.9%	0.9%	0.0%	1.3%	0.0%
Swansea	5.7%	0.0%	5.7%	0.0%	0.0%
Taunton	12.7%	0.0%	9.7%	6.0%	0.0%

Source: US Census data (2000), MassGIS.

1 Environmental justice areas can be designated based on multiple independent criteria. The table presents the cumulative population in environmental justice areas for all criteria as well as the total population in the areas designated by the specific criteria indicated.

Table 4.4-5 Minority Populations in South Coast Communities

City	Total Population	Percentage of Population by Race[1]							
		White	Black	Native American	Asian	Pacific Islander	Other	Multiracial	Hispanic[1]
Attleboro	42,068	91.3	1.9	0.1	2.9	0.0	1.5	2.3	4.1
Canton	20,775	92.5	2.9	0.1	3.0	0.0	0.5	0.9	1.4
Dartmouth	30,666	90.6	1.1	0.2	1.7	0.0	5.0	1.4	1.5
Fairhaven	15,821	96.2	0.6	0.0	0.3	0.0	0.8	2.0	0.5
Fall River	87,395	91.1	2.8	0.2	2.1	0.0	1.3	2.6	3.4
Mansfield	22,414	93.5	2.5	0.2	2.0	0.1	0.2	2.5	0.5
New Bedford	93,065	79.2	4.4	0.5	0.7	0.1	9.1	6.0	10.0
Stoughton	27,149	88.5	5.7	0.1	2.1	0.0	1.3	2.3	1.5
Swansea	15,901	96.3	0.4	0.1	0.8	0.0	0.9	1.6	1.3
Taunton	55,976	91.7	2.1	0.2	0.8	0.0	2.9	2.2	4.1
Statewide Average		*84.5*	*5.4*	*0.2*	*3.8*	*0.0*	*3.7*	*2.3*	*6.8*

Source: US Census data (2000), MassGIS.
Hispanic populations are generally included as subsets within the other racial categories but are listed separately as well for clarity. Therefore, the percentages for each city will add up to more than 100 percent.

correlation between environmental justice populations in the study area and the percentage of households reporting registered motor vehicles. Fall River and New Bedford, which have the largest environmental justice populations, reported the highest percentage of households without motor vehicles, at approximately 21 percent and 22 percent, respectively. Approximately one in five households within Fall River and New Bedford has no registered motor vehicle. All other studied communities were below the statewide average of 12.7 percent households without motor vehicles. Fairhaven, Berkley, Rochester, Raynham, Dighton, and Freetown all reported motor vehicle ownership at greater than 97 percent of all households (less than three percent households without motor vehicles).

Table 4.4-6 summarizes the percentage of households with motor vehicles reported in each of the 27 South Coast communities.

4.4.2.2 EXISTING CONDITIONS

Environmental justice populations identified within 0.5 mile of the alternative alignments are summarized in Table 4.4-7 and described in subsequent sections. Accompanying figures show communities meeting environmental justice criteria based on minority, foreign-born, low-income, and/or limited English language proficiency populations along each alternative alignment and near each station.

Table 4.4-6 South Coast Communities: Percentage of Households with No Registered Motor Vehicles, 2000

Community	Percent of Households
Acushnet	5.6
Attleboro	8.1
Berkley	2.2
Canton	6.7
Dartmouth	6.4
Dighton	2.6
Easton	3.8
Fairhaven	7.0
Fall River	**20.7**
Foxborough	5.1
Freetown	2.9
Lakeville	3.7
Mansfield	5.0
Mattapoisett	3.5
Middleborough	4.8
New Bedford	**21.7**
North Attleboro	5.6
Norton	4.2
Raynham	2.7
Rehoboth	4.1
Rochester	2.5
Somerset	5.9
Sharon	3.4
Stoughton	5.6
Swansea	4.5
Taunton	9.3
Westport	4.3
Regional Average (of communities listed)	*6.2*
Statewide Average	*12.7*

Source: US Census data (2000), MassGIS
Communities above the statewide average are identified in **bold**.

Southern Triangle (Common to All Rail Alternatives)

All alternatives would serve the Southern Triangle, south of Cotley Junction, except the Rapid Bus Alternative. For the rail alternatives, the Southern Triangle consists of the New Bedford Main Line and the Fall River Secondary. Stations common to all rail alternatives (within the Southern Triangle) are:

- King's Highway
- Whale's Tooth
- Freetown
- Fall River Depot
- Battleship Cove

These station sites and the Rapid Bus Alternative and associated stations are discussed in their respective sections.

In 2000, the population within 0.5 mile of the Fall River Secondary was 52,021 and the population within 0.5 mile of the New Bedford Main Line was 71,001.[19] As presented on Figures 4.4-1a-d and 4.4-2a-c, environmental justice populations were identified primarily along the southern urban portion of both the New Bedford Main Line and Fall River Secondary, in New Bedford and Fall River, respectively. Residents living within these environmental justice neighborhoods most commonly meet low income and/or minority criteria. Neighborhoods with foreign-born residents were also identified along the New Bedford Main Line between the Acushnet River and the railroad, between Nash Street and Wamsutta Street. Foreign-born and low income residents were also identified south of the end of the Fall River Secondary.

Attleboro Alternatives

The Attleboro Alternatives include the Attleboro Electric Alternative and the Attleboro Diesel Alternative. Both alternatives would use the Northeast Corridor from South Station to just north of Attleboro. A new track segment, the Attleboro Bypass, would be constructed to connect the Northeast Corridor to the Attleboro Secondary. These alternatives would use the existing Attleboro Secondary to connect with the Southern Triangle at Cotley Junction.

In addition to the Southern Triangle stations, two stations would be associated with the Attleboro Alternatives:

- Downtown Taunton (formerly known as Taunton Depot) and
- Barrowsville.

These station sites are discussed in the Stations section.

Both diesel and electric commuter rail options were evaluated for this alternative, encompassing those portions of the Attleboro Alternative that would require new construction. The portion of the Northeast Corridor (South Station to Readville) where no new construction will be conducted outside of the existing right-of-way would not result in new impacts to environmental justice populations; therefore, this segment was not evaluated.

In 2000, the population within 0.5 mile of the Attleboro Alternatives alignment as a whole was 99,240. This includes residents along the Northeast Corridor (61,472) from Readville to Mansfield, along the Attleboro Bypass (16,011) from Mansfield to Attleboro, and along the Attleboro Secondary (21,757) from Attleboro to Cotley Junction. Environmental justice populations were identified within 0.5 mile of the Attleboro Alternatives under the minority (9.2 percent), and low income (2.3 percent) criteria, as summarized in Table 4.4-7. Figures 4.4-3a-e and 4.4-4a-c show that environmental justice neighborhoods identified along the Attleboro Alternatives are concentrated along the northern portion of the route in Canton and Mansfield (minorities) and along the southern portion of the alignment in Taunton (low income).

[19] Populations are based on MassGIS data, which presents information in block groups. Included in the calculation of population are all block groups that intersect the 0.5 mile buffer of each alternative alignment and station site.

Table 4.4-7 Summary of State-Listed Environmental Justice Populations Within 0.5 Mile of the Alternative Alignments

Alternative Alignment	Percentage of Total Population Living within a Designated Environmental Justice Area – Defined by Any Criterion[1]	Primary Criteria for Designation
Fall River Secondary	36.0	Low Income
New Bedford Main Line	50.4	Minority
Attleboro Alternative, Northeast Corridor	8.2	Minority
Attleboro Alternative, Attleboro Bypass	0.0	None
Attleboro Alternative, Attleboro Secondary	11.2	Low Income
Stoughton Electric Alternative and Stoughton Diesel Alternative	9.1	Low Income
Whittenton Electric Alternative and Whittenton Diesel Alternative	9.1	Low Income
Rapid Bus	34.1	Minority

Source: US Census data (2000), MassGIS.
The table presents the cumulative environmental justice areas for all criteria.

Stoughton and Whittenton Alternatives

In addition to the Southern Triangle, the Stoughton Alternatives (the Stoughton Electric Alternative and the Stoughton Diesel Alternative) and the Whittenton Alternatives (the Whittenton Electric Alternative and the Whittenton Diesel Alternative) would provide commuter rail service from South Station through Stoughton to Cotley Junction. This alternative would use the Stoughton Line, extending the existing service from the Stoughton Station south, using the out-of-service railroad alignment to connect with the New Bedford Main Line. In addition to the Southern Triangle stations, the six other stations associated with the Stoughton Alternative are:

- North Easton
- Easton Village
- Raynham Place (formerly, Raynham Park)
- Taunton (Dean Street) (Stoughton Alternatives only)
- Downtown Taunton (Whittenton Alternatives only)
- Taunton Depot

These station sites are discussed in the Stations section.

Stoughton Alternatives

In 2000, the population within 0.5 mile of the Stoughton Alternatives was 88,744. This includes residents along the Stoughton Line from Canton Junction to Weir Junction, and along New Bedford Main Line from Weir Junction to Cotley Junction. Environmental justice populations were identified within 0.5 mile the Stoughton Alternatives under the minority (0.8 percent), foreign-born (0.6 percent), and

low income (1.5 percent) criteria, as summarized in Table 4.4-7. As shown on Figures 4.4-5a-e, environmental justice populations identified along the Stoughton Alternatives are concentrated along the northern portion of the route in Canton (minorities) and Stoughton (foreign-born), and along the southern portion of the alignment in Taunton (low income).

Whittenton Alternatives

In 2000, the population within 0.5 mile of the Whittenton Alternatives was 91,951. This includes the population along the Whittenton Branch from the Stoughton Line to Whittenton Junction (at intersection of the New Bedford Main Line and the Attleboro Secondary), the Stoughton Line from Canton Junction to Weir Junction, and the New Bedford Main Line from Weir Junction to Cotley Junction. Environmental justice populations were identified within 0.5 mile of the Whittenton Alternatives under the minority (0.9 percent), foreign-born (0.6 percent), and low income (1.6 percent) criteria, as summarized in Table 4.4-7. As shown on Figures 4.4-6a-b, environmental justice populations identified along the Whittenton Alternative are concentrated along the Attleboro Secondary in Taunton. The southernmost environmental justice population (at the intersection of the Stoughton Line and Attleboro Secondary, near Weir Junction) meets the low income criteria, while the northern environmental justice area is based on the concentration of minority and low income residents.

Rapid Bus Alternative Study Area

The Rapid Bus Alternative would provide rapid bus service from New Bedford and Fall River to Boston along a dedicated, primarily reversible bus lane that would be built along Route 24 from Route 140 to I-93 and along I-93/128 to the High Occupancy Vehicle (HOV) zipper lane to South Station. This section evaluates existing conditions only in those portions of the Rapid Bus Alternative where new construction is required. The preliminary stations proposed for this alternative are:

- King's Highway
- Whale's Tooth
- Freetown
- Fall River Depot
- Downtown Taunton
- Galleria Station

These station sites are discussed in the Stations section.

In 2000, the population within 0.5 mile of the Rapid Bus Alternative was 78,154. Environmental justice populations were identified within 0.5 mile of Rapid Bus Alternative under the minority (13.8 percent), foreign-born (7.5 percent), and low income (0.3 percent) criteria, as summarized in Table 4.4-7. Figures 4.4-7a-g show that environmental justice populations identified along the Rapid Bus Alternative are concentrated south of I-93 in Randolph (and along the southern border of Quincy), and along Route 24 in Randolph, Stoughton, and Brockton. Environmental justice populations in these areas are classified primarily based on concentrations of minority and low-income residents.

Stations

This section describes the state-listed environmental justice populations near the proposed new station locations. Table 4.4-8 lists state-listed environmental justice populations within 0.5 mile of each of the

Table 4.4-8 State-Listed Environmental Justice Populations Within 0.5 Mile of the Proposed Station Sites

Station Site	Fraction of Total Population Living within a Designated Environmental Justice Area[1]				
	Defined by Any Criterion[2]	Defined By Specific Criteria			
		Foreign-Born	Low Income	Minority	English Proficiency[3]
King's Highway	20.9%	0.0%	2.6%	0.0%	0.0%
Whale's Tooth	85.6%	12.4%	24.3%	37.6%	0.0%
Freetown	0.0%	0.0%	0.0%	0.0%	0.0%
Fall River Depot	50.2%	0.0%	50.1%	5.1%	0.0%
Battleship Cove	88.7%	22.3%	14.3%	5.5%	7.2%
North Easton	0.0%	0.0%	0.0%	0.0%	0.0%
Easton Village	0.0%	0.0%	0.0%	0.0%	0.0%
Raynham Place	0.0%	0.0%	0.0%	0.0%	0.0%
Barrowsville	0.0%	0.0%	0.0%	0.0%	0.0%
Taunton (Dean Street)	21.1%	0.0%	5.8%	0.0%	0.0%
Downtown Taunton	24.7%	0.0%	6.9%	3.4%	0.0%
Taunton Depot	0.0%	0.0%	0.0%	0.0%	0.0%
Galleria Station	0.0%	0.0%	0.0%	0.0%	0.0%

Source: US Census data (2000), MassGIS.

1 Environmental justice areas can be designated based on multiple independent criteria. The table presents the cumulative environmental justice areas for all criteria as well as the total area designated by the specific criteria indicated.

2 MassGIS calculates environmental justice populations assuming the entire sample population within an environmental justice-designated block group is an environmental justice population. If a block group meets one or more environmental justice criteria, then all population within that block group is considered as part of the environmental justice population. Additionally, environmental justice populations may meet one or more criteria for designation; therefore, the total percentage of environmental justice populations defined by any criterion is not a sum of the percentage of each individual criterion.

3 English language proficiency data are calculated based on households, not population, and total household information is not provided for block groups. However, the overall English language proficiency was calculated for the population within 0.5 mile of the Battleship Cove Station assuming the same percentage of households are within each block group, as population (for example, if 10 percent population is within one block group, then 10 percent of the households are within the block group also). When more than one block group reported households meeting the English language proficiency environmental justice criteria, the average percentage was calculated for these block groups.

proposed station sites. One-half mile is the average walking distance to a station, and encompasses the population that would have direct access to a new station and could be affected by it.

Station Sites Common to All Rail Alternatives – Southern Triangle

The Southern Triangle consists of two rail alignments south of Cotley Junction and the proposed Southern Triangle stations are therefore common to all rail alternatives. The common stations are King's Highway, Whale's Tooth, Freetown, Fall River Depot, and Battleship Cove. All of these stations except Battleship Cove would be used by the Rapid Bus Alternative as well. A brief discussion of each station is provided below, including an evaluation of state-listed environmental justice populations within 0.5 mile of each station.

King's Highway Station Site

The King's Highway Station, in northern New Bedford along King's Highway east of Route 140, would serve all of the rail alternatives and the Rapid Bus Alternative. The station would occupy part of an approximately 55-acre site that is now a shopping plaza. The site would serve walk-in, bike-in, and drive-in customers.

In 2000, the population of New Bedford was 93,768, while the population within 0.5 mile of the King's Highway Station site was 5,866. Environmental justice neighborhoods were identified within 0.5 mile of the site under the low-income (2.6 percent) criteria, as summarized in Table 4.4-8 and shown on Figure 4.4-8. Environmental justice-classified low-income residents were identified along the eastern side of the New Bedford Main Line, approximately 0.5 mile south-southeast of the King's Highway Station site.

Whale's Tooth Station Site

The Whale's Tooth Station, at the Whale's Tooth parking lot, would serve all of the rail alternatives and the Rapid Bus Alternative. This 14-acre site on the New Bedford waterfront was identified as the preferred site in the 2002 Final EIR on South Coast Rail. The City of New Bedford has constructed a parking lot on the site in anticipation of the South Coast Rail project. The station would include intermodal connections, potentially including ferry services. The site would serve walk-in, bike-in and drive-in customers.

In 2000, the population of New Bedford was 93,768, while the population within 0.5 mile of the Whale's Tooth Station site was 10,067. Environmental justice neighborhoods were identified within 0.5 mile of the site under the minority (37.6 percent), foreign-born (12.4 percent) and low-income (24.3 percent) criteria, as indicated in Table 4.4-8 and shown on Figure 4.4-9. Nearly all residents living within 0.5 mile of the proposed Whale's Tooth Station site are classified as environmental justice populations under the minority and low-income designation. A neighborhood approximately 0.4 mile north of the Whale's Tooth Station site is classified as environmental justice based on foreign-born residents, as well as minority and low-income resident concentrations.

Freetown Station Site

The Freetown Station on South Main Street would serve all of the rail alternatives and the Rapid Bus Alternative. The approximately 18-acre site is currently industrial and occupied by a self-storage business, and is near the Fall River Executive Park and the River Front Park. The vicinity of the proposed site is mainly forested, agricultural, and undeveloped, with some residential and industrial uses. The site would serve drive-in customers and customers shuttled between the station and the industrial parks.
In 2000, the population of Freetown was 8,472, while the population within 0.5 mile of the Freetown Station site was 1,002. Environmental justice neighborhoods were not identified within 0.5 mile of the site. Although minority, low-income, foreign-born, and limited English proficiency residents were reported within 0.5 mile of the Freetown Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria and therefore, are not considered environmental justice neighborhoods. Figure 4.4-10 shows the location of the Freetown Station site.

Fall River Depot Station Site

The Fall River Depot Station, one mile north of downtown Fall River at Route 79 and Davol Street, would serve all of the rail alternatives and the Rapid Bus Alternative. Currently, the site is mainly private commercial and industrial property, although a portion is owned by the City of Fall River.
In 2000, the population of Fall River was 91,938, while the population within 0.5 mile of the Fall River Depot Station site was 9,336. Environmental justice neighborhoods were identified within 0.5 mile of the site under the minority (5.1 percent) and low-income (50.1 percent) criteria, as summarized in Table 4.4-8 and shown on Figure 4.4-11. Environmental justice populations identified within 0.5 mile of the Fall River Depot Station site are due primarily to the concentrations of low-income residents. Neighborhoods meeting the minority and low-income environmental justice criteria were also identified along the Fall River Secondary, south of the Fall River Depot Station site, between Taylor Street and North Central Street.

Battleship Cove Station Site

The Battleship Cove Station, an approximately 2.2-acre site on the Fall River waterfront behind the Ponte Delgada Plaza, would serve all of the rail alternatives but not the Rapid Bus Alternative. The station is anticipated to be a platform-only station and would be designed to serve walk-in customers, and pick–up/drop-off customers. The station would serve the downtown area and the Battleship Cove tourist area. The City of Fall River constructed a pick-up/drop-off loop road for the future commuter rail station as part of the Ponte Delgada Plaza.

In 2000, the population of Fall River was 91,938, while the population within 0.5 mile of the Battleship Cove Station site was 12,353. Environmental justice neighborhoods were identified within 0.5 mile of the site under the minority (5.5 percent), low-income (14.3 percent), foreign-born (22.3 percent), and English language proficiency (7.2 percent) criteria, as summarized in Table 4.4-8 and shown on Figure 4.4-12. Nearly the entire population surrounding the Battleship Cove Station site is classified within one of six environmental justice areas. Residents within 0.5 mile of the Battleship Cove Station site primarily meet the low-income environmental justice criterion, though foreign-born and minority populations are also present to the south.

North Easton Station Site

The North Easton Station, at the rear of the Roche Brothers Shopping Plaza, would serve the Stoughton Alternatives. This retail plaza, anchored by a Roche Brothers Supermarket, occupies an approximately 10-acre site. New medical buildings have been constructed nearby and two additional buildings are planned. The station would likely share parking facilities with the medical buildings and would primarily serve drive-in customers, although the station may attract some walk-in customers from the shopping plaza and from nearby residential developments in Stoughton and Easton.

In 2000, the population in Stoughton was 27,149, in Easton 22,299, and the population within 0.5 mile of the North Easton Station site was 6,375. Environmental justice neighborhoods were not identified within 0.5 mile of the site. Although minority, low-income, foreign-born, and residents lacking English language proficiency were reported within 0.5 mile of the North Easton Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria

and, therefore, are not considered environmental justice neighborhoods. Figure 4.4-13 shows the location of the North Easton Station site.

Easton Village Station Site

The Easton Village Station, south of the historic H.H. Richardson train station, would serve the Stoughton Alternatives. The site is limited to the railroad right-of-way and is within walking distance of downtown Easton. The site would be a village-style station serving walk-in and bike-in customers.
In 2000, the population in Easton was 22,299, while the population within 0.5 mile of the Easton Village Station site was 6,831. Environmental justice neighborhoods were not identified within 0.5 mile of the site. Although minority, low income, foreign-born, and residents lacking English language proficiency were reported within 0.5 mile of the Easton Village Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria and therefore, are not considered environmental justice neighborhoods. Figure 4.4-14 shows the location of the Easton Village Station site.

Raynham Place Station Site

The Raynham Place station, at the Raynham-Taunton Greyhound Park in Raynham, would serve the Stoughton Alternatives. The site is now occupied by a greyhound-racing track and has large surface parking lots along Route 138 near the Raynham/Easton town line. The station would be on a portion of this approximately 80-acre site. The site would be designed to serve mostly drive-in customers with additional walk-in customers being drawn from future redevelopment on or near the site.

In 2000, the population of Raynham was 11,739, while the population within 0.5 mile of the Raynham Place Station site was 2,438. Environmental justice neighborhoods were not identified within 0.5 mile of the Raynham Place Station site. Although minority, low income, foreign-born, and limited English language proficiency residents were reported within 0.5 mile of the Raynham Place Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria and therefore, are not considered environmental justice neighborhoods. Figure 4.4-15 shows the location of the Raynham Place Station site.

Barrowsville Station Site

The Barrowsville Station, on South Worcester Street in Norton, would serve the Attleboro Alternatives. This approximately 7-acre site is near the former train station.

In 2000, the population in Norton was 18,036, and the population within 0.5 mile of the Barrowsville Station site was 4,642. As shown in Table 4.4-7, environmental justice neighborhoods were not identified within 0.5 mile of the site. Although minority, low income, foreign-born, and residents lacking English language proficiency were reported within 0.5 mile of the Barrowsville Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria and therefore, are not considered environmental justice neighborhoods. Figure 4.4-16 shows the location of the Barrowsville Station site with respect to environmental justice populations.

Taunton (Dean Street) Station Site

The Taunton Station, at the Dean Street site near the intersection of East Arlington Street and William Hooke Lane, north of Dean Street (U.S. Route 44) in Taunton, would serve the Stoughton Alternatives. The site is approximately 8 acres, and is off Route 44 just north of the historic train station and within walking distance of downtown. The City of Taunton has invested in remediating this Brownfield site in anticipation of a future train station. The site would be a multi-modal transportation center serving walk-in, bike-in, and drive-in customers.

In 2000, the population of Taunton was 55,976, while the population within 0.5 mile of the Taunton Station site was 8,252. Environmental justice neighborhoods were identified within 0.5 mile of the site under the low-income (5.8 percent) criterion, as summarized in Table 4.4-8 and shown on Figure 4.4-17. Environmental justice areas were identified approximately 0.4 mile west of the Taunton Station site. Residents in this environmental justice area meet the low-income criterion for designation.

Downtown Taunton Station Site

The Downtown Taunton station, south of Oak Street on the property partially occupied by Bloom Bus and GATRA facilities, would serve as a station for the Attleboro Alternatives–or as a terminal station for the Rapid Bus Alternative. This is an undeveloped parcel in the center of Taunton adjacent to the GATRA maintenance facility and bus station. The site provides an opportunity for multi-modal connections. The station would serve walk-in, bike-in, and drive-in customers.

In 2000, the population of Taunton was 55,976, while the population within 0.5 mile of the Downtown Taunton Station site was 14,330. Environmental justice neighborhoods were identified within 0.5 mile of the site under the minority (3.4 percent) and low-income (6.9 percent) criteria, as summarized in Table 4.4-8 and shown on Figure 4.4-18. Approximately 25 percent of the population within 0.5 mile of the Downtown Taunton Station site is within environmental justice areas, meeting the low income and/or minority criteria. The area immediately surrounding the station site is classified as an environmental justice neighborhood based on the percentage of low income and minority residents.

Taunton Depot Station Site

The Taunton Depot Station, at the rear of the Target Plaza, would serve the Attleboro and Stoughton Alternatives. The site is approximately 14 acres and is off Route 140. The shopping plaza is a newer big-box retail site that contains Target, Home Depot, and other stores. The station would serve customers that drive to the station, as well as potential future walk-in or bike-in customers if redevelopment were to occur.

In 2000, the population of Taunton was 55,976, the population of Berkley was 5,749, and the population within 0.5 mile of the Taunton Depot station site was 6,320. Environmental justice neighborhoods were not identified within 0.5 mile of the site. Although minority, low income, foreign-born, and limited English language proficiency residents were reported within 0.5 mile of the Taunton Depot Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria and therefore, are not considered environmental justice neighborhoods. Figure 4.4-19 shows the location of the Taunton Depot Station site.

Galleria Station Site

The Galleria Station, at the Silver City Galleria Mall Overflow Parking Lot, would serve the Rapid Bus Alternative.

In 2000, the population of Taunton was 55,976, the population of Berkley was 5,749, and the population within 0.5 mile of the Galleria Station site was 9,752. Environmental justice neighborhoods were not identified within 0.5 mile of the site. Although minority, low income, foreign-born, and limited English language proficiency residents were reported within 0.5 mile of the Galleria Station site, these populations were not reported in concentrations high enough to meet Massachusetts' environmental justice criteria and therefore, are not considered environmental justice neighborhoods. Figure 4.4-20 shows the location of the Galleria Station site.

Layover Facilities

A midday bus layover facility in the Boston area would be needed for the Rapid Bus Alternative. One site for the bus layover facility has been selected at an existing Park and Ride location in Braintree.

. Two train layover facilities are planned for the Southern Triangle: one each at or near the end of the Fall River Secondary and the New Bedford Main Lines. Three alternative sites have been identified for the Fall River Secondary, and two alternative sites have been identified for the New Bedford Main Line. This section provides basic descriptions of each layover facility site and an indication of its location in reference to existing environmental justice communities.

Layover facility plans are conceptual at this point, consisting only of general layouts and footprints. Tracks at the train layover facilities would diverge from the respective through lines (Fall River Secondary, or New Bedford Main Line) and consist of a series of short parallel spurs upon which trains would be parked for overnight layovers and light maintenance work. Parking areas for employees would be included within the facilities, and hooded lights would minimize light pollution. Small site structures are planned for storage and personnel change rooms. The facilities would be fenced and lighted for security. Engineering plans will be completed for these facilities once the preferred sites have been selected.

Logan Express Bus Layover Facility Site

The proposed Logan Express (Midday Bus) layover facility, in Braintree, would be constructed on Forbes Road, along Interstate 93 (Figure 4.4-21). Buses would have direct access to the proposed facility from dedicated bus lanes to be placed within the median of I-93. The proposed site is a large, existing Park-and-Ride lot for the Logan Express service offered by Massport.

The site is currently a large parking lot with approximately 6.73 acres of impervious surface. It is within a developed environment, adjacent to a number of parking lots and commercial facilities and far removed from areas where bus traffic and emissions would create potential environmental impacts such school zones, residences, parks, and other sensitive land uses. The layover functions would be compatible with the existing Logan Express service because they are essentially the same; bus and vehicle parking.

Weaver's Cove East Facility Site

The proposed Weaver's Cove East site layover facility would be constructed along the Fall River Secondary Line and would serve all rail alternatives (Figure 4.4-22). It would be located in Fall River west of Main Street between the existing Fall River Secondary and Main Street, approximately 2.5 miles from the southern terminus of the Fall River Secondary.

Currently vacant land, a portion of the Weaver's Cove East site was previously developed. Approximately one-half of the site is cleared of vegetation or includes remnant building foundations; the remainder of the site is vegetated. Surrounding land to the north, east, and south is residential; industrial land use is present to the southwest. Undeveloped land is immediately west of the site, adjoining the Taunton River. The industrial site to the southwest is a former Shell Oil facility, and consists of completely cleared land with several large aboveground storage tanks and a short shipping dock.

Although there are no environmental justice communities within the layover site, an EJ neighborhood is located south of the proposed layover facility, to the east of the Fall River Secondary. Residents living within this neighborhood meet low income criteria for designation.

Weaver's Cove West Facility Site

The proposed Weaver's Cove West layover facility in Fall River would be constructed along the west side of the Fall River Secondary Line (Figure 4.4-22). The facility would be between the existing Fall River Secondary and the Taunton River, approximately 2.5 miles from the southern terminus of the Fall River Secondary.

The site is zoned as General Industrial by the City of Fall River. The site includes both developed and undeveloped land. The developed portion is highly disturbed by industrial uses associated with a petroleum products facility. The industrial site is a former Shell Oil facility, and consists of completely cleared land with several large aboveground storage tanks and a short shipping dock. The undeveloped portion is vegetated. Approximately seven acres of the Shell site, primarily the undeveloped portion, would be utilized by the proposed layover facility. Surrounding land in all directions except west and northwest is similarly undeveloped or industrial property. A narrow strip of lightly developed land (a cell phone tower site) is northwest of the site.

The petroleum products facility at Weaver's Cove is currently under consideration for use as a liquefied natural gas (LNG) offshore berth and transfer facility by Weaver's Cove Energy. Use of the site for this purpose would likely be precluded by the presence of a layover facility for the Fall River Secondary. A second Draft Environmental Impact Report was filed with the EEA for the LNG project in April 2009, under EEA project number 13061. Use of the site for this purpose would likely preclude its use as a layover facility for the Fall River Secondary.

Although there are no environmental justice communities within the layover site, an environmental justice neighborhood is located southeast of the proposed layover facility, to the east of the Fall River Secondary. Residents living within this neighborhood meet low income criteria for designation.

ISP Facility Site

The proposed ISP site layover facility would be constructed along the Fall River Secondary and would serve all rail alternatives (Figure 4.4-23). It would be located in Freetown west of Main Street between the existing Fall River Secondary and the Taunton River, approximately six miles from the southern terminus of the Fall River Secondary.

The ISP site is an undeveloped parcel surrounded by open space or other undeveloped land; an industrial facility is nearby to the northeast. A residential development is located less than 0.25-mile south this site. The Taunton River is immediately west of the site.

There are no environmental justice communities within 0.5 mile of the layover site.

Wamsutta Facility Site

The proposed Wamsutta site layover facility would be constructed along the New Bedford Main Line and would serve all rail alternatives (Figure 4.4-24). It would be located in New Bedford near the intersection of Wamsutta Street and Herman Melville Boulevard, near the southern terminus of the New Bedford Main Line, just north of the Whale's Tooth Station.

The Wamsutta site is a previously developed site, currently used as a rail yard for CSX, within an industrial area. The site is visible from adjacent roads and buildings. Adjoining properties are transportation corridors or industrial in nature. Industrial sites are located north, east, and south of this location, and Route 18 to the west. No commercial or residential properties, or open spaces, are located in close proximity to this site.

The Wamsutta site layover facility is located within an environmental justice neighborhood that meets low income and minority criteria for designation. Adjacent to the north of the proposed layover facility is an environmental justice neighborhood that also meets foreign born criteria for designation.

Church Street Facility Site

The proposed Church Street site layover facility would be constructed along the New Bedford Main Line and would serve all rail alternatives (Figure 4.4-25). It would be located in New Bedford between Church Street and Route 140, near where Route 140 crosses the New Bedford Main Line, approximately 4.5 miles from the southern terminus of the New Bedford Main Line.

The Church Street site is a previously developed parcel within an industrial area. It is currently a junk yard, with several buildings and stockpiles of materials distributed across the cleared area. Adjoining properties include transportation corridors, industrial land use, undeveloped land, and open space. Nearby properties include residential development to the east and Acushnet Cedar Swamp State Reservation to the west, across Route 140.

Although there are no environmental justice communities within the layover site, an environmental justice neighborhood is located less than 0.5 mile northeast of the proposed layover facility, to the east of the New Bedford Main Line. Residents living within this neighborhood meet low income and minority criteria for designation.

Summary

The data indicate the South Coast Rail environmental justice study area has a substantial environmental justice population, based on MassGIS criteria for determining such populations. The area around the Southern Triangle alignments contains the largest percent of the population (36 percent around the Fall River Secondary and 50.4 percent around the New Bedford Main Line) living within environmental justice-designated neighborhoods (as defined by block groups), followed by the Rapid Bus Alternative, within 0.5 mile of which 34.1 percent of the population lives within an environmental justice neighborhood. Environmental justice populations living within 0.5 mile of the alternative alignments are primarily classified based on the low income criterion, except for along the New Bedford Main Line and the Rapid Bus Alternative, where minority populations comprise the majority of the environmental justice designations. The percent of environmental justice populations living within 0.5 mile of each of the alternative alignments is summarized in Table 4.4-7.

MassGIS-designated environmental justice neighborhoods were identified within 0.5 mile of six of the 13 proposed station sites, as summarized in Table 4.4-9. The area within 0.5 mile of the Battleship Cove Station site in Fall River contains the largest percentage of population living within environmental justice-designated neighborhoods, at 88.7 percent. Low income was identified as the primary criteria for environmental justice-designation around these station sites.

In general, environmental justice populations are in the greatest density near the southern portion of the Southern Triangle, in urban areas of Fall River and New Bedford. The primary criterion for environmental justice designation in these areas is low income, although concentrations of minority and foreign-born residents were also identified in the study area, in particular, around the proposed station sites. In many cases, populations met more than one of the environmental justice criteria, such as low income and minority, or foreign-born, minority, and low income. Environmental justice populations identified in New Bedford and Fall River were more widespread and diverse (met more criteria for environmental justice) than the populations in other towns in the South Coast region. Environmental justice populations in the other towns in the South Coast area, such as Canton, Stoughton, or Taunton, had moderate to large concentrated areas of environmental justice populations meeting one or two criteria for designation.

4.4.3 ANALYSIS OF IMPACTS

This section identifies disproportionate adverse impacts to environmental justice populations as well as any benefits to these populations potentially resulting from implementation of the South Coast Rail Project. Specifically, each alternative was evaluated for adverse impacts such as any property acquisition required for constructing each of the alternatives within environmental justice neighborhoods, and significant increases in noise levels, vibration, or air pollutants. The alternatives were also evaluated for beneficial impacts including improvements in access to transit services to employment and educational opportunities, general mobility, and air quality. In addition to consideration of disproportionate impacts to environmental justice populations, this evaluation included a qualitative comparison of the relative impacts of each alternative. Detailed information regarding potential impacts is provided in pertinent resource chapters in the DEIS/DEIR, including but not limited to Land Use, Socioeconomics, Transportation, Open Space, Visual Resources, Air Quality, Noise, Vibration, Cultural Resources and Indirect Effects and Cumulative Impacts.

Table 4.4-9 Summary of State-Listed Environmental Justice Populations Within 0.5 Mile of the Proposed Station Sites

Station Sites	Percentage of Total Population Living within a Designated Environmental Justice Area – Defined by Any Criterion[1,2]	Population Living within a Designated Environmental Justice Area – Defined by Any Criterion[1,2]	Primary Criteria for Designation
King's Highway	20.9	1,213	Low Income
Whale's Tooth	85.6	8,937	Minority
Freetown	0.0	0	N/A
Fall River Depot	50.2	4,652	Low Income
Battleship Cove	88.7	10,965	Foreign Born
North Easton	0.0	0	N/A
Easton Village	0.0	0	N/A
Raynham Place	0.0	0	N/A
Barrowsville	0.0	0	N/A
Taunton (Dean Street)	21.1	1,857	Low Income
Downtown Taunton	24.7	3,516	Low Income
Taunton Depot	0.0	0	N/A
Galleria	0.0	0	N/A

Source: US Census data (2000), MassGIS.
Environmental justice areas can be designated based on multiple independent criteria. The table presents the cumulative environmental justice areas for all criteria.
MassGIS calculates environmental justice populations assuming the entire sample population within an environmental justice -designated block group is an environmental justice population. If a block group meets one or more environmental justice criteria, then all population within that block group is considered as part of the environmental justice population. Additionally, environmental justice populations may meet one or more criteria for designation; therefore, the total percentage of environmental justice populations defined by any criterion is not a sum of the percentage of each individual criterion.

4.4.3.1 NO-BUILD (ENHANCED BUS) ALTERNATIVE

The No-Build Alternative (Enhanced Bus) would improve transit service to Boston from New Bedford, Fall River, and Taunton by adding more buses but using smaller capital investments than are proposed in the Build Alternatives. Under this alternative, no new rail or bus service would be provided to Southeastern Massachusetts.

The No-Build Alternative plan includes bus schedule enhancements, transportation demand management, and transportation policy enhancements for commuter bus. In addition to these enhancements, and incentives would enable the private commuter bus service operators to acquire a new fleet of fuel efficient and clean emission buses. Ideally, these buses would provide rider comfort and amenities comparable to commuter rail service.

Existing commuter bus service to Boston from New Bedford, Fall River, and Taunton is currently provided by three commuter bus carriers: DATTCO provides Boston – New Bedford service; Peter Pan provides Boston – Fall River bus service; and Bloom provides Boston – Taunton service.

Some of the existing routes pass through or are in proximity to environmental justice neighborhoods. However, given that these alignments would not change, no new construction or property acquisition would be required, and there would be no noise, vibration, or air quality changes from the No-Build Alternative, this alternative would not directly impact environmental justice populations. The CTPS study (summarized in Section 4.4.3.12) compared the Build Alternatives with the No-Build Alternative as a baseline; any benefits that environmental justice populations may receive from the enhanced bus service have not been quantified.

4.4.3.2 SOUTHERN TRIANGLE (COMMON TO ALL RAIL ALTERNATIVES)

Portions of the rail lines within the southern part of the South Coast Rail Study Area are common to all rail alternatives. These rail lines form a rough triangular shape running south from Myricks Junction to Fall River (the Fall River Secondary) and from Weir Junction through Myricks Junction to New Bedford (the New Bedford Main Line), and are therefore referred to as the Southern Triangle (Figure 1.4-1). The following sections describe the potential direct impacts to environmental justice populations that may result from new construction for these two components of the South Coast Rail Project. The northern part of the South Coast Rail Study Area is described in subsequent sections for each alternative.

Fall River Secondary

The existing Fall River Secondary freight track would be upgraded to Federal Rail Administration (FRA) Class 5[20] for the South Coast Rail Project. The 11.8-mile long single track alignment would have three sidings. The Fall River Secondary passes through environmental justice neighborhoods in Fall River but no other community (Figures 4.4-2a-c); these adjacent populations are identified as meeting minority and/or low income criteria. Nearby environmental justice neighborhoods include populations meeting low income and/or foreign born criteria. Direct impacts to these populations resulting from property acquisition, neighborhood fragmentation, or changes in noise or air quality from upgrading and using the Fall River Secondary are evaluated below.

Two new stations would be constructed in Fall River (Battleship Cove and Fall River Depot) and one in Freetown (Freetown). One new layover facility would be constructed in Fall River, at the Weaver's Cove East site, the Weaver's Cove West site, or the ISP site. Impacts to environmental justice populations potentially resulting from constructing and using the new stations and layover facilities are considered in Sections 4.4.3.10 and 4.4.3.11, respectively.

Property Acquisition

One privately owned parcel would be acquired within an environmental justice neighborhood for the right-of-way, and one parcel for a traction power facility, as listed in Table 4.4-10 and shown in Figure 4.4-2c.

[20] FRA. 2009. 49 CFR 213.9 Classes of Track: Operating Speed Limits. US Department of Transportation, Federal Rail Administration.

Table 4.4-10 Fall River Secondary Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Right-of-Way (All Rail Alternatives)						
Fall River	O-23-4	Private	Industrial	Industrial	Income, Minority	0.02
Traction Power Facility (All Electric Alternatives)						
Fall River	O-22-8	Private	Industrial	Commercial	Income, Minority	0.17
TOTAL (Right-of-Way and Traction Power Facility, All Electric Alternatives)						**0.19**

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

The small portion of the parcel that would be acquired for the right-of-way is along the west side of the Fall River Secondary near the intersection of Davol Street and Cedar Street. The land is required for construction of the upgraded railroad in this segment. The parcel is a portion of an industrial property; no jobs or residences would be lost. The portion of the parcel that would be acquired for the traction power facility is also along the west side of the Fall River Secondary, adjacent to the proposed location for the Fall River Depot Station. This land is required for construction of a parallel substation for the electric train alternatives. This parcel is a portion of a vacant industrial property, and is also not used as a residence. There would be no impact to the environmental justice populations from acquiring small portions of these parcels because there would be no residential relocation or job loss.

Neighborhood Fragmentation

The Fall River Secondary is an active freight railroad. Fragmentation of environmental justice neighborhoods, or any other neighborhoods, would not result from adding commuter rail service to the Fall River Secondary.

Noise

The Fall River Secondary passes through or near residential environmental justice neighborhoods in Fall River. The current sound environment along this segment of the Fall River Secondary includes the active freight use of the railroad, heavy traffic on several major highways (Routes 6, 79, and 138, and I-195), and industrial and commercial activities. Noise impacts from the Fall River Secondary to environmental justice and non-environmental justice neighborhoods in communities through which the railroad passes are listed in Table 4.4-11.

As described in the noise chapter, electric train alternatives would result in noise impacts (combined moderate and severe) to 998 residences, while diesel train alternatives would impact 1,013 residences. For the Electric Alternative, the number of impacted environmental justice neighborhood residences (346) is 34.7 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (652) is 65.3 percent of the total. For the Diesel Alternative, the number of impacted environmental justice neighborhood residences (365) is 36.0 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (648) is 64.0 percent of the total.

Table 4.4-11 Fall River Secondary Noise Impacts[1]

Municipality	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Electric Alternatives				
Berkley	0	21	21	0.0
Lakeville	0	0	0	0.0
Freetown	0	367	367	0.0
Fall River	346	264	610	56.7
Total, Electric Alternatives	***346***	***652***	***998***	***34.7***
Diesel Alternatives				
Berkley	0	21	21	0.0
Lakeville	0	0	0	
Freetown	0	355	355	0.0
Fall River	365	272	637	57.3
Total, Diesel Alternatives	***365***	***648***	***1013***	***36.0***

Source: Environmental Consequences Technical Report- Noise (EOT, 2009).
Values based upon a combination of train operational noise and horn use at crossings.

There are no environmental justice neighborhoods (as defined by the criteria cited above in Section 4.4.1) along the Fall River Secondary in Berkley, Lakeville, or Freetown; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities. In Fall River, the number of impacted environmental justice neighborhood residences account for 56.7 and 57.3 percent of the total number of impacted residences, for the electric and diesel alternatives, respectively.

Other Resources

Changes in other resources that would result from using the Fall River Secondary for the South Coast Rail project may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated by using ballast mats beneath the rail lines, "frogs" at selected switch locations with nearby sensitive receptors, and special pile-driving methods at selected locations with nearby sensitive receptors during construction. There would be no adverse vibration impacts to environmental justice populations along the Fall River Secondary.
- The electric train alternatives would not adversely impact local air quality, and the diesel train alternatives' impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the Fall River Secondary.

- No protected open space or publicly owned parcels within ACECs would be acquired along the Fall River Secondary. There would be no adverse impacts to environmental justice populations from open space or ACEC acquisition.
- Use of the Fall River Secondary is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural property..
- The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, particularly those associated with the infrastructure required for the electric alternatives, could result in a change in the setting of a historic resource.
- The US Army Corps of Engineers (the Corps) is undertaking National Historic Preservation Act (NHPA) Section 106 consultation with the Wampanoag Tribe of Gay Head (Aquinnah), the Narragansett Indian Tribe and the Mashpee Wampanoag Tribe to determine if the South Coast Rail alternatives would have an adverse effect on any traditional cultural properties of significance to tribal antiquity. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

New Bedford Main Line

The existing New Bedford Main Line freight track would be upgraded to FRA Class 5 for the South Coast Rail Project. Two to three tracks would be constructed between Weir Junction and Myricks Junction, and a single track with three sidings from Myricks Junction to New Bedford, over a total length of 18.9 miles. The New Bedford Main Line passes through environmental justice neighborhoods in Taunton and New Bedford (Figures 4.4-1a-e); the populations are identified as meeting minority, foreign born, low income, and/or English language proficiency criteria. The direct acquisition, neighborhood fragmentation, noise level, and air quality impacts to environmental justice populations potentially resulting from upgrading and using the New Bedford Main Line are described below.

Two new train stations would be constructed in New Bedford (Whale's Tooth and King's Highway) and one near Taunton (Taunton Depot). One new layover facility would be constructed in New Bedford, at either the Wamsutta site or the Church Street site. Impacts to environmental justice populations potentially resulting from constructing and using the new stations and layover facilities are considered in Sections 4.4.3.10 and 4.4.3.11, respectively.

Property Acquisition

One portion of a parcel in an environmental justice neighborhood would be acquired for the New Bedford Main Line right-of-way improvements, and one portion of a parcel would be acquired for a traction power facility, as listed in Table 4.4-12 and shown in Figures 4.4-1a and 4.4-1e.

The parcel in Taunton is along the east side of the right-of-way near Weir Junction. The parcel is identified as publicly owned, but is a small portion of an industrial property. A portion of the parcel is required to allow for construction of the upgraded railroad in this segment. There would be no impact to the environmental justice populations from acquiring a small portion of this parcel because there would be no residence or job loss.

The parcel in New Bedford is along the west side of the right-of-way near the intersection of the railroad with Purchase Street. The parcel is a portion of a vacant industrial property. The parcel is required to

Table 4.4-12 New Bedford Main Line Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Right-of-Way (All Rail Alternatives)						
Taunton	78-188	Public	Industrial	Industrial	Income	0.03
Traction Power Facility (Electric Alternatives)						
New Bedford	84-113	Private	Industrial	Industrial	Income, Minority	0.18
TOTAL (Right-of-Way and Traction Power Facility, Electric Alternatives						**0.21**

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

allow for construction of a parallel substation for the Stoughton and Whittenton Electric Alternatives (a separate location, distant from environmental justice neighborhoods, would be used for an Attleboro Electric Alternative parallel substation). There would be no impact to the environmental justice populations from acquiring a small portion of this parcel because there would be no residence or job loss.

Neighborhood Fragmentation

The New Bedford Main Line is an active freight railroad. Fragmentation of environmental justice neighborhoods, or any other neighborhoods, would not result from adding commuter rail service to the New Bedford Main Line.

Noise

The New Bedford Main Line passes through or near residential environmental justice neighborhoods in Taunton and New Bedford. The current sound environment along the Taunton segment of the alignment includes the active freight use of the New Bedford Main Line, heavy traffic on one major highway (Route 138), and industrial and commercial activities. Noise impacts from the New Bedford Main Line to environmental justice and non-environmental justice neighborhoods in communities through which the railroad passes are listed in Table 4.4-13.

As described in the noise chapter, electric train alternatives would result in noise impacts (combined moderate and severe) to 530 residences, while diesel train alternatives would impact 401 residences. Although diesel-powered locomotives are generally louder than electric-powered locomotives, the higher speed of the electric-powered locomotives on certain segments of the tracks offsets the quieter power source. For the Electric Alternative, the number of impacted environmental justice neighborhood residences (49) is 9.2 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (481) is 90.8 percent of the total. For the Diesel Alternative, the number of impacted environmental justice neighborhood residences (27) is 6.7 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (374) is 93.3 percent of the total.

There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the New Bedford Main Line in Berkley, Lakeville, or Freetown; accordingly, there are no noise

Table 4.4-13
New Bedford Main Line Noise Impacts[1]

Municipality	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Electric Alternatives				
Taunton	8	68	76	10.5%
Berkley	0	114	114	0.0%
Lakeville	0	52	52	0.0%
Freetown	0	70	70	0.0%
New Bedford	41	177	218	18.8%
Total, Electric Alternatives	49	481	530	9.2%
Diesel Alternatives				
Taunton	8	66	74	10.8%
Berkley	0	96	96	0.0%
Lakeville	0	41	41	0.0%
Freetown	0	54	54	0.0%
New Bedford	19	117	136	14.0%
Total, Diesel Alternatives	27	374	401	6.7%

1: Values based upon a combination of train operational noise and horn use at crossings.

impacts to environmental justice neighborhoods in these communities. In Taunton, the number of impacted environmental justice neighborhood residences would account for 10.5 and 10.8 percent of the total number of impacted residences, for the electric and diesel alternatives, respectively. In New Bedford, the number of impacted environmental justice neighborhood residences would account for 18.8 and 14.0 percent of the total number of impacted residences, for the electric and diesel alternatives, respectively.

Other Resources

Changes in other resources that would result from using the New Bedford Main Line for the South Coast Rail project may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the New Bedford Main Line.
- The electric train alternatives would not adversely impact local air quality, and the diesel train alternatives' impact would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the New Bedford Main Line.

- No protected open space or publicly owned parcels within ACECs would be acquired along the New Bedford Main Line. There would be no adverse impacts to environmental justice populations from open space or ACEC acquisition.
- Use of the New Bedford Main Line is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural properties. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, particularly those associated with the infrastructure required for the electric alternatives, could result in a change in the setting of a historic resource.
- The Corps is undertaking NHPA Section 106 consultation with the Tribes to determine if the South Coast Rail alternatives would have an adverse effect on any traditional cultural properties of significance to the tribal antiquity. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.3 ATTLEBORO ELECTRIC ALTERNATIVE

The Attleboro Electric Alternative would provide commuter rail service to South Station using the Northeast Corridor, proposed Attleboro Bypass, and Attleboro Secondary, as well as the aforementioned Southern Triangle components (Fall River Secondary and New Bedford Main Line. The New Bedford route would be 60.4 miles long and the Fall River route would be 57.9 miles long. Figure 1.4-1 shows the route of the Attleboro Alternative.

This alternative requires improvements to track infrastructure along the Northeast Corridor (construct a third track between the proposed Attleboro Bypass and the Readville Station in Boston, a distance of 18.7 miles); the Attleboro Bypass (a new two-track railroad on a new right-of-way between the Northeast Corridor and the Attleboro Secondary, a distance of 2.8 miles); and the Attleboro Secondary (reconstruct existing freight rail tracks from the Attleboro Bypass to Weir Junction, as a single track with one siding, a distance of 9.7 miles). Each segment is addressed separately in the following subsections.

Northeast Corridor

The existing Northeast Corridor line would be used for the Attleboro Electric Alternative from Boston's South Station to the north end of the Attleboro Bypass. The existing double-track line supports both electric- and diesel-powered regional freight and passenger service.

A third track would be added along the Northeast Corridor from the Readville Station south to the new Attleboro Bypass (described in Section 4.4.3.3). Constructing the third track would require earthwork for the expanded railroad bed, installing new three-track catenary supports with wires along the length of the line, reconstructing three existing stations (Canton Junction, Mansfield, and Sharon), and reconstructing 22 bridges. A new bridge would be required adjacent to the historic Canton Viaduct, which is too narrow to accommodate the third track. No changes in road/railroad crossing configurations are planned. Potential direct impacts to environmental justice populations resulting from constructing the upgraded rail lines and electrical infrastructure are described below.
No layover facilities are planned within this segment. Potential direct impacts to environmental justice populations resulting from reconstructing and using the existing stations along the Northeast Corridor are considered in Section 4.4.3.10.

The Northeast Corridor passes through three communities with environmental justice neighborhoods (Figures 4.4-3a-e): Boston, Canton, and Mansfield. The environmental justice neighborhoods in Boston are located outside the environmental justice study area for the South Coast Rail project and were not evaluated. The environmental justice populations in Canton and Mansfield are identified as meeting minority criteria. The direct property acquisition, noise level, and air quality impacts to environmental justice populations within Canton and Mansfield were evaluated. Neighborhood fragmentation was not analyzed along this segment due to its current use for freight and similar passenger service. There would be no new neighborhood fragmentation effects along the Northeast Corridor.

Property Acquisition

One privately owned parcel would be acquired for the Northeast Corridor right-of-way within an environmental justice neighborhood, as listed in Table 4.4-14 and shown in Figure 4.4-3b. No traction power facilities would be constructed in this segment.

Table 4.4-14 Northeast Corridor: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Canton	15-79	Public	Industrial	Undeveloped	Income, Minority	0.19

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

The parcel is along the west side of the Northeast Corridor right-of-way in Canton near the intersection of the railroad with Neponset Street. The land is required to construct the bridge adjacent to the Canton Viaduct for all rail alternatives. The parcel is a portion of a vacant industrial property. There would be no impact to the environmental justice populations from acquiring this parcel because there would be no residential relocation or job loss.

Noise

The Northeast Corridor passes through or near residential environmental justice neighborhoods in Canton and Mansfield. The current sound environment along this segment of the Northeast Corridor includes the active freight and commuter rail use of the railroad, and industrial and commercial activities. Noise impacts from the Attleboro Electric Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Northeast Corridor passes are listed in Table 4.4-15.

As described in the noise chapter, operating electric trains on the Northeast Corridor would result in noise impacts (combined moderate and severe) to 535 residences. The number of impacted environmental justice neighborhood residences (14) is 2.6 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (521) is 97.4 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Northeast Corridor in Sharon or Foxborough; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities. There would be no noise impacts to environmental justice neighborhoods in Mansfield. In Canton, the number of impacted environmental justice neighborhood residences would account for 9.0 percent of the total number of impacted residences

Table 4.4-15 Attleboro Electric Alternative: Northeast Corridor Noise Impacts[1]

Municipality	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Canton	14	141	155	9.0
Sharon	0	152	152	0.0
Foxborough	0	73	73	0.0
Mansfield	0	155	155	0.0
TOTAL	14	521	535	2.6

Table 4.4-15 shows that the combined total number of residences impacted by noise from Attleboro Electric Alternative trains operating on the Northeast Corridor would be 535.

Other Resources

Changes in other resources that would result from using the Northeast Corridor for the Attleboro Electric Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Northeast Corridor.
- The Attleboro Electric Alternative would not adversely impact local air quality. There would be no air quality impacts to environmental justice populations along the Northeast Corridor.
- Protected open space and publicly owned parcels within ACECs in Sharon and Mansfield would be acquired along the Northeast Corridor. However, none of these acquisitions would be within environmental justice neighborhoods.
- Use of the Northeast Corridor is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, particularly those associated with infrastructure required for the Attleboro Electric Alternative, could result in a change in the setting of a historic resource. The new bridge at the Canton Viaduct could adversely affect this historic resource as a result of a change in setting. However, this area of Canton is not within an environmental justice community.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

Attleboro Bypass

A new double-track FRA Class 5 segment, the Attleboro Bypass, would be constructed to connect the existing Northeast Corridor with the existing Attleboro Secondary. No new stations or layover facilities are planned within this segment.

The Attleboro Bypass does not pass through or near any environmental justice neighborhoods (Figures 4.4-4a-c). There would be impacts to environmental justice populations from using the Attleboro Bypass for the Attleboro Electric Alternative. Noise impacts to non-environmental justice neighborhoods along the Attleboro Bypass route are listed in Table 4.4-16.

Table 4.4-16 Attleboro Electric Alternative: Attleboro Bypass Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Attleboro	0	69	69	0.0
Norton	0	0	0	0.0
TOTAL	0	69	69	0.0

1: Values based upon a combination of train operational noise and horn use at crossings.

There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Attleboro Bypass in Attleboro or Norton; accordingly, there are no impacts to noise levels or any other resources affecting environmental justice neighborhoods in these communities. As described in the noise chapter, the Attleboro Bypass electric train alternative would result in noise impacts to 69 residences in non-environmental justice neighborhoods in Attleboro and Norton. Table 4.4-6 shows that 100 percent of noise-impacted residences are in non-environmental justice neighborhoods.

Attleboro Secondary

The existing Attleboro Secondary freight track would be upgraded to FRA Class 5 for the Attleboro Electric Alternative. The direct property acquisition, neighborhood fragmentation, noise level, and air quality impacts to environmental justice populations potentially resulting from upgrading and using the Attleboro Secondary freight line for the Attleboro Electric Alternative are described below.

Two new train stations would be constructed along this alignment in Norton and Taunton (Barrowsville and Downtown Taunton, respectively). No new layover facilities would be constructed along this segment. Impacts to environmental justice populations potentially resulting from constructing and using the new stations are considered in Section 4.4.3.10.

The Attleboro Electric Alternative alignment passes through environmental justice neighborhoods in Taunton (Figures 4.4-4a-c); the populations are identified as meeting minority and/or low income criteria.

Property Acquisition

No environmental justice neighborhood land would be acquired along the existing Attleboro Secondary, as shown in Figures 4.4-4a-c.

Neighborhood Fragmentation

The Attleboro Secondary is used as an active freight railroad. Fragmentation of environmental justice neighborhoods, or any other neighborhoods, would not result from adding commuter rail service to the Attleboro Secondary.

Noise

The Attleboro Secondary passes through or near residential environmental justice neighborhoods in Taunton. The current sound environment along the Taunton segment of the alignment includes the active freight use of the Attleboro Secondary, heavy traffic on one major highway (Route 140), and industrial and commercial activities. Noise impacts from the Attleboro Electric Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Attleboro Secondary passes are listed in Table 4.4-17.

As described in the noise chapter, the Attleboro Secondary electric train alternative would result in noise impacts (combined moderate and severe) to 1,873 residences. The number of impacted environmental justice neighborhood residences (499) is 32.6 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (1,374) is 73.4 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1)

Table 4.4-17 Attleboro Electric Alternative: Attleboro Secondary Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Norton	0	343	343	0.0
Taunton	499	1,031	1,530	32.6
TOTAL	499	1,374	1,873	26.6

1: Values based upon a combination of train operational noise and horn use at crossings.

along the Attleboro Secondary in Norton; accordingly, there are no noise impacts to environmental justice neighborhoods in this community. In Taunton, the number of impacted environmental justice neighborhood residences would account for 32.6 percent of the total number of impacted residences.

Other Resources

Changes in other resources that would result from using the Attleboro Secondary for the Attleboro Electric Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Attleboro Secondary.
- The Attleboro Electric Alternative would not adversely impact local air quality. There would be no air quality impacts to environmental justice populations along the Attleboro Secondary.

- No protected open space or publicly owned parcels within ACECs would be acquired along the Attleboro Secondary. There would be no adverse impacts to environmental justice populations from open space or ACEC acquisition.
- Use of the Attleboro Secondary is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, such as those associated with the infrastructure required for the Attleboro Electric Alternative, could result in a change in the setting of a historic resource.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.4 ATTLEBORO DIESEL ALTERNATIVE

The Attleboro Diesel Alternative alignment north of the Southern Triangle is comprised of same three railroad segments as the Attleboro Electric Alternative: the Northeast Corridor, the Attleboro Bypass, and the Attleboro Secondary.

- Diesel-powered train service differs from electric-powered service in not requiring electrical infrastructure, but generating more noise (depending upon speed) and producing locomotive air emissions. A description of the potential impacts to environmental justice populations based upon the noise level and air emission differences from the Attleboro Electric Alternative is provided in the following sections. There would be no differences between the Attleboro Electric and Diesel Alternatives in right-of-way property acquisition (and, therefore, job or residence loss) or neighborhood fragmentation.

Northeast Corridor

Different impacts to noise and air quality for environmental justice populations along the Northeast Corridor would result using diesel, rather than electric, trains for the Attleboro Diesel Alternative.

Noise

As described in Section 4.4.3.2, the Northeast Corridor passes through or near residential environmental justice neighborhoods in Canton and Mansfield. Noise impacts from the Attleboro Diesel Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Northeast Corridor passes are listed in Table 4.4-18.

As described in the noise chapter, the Attleboro diesel alternative would result in noise impacts (combined moderate and severe) to 462 residences. The number of impacted environmental justice neighborhood residences (15) is 3.2 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (447) is 96.8 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Northeast Corridor in Sharon or Foxborough; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities. There would be no noise impacts to environmental justice

Table 4.4-18 Attleboro Diesel Alternative: Northeast Corridor Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Canton	15	127	142	10.6%
Sharon	0	124	124	0.0%
Foxborough	0	59	59	0.0%
Mansfield	0	137	137	0.0%
TOTAL	15	447	462	3.2%

1: Values based upon train operational noise. There are no at-grade crossing along the Northeast Corridor and, hence, there would not be any horn use at crossings.

neighborhoods in Mansfield. In Canton, the number of impacted environmental justice neighborhood residences would account for 10.6 percent of the total number of impacted residences.

Other Resources

Changes in other resources that would result from using the Northeast Corridor for the Attleboro Diesel Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Northeast Corridor.
- The Attleboro Diesel Alternative's impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the Northeast Corridor.
- No protected open space or publicly owned parcels within ACECs would be acquired in environmental justice neighborhoods along the Northeast Corridor.
- Use of the Northeast Corridor is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes could result in a change in the setting of a historic resource. The new bridge at the Canton Viaduct could adversely affect this historic resource as a result of a change in setting. However, this area of Canton is not within an environmental justice community.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

Attleboro Bypass

As described in Section 4.4.3.3, there are no environmental justice neighborhoods within the Attleboro Bypass corridor. There would be impacts to environmental justice populations from using the Attleboro Bypass for the Attleboro Diesel Alternative. Noise impacts to non-environmental justice neighborhoods along the Attleboro Bypass route are listed in Table 4.4-19.

Table 4.4-19 Attleboro Diesel Alternative: Attleboro Bypass Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Attleboro	0	70	70	0
Norton	0	0	0	0
TOTAL	0	70	70	0

1: Values based upon a combination of train operational noise and horn use at crossings.

As described in the noise chapter, the Attleboro Bypass Diesel train alternative would result in noise impacts (combined moderate and severe) to 70 residences. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Attleboro Bypass in Attleboro or Norton; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities.

Similarly, there would be no impacts to environmental justice neighborhoods resulting from changes in other resources along the Attleboro Bypass due to the Attleboro Diesel Alternative.

Attleboro Secondary

Compared to the Attleboro Electric Alternative, different impacts to noise levels and air quality in environmental justice neighborhoods may result from adding diesel-powered commuter rail service to the existing freight and passenger rail use of the Attleboro Secondary freight line.

Noise

Noise impacts from the Attleboro Diesel Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Attleboro Secondary passes are listed in Table 4.4-20.

The noise analysis concluded that diesel train alternatives would result in noise impacts (combined moderate and severe) to 1,737 residences. The number of impacted environmental justice neighborhood residences (503) is 29.0 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (1,234) is 71.0 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Attleboro Secondary in Norton; accordingly, there are no noise impacts to environmental justice

Table 4.4-20 Attleboro Diesel Alternative: Attleboro Secondary Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Norton	0	299	300	0.0
Taunton	503	934	1437	35.0
TOTAL	503	1234	1737	29.0

1: Values based upon a combination of train operational noise and horn use at crossings.

neighborhoods in this community. In Taunton, the number of impacted environmental justice neighborhood residences would account for 35.0 percent of the total number of impacted residences.

Other Resources

Changes in other resources that would result from using the Attleboro Secondary for the Attleboro Diesel Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Attleboro Secondary.
- The Attleboro Diesel Alternatives' impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the Attleboro Secondary from the Attleboro Diesel Alternative.
- No protected open space or publicly owned parcels in ACECs would be acquired in environmental justice neighborhoods along the Attleboro Secondary.
- Use of the Attleboro Secondary is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource.
- The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes could result in a change in the setting of a historic resource.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.5 STOUGHTON ELECTRIC ALTERNATIVE

The Stoughton Electric Alternative alignment north of the Southern Triangle would be comprised of the Stoughton Line and a portion of the Northeast Corridor. This alternative would use the existing Northeast Corridor from South Station to Canton Junction (a third track would not be added in this segment, unlike for the Attleboro Alternatives). From Canton Junction, the existing, active Stoughton Line would be used to the Stoughton Station. Commuter rail service would be extended, using an out-of-service railroad bed, south through Raynham Junction to Weir Junction in Taunton, at which point this alignment joins the New Bedford Main Line.

This evaluation focuses on the existing and extended Stoughton Line segment; no construction would be required in the Northeast Corridor segment for this alternative, and the Southern Triangle segments were addressed in Section 4.4.3.2.

The existing Stoughton Line commuter rail double track from Canton Junction to Stoughton Station, a distance of 3.8 miles, would be upgraded to FRA Class 5 for the Stoughton Electric Alternative. New FRA Class 5 single or double track would be placed on the out-of-service railroad bed from Stoughton Station south to Winter Street in Taunton, a distance of 15.0 miles. New FRA Class 5 single track would replace existing freight track from Winter Street to Weir Junction, a distance of 1.7 miles. All of the existing at-grade road/railroad crossings would be reconfigured and/or improved to meet current safety standards. New catenary supports and wires would be constructed along the length of the line, and three new traction power facilities would be constructed. Potential direct impacts to environmental justice populations resulting from constructing the upgraded rail lines and electrical infrastructure are described below.

Two existing train stations (Canton Center and Stoughton) along the active portion of the Stoughton Line would be reconstructed. Four new train stations (North Easton, Easton Village, Raynham Place, and Taunton) would be constructed. No new layover facilities would be constructed along this segment. Potential direct impacts to environmental justice communities from reconstructing the existing and constructing the new stations along the Stoughton Line are considered in Section 4.4.3.10.

The Stoughton Line passes through environmental justice neighborhoods in Canton, Stoughton, and Taunton (Figures 4.4-5a-e). The direct acquisition, neighborhood fragmentation, noise level, and air quality impacts to the environmental justice populations in these neighborhoods potentially resulting from upgrading and using the existing Stoughton Line from Canton to Stoughton, and reconstructing and using the out-of-service railroad and freight railroad segments from Stoughton to Weir Junction, are described below.

Property Acquisition

The Stoughton Line is currently used for commuter service from Canton to Stoughton. Rail service from there south to Weir Junction was discontinued in the 1950s and some track removed, but the right-of-way still exists and the southernmost portion is used for freight service. Portions of four parcels in environmental justice neighborhoods in Stoughton would be acquired for the right-of-way, and a portion of one parcel in Taunton for a traction power facility, as listed in Table 4.4-21 and shown in Figures 4.4-5a and 4.4-5e.

The four parcels in Stoughton are privately owned land near the existing Stoughton Station. The parcels are required to allow for construction of the upgraded railroad. The parcels are portions of vacant commercial/industrial property. The parcel in Taunton is privately owned land on the west side of the Stoughton Line right-of-way near Weir Junction; it is zoned for industrial use but the portion that would be acquired is undeveloped land. This portion of the parcel would be used for a parallel substation for the Stoughton Electric Alternative. No jobs or residences would be lost from acquiring these parcels.

Table 4.4-21 Stoughton Line: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Right-of-Way						
Stoughton	053-101	Private	Industrial	Commercial	Foreign	0.04
	053-102	Private	Industrial	Commercial	Foreign	0.06
	054-110	Private	Commercial	Industrial	Foreign	0.24
Subtotal (Electric and Diesel Alternatives)						*0.41*
Traction Power Facility (Electric Alternative)						
Taunton	78-121	Private	Industrial	Undeveloped	Income	0.36
TOTAL (Right-of-Way and Traction Power Facility, Electric Alternative)						**0.77**

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

Neighborhood Fragmentation

The Stoughton Line between Canton and Stoughton is used as an active commuter railroad. Fragmentation of environmental justice neighborhoods, or any other neighborhoods, along this segment would not result from adding commuter rail service to the Stoughton Line.

South of the Stoughton Station, informal and unauthorized residential and recreational use of the railroad bed in several communities has established neighborhood continuity where none may have existed during the active phase of the railroad. Some neighborhood fragmentation may result in the segment between Stoughton Station and Weir Junction, but would not impact the environmental justice neighborhoods in Taunton. As described in Chapter 4.2 - *Land Use*, the Stoughton Line in Taunton is adjacent to or passes through commercial, industrial, and residential development. The alignment crosses most residential neighborhoods perpendicular to main thoroughfares. Although temporary delays in traffic patterns may occur at road/railroad crossings, it is unlikely that the presence of the railroad in this segment would fragment the neighborhoods or disrupt continuity. Fragmentation of environmental justice neighborhoods would be negligible.

Noise

The Stoughton Line passes through or near residential environmental justice neighborhoods in Canton, Stoughton, and Taunton. The current sound environment in Canton includes the active commuter rail use of the Stoughton Line as well as the freight and passenger use of the Northeast Corridor at Canton Junction, and industrial and commercial activities. The current sound environment in Stoughton includes the active commuter rail use of the Stoughton Line, and industrial and commercial activities. The current sound environment in Taunton includes the active freight use of the Attleboro Secondary through Weir Junction, and industrial and commercial activities. Noise impacts from the Stoughton Electric Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Stoughton Line passes are listed in Table 4.4-22.

The noise analysis concluded that the electric train alternative along the Stoughton line would result in noise impacts (combined moderate and severe) to 1,525 residences. The number of impacted

Table 4.4-22 Stoughton Electric Alternative: Stoughton Line Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Stoughton	97	290	387	25.1
Easton	0	756	756	0.0
Raynham	0	267	267	0.0
Taunton	13	102	115	11.3
TOTAL	110	1415	1525	7.2

1: Values based upon a combination of train operational noise and horn use at crossings.

environmental justice neighborhood residences (110) is 7.2 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (1,415) is 92.8 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Stoughton Line in Easton or Raynham; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities. In Stoughton, the number of impacted environmental justice neighborhood residences would account for 25.1 percent of the total number of impacted residences. In Taunton, the number of impacted environmental justice neighborhood residences would account for 11.3 percent of the total number of impacted residences.

Other Resources

Changes in other resources that would result from using the Stoughton Line for the Stoughton Electric Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Stoughton Line.
- The Stoughton Electric Alternative would not adversely impact local air quality. There would be no air quality impacts to environmental justice populations along the Stoughton Line from the Stoughton Electric Alternative.
- Protected open space and publicly owned parcels within ACECs would be acquired in Stoughton and Easton along the Stoughton Line. However, these locations are not within environmental justice neighborhoods.
- Use of the Stoughton Line is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, particularly those associated with the infrastructure required for the Stoughton Electric Alternative, could result in a change in the setting of a historic resource. In particular, the Stoughton Electric Alternative could result in an adverse effect on the Easton Village historic district as a result of introducing modern railroad and station elements. However, the Easton Village historic district is not located within an environmental justice community.

- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.6 STOUGHTON DIESEL ALTERNATIVE

The Stoughton Diesel Alternative is identical to the Stoughton Electric Alternative with the exception of the locomotive power source. As described above for the Attleboro Diesel Alternative, diesel-powered train service differs from electric-powered service in not requiring electrical infrastructure, but generating more noise and producing locomotive air emissions.

Constructing the Stoughton Diesel Alternative along the Stoughton Line would be identical to the Stoughton Electric Alternative except that electrical infrastructure would not be needed. A description of the potential impacts to environmental justice populations based upon the noise level and air emission differences from the Stoughton Electric Alternative is provided in the following sections. There would be no differences between the Stoughton Electric and Diesel Alternatives in right-of-way property acquisition (and, therefore, job or residence loss) or neighborhood fragmentation.

Noise

The Stoughton Line passes through or near residential environmental justice neighborhoods in Canton, Stoughton, and Taunton. Noise impacts from the Stoughton Diesel Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Stoughton Line passes are listed in Table 4.4-23.

The noise analysis concluded that the diesel train alternative along the Stoughton line would result in noise impacts (combined moderate and severe) to 1,357 residences. The number of impacted environmental justice neighborhood residences (103) is 7.6 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (1,254) is 92.4 percent of the total. In Stoughton, the number of impacted environmental justice neighborhood residences would account for 25.8 percent of the total number of impacted residences. In Taunton, the number of impacted environmental justice neighborhood residences would account for 4.3 percent of the total number of impacted residences.

Table 4.4-23 Stoughton Diesel Alternative: Stoughton Line Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Stoughton	99	285	384	25.8%
Easton	0	667	667	0.0%
Raynham	0	214	214	0.0%
Taunton	4	88	92	4.3%
TOTAL	103	1254	1357	7.6%

1: Values based upon a combination of train operational noise and horn use at crossings.

Other Resources

Changes in other resources that would result from using the Stoughton Line for the Stoughton Diesel Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Stoughton Line.
- The Stoughton Diesel Alternatives' impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the Stoughton Line from the Stoughton Diesel Alternative.
- Protected open space would be acquired in Stoughton along the Stoughton Line. However, the location is not within an environmental justice neighborhood. No publicly owned parcels in ACECs would be acquired for the Stoughton Diesel Alternative.
- Use of the Stoughton Line is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes could result in a change in the setting of a historic resource. In particular, the Stoughton Diesel Alternative could result in an adverse effect on the Easton Village historic district as a result of introducing modern railroad and station elements. However, the Easton Village historic district is not located within an environmental justice community.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.7 WHITTENTON ELECTRIC ALTERNATIVE

The Whittenton Electric Alternative is a variant of the Stoughton Electric Alternative alignment. Specifically, at Raynham Junction near the southern end of the Stoughton Line, the route would divert to the southwest, using the old Whittenton Branch. A single track would be constructed along this right-of-way, for a distance of 3.5 miles. The Whittenton Branch connects with the Attleboro Secondary at Whittenton Junction in Taunton: the Attleboro Secondary continues toward the southeast to connect with the New Bedford Main Line at Weir Junction. The southernmost portion of the Stoughton Line, from Raynham Junction to Weir Junction (a distance of 5.1 miles), would be not be used if this alternative is selected.

This evaluation focuses on the Whittenton Branch; other components of this alternative are described in Sections 4.4.3.3 and 4.4.3.5. No stations or layover facilities would be constructed within the Whittenton Branch segment.

The Whittenton Branch segment of the Whittenton Electric Alternative does not pass through any environmental justice neighborhoods (Figure 4.4-6a). However, the portion of the Attleboro Secondary that would be used for the Whittenton Electric Alternative does pass through environmental justice neighborhoods, and some land would be acquired there (Figure 4.4-6b). There would be no

environmental justice neighborhood fragmentation effects along the Whittenton Branch segment of the Whittenton Alternative.

Property Acquisition

The portion of the Attleboro Secondary that would be used for the Whittenton Electric Alternative passes through environmental justice neighborhoods, and a traction power facility would be constructed in Taunton for this alternative, as listed in Table 4.4-24 and shown in Figure 4.4-6b.

Table 4.4-24 Whittenton Electric Alternative: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Taunton	65-357	Public	Commercial	Residential	Income, Minority	0.30

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

The parcel in Taunton is publicly owned land on the west side of the Attleboro Secondary right-of-way near the Taunton Depot Station site, zoned for commercial use and identified by MassGIS as used for residential purposes. However, this parcel is actually owned by the Greater Attleboro Transit Regional Authority (GATRA) and the portion of this parcel that would be used for a parallel substation is vacant land. No jobs or residences would be lost. Acquiring a portion of this parcel would have no effect to environmental justice populations.

Noise

As described above, the Whittenton Branch does not pass through or near residential environmental justice neighborhoods, but this alternative would use a portion of the Stoughton Line and a portion of the Attleboro Secondary. Noise impacts from the Whittenton Electric Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Stoughton Line, Whittenton Branch, and Attleboro Secondary pass are listed in Table 4.4-25.

Table 4.4-25 Whittenton Electric Alternative: Stoughton Line, Whittenton Branch, and Attleboro Secondary Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Stoughton	0	387	387	0.0%
Easton	0	756	756	0.0%
Raynham	0	138	138	0.0%
Taunton	494	864	1,358	36.4%
TOTAL	494	2,145	2,639	18.7%

1: Values based upon a combination of train operational noise and horn use at crossings.

The noise analysis concluded that the Whittenton Electric Alternative trains operating on the Stoughton Line, Whittenton Branch, and Attleboro Secondary would result in noise impacts (combined moderate and severe) to 2,639 residences. The number of impacted environmental justice neighborhood residences (494) is 18.7 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (2,145) is 81.4 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Stoughton Line or Whittenton Branch in Stoughton, Easton or Raynham; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities. In Taunton, the number of impacted environmental justice neighborhood residences would account for 36.4 percent of the total number of impacted residences.

Other Resources

Changes in other resources that would result from using the Stoughton Line, Whittenton Branch, or the Attleboro Secondary for the Whittenton Electric Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to environmental justice populations along the Stoughton Line, Whittenton Branch, or the Attleboro Secondary.
- The Whittenton Electric Alternative would not adversely impact local air quality. There would be no air quality impacts to environmental justice populations along the Stoughton Line, Whittenton Branch, or the Attleboro Secondary from the Whittenton Electric Alternative.
- Protected open space and publicly owned parcels within ACECs would be acquired in Stoughton, Easton, and Taunton along the Stoughton Line, Whittenton Branch, or the Attleboro Secondary for the Whittenton Electric Alternative. However, none of these acquisitions would be within environmental justice neighborhoods.
- Use of the Stoughton Line, Whittenton Branch, or Attleboro Secondary alignments is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, particularly infrastructure associated with the Whittenton Electric Alternative, could result in a change in the setting of a historic resource. In particular, the Whittenton Electric Alternative could result in an adverse effect on the Easton Village historic district as a result of introducing modern railroad and station elements. However, the Easton Village historic district is not located within an environmental justice community.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.8 WHITTENTON DIESEL ALTERNATIVE

The Whittenton Diesel Alternative is identical to the Whittenton Electric Alternative with the exception of the locomotive power source. As noted above, the Whittenton Branch line does not pass through any environmental justice neighborhoods. The traction power facility required for the Whittenton Electric

Alternative would not be needed for the Whittenton Diesel Alternative, and acquiring land for a parallel substation would not be required. There would be no environmental justice neighborhood fragmentation effects along the Whittenton Branch. Noise level and air quality impacts from the diesel-powered trains would vary from the electric-powered trains. The direct noise level and air quality impacts to environmental justice populations potentially resulting from using diesel-powered commuter rail service along the Stoughton Line, Whittenton Branch, and Attleboro Secondary are described below.

Noise

Noise impacts from the Whittenton Diesel Alternative to environmental justice and non-environmental justice neighborhoods in communities through which the Stoughton Line, Whittenton Branch, and Attleboro Secondary pass are listed in Table 4.4-26.

Table 4.4-26 Whittenton Diesel Alternative: Stoughton Line, Whittenton Branch, and Attleboro Secondary Noise Impacts[1]

	Residences within Environmental Justice Neighborhoods	Residences within Non-Environmental Justice Neighborhoods	Total	Percent of Residences within Environmental Justice Neighborhoods
Stoughton	0	384	384	0.0
Easton	0	667	667	0.0
Raynham	0	106	106	0.0
Taunton	506	881	1,387	36.5
TOTAL	506	2,038	2,544	19.9

1: Values based upon a combination of train operational noise and horn use at crossings.

The noise analysis concluded that the Whittenton Diesel Alternative trains operating on the Stoughton Line, Whittenton Branch, and Attleboro Secondary would result in noise impacts (combined moderate and severe) to 2,544 residences. The number of impacted environmental justice neighborhood residences (506) is 19.9 percent of the total, while the number of noise-impacted non-environmental justice neighborhood residences (2,038) is 80.1 percent of the total. There are no environmental justice neighborhoods (as defined by the criteria cited in Section 4.4.1) along the Stoughton Line or Whittenton Branch in Stoughton, Easton or Raynham; accordingly, there are no noise impacts to environmental justice neighborhoods in these communities. In Taunton, the number of impacted environmental justice neighborhood residences would account for 36.5 percent of the total number of impacted residences.

Other Resources

Changes in other resources that would result from using the Stoughton Line, Whittenton Branch, or the Attleboro Secondary for the Whittenton Diesel Alternative may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated as described above in Section 4.4.3.2.1. There would be no adverse vibration impacts to

environmental justice populations along the Stoughton Line, Whittenton Branch, or the Attleboro Secondary.

- The Whittenton Diesel Alternative's impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the Stoughton Line, Whittenton Branch, or the Attleboro Secondary from the Whittenton Diesel Alternative.
- Protected open space would be acquired in Stoughton and Taunton along the Stoughton Line and Whittenton Branch. However, none of these acquisitions would be within environmental justice neighborhoods. No publicly owned parcels within ACECs would be acquired for this alternative.
- Use of the Stoughton Line, the Whittenton Branch, or the Attleboro Secondary is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource. The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts (soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes could result in a change in the setting of a historic resource. In particular, the Whittenton Diesel Alternative could result in an adverse effect on the Easton Village historic district as a result of introducing modern rail road and station elements. However, the Easton Village historic district is not located within an environmental justice community.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.9 RAPID BUS ALTERNATIVE

The Rapid Bus Alternative would provide rapid express bus service to South Station in Boston from Fall River and New Bedford via I-93, Route 140, and Route 24. North of I-495, buses would use a combination of new zipper bus lanes, new reversible bus lanes, two-way bus lanes, existing zipper High Occupancy Vehicle (HOV) lanes, and existing HOV lanes, along with a short section in mixed traffic. South of the I-495 interchange in Raynham, the buses would travel in the general purpose lanes with mixed traffic.

This alternative requires improvements to highway infrastructure along Route 24 (constructing third lane from Route 140 to I-495, a distance of 5.4 miles; widening Route 24 to accommodate movable barriers; constructing zipper bus lane from I-495 to Harrison Boulevard, a distance of 15.7 miles); and Route 128/I-93 (constructing reversible bus lane from Harrison Boulevard on Route 24 to Logan Express Lot, a distance of 4.2 miles; and constructing two-lane bus roadway from Logan Express Lot to existing HOV zipper lane on the Southeast Expressway, a distance of 1.6 miles). Infrastructure improvements also include constructing, reconstructing, or widening 20 bridges and reconstructing 11 highway interchanges.

Six existing or new bus stations are proposed for the Rapid Bus Alternative (King's Highway, Whale's Tooth, Fall River Depot, Freetown, Galleria, and Downtown Taunton). One midday layover facility site has been identified (Logan Express, in Boston). Overnight layover facility sites are currently being studied and will be separately analyzed for this alternative. Potential impacts to environmental justice

populations from using the existing or developing the new stations and midday layover facility are considered in Sections 4.4.3.10 and 4.4.3.11, respectively.

The Rapid Bus Alternative alignment from Braintree to Taunton passes through environmental justice neighborhoods in Randolph and Brockton (Figures 4.4-7a-g). There will be no direct property acquisition, neighborhood fragmentation, noise level or air quality impacts in Randolph and Brockton. The environmental justice communities in these municipalities will therefore not be affected.

Property Acquisition

The Rapid Bus Alternative would use existing highway rights-of-way for new construction between Braintree and Taunton. Interchange ramp improvements at some locations would require work outside of the existing right-of-way, acquiring adjoining parcels. As shown in Figures 4.4-7a-g, no environmental justice neighborhood land would be acquired for upgrading the current or reconstructing the existing Rapid Bus Alternative highway alignments or interchanges. No jobs or residences would be lost for this alternative.

Neighborhood Fragmentation

The Rapid Bus Alternative would use existing, active highway alignments. Fragmentation of environmental justice neighborhoods, or any other neighborhoods, would not result from adding Rapid Bus service to these alignments.

Noise

The Rapid Bus Alternative would use existing highway alignments, modified for dedicated bus use. The existing sound environment consists of heavy traffic on an active major highway system. The noise analysis concluded that adding Rapid Bus service to the existing highways would not appreciably change the sound environment. There would be no impacts to environmental justice populations from the Rapid Bus Alternative.

Other Resources

Changes in other resources that would result from using the existing highway alignments for the Rapid Bus Alternative may affect environmental justice populations:

- No vibration impacts are expected from the rubber-tired buses operating on public roads. There would be no adverse vibration impacts to environmental justice populations along the Rapid Bus Alternative alignments.
- The Rapid Bus Alternative's impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along the Rapid Bus Alternative alignments.
- Protected open space would be acquired in West Bridgewater, Bridgewater, and Raynham along the Rapid Bus Alternative alignment. However, none of these acquisitions would be within environmental justice neighborhoods. No publicly owned parcels in ACECs would be acquired for the Rapid Bus Alternative.

- No cultural resource sites in environmental justice neighborhoods along the Rapid Bus Alternative alignments would be adversely impacted. Use of the existing highway alignments is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource.
- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

4.4.3.10 STATIONS

This section provides descriptions of each train and/or bus station, an indication of its location in or near any environmental justice neighborhood, and an evaluation of the direct and indirect impacts to environmental justice populations potentially resulting from using each station for the South Coast Rail Project. The evaluation of direct effects focuses on property acquisition requirements for each station (and potential resulting job or residence loss), as noise and air quality impacts are incorporated in the railroad and highway alignment discussions provided in the previous sections. The evaluation of indirect effects focuses on the potential for TOD near the stations and qualitative improvements in access to transit for environmental justice populations near those stations. A quantitative assessment of improvements in access and travel times is discussed in Section 4.4.3.12.

Barrowsville

The Barrowsville Station would be a new train station constructed along the Attleboro Secondary that would serve the Attleboro Alternatives. It would be located at 205 South Worcester Street in Norton. This approximately seven-acre site is an undeveloped parcel near a former train station. The station would be village-style with limited parking, and serve primarily drop-off/pick-up customers.

No environmental justice neighborhoods are present near the Barrowsville Station site (Figure 4.4-26); however, this station would potentially serve environmental justice populations in Attleboro. It is noted that a train station in Attleboro, along the Northeast Corridor, already services the environmental justice population in Attleboro with the existing MBTA commuter rail. The following subsections describe the direct and indirect impacts to the Attleboro environmental justice population potentially resulting from constructing and using the Barrowsville Station for the Attleboro Alternatives.

Direct Impacts

There are no environmental justice neighborhoods near the Barrowsville Station and, therefore, there would be no property acquisition requirements that would result in job or residence losses in an environmental justice neighborhood.

Indirect Impacts

The Barrowsville Station would not result in any indirect effects in environmental justice neighborhoods, since the site is not within or near any such neighborhoods.

Statistical information suggests that the Attleboro environmental justice population may benefit from the Barrowsville Station. The Barrowsville Station site is less than 5 miles from downtown Attleboro, where 10.1 percent of the population is defined as living in environmental justice neighborhoods. These neighborhoods are identified as meeting minority and/or foreign-born environmental justice criteria. Only 8.1 percent of the households in Attleboro had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. This portion of the environmental justice population in Attleboro in particular is likely to realize an improvement in access to transit services for employment and/or educational opportunities outside the community. As noted above, an existing train station in Attleboro already serves the environmental justice populations in Attleboro; the Barrowsville Station would supplement the service to the Attleboro environmental justice population provided by the existing Attleboro station.

Battleship Cove

The Battleship Cove Station would be a new train station constructed along the Fall River Secondary that would serve all rail alternatives. It would be located on Water Street in Fall River, near the southern terminus of the Fall River Secondary. This approximately 2.2-acre site is a previously developed parcel within the Ponta Delgada Plaza. The station would be a platform-only station that would not operate full-time. It would serve the downtown area of Fall River and the Battleship Cove tourist area. The station would be serve walk-in and drop-off/pick-up customers. There would be minimal parking.

The Battleship Cove Station site is in and near environmental justice neighborhoods in Fall River (Figure 4.4-27). The surrounding neighborhood meets low income criteria; nearby neighborhoods meet foreign-born, minority, income, and/or English language fluency criteria. The following subsections describe the direct and indirect impacts to the Fall River environmental justice populations potentially resulting from constructing and using the Battleship Cove Station along the Fall River Secondary.

Direct Impacts

A portion of one parcel within an environmental justice neighborhood would be acquired for the Battleship Cove Station, as listed in Table 4.4-27 and shown in Figure 4.4-27.

Table 4.4-27 Battleship Cove Station: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Fall River	Y-1-3	Public	Industrial	Undeveloped	Income	0.08

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

The portion of the parcel that would be acquired for the Battleship Cove Station is owned by the City of Fall River and is part of the Ponta Delgada plaza. The land would be used for accessing the station platform. MassDOT may negotiate a lease arrangement with, rather than acquisition from, the City for this parcel. There would be no impacts to the environmental justice population. No privately owned environmental justice neighborhood land would be acquired for constructing the Battleship Cove Station.

Indirect Impacts

The Battleship Cove Station site is located on the Fall River waterfront, close to downtown, near the Fall River Heritage Park and other tourist attractions. The site is close to employment opportunities and environmental justice populations. Although the site is too small for redevelopment to occur right at the station, the station could spur redevelopment in the waterfront area, a place with old manufacturing buildings and vacant land that the City would like to redevelop. This redevelopment opportunity could spur growth in nearby environmental justice neighborhoods.

Property values in environmental justice neighborhoods surrounding the Battleship Cove Station site may increase due to a perceived market value of residences or businesses close to a transit center. Additionally, TOD in the vicinity of the site could further enhance property values.

Statistical information suggests that the Fall River environmental justice populations may benefit from the Battleship Cove Station. In Fall River, 57.3 percent of the population is defined as living in environmental justice neighborhoods. The Battleship Cove Station site is within a neighborhood meeting environmental justice income criteria, and is close to (within 0.5 mile of) other neighborhoods meeting foreign-born, minority, income, and/or English language fluency criteria. Approximately 88.7 percent of the Fall River population (10,965 persons) within 0.5 mile of the Battleship Cove Station site resides in a designated environmental justice neighborhood.

Neighborhoods meeting a full range of environmental justice criteria are present outside of the 0.5-mile radius around the Battleship Cove Station site. Approximately 20.7 percent of the households in Fall River had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice populations in Fall River in particular is likely to realize an improvement in local employment opportunities and access to transit services for employment and/or educational opportunities both inside and outside the community.

Canton Center

The Canton Center Station is an existing train station along the Stoughton Line that would serve the Stoughton and Whittenton Alternatives. It is located at 710 Washington Street in Canton. This station would be reconstructed for the Stoughton and Whittenton Alternatives.

The Canton Center Station is in an environmental justice neighborhood in Canton (Figure 4.4-28). The neighborhood meets environmental justice minority criteria. Given the current active status of the Canton Center Station in a developed area of Canton, it is unlikely that direct or indirect effects to environmental justice populations would result from using this station.

Canton Junction

The Canton Junction Station is an existing train station along the Northeast Corridor that would serve all rail alternatives. It is located at the intersection of Beaumont and Sherman Streets in Canton. This station would be reconstructed for all rail alternatives.

The Canton Junction Station is within an environmental justice neighborhood in Canton (Figure 4.4-29). The neighborhood meets environmental justice minority criteria. Given the current active status of the Canton Junction Station in a developed area of Canton, it is unlikely that direct or indirect effects to environmental justice populations would result from using this station.

Downtown Taunton

The Downtown Taunton Station would be a new train or bus station constructed along the Attleboro Secondary that would serve the Attleboro Alternatives, the Whittenton Alternatives, or the Rapid Bus Alternative. It would be located at 22 Oak Street, near the intersection of Mason Street and Wales Street, in Taunton. This site is adjacent to the GATRA bus station and maintenance facility. The new station would provide an opportunity for multi-modal transit connections, and would serve walk-in, bike-in, bus-in, and drive-in customers.

The Downtown Taunton Station site is within and near environmental justice populations in Taunton (Figure 4.4-30). The surrounding neighborhood meets environmental justice low income and minority criteria. The following subsections describe the direct and indirect impacts to environmental justice populations potentially resulting from constructing and using the Downtown Taunton Station for the Attleboro Alternatives, the Whittenton Alternatives, or the Rapid Bus Alternative.

Direct Impacts

One parcel within an environmental justice neighborhood would be acquired for the Downtown Taunton Station, as listed in Table 4.4-28 and shown in Figure 4.4-30.

Table 4.4-28 Downtown Taunton Station: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Taunton	65-357	Public[1]	Commercial	Undeveloped	Income, Minority	6.32[2]

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

1- The parcel is owned by GATRA, a semi-public agency.

2- A smaller area, 4.78 acres, would be acquired for a bus station for the Rapid Bus Alternative.

The parcel that would be acquired for the Downtown Taunton Station is privately owned by GATRA commercial land, but is currently undeveloped. The land would be used for a parking lot for the station. There would be no impacts to the environmental justice population because no residences or jobs would be lost.

Indirect Impacts

The Downtown Taunton Station site would not require development in an undeveloped area and has adequate infrastructure to serve the station and support nearby redevelopment. The site is in downtown Taunton, close to employment opportunities, services, and environmental justice neighborhoods. The station could also catalyze TOD and presents an opportunity to spur economic growth in downtown Taunton. This redevelopment opportunity could spur growth in the surrounding environmental justice neighborhoods.

Property values in environmental justice neighborhoods surrounding the Downtown Taunton Station site may increase due to a perceived market value of residences or businesses close to a transit center. Additionally, TOD in the vicinity of the site could further enhance property values.

Statistical information suggests that environmental justice populations may benefit from the Downtown Taunton Station. The site is within a neighborhood that meets the environmental justice low income and minority criteria, and is near another neighborhood that meets only the environmental justice income criteria. Approximately 24.7 percent of the population (3,516 persons) within 0.5 mile of the Downtown Taunton Station site resides in a designated environmental justice neighborhood. Approximately 12.7 percent of the population of Taunton is defined as living in environmental justice neighborhoods.

Only 9.3 percent of the households in Taunton had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, the this portion of the environmental justice population in Taunton in particular is likely realize an improvement in local employment and access to transit services for employment and/or educational opportunities both inside and outside the community.

Easton Village

The Easton Village Station would be a new train station constructed along the Stoughton Line that would serve the Stoughton and Whittenton Alternatives. It would be located on Sullivan Avenue at the transition point to Mechanic Street (near the intersection with Pond Street) in Easton. This site is south of an historic train station and within walking distance of downtown Easton. The station would be village-style and serve walk-in or bike-in customers. Very little, if any, parking would be provided.

The Easton Village Station site is not within or near any environmental justice neighborhoods (Figure 4.4-31). An analysis of direct or indirect impacts to environmental justice populations from constructing and using the Easton Village Station was not performed.

Fall River Depot

The Fall River Depot Station would be a new train or bus station constructed along the Fall River Secondary for all rail alternatives or the Rapid Bus Alternative. It would be located near the intersection of North Davol Street and Pearce Street, approximately 1 mile north of downtown Fall River (Figure 4.4-32). This approximately 8-acre site was previously developed as an historic train station. The new station is envisioned to be a multi-modal transportation center with new mixed-use development and parking facilities. The station would serve walk-in, bike-in, bus-in, and drive-in customers.

The Fall River Depot Station site is partially within and would therefore serve an environmental justice neighborhood in Fall River, and would also serve environmental justice populations in nearby Swansea. The adjacent neighborhood meets environmental justice minority and low income criteria. The following subsections describe the direct and indirect impacts to environmental justice populations in Fall River and Swansea potentially resulting from constructing and using the Fall River Station along the Fall River Secondary.

Direct Impacts

Portions of four parcels within an environmental justice neighborhood would be acquired for the Fall River Depot Station, as listed in Table 4.4-29 and shown Figure 4.4-32.

Table 4.4-29 Fall River Depot Station: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Fall River	O-22-5	Private	Industrial	Commercial	Income, Minority	0.12
Fall River	O-22-6	Private	Industrial	Commercial	Income, Minority	0.10
Fall River	O-22-7	Private	Industrial	Commercial	Income, Minority	0.06
Fall River	O-22-11	Private	Industrial	Industrial	Income, Minority	0.47
Total						0.75

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

Five other parcels outside of the environmental justice neighborhood boundary would also be acquired. The nine parcels that would be acquired for the Fall River Depot Station are privately owned and used for commercial or industrial purposes. Acquiring these nine parcels would result in a property tax revenue loss of $40,411 for the City of Fall River, directly affecting the financial resources available for the surrounding environmental justice neighborhood.

Commercial or industrial buildings on some of the parcels listed above would be acquired to construct this station. The businesses present include a flooring store (Jay Vee's Discount Flooring), electrical companies (GEMCO electrical contractors and Cotter Electrical, tire service shop (Jimmy's Used Tires), and automobile detail service (Auto Accent). No readily available information suggests that these businesses are owned by environmental justice populations. Employees may be residents of the surrounding environmental justice neighborhoods. Job losses from these businesses would be expected and would adversely impact the surrounding environmental justice neighborhood. It is not known if these businesses are likely to relocate nearby.

Indirect Impacts

The Fall River Depot Station site would not require redevelopment of an undeveloped area and has adequate infrastructure to serve the station and support nearby redevelopment. It is located 1 mile north of downtown Fall River, close to a dense residential neighborhood and aging shopping plaza, and across from a redeveloping waterfront along Route 79. This site is close to employment opportunities and environmental justice neighborhoods. The station could also catalyze redevelopment in that it offers a classic TOD opportunity that fits with the City's plans for redeveloping the waterfront. This redevelopment opportunity could spur growth in the proximate environmental justice neighborhoods.

Property values in environmental justice neighborhoods surrounding the Fall River Depot Station site may increase due to a perceived market value of residences or businesses close to a transit center. Additionally, TOD in the vicinity of the site could further enhance property values.

Statistical information suggests that the Fall River environmental justice populations may benefit from access to transit services at the Fall River Depot Station. As noted above, 57.3 percent of the Fall River population is defined as living in environmental justice neighborhoods. The site is close to (within 0.5 mile of) neighborhoods meeting environmental justice income and/or minority criteria. Approximately 50.2 percent of the population (4,652 persons) within 0.5 mile of the Fall River Station site resides in a designated environmental justice neighborhood. Neighborhoods meeting a full range of environmental justice criteria are near the Fall River Station site.

Approximately 20.7 percent of the households in Fall River had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in Fall River in particular is likely to realize an improvement in local employment and access to transit services for employment and/or educational opportunities both inside and outside the community.

The Fall River Depot Station site is also approximately 4 miles from downtown Swansea, where 5.7 percent of the population is defined as living in environmental justice neighborhoods. The environmental justice neighborhoods in Swansea meet income criteria. Approximately 4.5 percent of the households in Swansea had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, the majority of the environmental justice population in Swansea is likely to possess the means to commute via automobile to the Fall River Depot Station but is not within walking distance. If any of the rail alternatives or the Rapid Bus Alternative are selected, the Swansea environmental justice population would likely realize an improvement in access to transit services for employment and/or educational opportunities outside the community.

Freetown

The Freetown Station would be a new train or bus station constructed to serve the Fall River Secondary for all rail alternatives or the Rapid Bus Alternative. It would be located along South Main Street in Freetown, adjacent to a site occupied by a self storage business. The approximately 18-acre site is near the Fall River Executive Park and the River Front Park. The Freetown Station would serve drive-in customers and customers shuttled between the station and these nearby industrial parks.

The Freetown Station site is not within or near any environmental justice neighborhoods (Figure 4.4-33). An analysis of direct or indirect impacts to environmental justice populations from constructing and using the Freetown Station was not performed.

Galleria

The Galleria Station is an existing parking lot that would be reconfigured slightly to serve the Rapid Bus Alternative. It is located at the Silver City Galleria Mall, near the intersection of Routes 140 and 24 in Taunton.

The Galleria Station site is not within or near any environmental justice neighborhoods (Figure 4.4-34), but the station could serve environmental justice populations in nearby Taunton. The nearby neighborhoods meet environmental justice low income and/or minority criteria. The following subsections describe the direct and indirect impacts to the environmental justice populations in Taunton potentially resulting from using the Galleria Station for the Rapid Bus Alternative.

Direct Impacts

There are no environmental justice neighborhoods close to the Galleria Station and, therefore, there would be no property acquisition impacts to environmental justice populations.

Indirect Impacts

The Galleria Station site would not require redevelopment of an undeveloped area and has adequate infrastructure to serve the station and support nearby redevelopment. It is close to employment opportunities, but not environmental justice neighborhoods. The station could catalyze further transit-oriented development of the adjacent Silver City Galleria Mall, and the site has potential for future mixed-use development. However, the distance of this site from environmental justice neighborhoods limits the potential growth-inducing effects that this station may have on those neighborhoods.

As noted above, no environmental justice neighborhoods are present within 0.5 mile of the Galleria Station. However, statistical information suggests that the Taunton environmental justice populations may benefit from the Galleria Station. The station is approximately 2.5 miles from downtown Taunton, where 12.7 percent of the population is defined as living in environmental justice neighborhoods. These neighborhoods are identified as meeting minority and/or low income environmental justice criteria.

Only 9.3 percent of the households in Taunton had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice populations in Taunton in particular would likely realize an improvement in local employment and incremental improvement to access to transit services for employment and/or educational opportunities both inside and outside the community as bus service is expanded south to Fall River and New Bedford, and north into Boston.

King's Highway

The King's Highway Station would be a new train or bus station constructed along the New Bedford Main Line to serve all rail alternatives or the Rapid Bus Alternative. It would be located near the intersection of King's Highway and Tarkiln Hill Road, off of Route 140, in northern New Bedford. This site is a previously developed parcel within an approximately 55-acre site that is now a shopping plaza. The station would serve walk-in, bike-in, and drive-in customers.

The King's Highway Station site is not within but is near to environmental justice neighborhoods in New Bedford (Figure 4.4-35). This station would also serve environmental justice populations in nearby Fairhaven. The following subsections describe the direct and indirect impacts to environmental justice populations in New Bedford and Fairhaven potentially resulting from constructing and using the King's Highway Station along the New Bedford Main Line.

Direct Impacts

There are no environmental justice neighborhoods close to the King's Highway Station and, therefore, there would be no property acquisition impacts to environmental justice populations.

Indirect Impacts

The King's Highway Station site would not require development of an undeveloped area and has adequate infrastructure to serve the station and support nearby redevelopment. The site is near employment opportunities and environmental justice neighborhoods. The station could also catalyze redevelopment in that it offers an opportunity to revitalize an aging shopping plaza by redeveloping it into a mixed-use neighborhood or lifestyle center. The site also presents an opportunity for joint development. This redevelopment opportunity could spur growth in the nearby environmental justice neighborhoods.

Property values in environmental justice neighborhoods surrounding the King's Highway Station site may increase due to a perceived market value of residences or businesses close to a transit center. Additionally, TOD in the vicinity of the site could further enhance property values.

In New Bedford, 68.2 percent of the population is defined as living in environmental justice neighborhoods. The site is near (within 0.5 mile of) one neighborhood meeting environmental justice income criteria. Approximately 20.9 percent of the population (1,213 persons) within 0.5 mile of the King's Highway Station site resides in a designated environmental justice neighborhood. Neighborhoods meeting a full range of environmental justice criteria are outside of the 0.5-mile radius around the King's Highway Station site.

Approximately 21.7 percent of the households in New Bedford had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the New Bedford environmental justice populations in particular is likely to realize an improvement in local employment or access to transit services for employment and/or educational opportunities inside or outside the community.

The King's Highway Station site is approximately 6.75 miles from downtown Fairhaven, where 9.7 percent of the population is defined as living in an environmental justice neighborhood. The environmental justice population in Fairhaven meets income criteria.

Approximately 7.0 percent of the households in Fairhaven had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in Fairhaven in particular is likely to realize an improvement in access to transit services for employment and/or educational opportunities outside the community.

Mansfield

The Mansfield Station is an existing train station along the Northeast Corridor that would serve the Attleboro Alternatives. It is located at 1 Crocker Street in Mansfield. This station would be reconstructed for the Attleboro Alternatives.

The Mansfield Station is not located within, but is near, an environmental justice neighborhood in Mansfield (Figure 4.4-36). Given the current active status of the Mansfield Station in a developed area of Mansfield, it is unlikely that direct or indirect effects to environmental justice populations would result from using this station.

North Easton

The North Easton Station would be a new train station constructed along the Stoughton Line that would serve the Stoughton and Whittenton Alternatives. It would be located at 21 Washington Street in Stoughton, behind the Roche Brothers Plaza. The station would use a portion of an existing approximately 10-acre retail and office plaza. The station would likely have shared structured parking facilities and would primarily serve drive-in customers, although some walk-in customers from existing development or nearby residences may be attracted to the station.

The North Easton Station site is not within or proximate to any environmental justice neighborhoods (Figure 4.4-37). An analysis of direct or indirect impacts to environmental justice communities potentially resulting from constructing and using the North Easton Station was not performed.

Raynham Place

The Raynham Place Station would be a new train station constructed along the Stoughton line that would serve the Stoughton and Whittenton Alternatives. The site is located at 1958 Broadway in Raynham, at the existing Raynham Park greyhound dog racing facility. The station would be on a portion of this approximately 80-acre site. The station would be geared toward serving mostly drive-in customers, with additional future walk-in customers being drawn from future redevelopment of the site.

The Raynham Place Station site is not within or near any environmental justice neighborhoods (Figure 4.4-38). An analysis of direct or indirect impacts to environmental justice populations from constructing and using the Raynham Place Station was not performed.

Sharon

The Sharon Station is an existing train station along the Northeast Corridor that would serve the Attleboro Alternatives. It is located at 1 Upland Road in Sharon. This station would be reconstructed for the Attleboro Alternatives of the South Coast Rail Project.

The Sharon Station is not within or close to any environmental justice neighborhoods (Figure 4.4-39). Although environmental justice neighborhoods are located within 5 miles of this site, in Canton, those neighborhoods would likely be served by the closer Canton Center Station described above. An analysis of direct or indirect impacts to environmental justice populations from reconstructing and using the Sharon Station was not performed.

Stoughton

The Stoughton Station is an existing train station along the Stoughton Line that would serve the Stoughton and Whittenton Alternatives. It is located at 45 Wyman Street in Stoughton. This station would be reconstructed for the Stoughton Alternatives.

The Stoughton Station is within an environmental justice neighborhood in Stoughton (Figure 4.4-40). The neighborhood meets environmental justice foreign-born criteria. The following subsections describe the direct and indirect impacts to the environmental justice population in Stoughton potentially resulting from reconstructing and using the Stoughton Station.

Direct Impacts

A portion of one parcel within an environmental justice neighborhood would be acquired for the Stoughton Station, as listed in Table 4.4-30 and shown in Figure 4.4-40.

Table 4.4-30 Stoughton Station: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
Stoughton	054_110	Private	Commercial	Industrial	Foreign	0.10

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

The portion of the parcel that would be acquired for the Stoughton Station is privately owned industrial land, used for transportation/utilities industrial purposes. The land would be used for a parking lot for the station. There would be no impacts to the environmental justice population because no residences or jobs would be lost.

Indirect Impacts

Given the current active status of the Stoughton Station in a developed area of Stoughton, it is unlikely that substantive growth in proximate environmental justice neighborhoods would be induced by using this station. Access to transit services would also not be impacted.

Taunton

The Taunton Station would be a new train station constructed along the Stoughton Line that would serve the Stoughton Alternatives. The approximately 8-acre site is near the intersection of East Arlington Street and William Hooke Lane, north of Dean Street (U.S. Route 44) in Taunton. This location is just north of an historic train station and is within walking distance of downtown Taunton. The City of Taunton has invested in remediating this brownfield site in anticipation of a future train station. The site is zoned for mixed-use redevelopment and the station would be a multi-modal transportation center serving walk-in, bike-in, and drive-in customers.

The Taunton Station site is located near, but not within, an environmental justice neighborhood in Taunton (Figure 4.4-41). The nearby environmental justice neighborhood meets low income criteria. The following subsections describe the direct and indirect impacts to environmental justice populations potentially resulting from constructing and using the Taunton Station for the Stoughton Alternatives.

Direct Impacts

There are no environmental justice neighborhoods close to the Taunton Station and, therefore, there would be no property acquisition impacts to environmental justice populations.

Indirect Impacts

The Taunton Station site would not require development in an undeveloped area and has adequate infrastructure to serve the station and support nearby redevelopment. The site is near downtown Taunton, close to employment opportunities and near environmental justice neighborhoods. The station could also catalyze TOD. The surrounding area offers infill development opportunity for a mixed-use, village-style neighborhood that would be served by rail. This redevelopment opportunity could spur growth in the nearby environmental justice neighborhoods.

Property values in environmental justice neighborhoods surrounding the Taunton Station site may increase due to a perceived market value of residences or businesses close to a transit center. Additionally, TOD in the vicinity of the site could further enhance property values.

Statistical information suggests that environmental justice populations may benefit from the Taunton Station. In Taunton, 12.7 percent of the population is defined as living in environmental justice neighborhoods. The site is near (within 0.5 mile of) one neighborhood meeting environmental justice income criteria. Approximately 21.1 percent of the population (1,857 persons) within 0.5 mile of the Taunton Station site resides in a designated environmental justice neighborhood. Neighborhoods meeting income and minority environmental justice criteria are just outside of the 0.5-mile radius around the Taunton Station site.

Approximately 9.3 percent of the households in Taunton had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in Taunton in particular is likely realize an improvement in local employment and access to transit services for employment and/or educational opportunities inside or outside the community.

Taunton Depot

The Taunton Depot Station would be a new train station constructed along the New Bedford Main Line that would serve all rail alternatives. It would be located at 872 County Street in Taunton, at the rear of the existing Target Plaza. This 14-acre site is currently an undeveloped parcel. The station would serve customers that drive in, as well as potential future walk-in or bike-in customers if redevelopment of the local area were to occur.

The Taunton Depot Station site is not within an environmental justice neighborhood (Figure 4.4-42) but environmental justice neighborhoods are present in nearby Taunton. The following subsections describe the direct and indirect impacts to environmental justice populations potentially resulting from constructing and using the Taunton Depot Station along the New Bedford Main Line.

Direct Impacts

There are no environmental justice neighborhoods in Taunton close to the Taunton Depot Station and, therefore, there would be no property acquisition impacts to environmental justice populations.

Indirect Impacts

The Taunton Depot Station site has adequate infrastructure to serve the station and support redevelopment. It is located close to employment opportunities and services, as well as multi-family housing. The station would be near a key highway junction for Freetown, Berkley, and Lakeville. Using this site could catalyze TOD in that it offers an opportunity in the future to redevelop the existing shopping center into a mixed-use neighborhood or lifestyle center. However, the distance of this site from environmental justice neighborhoods limits the potential growth-inducing effects that this station may have on those neighborhoods.

As noted above, no environmental justice neighborhoods are present within 0.5 mile of the Taunton Depot Station site. But, statistical information suggests that the Taunton environmental justice population may benefit from access to transit services at the Taunton Depot Station. The site is approximately 2.25 miles from downtown Taunton, where 12.7 percent of the population is defined as living in environmental justice neighborhoods. These neighborhoods are identified as meeting minority and/or income environmental justice criteria.

Only 9.3 percent of the households in Taunton had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in Taunton in particular is likely to realize an improvement in local employment and access to transit services for employment and/or educational opportunities outside the community.

Whale's Tooth

The Whale's Tooth Station would be a new train station constructed along the New Bedford Main Line and would serve all rail alternatives or the Rapid Bus Alternative. It would be located near the intersection of Acushnet Avenue and Hillman Street, near the southern terminus of the New Bedford Main Line. The City of New Bedford has constructed a parking lot on the approximately 14-acre site in anticipation of the South Coast Rail Project. The station would include intermodal connections, potentially including ferry services. The station would serve walk-in, bike-in, and drive-in customers.

The Whale's Tooth Station site is located within and near environmental justice neighborhoods in New Bedford (Figure 4.4-43). This station may also serve environmental justice populations in nearby Fairhaven and Dartmouth. The following subsections describe the direct and indirect impacts to environmental justice populations in New Bedford, Fairhaven, and Dartmouth potentially resulting from constructing and using the Whale's Tooth Station for the New Bedford Main Line or Rapid Bus Alternative of the South Coast Rail Project.

Direct Impacts

Portions of four or five parcels (depending upon the alternative chosen) within an environmental justice neighborhood would be acquired for the Whale's Tooth Station, as listed in Table 4.4-31 and shown Figure 4.4-43.

Table 4.4-31 Whale's Tooth Station: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
New Bedford	66-101	Public	Industrial	Industrial	Income, Minority	1.92
New Bedford	66-121[1]	Public	Industrial	Industrial	Income, Minority	0.38
New Bedford	66-133	Public	Industrial	Industrial	Income, Minority	3.38
New Bedford	66-133A	Private	Industrial	Industrial	Income, Minority	0.05
New Bedford	66-157	Public	Industrial	Industrial	Income, Minority	0.26
Total						**5.99**

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

1 This parcel would be acquired for the train station (all rail alternatives) but not the bus station (Rapid Bus Alternative). The bus station would require acquisition of 5.61 acres of environmental justice neighborhood land.

Four of the parcels that would be acquired for the Whale's Tooth Station are publicly owned and one is privately owned. All are zoned for industrial purposes and the general land use is industrial; they are all used for transportation/utilities. None are used for residential purposes. One of the publicly owned parcels, number 66-121, would only be acquired for the train station and would not be acquired for the bus station. The total area that would be acquired for the bus station would therefore be 5.61 acres. MassDOT may lease, rather than acquire, the publicly owned parcels from the City of New Bedford. All of the land would be used a parking lot for the station. There would be no impacts to environmental justice populations because no residences or jobs would be lost.

Indirect Impacts

The Whale's Tooth Station site would not require development in an undeveloped area and has adequate infrastructure to serve the station and support nearby redevelopment. The site is close to the New Bedford waterfront, downtown New Bedford, and the Hicks Logan redevelopment area. The station would be near employment opportunities and environmental justice populations. Immediately adjacent to the state site are old mill buildings in the process of being converted to homes. The station could also catalyze TOD. The Hicks Logan area presents an opportunity to develop a mixed-use waterfront neighborhood that would be served by rail. This redevelopment opportunity could spur growth in the nearby environmental justice neighborhoods.

Property values in environmental justice neighborhoods surrounding the Whale's Tooth Station site may increase due to a perceived market value of residences or businesses close to a transit center. Additionally, TOD in the vicinity of the site could further enhance property values.

Statistical information suggests that environmental justice populations may benefit from the Whale's Tooth Station. In New Bedford, 68.2 percent of the population is defined as living in environmental justice neighborhoods. The site is within a neighborhood meeting environmental justice income and

minority criteria, and is close to (within 0.5 mile of) other neighborhoods meeting foreign-born, minority, and/or income criteria. Approximately 85.6 percent of the population (8,937 persons) within 0.5 mile of the Whale's Tooth Station site resides in a designated environmental justice neighborhood. Approximately 21.7 percent of the households in New Bedford had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in New Bedford in particular is likely to realize an improvement in local employment and access to transit services for employment and/or educational opportunities both inside and outside the community.

The Whale's Tooth Station site is also approximately 2 miles from downtown Fairhaven, where 9.7 percent of the population is defined as living in environmental justice neighborhoods. The environmental justice populations in Fairhaven meet income criteria. Approximately 7.0 percent of the households in Fairhaven had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in Fairhaven in particular is likely to realize an improvement in access to transit services for employment and/or educational opportunities outside the community.

The Whale's Tooth Station site is approximately 4 miles from downtown Dartmouth, where 11.8 percent of the population is defined as living in environmental justice neighborhoods. The environmental justice populations in Dartmouth meet foreign born and/or income criteria. Approximately 6.4 percent of the households in Dartmouth had no registered motor vehicles in 2000, compared to a statewide average of 12.7 percent. Based on these data, this portion of the environmental justice population in Dartmouth in particular is likely to realize an improvement in access to transit services for employment and/or educational opportunities outside the community.

4.4.3.11 LAYOVER FACILITIES

One midday train layover facility is planned for the Boston area, but alternative sites have not been selected yet. One midday bus layover facility is also planned for the Boston area. Two layover facilities are planned for the Southern Triangle: one each at or near the end of the Fall River Secondary and the New Bedford Main Line. Three alternative sites have been identified in Fall River and two alternative sites have been identified in New Bedford. This section provides descriptions of each of the layover facilities, an indication of its location in or near any environmental justice neighborhood, and a qualitative evaluation of the direct impacts to environmental justice populations potentially resulting from constructing and using these facilities for the South Coast Rail Project.

Logan Express

The proposed Logan Express (Midday Bus) layover facility, in Braintree would be constructed on Forbes Road, along Interstate 93 (Figure 4.4-44). Buses would have direct access to the proposed facility from dedicated bus lanes to be placed within the median of I-93. The proposed site is a large, existing Park and Ride lot for the Logan Express service offered by Massport.

There are no required changes to the site for layover functions therefore; there will be neither land disturbance nor noise impacts. The existing noise levels associated with Logan Express bus and vehicle engines will be equal to that of bus and vehicle use for layover functions because they are equivalent types of uses. There are no adjacent residential neighborhoods or environmental justice neighborhoods.

Environmental justice populations would not be impacted by the Logan Express (Midday Bus) layover facility.

Wamsutta

The Wamsutta site layover facility would be constructed along the New Bedford Main Line and would serve all rail alternatives. It would be located near the intersection of Wamsutta Street and Herman Melville Boulevard, near the southern terminus of the New Bedford Main Line.

The Wamsutta site is within and near environmental justice neighborhoods in New Bedford (Figure 4.4-45). The site is within a neighborhood meeting environmental justice low income and minority criteria, and is close to (within 0.5 mile of) other neighborhoods meeting foreign-born, minority, and/or income criteria. The direct property acquisition impacts to environmental justice populations that would potentially result from constructing and using a layover facility at the Wamsutta site are described below.

One publicly owned parcel would be acquired for the Wamsutta site layover facility, as listed in Table 4.4-32 and shown in Figure 4.4-45.

Table 4.4-32 Wamsutta Site: Environmental Justice Property Acquisition

Municipality	Parcel Number	Ownership	Generalized Zoning	General Land Use	Environmental Justice Categories	Area (acres)
New Bedford	72-275	Public	Industrial	Undeveloped	Income, Minority	11.02

Sources: MassGIS 2002, 2005; municipal data 2009, aerial mapping, and online research (various).

Although the Wamsutta site is located within an environmental justice neighborhood, the site is owned by the City of New Bedford. No privately owned environmental justice neighborhood land would be acquired for constructing a layover facility at the Wamsutta site. There would be no impacts to environmental justice populations because no residences or jobs would be lost.

Church Street

The Church Street site layover facility would be constructed along the New Bedford Main Line and would serve all rail alternatives. It would be located between Church Street and Route 140, near where Route 140 crosses the New Bedford Main Line, approximately 4.5 miles from the southern terminus of the New Bedford Main Line.

The Church Street site is close to environmental justice neighborhoods in New Bedford (Figure 4.4-46). The neighborhoods meet environmental justice income and minority criteria. However, no parcels within an environmental justice neighborhood would be acquired for the Church Street site layover facility. There would be no property acquisition impacts to environmental justice populations.

Weaver's Cove East

The Weaver's Cove East site layover facility would be constructed along the Fall River Secondary and would serve all rail alternatives. It would be located off of Main Street between the existing Fall River Secondary freight line and Main Street, approximately 2.5 miles from the southern terminus of the Fall River Secondary.

The Weaver's Cove East site is near an environmental justice neighborhood in Fall River (Figure 4.4-47). The neighborhood meets environmental justice income criteria. However, no parcels within an environmental justice neighborhood would be acquired for the Weaver's Cove East site layover facility. There would be no property acquisition impacts to environmental justice populations.

Weaver's Cove West

The Weaver's Cove West site layover facility would be constructed along the Fall River Secondary and would serve all rail alternatives. It would be located between the existing Fall River Secondary freight line and the Taunton River, approximately 2.5 miles from the southern terminus of the Fall River Secondary.

The Weaver's Cove West site is near an environmental justice neighborhood in Fall River (Figure 4.4-48). The neighborhood meets environmental justice income criteria. However, no parcels within an environmental justice neighborhood would be acquired for the Weaver's Cove West site layover facility. There would be no property acquisition impacts to environmental justice populations.

ISP

The ISP site layover facility would be constructed along the Fall River Secondary and would serve all rail alternatives. It would be located off of Main Street in Freetown between the existing Fall River Secondary freight line and the Taunton River, approximately 6 miles from the southern terminus of the Fall River Secondary.

The ISP site is not located within or near any environmental justice neighborhood (Figure 4.4-49). An analysis of direct or indirect impacts to environmental justice populations from constructing and using the ISP site layover facility was not performed.

4.4.3.12 ACCESS AND TRAVEL TIME IMPACTS

This section describes the impacts to access and travel time that would be realized by environmental justice populations as a result of the South Coast Rail project.[21] This includes evaluation of the improvements in access to basic, retail, and service jobs, and college and hospitals, as well as improvements in travel time to Boston, from Taunton, Fall River, and New Bedford, for both environmental justice and non-environmental justice populations (see Appendix 4.4-A).

As distinguished from the individual element evaluations provided in Sections 4.4.3.1 through 4.4.3.11, this analysis was conducted for the combination of elements for each of the rail alternatives (Attleboro,

[21] CTPS. 2009. South Coast Rail Environmental Justice Study. Central Transportation Planning Staff, Boston Metropolitan Planning Organization: Boston.

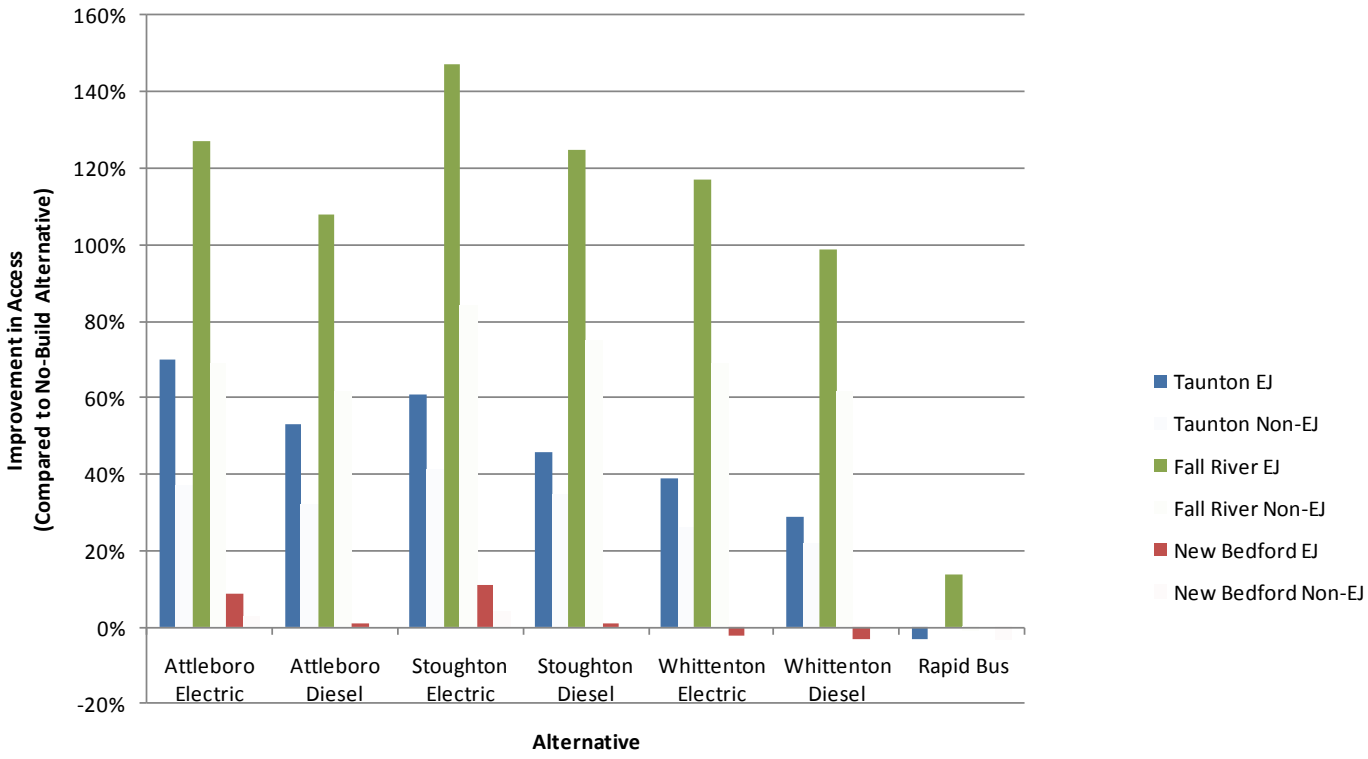
Stoughton, and Whittenton), including both electric and diesel options, as well as the Rapid Bus Alternative. Each travel scenario was compared to the No-Build Alternative (Enhanced Bus) on a percent change basis, and results are provided for both environmental justice and non-environmental justice neighborhoods.

Potential Effects to Job Access

The South Coast Rail project would improve access to jobs for both environmental justice and non-environmental justice populations. The CTPS report identifies the relative improvements for each of the Build Alternatives, as compared to the No-Build Alternative, in transit access to basic, retail, and service employment opportunities from environmental justice and non-environmental justice neighborhoods in Taunton, Fall River, and New Bedford to jobs within 90 minutes' travel time.

Selected job access data are presented graphically in Figure 4.4-50. The relative improvement in access to basic jobs for environmental justice populations in the three communities is shown for each alternative, as compared to the No-Build Alternative. The transit access percentages represent the change in the number of jobs that would be accessible within 90 minutes of these communities, in reference to the No-Build Alternative. These values reflect a given population's change in the capacity to travel farther (to employment sites) within a 90-minute radius, as a result of changes in access to transit, from neighborhoods in each of the communities. Positive values represent improvements in access (more jobs accessible), while negative values represent degradations in access (fewer jobs accessible). Negative values are possible if a population (whether environmental justice or non-environmental

Figure 4.4-50 Improvements in Access to Basic Jobs



justice) would realize less of a benefit by using a particular alternative than by using the Enhanced Bus system of the No-Build Alternative.

These data suggest that, on average, access for environmental justice populations to basic jobs resulting from any of the South Coast Rail alternatives would be improved over the No-Build Alternative. The changes in access to basic jobs realized by environmental justice populations in the three communities vary considerably by alternative, with the greatest improvements seen by Fall River populations using any of the alternatives. New Bedford populations would receive the least overall improvement; for New Bedford populations using the Attleboro or Stoughton Diesel Alternatives, either of the Whittenton Alternatives, or the Rapid Bus Alternative: access to basic jobs would not be improved over the No-Build Alternative. The greatest average improvement would be accomplished by the Stoughton Electric Alternative: access to basic jobs for environmental justice populations in the three communities would improve by an average of 73 percent. The Rapid Bus Alternative would result in the lowest average improvement in access to basic jobs for environmental justice populations, at 3.7 percent.

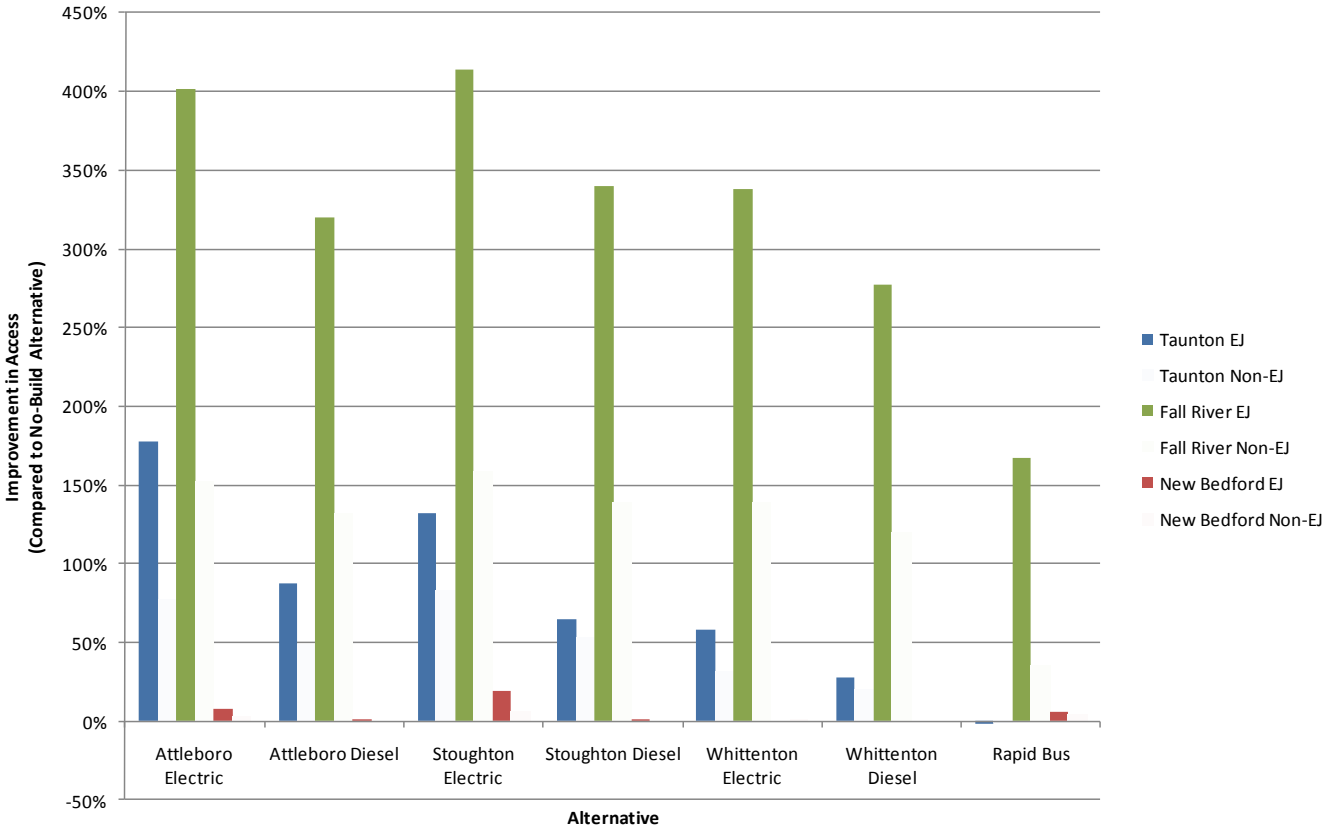
Potential Effects to College and Hospital Access

The South Coast Rail alternatives would result in improved access to colleges and hospitals for environmental justice and non-environmental justice populations. The CTPS report indicates that the project would improve transit access to higher education (i.e. commutation access to college enrollment slots) and non-emergency medical facilities (i.e. "hospital beds") for both environmental justice and non-environmental justice populations. The CTPS report identifies the relative improvements in transit access for each of the Build Alternatives, as compared to the No-Build Alternative, as reflected in the increase in the number of colleges and hospitals within 90 minutes' travel time by transit from environmental justice and non-environmental justice neighborhoods in Taunton, Fall River, and New Bedford.

Hospital access data are presented graphically in Figure 4.4-51. The relative improvement in access to hospitals for environmental justice populations in the three communities is shown for each alternative, as compared to the No-Build Alternative. The transit access percentages represent the change in the number of medical facilities (as expressed in the total number of hospital beds) that are within the 90-minute travel time radius. As with the access to basic jobs data described above, these values reflect a given population's change in the capacity to travel farther (to hospitals) within a 90-minute radius, as a result of changes in access to transit, from neighborhoods in each of the communities.

These data suggest that, on average, access for environmental justice populations to hospitals resulting from any of the South Coast Rail alternatives would be improved over the No-Build Alternative. The changes realized by environmental justice populations in the three communities vary considerably, again with the greatest improvements in access to hospitals seen by the Fall River environmental justice populations under any alternative. The least improvement would be seen by New Bedford populations using any alternative. CTPS attributes these minimal improvements to station locations (such as Whale's Tooth Station) that do not directly connect with existing Southeastern Regional Transit Authority bus terminals in New Bedford. The greatest average improvement would be accomplished by the Attleboro Electric Alternative: access to hospitals for environmental justice populations in the three communities would improve by 196 percent. The Rapid Bus Alternative would result in the lowest average improvement in access to hospitals for environmental justice populations, at 53 percent.

Figure 4.4-51 Improvements in Access to Hospitals

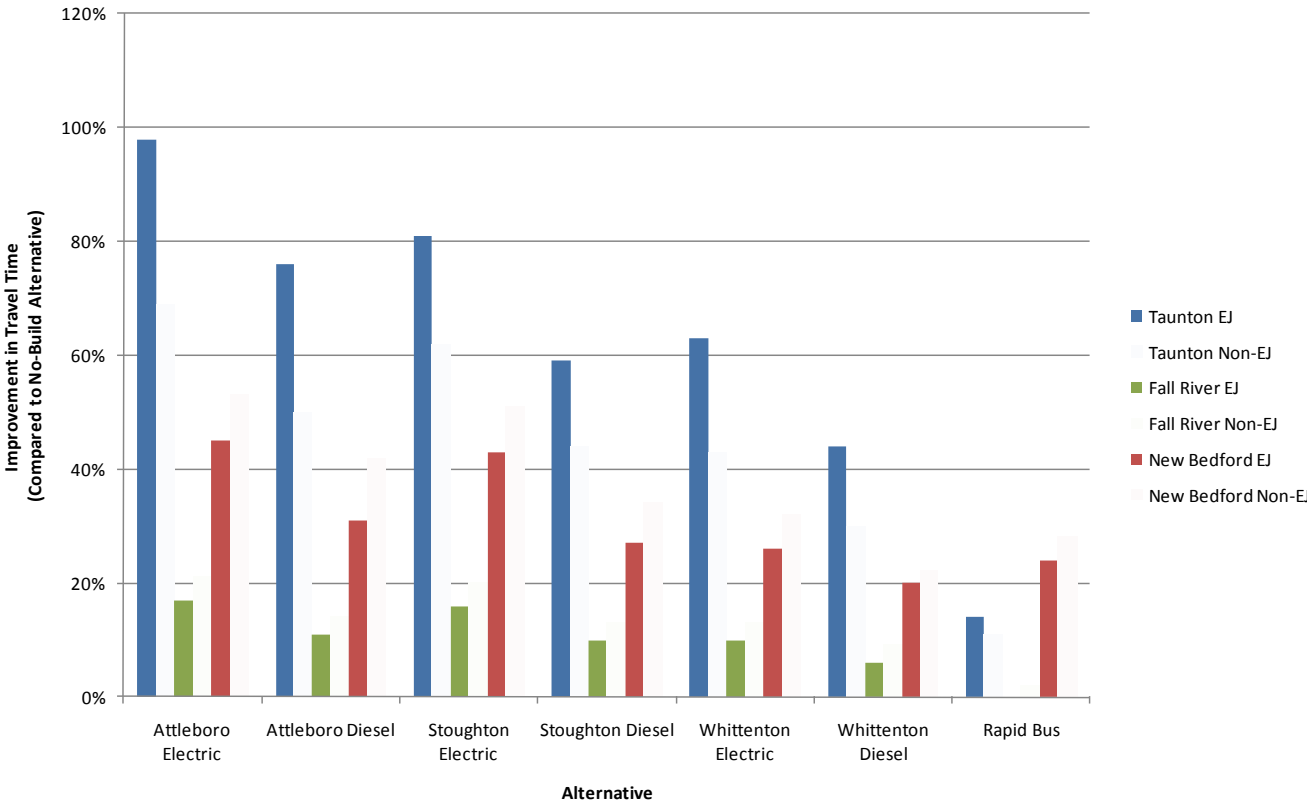


Potential Effects to In-Vehicle Travel Time to Boston

The South Coast Rail project would also result in improved, as compared to the No-Build (Enhanced Bus) Alternative, travel times to Boston from three South Coast communities for environmental justice and non-environmental justice populations. All alternatives would reduce in-vehicle travel times from the three communities to a selected location (South Station) in Boston for both environmental justice and non-environmental justice populations. Figure 4.4-52 graphically presents the relative improvements for each of the Build Alternatives, as compared to the No-Build Alternative, in travel time from environmental justice and non-environmental justice neighborhoods in Taunton, Fall River, and New Bedford to South Station.

These data suggest that, on average, travel times to Boston for environmental justice populations would decrease, as compared to the No-Build Alternative, as a result of any of the Build Alternatives proposed for the South Coast Rail project. The changes realized by environmental justice populations in the three communities vary moderately, with the Taunton environmental justice populations seeing the greatest benefit from all rail alternatives. Fall River populations (both EJ and non-EJ) would receive the least benefit from any of the build alternatives, with the least improvement in travel times provided by the Rapid Bus Alternative. The greatest average improvements in travel time (53.3 percent average) would be accomplished by the Attleboro Electric Alternative and the least improvements (12.7 percent

Figure 4.4-52 Improvements in Travel Time to Boston (South Station)



average) by the Rapid Bus Alternative. Environmental justice populations in Taunton using the Attleboro Electric Alternative would realize the greatest time savings (98 percent) while environmental justice populations in Fall River using the Rapid Bus Alternative would realize no time savings (0 percent). In some cases, the improvements for non-environmental justice populations are greater than for the environmental justice populations. This is a result of the relative locations of existing or proposed bus or train stations in relationship to the environmental justice or non-environmental justice neighborhoods. None of the Build Alternatives would result in an increase of travel time from Taunton, Bedford or Fall River to Boston, as compared to the No-Build Alternative, for either environmental justice or non-environmental justice populations in these communities.

4.4.3.13 SUMMARY OF IMPACTS

This section summarizes the direct and indirect effects to environmental justice populations potentially resulting from implementing each of the South Coast Rail Project alternatives.

Attleboro Electric Alternative

The Attleboro Electric Alternative would be comprised of five railroad segments, 11 stations, and two layover facilities:

- Railroad segments:
- Northeast Corridor

- Attleboro Bypass
- Attleboro Secondary
- New Bedford Main Line
- Fall River Secondary
- Stations:
  - Canton Junction
  - Sharon
  - Mansfield
  - Barrowsville
  - Downtown Taunton
  - Taunton Depot
  - Freetown
  - Fall River Depot
  - Battleship Cove
  - King's Highway
  - Whale's Tooth
- Layover Facilities:
  - Weaver's Cove East, Weaver's Cove West, or ISP site
  - Wamsutta or Church Street site

The Attleboro Electric Alternative's railroad segments would not require any environmental justice neighborhood land that would result in job loss or neighborhood fragmentation, and air quality would not be impacted. Noise levels along each segment would increase. The increases in noise levels in environmental justice neighborhoods along the railroad segments comprising the Attleboro Electric Alternative are summarized in Table 4.4-33.

Table 4.4-33 Attleboro Electric Alternative: Summary of Noise Impacts

Municipality	Affected Residences in Environmental Justice Neighborhoods	Total Affected Residences	Percent Environmental Justice Neighborhoods
Attleboro	0	69	0.0
Berkley	0	135	0.0
Canton	14	155	9.0
Fall River	346	610	56.7
Foxborough	0	73	0.0
Freetown	0	437	0.0
Lakeville	0	52	0.0
Mansfield	0	155	0.0
New Bedford	41	218	18.8
Norton	0	343	0.0
Sharon	0	152	0.0
Taunton	507	1,606	31.6
Grand Total	**908**	**4,005**	22.7

The increased noise from the combined railroad segments of the Attleboro Electric Alternative would moderately or severely impact 4,005 residences as presented in Chapter 4.6 - *Noise*. Of these impacted residences, 908, which is 22.7 percent of the total, would be in environmental justice neighborhoods while 3,097 (77.3 percent) would be in non-environmental justice neighborhoods. Residences in environmental justice neighborhoods in Canton, Fall River, New Bedford, and Taunton would be affected. In Fall River, the majority of the affected residences (56.7 percent) would be in environmental justice neighborhoods. In each of the other communities as well as in the regional as a whole, moderate and severe noise impacts are not predominantly borne by residents of environmental justice neighborhoods. At a regional level, noise impacts to environmental justice neighborhoods resulting from the Attleboro Electric Alternative would not be disproportionate to noise impacts to non-environmental justice neighborhoods. However, an analysis at the affected community level shows that environmental justice communities in Canton and Taunton would be disproportionately affected by noise impacts relative to the non-environmental communities in these municipalities. In Canton, 9.0 percent of the affected residences are located in environmental justice neighborhoods, while only 4.9 percent of the municipal population resides in environmental justice neighborhoods. Similarly, in Taunton, 31.6 percent of the affected residences are located in environmental justice neighborhoods, while only 12.7 percent of the municipal population resides in environmental justice neighborhoods. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - Noise.

One station site for the Attleboro Electric Alternative would require property acquisition in an environmental justice neighborhood would result in job losses. Job losses from businesses occupying the buildings on these parcels required for the Fall River Depot Station, along the Fall River Secondary, would be expected. It is not possible to quantify job losses at this phase of the project, but compared to the workforce of 36,989 in Fall River, the loss of jobs from the small businesses occupying these parcels would not be substantive. It is not known if the affected businesses are owned by residents of an environmental justice neighborhood. No other private property acquisitions within environmental justice neighborhoods would result in residence or job losses.

No adverse impacts to environmental justice neighborhoods are expected from any of the layover facility sites.

The indirect effects to environmental justice populations near the stations that would be serviced by the Attleboro Electric Alternative would be primarily realized at new stations within or near environmental justice neighborhoods. These stations would be Downtown Taunton, Taunton Depot, Fall River Depot, Battleship Cove, King's Highway, and Whale's Tooth. The environmental justice populations would be expected to see benefits from TOD, increased property values, and improvements in access to transit.
Overall indirect effects to environmental justice populations in terms of improvements in transit access to jobs, colleges, and hospitals, and travel times to Boston for environmental justice populations in Taunton, Fall River, and New Bedford are provided in the CTPS report (see Appendix 4.4-A). For the Attleboro Electric Alternative, improvements in most of these metrics would be realized for environmental justice populations as compared to the No-Build Alternative.

Attleboro Diesel Alternative

The Attleboro Diesel Alternative would be comprised of the same elements as the Attleboro Electric Alternative described above. The direct environmental consequences of the diesel-powered trains differ

from those of the electric-powered trains in property acquisition, air quality, and noise. Because diesel-powered trains do not require electrical infrastructure, there is a smaller overall footprint for this alternative. Exhaust emissions from the locomotives may adversely impact air quality, and the sound generated varies in quality from that of the electric trains. Different indirect environmental consequences arise as a result of variations in the speed of the trains: diesel trains are slower than electric trains, and travel times are therefore longer. Each of these environmental consequences affects environmental justice populations differently.

For each of the parameters evaluated for adverse effects to environmental justice populations, only noise levels varied between the Attleboro Diesel and Electric Alternatives. The increases in noise levels in environmental justice neighborhoods along the railroad segments comprising the Attleboro Diesel Alternative are summarized in Table 4.4-34.

The increased noise from the combined railroad segments of the Attleboro Diesel Alternative would impact 3,683 residences as presented in Chapter 4.6 - *Noise*. Of these impacted residences, 910, which is 24.7 percent of the total, would be in environmental justice neighborhoods while 2,773 (75.3 percent) would be in non-environmental justice neighborhoods. Residences in environmental justice neighborhoods in Canton, Fall River, New Bedford, and Taunton would be affected. In Fall River, the majority of the affected residences (57.3 percent) would be in environmental justice neighborhoods. In each of the other communities as well as in the region as a whole, moderate and severe noise impacts

Table 4.4-34 Attleboro Diesel Alternative: Summary of Noise Impacts

Municipality	Affected Residences in Environmental Justice Neighborhoods	Total Affected Residences	Percent Environmental Justice Neighborhoods
Attleboro	0	70	0.0
Berkley	0	117	0.0
Canton	15	142	10.6
Fall River	365	637	57.3
Foxborough	0	59	0.0
Freetown	0	409	0.0
Lakeville	0	41	0.0
Mansfield	0	137	0.0
New Bedford	19	136	14.0
Norton	0	300	0.0
Sharon	0	124	0.0
Taunton	511	1511	33.8
Grand Total	**910**	**3,683**	**24.7**

are not predominantly borne by residents of environmental justice neighborhoods. At a regional level, noise impacts to environmental justice neighborhoods resulting from the Attleboro Diesel Alternative would not be disproportionate to noise impacts to non-environmental justice neighborhoods. However, an analysis at the affected community level shows that environmental justice communities in Canton and Taunton would be disproportionately affected by noise impacts relative to the non-environmental communities in these municipalities. In Canton, 10.6 percent of the affected residences are located in environmental justice neighborhoods, while only 4.9 percent of the municipal population resides in environmental justice neighborhoods. Similarly, in Taunton, 34.0 percent of the affected residences are

located in environmental justice neighborhoods, while only 12.7 percent of the municipal population resides in environmental justice neighborhoods. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6, Noise.

Stoughton Electric Alternative

The Stoughton Electric Alternative would be comprised of four railroad segments, 12 stations, and two layover facilities:

- Railroad segments:
  - Northeast Corridor (portion)
  - Stoughton Line
  - New Bedford Main Line
  - Fall River Secondary
- Stations:
  - Canton Junction
  - Canton Center
  - North Easton
  - Easton Village
  - Raynham Place
  - Taunton
  - Taunton Depot
  - Freetown
  - Fall River Depot
  - Battleship Cove
  - King's Highway
  - Whale's Tooth
- Layover Facilities:
  - Weaver's Cove East, Weaver's Cove West, or ISP site
  - Wamsutta or Church Street site

The Stoughton Electric Alternative's railroad segments would not require any environmental justice neighborhood land that would result in job loss or neighborhood fragmentation, and air quality would not be impacted. Noise levels along each segment would increase. The increases in noise levels in environmental justice neighborhoods along the railroad segments comprising the Stoughton Electric Alternative are summarized in Table 4.4-35.

The increased noise from the combined railroad segments of the Stoughton Electric Alternative would impact 3,053 residences as presented in Chapter 4.6 - *Noise*. Of these impacted residences, 505, which is 16.5 percent of the total, would be in environmental justice neighborhoods while 2,548 (83.5 percent) would be in non-environmental justice neighborhoods. Residences in environmental justice neighborhoods in Fall River, New Bedford, Stoughton and Taunton would be affected. In Fall River, the majority of the affected residences (56.7 percent) would be in environmental justice neighborhoods. In each of the other communities as well as in the region as a whole, moderate and severe noise impacts are not predominantly borne by residents of environmental justice neighborhoods. At a regional level, noise impacts to environmental justice neighborhoods resulting from the Stoughton Electric Alternative would not be disproportionate to noise impacts to non-environmental justice neighborhoods. However,

an analysis at the affected community level shows that environmental justice communities in Stoughton would be disproportionately affected by noise impacts relative to the non-environmental communities

Table 4.4-35 Stoughton Electric Alternative: Summary of Noise Impacts

Municipality	Affected Residences in Environmental Justice Neighborhoods	Total Affected Residences	Percent Environmental Justice Neighborhoods
Berkley	0	135	0.0
Easton	0	756	0.0
Fall River	346	610	56.7
Freetown	0	437	0.0
Lakeville	0	52	0.0
New Bedford	41	218	18.8
Raynham	0	267	0.0
Stoughton	97	387	25.1
Taunton	21	191	11.0
Grand Total	**505**	**3,053**	**16.5**

in that municipality. In Stoughton, 25.1 percent of the affected residences are located in environmental justice neighborhoods, while only 10.9 percent of the municipal population resides in environmental justice neighborhoods. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - *Noise*.

The private property acquisitions required for the Fall River Depot Station described above for the Attleboro Electric Alternative are the same for the Stoughton Electric Alternative. No other station sites within environmental justice neighborhoods would result in residence or job losses.

No adverse impacts to environmental justice neighborhoods are expected from any of the layover facility sites.

The indirect effects to environmental justice populations near the stations that would be serviced by the Stoughton Electric Alternative would be primarily realized at new stations within or near environmental justice neighborhoods. These stations would be Taunton, Taunton Depot, Fall River Depot, Battleship Cove, King's Highway, and Whale's Tooth. The environmental justice populations would be expected to see benefits from TOD, increased property values, and improvements in access to transit.

Overall indirect effects to environmental justice populations in terms of improvements in transit access to jobs, colleges, and hospitals, and travel times to Boston for environmental justice populations in Taunton, Fall River, and New Bedford are provided in the CTPS report (Appendix 4.4-A). For the Stoughton Electric Alternative, improvements in most of these metrics would be realized for environmental justice populations as compared to the No-Build Alternative.

Stoughton Diesel Alternative

The Stoughton Diesel Alternative would be comprised of the same elements as the Stoughton Electric Alternative described above. As explained for the Attleboro Diesel Alternative, the direct environmental consequences of the diesel-powered trains differ from those of the electric-powered trains in property acquisition, air quality, and noise.

For each of the parameters evaluated for adverse effects to environmental justice populations, only noise levels varied between the Stoughton Diesel and Electric Alternatives. The increases in noise levels in environmental justice neighborhoods along the railroad segments comprising the Stoughton Diesel Alternative are summarized in Table 4.4-36.

The increased noise from the combined railroad segments of the Stoughton Diesel Alternative would impact 2,771 residences, as presented in Chapter 4.6 - *Noise*. Of these impacted residences, 495, which is 17.9 percent of the total would be in environmental justice neighborhoods while 2,276 (82.1 percent) would be in non-environmental justice neighborhoods. Residences in environmental justice neighborhoods in Fall River, New Bedford, Stoughton and Taunton would be affected. In Fall River, the majority of the affected residences (57.3 percent) would be in environmental justice neighborhoods. In each of the other communities as well as in the regional as a whole, moderate and severe noise impacts are not predominantly borne by residents of environmental justice neighborhoods. At a regional level, noise impacts to environmental justice neighborhoods resulting from the Stoughton Diesel Alternative would not be disproportionate to noise impacts to non-environmental justice neighborhoods. However, an analysis at the affected community level shows that environmental justice communities in Stoughton would be disproportionately affected by noise impacts relative to the non-environmental communities in that municipality. In Stoughton, 25.8 percent of the affected residences are located in environmental justice neighborhoods, while only 10.9 percent of the municipal population resides in environmental justice neighborhoods. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - *Noise*.

Table 4.4-36 Stoughton Diesel Alternative: Summary of Noise Impacts

Municipality	Affected Residences in Environmental Justice Neighborhoods	Total Affected Residences	Percent Environmental Justice Neighborhoods
Berkley	0	117	0.0
Easton	0	667	0.0
Fall River	365	637	57.3
Freetown	0	409	0.0
Lakeville	0	41	0.0
New Bedford	19	136	14.0
Raynham	0	214	0.0
Stoughton	99	384	25.8
Taunton	12	166	7.2
Grand Total	**495**	**2,771**	**17.9**

Whittenton Electric Alternative

The Whittenton Electric Alternative would be comprised of six railroad segments, 12 stations, and two layover facilities:

- Railroad segments:
  - Northeast Corridor (portion)
  - Stoughton Line (portion)
  - Whittenton Branch
  - Attleboro Secondary (portion)
  - New Bedford Main Line
  - Fall River Secondary
- Stations:
  - Canton Junction
  - Canton Center
  - North Easton
  - Easton Village
  - Raynham Place
  - Downtown Taunton
  - Taunton Depot
  - Freetown
  - Fall River Depot
  - Battleship Cove
  - King's Highway
  - Whale's Tooth
- Layover Facilities:
  - Weaver's Cove East, Weaver's Cove West, or ISP site
  - Wamsutta or Church Street site

The Whittenton Electric Alternative's railroad segments would not require any environmental justice neighborhood land that would result in job loss or neighborhood fragmentation, and air quality would not be impacted. Noise levels along each segment would increase. The increases in noise levels in environmental justice neighborhoods along the railroad segments comprising the Whittenton Electric Alternative are summarized in Table 4.4-37.

The increased noise from the combined railroad segments of the Whittenton Electric Alternative would impact 4,167 residences, as presented in Chapter 4.6 - *Noise*. Of these impacted residences, 889, which is 21.3 percent of the total, would be in environmental justice neighborhoods while 3,278 (78.7 percent) would be in non-environmental justice neighborhoods. Residences in environmental justice neighborhoods in Fall River, New Bedford and Taunton would be affected. In Fall River, the majority of the affected residences (56.7 percent) would be in environmental justice neighborhoods. In each of the other communities as well as in the region as a whole, moderate and severe noise impacts are not predominantly borne by residents of environmental justice neighborhoods. At a regional level, noise impacts to environmental justice neighborhoods resulting from the Whittenton Electric Alternative would not be disproportionate to noise impacts to non-environmental justice neighborhoods. However, an analysis at the affected community level shows that environmental justice communities in Stoughton and Taunton would be disproportionately affected by noise impacts relative to the non-environmental

Table 4.4-37 Whittenton Electric Alternative: Summary of Noise Impacts

Municipality	Affected Residences in Environmental Justice Neighborhoods	Total Affected Residences	Percent Environmental Justice Neighborhoods
Berkley	0	135	0.0
Easton	0	756	0.0
Fall River	346	610	56.7
Freetown	0	437	0.0
Lakeville	0	52	0.0
New Bedford	41	218	18.8
Raynham	0	138	0.0
Stoughton	0	387	0.0
Taunton	502	1,434	35.0
Grand Total	**889**	**4,167**	**21.3**

communities in these municipalities. In Taunton, 35.0 percent of the affected residences are located in environmental justice neighborhoods, while only 12.7 percent of the municipal population resides in environmental justice neighborhoods. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - *Noise*.

The private property acquisitions required for the Fall River Depot Station described above for the Attleboro Electric Alternative are the same for the Whittenton Electric Alternative. No other station sites within environmental justice neighborhoods would result in residence or job losses.

No adverse impacts to environmental justice neighborhoods are expected from any of the layover facility sites.

The indirect effects to environmental justice populations near the stations that would be serviced by the Whittenton Electric Alternative would be primarily realized at new stations within or near environmental justice neighborhoods. These stations would be Downtown Taunton, Taunton Depot, Fall River Depot, Battleship Cove, King's Highway, and Whale's Tooth. The environmental justice populations would be expected to see benefits from TOD, increased property values, and improvements in access to transit.

Overall indirect effects to environmental justice populations in terms of improvements in transit access to jobs, colleges, and hospitals, and travel times to Boston for environmental justice populations in Taunton, Fall River, and New Bedford are provided in the CTPS report (Appendix 4.4-A). For the Whittenton Electric Alternative, average improvements in most of these metrics would be realized for environmental justice populations at higher percentages than for non-environmental justice populations.

Whittenton Diesel Alternative

The Whittenton Diesel Alternative would be comprised of the same elements as the Whittenton Electric Alternative described above. As explained for the Attleboro and Stoughton Diesel Alternatives, the direct environmental consequences of the diesel-powered trains differ from those of the electric-powered trains in property acquisition, air quality, and noise.

For each of the parameters evaluated for adverse effects to environmental justice populations, only noise levels varied between the Whittenton Diesel and Electric Alternatives. Noise levels along each segment would increase. The increases in noise levels in environmental justice neighborhoods along the railroad segments comprising the Whittenton Diesel Alternative are summarized in Table 4.4-38.

The increased noise from the combined railroad segments of the Whittenton Diesel Alternative would impact 3,958 residences. Of these impacted residences, 898, which is 22.7 percent of the total, would be in environmental justice neighborhoods while 3,060 (77.3 percent) would be in non-environmental justice neighborhoods. Residences in environmental justice neighborhoods in Fall River, New Bedford and Taunton would be affected. In Fall River, the majority of the affected residences (57.3 percent) would be in environmental justice neighborhoods. In each of the other communities as well as in the region as a whole, moderate and severe noise impacts are not predominantly borne by residents of environmental justice neighborhoods. At a regional level, noise impacts to environmental justice neighborhoods resulting from the Whittenton Diesel Alternative would not be disproportionate to noise impacts to non-environmental justice neighborhoods. However, an analysis at the affected community level shows that environmental justice communities in Taunton would be disproportionately affected by noise impacts relative to the non-environmental communities in these municipalities. In Taunton, 35.2 percent of the affected residences are located in environmental justice neighborhoods, while only 12.7 percent of the municipal population resides in environmental justice neighborhoods. Severe impacts to

Table 4.4-38 Whittenton Diesel Alternative: Summary of Noise Impacts

Municipality	Affected Residences in Environmental Justice Neighborhoods	Total Affected Residences	Percent Environmental Justice Neighborhoods
Berkley	0	117	0.0
Easton	0	667	0.0
Fall River	365	637	57.3
Freetown	0	409	0.0
Lakeville	0	41	0.0
New Bedford	19	136	14.0
Raynham	0	106	0.0
Stoughton	0	384	0.0
Taunton	514	1,461	35.2
Grand Total	**898**	**3,958**	**22.7**

environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - Noise.

Rapid Bus Alternative

The Rapid Bus Alternative would be comprised of two highway segments, six stations, and one layover facility:

- Highway segments:
  - Dedicated Bus Lanes
  - Mixed-Use Travel Lanes
- Stations:
  - Downtown Taunton
  - Galleria
  - Freetown
  - Fall River Depot
  - King's Highway
  - Whale's Tooth
- Layover Facility
  - Logan Express.

As described in the section on the rapid Bus Alternative Study Area, the majority of the property acquisitions for the Rapid Bus Alternative would not impact environmental justice populations. Property acquisition at one location, the Fall River Depot Station site, in an environmental justice neighborhood would result in job losses, as described above. No other private property acquisitions within environmental justice neighborhoods would result in residence or job losses.

The Rapid Bus Alternative's highway segments would not require any environmental justice neighborhood land that would result in job loss or neighborhood fragmentation, and air quality would not be impacted. Noise levels along each segment would not increase appreciably.

The private property acquisitions required for the Fall River Depot Station described above for the Attleboro Electric Alternative are the same for the Rapid Bus Alternative. No other station sites within environmental justice neighborhoods would result in residence or job losses.

No adverse impacts to environmental justice neighborhoods are expected from the layover facility site. The indirect effects to environmental justice populations near the stations that would be serviced by the Rapid Bus Alternative would be primarily realized at new stations within or near environmental justice neighborhoods. These stations would be Downtown Taunton, Fall River Depot, King's Highway, and Whale's Tooth. The environmental justice populations would be expected to see benefits from TOD, increased property values, and improvements in access to transit.

Overall indirect effects to environmental justice populations in terms of improvements in transit access to jobs, colleges, and hospitals, and travel times to Boston for environmental justice populations in Taunton, Fall River, and New Bedford are provided in the CTPS report (Appendix 4.4-A). For the Rapid Bus Alternative, average improvements in each of these metrics would be realized for environmental justice populations at higher percentages than for non-environmental justice populations.

Summary

Table 4.4-39 summarizes the adverse and beneficial effects to environmental justice populations potentially resulting from implementing each alternative of the South Coast Rail Project.

Table 4.4-39 Summary of Effects to Environmental Justice Populations

Effects	Attleboro Electric	Attleboro Diesel	Stoughton Electric	Stoughton Diesel	Whittenton Electric	Whittenton Diesel	Rapid Bus
Adverse Effects							
Neighborhood Disruption/Fragmentation	None	None	None	None	None	None	None
Residential Displacements	None	None	None	None	None	None	None
Business/Job Displacements[1]	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Noise Impacts (number of residences impacted by moderate and severe increases in noise levels)	908	910	505	495	889	898	0
Percent of Noise Impacts to Neighborhoods							
Environmental Justice	22.7	24.7	16.5	17.9	21.3	22.7	NA
Non-Environmental Justice	77.3	75.3	83.5	82.1	78.7	77.3	NA
Beneficial Effects (percent improvement compared to No-Build Alternative)							
Access to Jobs-[2]							
Taunton	143	94	118	77	67	44	-2
Fall River	167	134	187	151	140	113	47
New Bedford	17	3	21	4	-1	-2	3
Access to Colleges[3]	108	63	78	46	52	33	5
Access to Hospitals[3]	196	136	188	135	132	102	57
Travel Time to Boston[4]	53	39	47	32	33	23	13
Station Area TOD[5]	Yes	Yes	Yes	Yes	Yes	Yes	Yes

1- Business and job displacements would result from private property acquisition for the Mansfield and Fall River Depot Stations, and would be minor as compared to the overall workforce in the surrounding community. See Chapter 4.2, Land Use, and Chapter 4.3, Socioeconomics.

2- Provided as an average in improvement, as compared to the No-Build Alternative, in access to basic, service, and retail jobs within a 90-minute radius of each municipality. Source: CTPS 2009.

3- Provided as an average in improvement, as compared to the No-Build Alternative, in access from Taunton, Fall River, and New Bedford to colleges and hospitals. Source: CTPS 2009.

4- Provided as an average in improvement, as compared to the No-Build Alternative, in travel times from Taunton, Fall River, and New Bedford to Boston's South Station. Source: CTPS 2009.

5- Qualitative assessment of the potential for transit-oriented development in the vicinity of the station site that would benefit environmental justice populations. Source: Goody Clancy 200

The adverse effects to environmental justice populations that would result from the South Rail Project are similar for all issues of concern except noise impacts. Among the rail alternatives, the Whittenton Alternatives would impact the greatest number of residences, and the Stoughton Alternatives the least. The differences between the electric and diesel options are insubstantial. Although diesel-powered locomotives are generally louder than electric-powered locomotives, the higher speed of the electric-powered locomotives on certain segments of the tracks offsets the quieter power source. The Rapid Bus Alternative would use existing highway segments and would not generate noise impacts.

At a regional level, moderate and severe noise impacts would not be predominantly borne by residents of environmental justice neighborhoods in any of the alternatives. In addition, regional level analysis shows that environmental justice neighborhoods would not be disproportionately suffer from noise impacts relative to non-environmental justice neighborhoods in any of the alternatives. As shown in Table 4.4-1, 37.5 percent of the study area population resides in an environmental justice

neighborhood, which is higher than the percentage of noise-impacted environmental justice neighborhood residences that would result from any of the alternatives. However, an analysis at the affected community level, shows that, in all rail alternatives, the noise impacts in Fall River would be predominantly borne by environmental justice communities. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - Noise. In addition, the affected community level analysis shows that environmental justice communities in some of the study area municipalities would be disproportionately affected by noise impacts relative to the non-environmental communities in these municipalities. Under the Attleboro alternatives, environmental justice communities in Canton and Taunton would be disproportionately affected by noise impacts relative to non-environmental communities in these municipalities. Under the Stoughton Alternatives, environmental justice communities in Stoughton would be disproportionately affected by noise impacts relative to non-environmental communities. Under the Whittenton Alternatives, environmental justice communities in Taunton would be disproportionately affected by noise impacts relative to non-environmental communities. Severe impacts to environmental justice and non-environmental justice neighborhoods would be mitigated, as described in Chapter 4.6 - Noise.

Changes in other resources that would result from any of the Build Alternatives may affect environmental justice populations:

- All vibration impacts (including those within environmental justice neighborhoods) could be mitigated by using ballast mats beneath the rail lines, special devices at turnouts and crossovers, (so-called "frogs") that incorporate mechanisms to close the gaps between running rails[22] at selected switch locations with nearby sensitive receptors, and special pile-driving methods at selected locations with nearby sensitive receptors during construction. There would be no adverse vibration impacts to environmental justice populations along the any of the Build Alternative alignments.

- The electric train alternatives would have no impact on air quality and the diesel train alternatives' impact to air quality would be very small (less than a 1.5 percent increase in pollutant levels) and would not result in air pollutant concentrations in excess of the NAAQS. There would be no air quality impacts to environmental justice populations along any of the Build Alternative alignments.

No protected open space or publicly owned parcels within ACECs would be acquired in environmental justice neighborhoods along any of the Build Alternative alignments, station sites, or layover facility locations.

- Use of the alignments or sites is not anticipated to result in the loss of any historic property, known archaeological resource, or known/documented traditional cultural resource, The project may affect the integrity of historic resources in certain locations where mitigation for noise impacts

[22] Transit Noise and Vibration Assessment. Federal Transit Administration FTA-VA-90-1003-06. 2006)

(soundproofing, noise barriers) would result in a change in the setting or appearance of a historic building. Visual changes, particularly as a result of the electric alternatives, could result in a change in the setting of a historic resource. The new bridge at the Canton Viaduct along the Northeast Corridor could adversely affect this historic resource as a result of a change in setting from the Attleboro Alternatives. However, this area of Canton is not within an environmental justice community. Similarly, the Stoughton and Whittenton Alternatives could result in an adverse effect on the Easton Village historic district as a result of introducing modern rail road and station elements. However, the Easton Village historic district is not located within an environmental justice community.

- The Corps is undertaking NHPA Section 106 consultation with the Native American tribes to determine if the South Coast Rail alternatives would have an adverse effect on any undocumented traditional cultural resources of significance to the tribes. If such adverse effects were found to occur, there could be a disproportionate adverse impact to an environmental justice community.

The beneficial effects to environmental justice populations that would result from the South Coast Rail project vary considerably by alternative and community. Property values in environmental justice neighborhoods near stations may increase as a result of the improved access to transit, with further increases possible in areas where TOD is possible. Conversely, property values in environmental justice neighborhoods along the alternative alignments may decrease as a result if increased noise from train operations. Property value increase or decrease estimates may be made once the preferred alternative is selected. Property value increases may have an adverse impact on environmental justice populations, if homes and businesses become too expensive to afford. This effect may be offset if TOD includes an affordable housing component.

Compared to the No-Build Alternative, improvements in access to jobs, colleges, hospitals, and in travel time to Boston would result from most alternatives. Some alternatives would result in no change or even decreases in access (as compared to the No-Build Alternative). The Attleboro Electric Alternative would show the most improvement in the greatest number parameters (averaged access to jobs from Taunton, access to colleges and to hospitals, and travel time to Boston). The Attleboro Diesel Alternative and both Stoughton Alternatives also posted most improvement results, for other parameters. The Whittenton Alternatives would not result in the greatest improvements for any parameters, and the Rapid Bus Alternative showed the least improvements for all parameters.

The benefits received by environmental justice populations in each community would also vary considerably. The environmental justice populations in Fall River would see the most improvement in access to jobs, while the environmental justice populations in New Bedford would receive the least benefit. A broad range of improvements in access to jobs for environmental justice populations in Taunton would result from the range of alternatives. The Stoughton Electric Alternative would provide the greatest improvement in access to jobs for both Fall River and New Bedford environmental justice populations (187 and 21 percent, respectively). The Attleboro Electric Alternative would result in the greatest improvement in access to jobs for environmental justice populations in Taunton.

In summary, the Attleboro and Stoughton Alternatives would provide the greatest overall benefits to, and the least adverse impacts among the rail alternatives, for environmental justice populations. The Rapid Bus Alternative would provide the least benefits to and the least overall adverse impacts for environmental justice populations.

4.4.4 PUBLIC OUTREACH

In October 2008, project fliers inviting participation in planning activities were sent to more than 80 churches and community centers in environmental justice neighborhoods in New Bedford, Fall River, and the surrounding areas. A bilingual flier (English and Portuguese or English and Spanish) was distributed which invited residents to participate in public meetings on potential sites and development opportunities for rail stations in the New Bedford area. To better accommodate non-English speaking populations, all meeting notices offered translation services at public meetings.

In July 2009, a large-scale mailing was issued of a brochure with general project information in English, Spanish and Portuguese. The Southeastern Regional Planning and Economic Development District (SRPEDD's) was consulted to further widen the outreach to environmental justice communities, including many of the same churches and community centers from the earlier mailing, as well as commissions on disability, housing authorities, councils on aging and newspapers such as the Cape Verdean News and the Portuguese Times, based in New Bedford. In addition, brochures were sent to the 31 public libraries and town planners in the region. In total, brochures were mailed to 250 recipients.

Planning and economic development staff and elected officials (including mayors) in New Bedford, Fall River and Taunton (and all of the other South Coast communities which may host stations) were consulted to gather ideas on economic development, sustainability and smart growth related to the project. These leaders and SRPEDD work with environmental justice groups in the communities on a regular basis, facilitating coordination with the public outreach team. The direct approaches have been through the community workshops on stations (one each in Fall River and Taunton and two in New Bedford).