5.12 SOCIOECONOMICS

5.12.1 INTRODUCTION

The potential effects and potential benefits of each alternative on population and employment patterns and economic development are discussed in this section. Findings regarding environmental justice are also discussed.

An adverse socioeconomic effect would occur if the alternative would induce substantial growth or concentrations of population inconsistent with existing plans and projections or if it would displace a large number of people.

5.12.2 IMPACT DISCUSSION

Growth Inducement Consistency with Existing Plans

The ABAG 2007 population and employment projections for the study area[1] and cities within the SVRTC are shown on Table 5.12-1. These projections are based on the general plan documents for the cities of Fremont, Milpitas, San Jose, and Santa Clara, which include the BEP and SVRTP alternatives and anticipated stations.

Table 5.12-1: Population, Housing, and Employment (2000-2030)

Area	Percent Increase Population	Percent Increase Housing	Percent Increase Jobs
Total Study Area[a]	54.6%	59.3%	23.7%
Alameda County	28.7%	28.3%	38.3%
City of Fremont	22.6%	20.9%	30.9%
Santa Clara County	35.5%	36.0%	21.9%
City of Milpitas	44.1%	48.5%	15.9%
City of San Jose	43.2%	45.1%	36.9%
City of Santa Clara	37.6%	39.7%	10.9%

[a] The "Study Area" definition is the same as that used for the FTA "New Starts" process and covers an area approximately 1.5 to 2 miles wide from the BART Warm Springs Station to the proposed Santa Clara Station.

Source: ABAG Projections 2007.

[1] The study area for the socioeconomic analysis aligns with the SVRTC as defined by the FTA New Starts process encompassing an area of approximately ½-mile to one-mile on each side of the corridor. The study area includes portions of the cities of Fremont, Milpitas, San Jose, and Santa Clara.

The greatest population growth is projected to take place in Milpitas and San Jose and the greatest increase in jobs is projected to occur in the City of San Jose and Alameda County. The cities of Milpitas and Santa Clara show a commensurate increase in population with the rest of the area, but a much lower increase in jobs, which means that people will be traveling out of the area to work.

No Build Alternative

The general plans of the cities of Milpitas, San Jose, and Santa Clara include support for the BART extension with provisions of higher densities around the proposed stations and along the corridor. Without implementation of the BEP or SVRTP alternatives, however, the No Build Alternative would result in a more gradual build out of the general plans, as more intense land uses (e.g., higher densities and mixed-use development) would not likely occur around BART station areas at the same rate. Therefore, while the projections of population, housing, and jobs may not change significantly, the timing of such projections would likely be extended with implementation of the No Build Alternative in comparison to the BEP or SVRTP alternatives.

BEP Alternative

The operation of the BEP Alternative would generate approximately 600 jobs for operation and maintenance. This would be a beneficial effect.

The BEP Alternative would provide improved transportation service to people living and working in Fremont, Milpitas, and San Jose, and support planned higher density development adjacent to the proposed Milpitas and Berryessa Stations. The new rail connections would facilitate residential and employment growth planned for the study area, particularly around station areas, consistent with local jurisdiction general plans.

SVRTP Alternative

The operation of the SVRTP Alternative would generate approximately 750 jobs for operation and maintenance. This would be a beneficial effect.

The SVRTP Alternative would also provide improved transportation service to people living and working in the SVRTC including the cities of Fremont, Milpitas, San Jose, and Santa Clara. The new rail connections would facilitate residential and employment growth planned for the study area, particularly around station areas, consistent with local jurisdiction general plans. The SVRTP Alternative would improve transit reliability and services throughout the corridor and provide new stations in downtown San Jose, thereby improving regional access to downtown employment opportunities.

Displacement of Existing Businesses or Housing

The BEP and SVRTP alternatives would require property acquisitions and resultant displacements affecting residential and non-residential properties. The types of displacements associated with the alternatives are described below, along with an estimate of the relative magnitude of each. Displacements would be the result of acquiring the underlying property in whole or in part to accommodate the alternatives. Tables 5.12-2 and 5.12-3 quantify the number and types of displacement that could occur along the SVRTC from implementing the BEP and SVRTP alternatives. Under the No Build Alternative there would be no displacement of businesses or housing.

The estimate of displacements is based on property utilization in fall of 2007. Estimates presented here are based on Appendix B, BEP Alternative Plan and Profiles, Appendix C, SVRTP Alternative Plan and Profiles, and Appendix D, Station Designs (BEP and SVRTP Alternatives).

Under the BEP Alternative, approximately 49 to 54 businesses, one residential unit, up to three community facilities, 0 to 80 flea market vendor stalls, 900 rental storage tenants, 3 advertising signs, and 1 cell phone tower would be displaced.

Under the SRVTP Alternative, approximately 76 to 103 businesses, 2 to 22 residential units, one community facility, 0 to 80 flea market vendor stalls, 900 rental storage tenants, 4-6 advertising signs, and 4 cell towers would be displaced.

The following describes the property acquisitions and related displacements that would occur from implementation of the BEP and SRVTP alternatives by city. The effect of the BEP and SVRTP alternatives would be the same for the portion of the alignment extending from the start of the project up to, but not including, the Las Plumas Yard Option. South of US 101, the effects would only apply to the SVRTP Alternative.

BEP and SVRTP Alternatives

City of Fremont

Displacement of 12 light industrial properties along the east side of the railroad corridor (Figure B-2 STA 35+45) was previously environmentally cleared on pages 12-15 of Section 4-10 in the Draft Environmental Impact Statement and Draft 4(f) Evaluation BART Warm Springs Extension published in February 2005.

South of East Warren Avenue and east of the alignment, Traction Power Station SWA and Train Control Building S24 (Figure B-4, STA 78+50) would occupy a site currently occupied by the storage of materials supporting the use on the property west of the alignment and south of East Warren Avenue. The stored materials would be displaced; however, this would not cause the displacement of the main industrial business.

Table 5.12-2 BEP Alternative – Summary of Displacements

Location	Residential	Light Industrial Business	Retail Business	Office Business	Restaurant Business	Bar/ Nightclub Business	Community Facilities[a]	Flea Market Vendors	Storage Tenants	Advertising Sign	Cell Towers
Systems Facilities at Railroad Court	0	0	0	0	0	0	0	0	25	0	1
Milpitas Station	1	18	0	2	0	0	0	0	875	0	0
Alignment south of Trade Zone Blvd	0	1	0	0	0	0	0	0	0	0	0
Berryessa Station Options	0	25	0	0	0	0	0	0-80	0	0	0
No New Yard - Las Plumas Yard Options	0	3-8	0	0	0	0	0-3	0	0	0-3	0
Range of Total BEP Displacements	**1**	**47-52**	**0**	**2**	**0**	**0**	**0-3**	**0-80**	**900**	**0-3**	**1**

[a] Community Facility: fire station, family center, training center
Source: VTA, 2007

Table 5.12-3 SVRTP Alternative – Summary of Displacements

Location	Residential	Light Industrial Business	Retail Business	Office Business	Restaurant Business	Bar/ Nightclub Business	Community Facilities[a]	Flea Market Vendors	Storage Tenants	Advertising Sign	Cell Towers
Systems Facilities at Railroad Court	0	0	0	0	0	0	0	0	25	0	1
Milpitas Station	1	18	0	2	0	0	0	0	875	0	0
Alignment south of Trade Zone Blvd	0	1	0	0	0	0	0	0	0	0	0
Berryessa Station Options	0	25	0	0	0	0	0	0-80	0	0	0
Alum Rock Station	0	6	0	1	0	0	0	0	0	4	1
Vent Structure West of Coyote Creek	0-20	0	0	0-15	0	0	0	0	0	0-2	0
Downtown San Jose Station	0	0	1-3	3-4	2-4	1-2	0	0	0	0	0
Diridon/Arena Station and Alignment	1	6	0	0	0	0	1	0	0	0	0
Ventilation Structure Near Stockton Ave	0	1-7	0	0	0	0	0	0	0	0	0
Santa Clara - Maintenance Facility	0	0	0	0	0	0	0	0	0	0	2
Santa Clara Station	0	1	5	0	3	0	0	0	0	0	0
Range of Total SVRTP Displacements	**2-22**	**58-64**	**6-8**	**6-22**	**5-7**	**1-2**	**1**	**0-80**	**900**	**4-6**	**4**

[a] Community Facility: church
Source: VTA, 2007

Kato Road would be reconstructed as a new roadway underpass by others with BART passing over the roadway on a new bridge structure. A small landscaped area within an industrial property would be acquired for utility boxes. The industrial properties would not be displaced.

South of Scott Creek, construction of Traction Power Station SKR and Train Control Building S26 would cause the displacement of approximately 70 parking spaces from an existing industrial property. No structures would be displaced, and the existing use could continue on the remainder of the property.

From the Alameda/Santa Clara county and Fremont/Milpitas city lines (STA 182+00) to south of Dixon Landing Road, there are two options for the BART alignment:

- Retained Cut Option. Under this option, BART would transition into a retained cut at the county and city lines to south of Dixon Landing Road (STA 182+00 to 201+00). Dixon Landing Road would remain at grade, but be supported over the BART retained cut on a new roadway bridge structure. The UPRR crossing would also remain at grade. No buildings or businesses would be displaced as a result of this option.

- At Grade Option. Under this option, BART would continue at grade and cross on a new bridge structure over Dixon Landing Road (STA 191+50), which would be reconstructed as a roadway underpass by VTA. VTA would also construct a new bridge for the UPRR to cross over the roadway. An adjacent cross street to the west of the railroad ROW, Milmont Drive, would also be lowered due to the new slope of Dixon Landing Road. Access to two existing driveways on the west side of the alignment, one on the north side of Dixon Landing Road and the other on the south side, would be eliminated. However, each property would have multiple access points remaining. In addition, three driveways would be lowered - two driveways on the north side of Dixon Landing Road east of the alignment and one on the east side of Milmont Drive south of Dixon Landing Road. No buildings or businesses would be displaced as a result of this option.

City of Milpitas

Near Railroad Court in Milpitas, High Voltage Substation SRC, Traction Power Substation SRR/Switching Station SRR, Train Control Building S28, and a PG&E tower would be constructed west of the railroad ROW. Construction of these facilities would cause the displacement of up to approximately 25 storage units at one light industrial business (a recreational vehicle (RV) storage area). They would also cause the displacement of up to approximately 40 parking spaces from an adjacent industrial use; however, the loss of parking would not cause the displacement of these industrial businesses (Figure B-14, STA 258+00).

South of Curtis Avenue (STA 330+00) to south of Trade Zone Boulevard, the alignment would be constructed in either a Retained Cut Long or Retained Cut Intermediate configuration. The Retained Cut Long Option (Figures B-17, B-18, B-19, B-20, STA 342+00 to 415+00) would require relocation of the freight track on the west side of the railroad ROW 22 feet farther west, necessitating acquisition of up to 20 feet by 2,200 feet of ROW from Parc Metropolitan Condominiums and the Great Mall. The Retained Cut Intermediate Option (Figures B-21, B-22, B-23, STA 342+00 to 415+00) would require acquisition of up to 20 feet by 3,000 feet of ROW from the Parc Metropolitan Condominiums and Great Mall. Both options would result in the loss of 35 parking spaces and less than 0.01 acre of parkland, but no buildings would be displaced.

Construction of the Milpitas Wye would cause no displacements (Figure B-17, Figure B-18, STA 355+00). The industrial uses had been recently demolished as of the Fall 2007 field surveys, and the site is vacant.

There are two alternate locations for Traction Power Station SME. One location is in an existing UPRR Wye that would be abandoned. The alternate site would be located over the rail ROW north of Montague Expressway. Neither of the alternate locations would cause displacement of businesses (Figure B-17, STA 366+00).

Milpitas Station would be located between Montague Expressway and Capitol Avenue and would cause the displacement of two offices, 18 light industrial businesses, 875 storage tenants, and one residence (Figures D-1 to D-5).

City of San Jose

South of Trade Zone Boulevard, construction of the alignment would cause the displacement of one industrial business west of the alignment (Figure B-20, STA 406+50).

Traction Power Substation SMB would be located south of Trade Zone Boulevard on the west side of the railroad ROW and would not cause the displacement of any business or residence (Figure B-20 and B-22, STA 416+00).

South of Hostetter Road, Train Control Building S44 would be located on the east side of the railroad ROW. No businesses or residences would be displaced (Figure B-25, STA 458+00).

Both the Berryessa Station North and South options would cause the displacement of 25 light industrial businesses, up to 80 vendor stalls, and the loss of 1500 parking spaces of the south parking lot within the San Jose Flea Market (Figures D-6 to D-11). The Berryessa Station North Option would displace up to 80 Flea Market vendor stalls. Neither option would result in the displacement of the Flea Market.

BEP Alternative Only

For the BEP Alternative only, under the No New Yard Option, the third alternate location for High Voltage Substation SMR and Switching Station SSM, located east of the railroad ROW and south of Las Plumas Avenue, would displace three industrial businesses (STA 571+00). The City of San Jose's Maintenance Yard would not be displaced; however, partial use of the yard would displace an area for storage of materials and would require the rearrangement of uses within the yard. No residences would be displaced.

Also, under the BEP Alternative only, there are two options for maintenance yard facilities: the No New Yard Option and the Las Plumas Yard Option. The No New Yard Option would not displace any businesses or residences. The Las Plumas Yard Option would cause the displacement of eight industrial businesses, one fire station, one shelter, and one training center (Figures B-34 to B-40).

SVRTP Alternative Only

South of US 101 within the City of San Jose, the rail line transitions from its alignment aboveground to an underground alignment beneath Santa Clara Street. Tunnel easements would be acquired from approximately 15 properties for the tunnel alignment from the headwall to US 101 (Figure C-9 STA 571+25 to STA 590+00).

Alum Rock Station would be located between US 101 and 28th Street on a 19-acre site. The station would cause displacement of six light industrial businesses, one office, and four advertising signs (Figures D-23, D-24, and D-25). Tunnel easements would be acquired from approximately 10 properties for the tunnel alignment from 28th to 24th streets (Figure C-10 STA 608+00 to Figure C-11 STA 624+00).

Near Coyote Creek, there are three options for the tunnel alignment: Southern Offset Option, Santa Clara Street Option, and Northern Offset Option. Tunnel easements would be acquired from approximately 30 properties for the Southern Offset Option (Figures C-11 and C-14) and approximately 10 properties for the Northern Offset Option (Figures C-12 and C-115). No tunnel easements would be acquired for the Santa Clara Street Option (Figures C-16).

Between 17th and 12th streets, there are five alternate locations for Vent Structure FSS. The first site, located north of Santa Clara Street and west of 17th Street, would cause the displacement of 55 parking spaces serving a medical center, but would not cause the displacement of the medical center. The second site, located south of Santa Clara Street and west of 15th Street, would cause the displacement of eight residences and four businesses. The third site, located south of Santa Clara Street west of 15th Street, would cause the displacement of 15 businesses. The fourth site, located north of Santa Clara Street and east of 13th Street, would cause the displacement of 20 residences. The fifth site, located north of Santa Clara and west of 13th Street, would cause the displacement of one business and two billboard signs.

Downtown San Jose Station would have three station entrances and one future station entrance between 3rd and San Pedro streets (Figure D-26, D-27, and D-28). One entrance would be located on the south side of East Santa Clara Street between 1st and 2nd streets. There are three optional locations for this entrance. Option M-1A, the Ravioli/Firato Delicatessen building, would cause no displacements as the building was under renovation at the time of the building survey. Option M-1B, the Bank of America/Bank of Italy building, would cause the displacement of one dance club/bar, one business, and two restaurants. Option M-1C, the Moderne Drug/Western Dental building would cause the displacement of three businesses. A second entrance, M-7, would be located at the southwest corner of West Santa Clara and Market streets. This entrance would cause the displacement of three businesses. A third entrance (M-5A), located on the north side of East Santa Clara Street mid-block between Market and 1st streets, would cause the displacement of 10 parking spaces, but no businesses would be displaced. A fourth potential future entrance would be located on the north side of East Santa Clara Street mid-block between 1st and 2nd streets (M-4). This future entrance would cause the displacement of one bar and one restaurant. An emergency exit, tunnel vent shaft, and fresh air intake would be located north of Santa Clara Street between 2nd and 3rd streets. These facilities would cause the displacement of two businesses.

Diridon/Arena Station would cause the displacement of six industrial businesses, one residence, one church, and approximately 200 parking spaces (Figures D-29, D-30 and D-31). Tunnel easements would be acquired for approximately 40 properties for the alignment from Almaden Boulevard to Stockton Avenue within the vicinity of Diridon/Arena Station (Figure C-14 STA 717+00 to Figure C-16 STA 781+00).

Traction Power Substation SDS would be located east of the Diridon/Arena Station (Figure C-19, STA 745+00). No businesses or residences would be displaced.

East of Stockton Avenue, there are four alternate locations for Ventilation Structure STS (Figure C-20, STA 786+00 to STA 792+00). The most southern alternate location would cause the displacement of one industrial business. The second and third alternate locations would cause the displacement of 7 industrial businesses. The fourth and most northern alternate location would cause the displacement of one industrial business.

Tunnel easements would be acquired from approximately five properties from University Avenue to the headwall of the western tunnel portal (Figure C-21 STA 808+00 to C-22 STA 831+20).

City of Santa Clara

Newhall Yard and Shops Facility would be constructed on the former UPRR Newhall Yard. No residential or business displacements would be required; however, two cell towers would be displaced just north and just south of De La Cruz Boulevard.

Santa Clara Station would cause the displacement of one light industrial business, five retail uses, and three restaurants (Figure D-32, D-33, and D-34).

5.12.3 RELOCATION PROGRAMS/REQUIREMENTS

All displacement and relocation activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Uniform Act) for the BEP and SVRTP alternatives. The Uniform Act ensures the fair and equitable treatment of persons whose real property is acquired or who are displaced as a result of a federal or federally-assisted project. Government-wide regulations provide procedural and other requirements (appraisals, payment of fair market value, notice to owners, etc.) in the acquisition of real property and provide for relocation payments and advisory assistance in the relocation of persons and businesses.

Applying the Uniform Act to the San Jose Flea Market vendors varies depending on the duration and type of lease a vendor is under. Some vendors have daily permits and as such would not be eligible. Others have weekly, monthly, or annual leases and may be eligible. Eligibility is determined at the time of acquisition. At the appropriate time, each vendor will be interviewed and lease documentation will be reviewed to determine eligibility in accordance with the Act.

VTA's Relocation Program, which complies with federal relocation requirements, provides assistance to affected residence and business owners. This assistance, which varies on a case-by-case basis, can be both financial (e.g., moving costs, rent subsidies, relocation costs, personal property losses, reestablishment expenses, etc.) and technical (e.g., providing information regarding suitable replacement sites, providing referrals, assisting with lease negotiations, assisting with moving logistics, etc.). Business owners also have the option of receiving a fixed payment in lieu of the payments for actual moving and related expenses and actual reasonable reestablishment expenses.

When acquisition occurs, properties would be appraised at fair market value and offers would be based on the approved appraised values. For relocation, the availability of alternate sites would vary; however, the economy is characterized by a comfortable vacancy rate in the project area, which could easily accommodate the need for relocation space in a similar price range. Table 5.12-4 shows vacancy rate ranges for commercial properties in the project corridor cities of Fremont, Milpitas, San Jose, and Santa Clara. The housing stock of over 1.5 million units in Santa Clara County can accommodate relocations associated with the two residential displacements associated with the BEP Alternative and the 3-15 residential displacements associated with the SVRTP Alternative.

Table 5.12-4: Commercial Vacancy Rates for SVRTC Cities

Type of Space	Low Vacancy Rate	High Vacancy Rate
Office	14.01%	14.36%
Research and Development	9.56%	19.92%
Manufacturing	3.56%	6.60%
Warehouse	4.26%	5.74%

Source: Colliers International, 2008.

This estimate of displacements is based on property utilization in the fall of 2007. The actual numbers and types of displacements could change prior to project implementation. For purposes of presenting a conservative analysis, properties or easements are assumed to be permanent acquisitions. During final engineering, VTA may determine that some parcels can be leased during construction, avoiding permanent displacement. Also, the number of displacements, property acquisitions and related relocations and easements required could change during final design and engineering, as could the amount of land required from individual parcels. Estimates presented here are based on Appendix B, BEP Alternative Plan and Profiles, Appendix C, SVRTP Alternative Plan and Profiles, and Appendix D, Station Designs (BEP and SVRTP Alternatives).

Federal and state laws require consistent and fair treatment of owners of property to be acquired, including just compensation for their property. These laws also require uniform and equitable treatment of displaced persons or businesses. The provisions of VTA's Relocation Program will minimize any adverse effects of the business and residential displacements associated with the BEP or SVRTP alternatives; therefore, no mitigation is required.

5.12.4 ENVIRONMENTAL JUSTICE FINDINGS

A transportation project must consider potential effects to human health or the environment on a community composed of minority or low-income populations. Adverse environmental effects related to environmental justice typically include physical hazards to people in environmental justice communities, air quality effects, increased noise and vibration, contamination of soil or water, division of a community, or displacement. The following discussion includes a discussion of effects of the SVRTC alternatives on low-income and minority populations to determine whether or not these are adverse and disproportionate in comparison with effects on other neighborhoods in the corridor.

The population, housing, and employment information provided in Section 4.12, Socioeconomics, indicates that the study area contains a high percentage of minority residents, as well as major retail areas and pockets of higher income areas in the City of Milpitas. Implementation of the BEP and SVRTP alternatives would include direct mobility benefits that are expected to be equitably shared across communities by various demographic groups. The discussion considers whether the alternatives would have disproportionate health and environmental effects on the high minority or low-income neighborhoods identified as defined by Executive Order No. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

VTA has conducted extensive public outreach, including a comprehensive program to coordinate and communicate with these communities throughout the MIS/AA, EIR, SEIR, and this environmental review process. Community members have provided substantive input into the current project design, alignment choices, station area planning, and construction approach, as discussed more fully in Chapter 11, Agency and Community Participation.

No Build Alternative

Although the No Build Alternative may not adversely affect local communities, it would not provide these communities with the benefits of accessibility to transit services, as would the BEP and SVRTP alternatives. Regardless, projects planned under the No Build Alternative would undergo separate environmental review to define whether ethnic, minority, or low-income populations in project areas would experience disproportionately high adverse effects. (See Section 2.6, Related Projects, for a list of future projects under the No Build Alternative.)

BEP Alternative

The geographic area of concern for the BEP Alternative includes areas adjacent to the proposed alignment and around the proposed Milpitas and Berryessa station areas. These areas consist of vacant, industrial, and residential land uses, which meet the environmental justice criteria. The BEP Alternative alignment follows an existing rail corridor. Displacements, substantially adverse hazards and traffic impacts would occur at several locations along the proposed alignment as described in more detail below. The environmental justice study area, location of low-income and minority populations (by census block), and substantial adverse environmental effects relative to the BEP Alternative are shown on Figure 5.12-1.

Because the alignment is bordered by low-income and minority communities, the substantially adverse effects associated with the BEP Alternative would impact these communities. All substantially adverse environmental effects would be mitigated where feasible, ensuring that effects to low-income and minority communities would not be substantially adverse. The BEP Alternative would therefore not have disproportionate effects on minority or low-income neighborhoods along the alignment.

The types of effects on low-income and minority populations, and the mitigation that will be implemented to reduce these effects, is discussed in more detail below. Overall, neighborhoods and businesses along the alignment will benefit from the improved transit services for the surrounding area. By providing more convenient access to regional rapid transit and improving connectivity to other transit services, members of the community who may not have access to a private automobile or prefer to use transit will be better served with improved access to employment, recreation, shopping, and public services, facilities, and other opportunities.

Displacement/Relocation

Under the BEP Alternative approximately 49 to 54 businesses, one residential unit, up to three community facilities, 0-80 flea market vendor stalls, 900 rental storage tenants, up to three advertising signs, and one cell phone tower would be displaced. The locations of these displacements along the alignment are shown in Figure 5.12-1. Although many of these displacements would occur in low-income and/or minority communities, displacement and relocation activities would be conducted in accordance with the Uniform Act of 1970 and VTA's relocation program, as described in Section 5.12.3. This would minimize any adverse effects of the necessary property acquisition associated with the BEP Alternative upon low-income and minority communities.

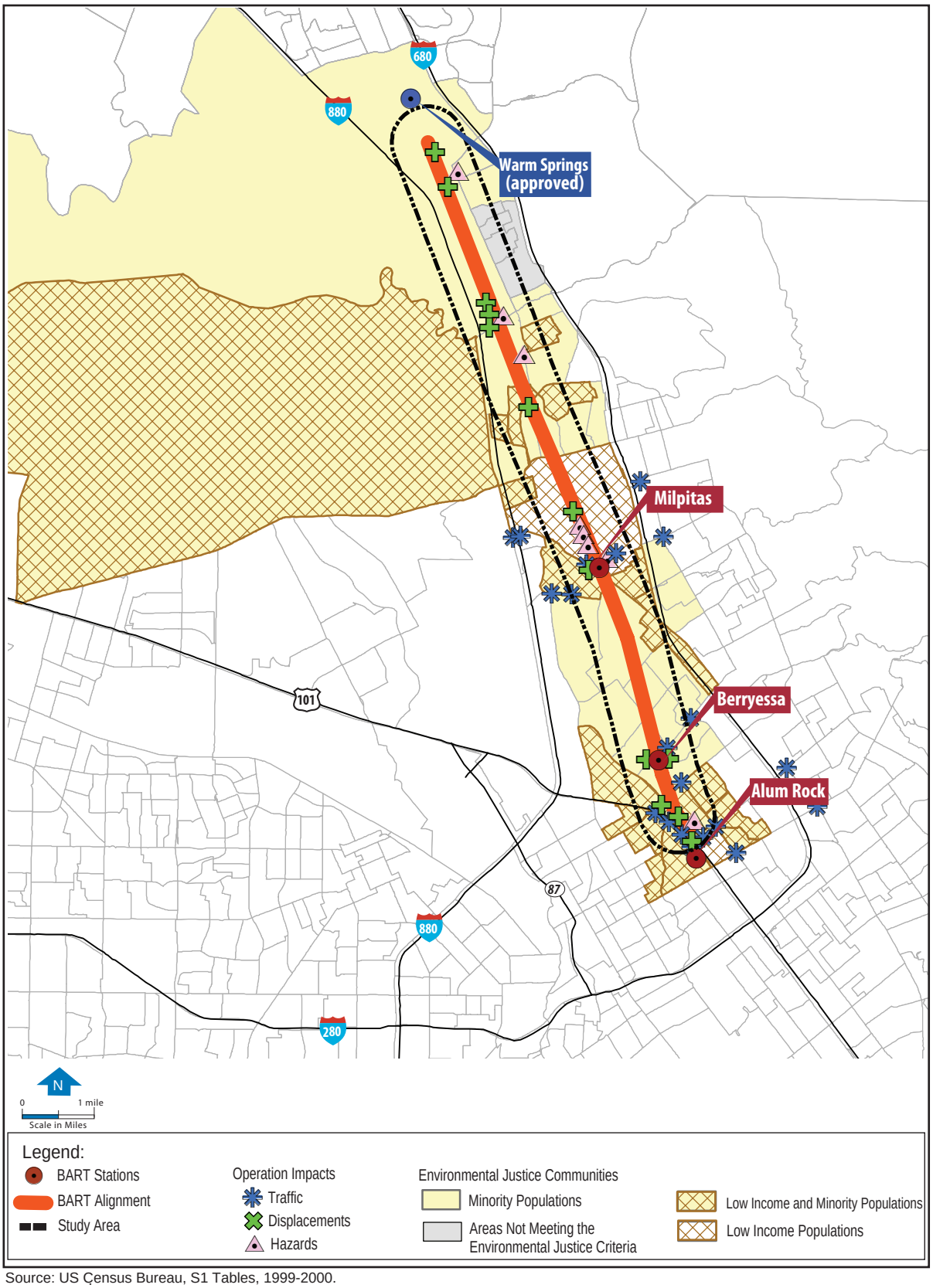
Displacements necessary for construction staging areas and their affects on low-income and minority communities are discussed in Chapter 6.

Air Quality

Operation of the BEP Alternative would reduce the amount of air emissions generated in the region. This benefit is directly related to a projected reduction in the number of vehicle miles traveled once the BART trains are operating. Since air quality effects of the BEP Alternative are beneficial, adverse effects to low-income or minority populations would not occur.

Vehicular trips to BART stations would produce localized air emissions (principally CO) in the station areas, but the addition of these trips would not produce air emissions exceeding the federal or state ambient air quality standards, as described in Section 5.1, Air Quality. As a result, localized air emissions would not result in a substantial adverse effect to low-income or minority communities.

Adverse effects related to air quality would occur during construction. Construction of the BEP Alternative would generate dust and other pollutant emissions associated with construction and earthmoving activities. These potential effects will be reduced by actions outlined in Chapter 6, Construction.



Source: US Census Bureau, S1 Tables, 1999-2000.

Figure 5.12-1: Environmental Justice Communities - Operation Impacts - BEP Alternative

Electromagnetic Fields

Because EMF intensities and exposures from BART operations are below thresholds indicating potential health risks, they would not result in a substantial adverse affect to low-income or minority populations.

Hazards

As shown in Figure 5.12-1, contaminated soil and water is located in minority and low-income communities along the alignment. During operation of the BEP Alternative, the potential for human exposure to existing contaminated soil would occur mainly during maintenance procedures, including dewatering retained cut segments. In accordance with best management practices, any contaminated soil encountered during BART operations will be segregated from clean material, covered while on-site to prevent dust generation or contaminated surface water runoff, and properly disposed off-site in compliance with all pertinent rules and regulations. Furthermore, as required by Mitigation Measure HM-1, prior to construction of the BEP Alternative, additional site-specific information will be collected and documented regarding hazardous materials use and hazardous waste generation for properties that would be acquired for ROW or support facilities for inspections of properties that would be acquired. As required by Mitigation Measure HM-2, Phase Two Site Investigations will be completed for the acquired properties as necessary.

Additionally, to avoid the spread of harmful levels of contamination, prior to starting regular discharges from each pump station, the chemical content of the water will be tested and NPDES permits or industrial wastewater discharge permits will be obtained and waste discharge requirements established. In conclusion, as a result of compliance with best management practices, mitigation, and applicable regulations, BART maintenance procedures would not have a substantial adverse effect on minority or low-income populations.

Effects from construction period hazards and their proximity to low-income and minority populations are discussed in Chapter 6.

Division of a Community

As discussed in Section 5.09, since the BEP Alternative is fully grade separated and located along an existing rail corridor, it would not physically divide a community.

Noise/Vibration

The BEP Alternative would result in effects from noise and vibration generated by operation of the BART trains. However, as discussed in Section 5.10, no noise and vibration effects would be considered substantially adverse. Since substantially adverse noise and vibration effects would not occur, low-income or minority populations would not be adversely affected.

Noise and vibration construction activities, and their relationship to environmental justice, are discussed in Chapter 6, Construction.

Transportation and Transit

The BEP Alternative would reduce the number of vehicles on the roadways, which would be a beneficial effect. However, this alternative would also contribute to traffic congestion on local streets and highways in BART station areas, as discussed in Chapter 3, Transportation and Transit. The location of these effects in relation to low-income and minority communities are shown in Figure 5.12-1.

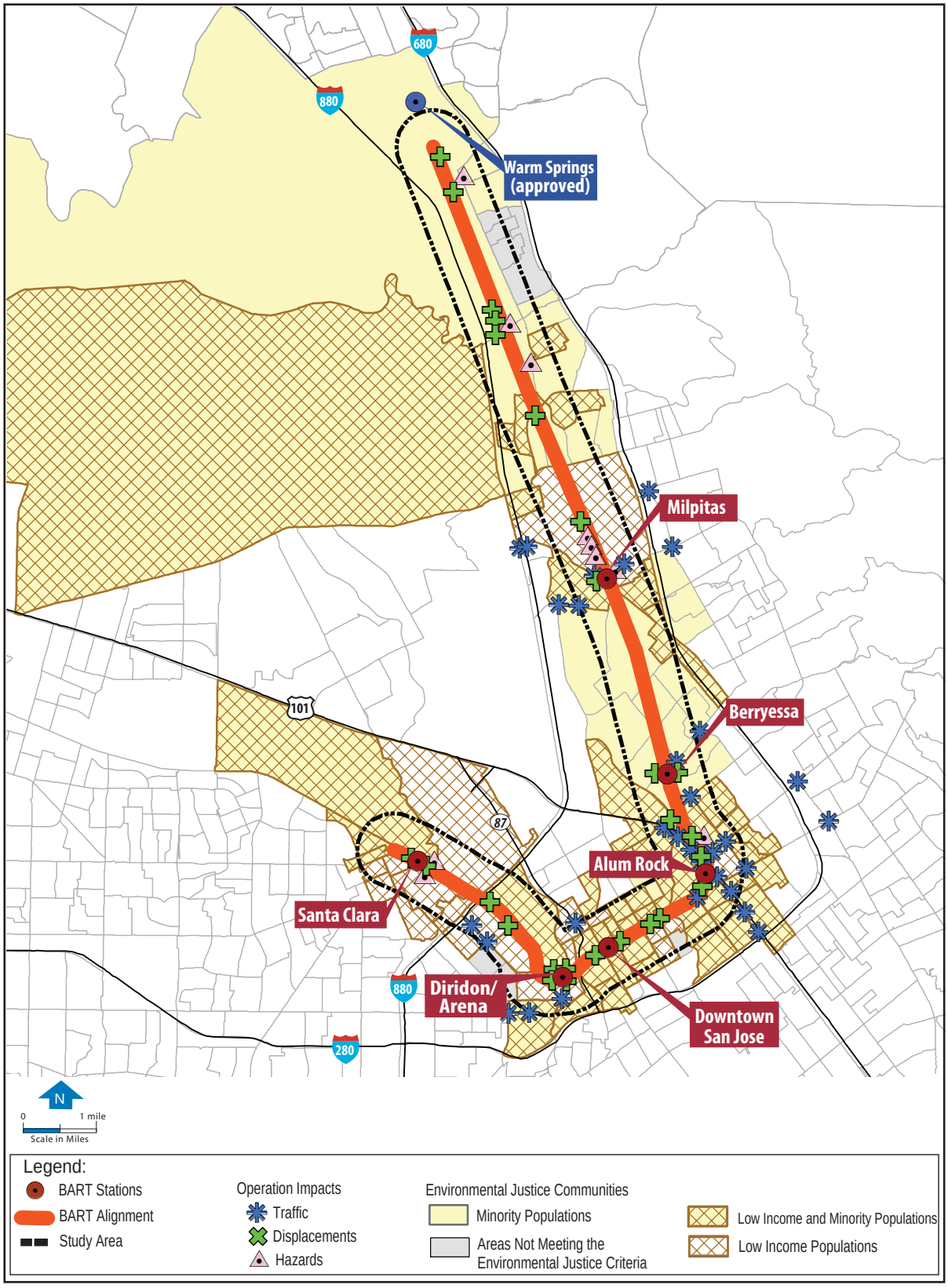
Fourteen (14) intersections would experience adverse effects due to additional station traffic associated with the BEP Alternative. These intersections are listed on pages 3-106 and 3-109 of the Final EIS. In 10 of these 14 cases, cost effective mitigation is not feasible given physical limitations at the intersections. In addition to the affected intersections, a total of four directional freeway segments in the vicinity of the Berryessa Station would be affected. (Refer to Chapter 3, Transportation and Transit, for additional discussion; however, in most cases where the mitigation is not feasible it is because the necessary improvements would be outside of the roadway ROW necessitating displacement of businesses/residencies and would require the demolition of major structures.)

These adverse effects would affect traffic conditions in minority and low-income communities, as shown in Figure 5.12-1. Fourteen (14) out of 66 intersections studied would be adversely affected and 2 out of 14 intersections affected would be mitigated. Feasible mitigation is not available for 10 out of 14 intersections adversely affected by the project. Since the BEP Alternative would also result in increased transit benefits in these same low-income and minority communities, overall the transportation effects to minority and low-income communities would not be disproportionately high or adverse.

SVRTP Alternative

The geographic area of concern for the SVRTP Alternative includes the area for the BEP Alternative and extends through downtown San Jose via tunnel to Santa Clara. Displacements, substantially adverse hazards and traffic impacts would occur at several locations along the proposed alignment as described below. The environmental justice study area, location of low-income and minority populations (by census tract), and substantial adverse environmental effects relative to the SVRTP Alternative are shown in Figure 5.12-2.

Because the alignment travels through and is bordered by low-income and minority communities, the substantially adverse effects associated with the SVRTP Alternative would impact these communities. All substantially adverse environmental effects would be mitigated, where feasible, ensuring that affects to low-income and minority communities would not be substantially adverse. The SVRTP Alternative would therefore not have disproportionate effects on minority or low-income communities along the alignment.



Source: US Census Bureau, S1 Tables, 1999-2000.

Figure 5.12-2: Environmental Justice Communities - Operation Impacts - SVRTP Alternative

The types of effects on low-income and minority populations, and the mitigations that will be implemented to reduce these impacts is discussed in more detail below. Overall, operation of the SVRTP Alternative would provide a direct and positive benefit to the adjoining communities. By providing more convenient access to regional rapid transit and improving connectivity to other transit services, members of the community who may not have access to a private automobile or prefer to use transit will be better served, with improved access to employment, recreation, shopping, and public services, facilities, and other opportunities.

Displacement/Relocation

The SVRTP Alternative would displace approximately 76 to 103 businesses, 2-22 residential units, one community facility, 0-80 flea market vendor stalls, 900 rental storage tenants, 4-6 advertising signs, and 4 cell towers. The locations of these displacements along the alignment are shown in Figure 5.12-2. Although displacements would occur in low-income and/or minority communities, all displacement and relocation activities would be conducted in accordance with the Uniform Act of 1970 and VTA's Relocation Program, as described in Section 5.12.3. This would minimize adverse effects of the property acquisitions associated with the SVRTP Alternative on low-income or minority populations.

Displacements necessary for construction staging areas and their affects on low-income and minority communities are discussed in Chapter 6, Construction.

Air Quality

When compared to the No Build and BEP alternatives, the SVRTP Alternative would provide a greater reduction in the number of vehicle miles traveled in the region resulting in overall air quality improvements. This is a beneficial effect for the entire region, including the environmental justice communities. Since the effects are beneficial, adverse effects to low-income or minority populations would not occur.

Vehicular trips to BART stations would produce localized air emissions (principally CO) in the station areas, but the addition of these trips would not produce air emissions exceeding the federal or state ambient air quality standards, as described in Section 5.1, Air Quality. As a result, localized air emissions would not result in a substantial adverse effect to low-income or minority communities.

Construction of the SVRTP Alternative would generate dust and other pollutant emissions associated with construction and earthmoving activities. These adverse effects and their proximity to minority and low-income communities are discussed in Chapter 6, Construction.

Electromagnetic Fields

Because EMF intensities and exposures from BART operations are below thresholds indicating potential health risks, they would not result in a substantial adverse affect to low-income or minority populations.

Hazards

During operation of the SVRTP Alternative, the potential for human exposure to existing contaminated soil would occur mainly during maintenance procedures, including dewatering retained cut and tunnel segments. Places with known contaminated soil and groundwater are shown in Figure 5.12-2. The effects from contaminated soil and water would be similar to those discussed for the BEP, except that the tunnel would require more frequent dewatering. In accordance with best management practices, any contaminated soil encountered during BART operations will be segregated from clean material, covered while on-site to prevent dust generation or contaminated surface water runoff, and properly disposed off-site in compliance with all pertinent rules and regulations.

Furthermore, as required by Mitigation Measure HM-1, prior to construction of the SVRTP Alternative, additional site-specific information will be collected and documented regarding hazardous materials use and hazardous waste generation for properties that would be acquired for ROW or support facilities for inspections of properties that would be acquired. As required by Mitigation Measure HM-2, Phase Two Site Investigations will be completed for the acquired properties as necessary.

Additionally, to avoid the spread of harmful levels of contamination, prior to starting regular discharges from each pump station, the chemical content of the water will be tested and NPDES permits or industrial wastewater discharge permits will be obtained and waste discharge requirements established. Compliance with these best management practices, mitigation measures, and applicable regulations, will ensure that BART maintenance procedures would not have a substantial adverse effect on minority or low-income populations.

Effects from construction period hazards and their proximity to low-income and minority populations are discussed in Chapter 6.

Division of a Community

As discussed in Section 5.09, since the SVRTP Alternative is fully grade separated and located along an existing rail corridor or underground, it would not physically divide a community.

Noise/Vibration

The SVRTP Alternative would result in adverse effects from noise and vibration associated with operation of the trains. However, as discussed in Section 5.10, noise and vibration effects have been mitigated to below FTA thresholds, and therefore, would not be considered substantially adverse. Since substantially adverse noise and vibration effects would not occur, low-income or minority populations would not be adversely affected.

Noise and vibration effects resulting from construction activities, and their relationship to environmental justice, are discussed in Chapter 6, Construction.

Transportation and Transit

The SVRTP Alternative would reduce overall vehicle miles traveled in the region. However, this alternative would also contribute to traffic congestion on local streets and highways in station areas, as discussed in Chapter 3, Transportation and Transit. The location of these effects in relation to low-income and minority communities are shown in Figure 5.12-2.

Thirty-two (32) intersections would experience adverse effects due to additional station traffic associated with the SVRTP Alternative. These intersections are listed on pages 3-145 to 3-147 of the Final EIS. In 23 of these 32 cases, mitigation is not feasible given ROW limitations at the intersections. A total of 9 directional freeway segments (2 in the vicinity of the Berryessa Station and 7 in the vicinity of the Alum Rock Station) would also be affected. (Refer to Chapter 3, Transportation and Transit, for additional discussion; however, where mitigation is not feasible, it is most often because necessary improvements would be outside of roadway ROW necessitating displacement of businesses and/or residences or require demolition of major structures.)

These adverse effects would affect traffic conditions in minority and low-income communities, as shown in Figure 5.12-2. However, 32 out of 127 intersections studied would be adversely affected and 5 out of 32 intersections affected would be mitigated. Feasible mitigation is not available for 22 out of 32 intersections adversely affected by the project. Also, since the SVRTP Alternative would also result in increased transit benefits in these same low-income and minority communities, overall the transportation effects to minority and low-income communities would not be disproportionately high and adverse.

It should be noted that the SVRTP Alternative's contribution to effects on traffic at these intersections represents only a small percentage of the anticipated street traffic level increases that are projected to occur from anticipated growth by the year 2030.

5.12.5 CONCLUSION

The operational effects of the BEP or SVRTP alternatives on environmental justice communities can be mitigated as discussed previously (although some traffic mitigation measures are deemed not practicable). These mitigations, combined with increased access to regional mass transit and reduction in air pollutant emissions will compensate for the adverse effects. No disproportionately high and adverse effects on environmental justice communities would occur as a result of the BEP or SVRTP alternatives. Implementation of the BEP or SVRTP alternatives will enhance rather than adversely affect the integrated bus system, light rail, and roadway system.