3.12 Socioeconomics, Communities, and Environmental Justice

3.12.1 Introduction

This section describes the regulatory setting and the affected environment for socioeconomics, communities, and environmental justice; the impacts that would result from the project; and the mitigation measures that would reduce these impacts. Demographic analysis of socioeconomics, communities, and environmental justice including race, ethnicity, income, and housing characteristics, is provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a). Additional information on property displacements and relocation impacts are provided in the *Fresno to Bakersfield Section: Draft Relocation Impacts Report* (Authority and FRA 2011b).

Environmental justice is the requirement that federal agencies address, to the greatest extent practicable and permitted by law, the potential disproportionately high, adverse human health and environmental impacts of their programs, policies, and activities on minority and low-income populations. Related topics are discussed in Sections 3.13, Station Planning, Land Use, and Development; 3.18, Regional Growth; and 3.19, Cumulative Impacts.

This section presents population trends, demographic characteristics, housing, household income, fiscal resources, and agricultural industry characteristics. The data used in the analysis are derived from various sources, including the U.S. Census Bureau, California Department of Finance (CDOF), California Employment Development Department (CEDD), and the various county and city agencies.

The Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System (Statewide Program EIR/EIS) (Authority and FRA 2005) and the Final Bay Area to Central Valley High-Speed Train (HST) Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (Authority and FRA [2008] 2010) identified mitigation strategies for socioeconomics, communities, and environmental justice resources. Strategies incorporated into the Fresno to Bakersfield Section HST Project, to date, include early community involvement in the project (including outreach to minority and low-income populations in compliance with Executive Order 12898), station design workshops, and the maintained connectivity of pedestrian/bicycle and vehicular crossings of the rail corridor to sustain neighborhood and community integrity.

3.12.2 Laws, Regulations, and Orders

The following federal, state, and local laws, regulations, and agency jurisdiction and management guidance apply to these resources.

A. FEDERAL

Title VI of the Civil Rights Act [42 U.S.C. Section 2000(d) et seq.]

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, national origin, age, sex, or disability in programs and activities receiving federal financial assistance.

Executive Order 12898

Executive Order 12898, known as the Federal Environmental Justice Policy, requires federal agencies to address, to the greatest extent practicable and permitted by law, the potential disproportionately high, adverse human health and environmental impacts of their programs,

policies, and activities on minority and low-income populations. Federal agency responsibilities under this Executive Order also apply to Native American programs. U.S. Department of Transportation (DOT) Order 5610.2 defines environmental justice to mean an adverse impact that is predominately borne by a minority population and/or a low-income population, or that would be suffered by the minority population and/or low-income population, and that is appreciably more severe or greater in magnitude than would be suffered by the non-minority population and/or non-low-income population (DOT Order 5610.2, Appendix Definitions, sub. [g]).

Executive Order 13166

Executive Order 13166 requires each federal agency to ensure that recipients of federal financial assistance are provided meaningful access to their programs and activities, including applicants and beneficiaries with limited English proficiency.

Americans with Disabilities Act [42 U.S.C. Sections 12101 to 12213]

The Americans with Disabilities Act prohibits discrimination based on disability.

Uniform Relocation Assistance and Real Property Acquisition Policies Act [42 U.S.C. Chapter 61]

The federal Relocation Assistance Program ensures that persons displaced as a result of a federal action or by an undertaking involving federal funds are treated fairly, consistently, and equitably. This helps to ensure persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

B. STATE

California Government Code Section 65040.12(e)

Government Code Section 65040.12(e) defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

California Relocation and Assistance Act [Government Code Section 7260 et seq.]

In parallel with the federal law, this act requires state and local governments to provide relocation assistance and benefits to displaced persons as a result of projects undertaken by state and/or local agencies that do not involve federal funds.

C. REGIONAL AND LOCAL

Several county and local jurisdictions are crossed by the proposed project alternatives in the Fresno to Bakersfield Section. Many of the goals, objectives, and policies set forth in these jurisdictions' general plans are related to socioeconomics. Although not all jurisdictions name their general plan elements in the same manner, the plans cover the same general topics. The elements relevant to socioeconomics include land use, transportation and circulation, housing, open space and conservation, community facilities and services, and economic development. In addition, many jurisdictions have separate plans related to economic development. For a more detailed description of each general plan element for all jurisdictions and for a list of the relevant goals and policies, see the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a). These local plans and policies were considered in the preparation of this analysis. These plan elements address the following issues:

- Land use goals and policies call for land use to enhance the quality of life for residents by preserving community character and minimizing conflicts between incompatible land uses. The general plans also reflect the different issues involved in city and county planning, with city general plans more focused on urban character and community design, and county plans more concerned with agricultural land and rural residential growth.

- Transportation elements have policies that are related to movement by means of non-motorized modes of transportation. General plan objectives ask for the integration of pedestrian and bicycle mobility into the community design to promote transportation alternatives in place of the automobile.

- Housing elements do not differ substantially between jurisdictions. Overall, the goals, policies, and objectives focus on encouraging the provision of a range of housing types and prices to meet the diverse needs of residents. Secondarily, they focus on providing adequate housing assistance to households with very low, low, and moderate incomes, as well as to those with special housing needs.

- Open-space and conservation elements differ between the county and city general plans. The county elements typically focus on preserving open space and agricultural resources, while the city elements focus more on community character, scenic resources, and open space in developed areas. Policies protect these lands to maintain the economy, scenic beauty, visual identity, and recreational needs of the community.

- Community facilities and services elements all focus on providing services to residents. Policies discuss the need to promote growth in areas where adequate public service infrastructure exists, and where adequate police, fire, medical, and other services can be promptly provided.

- Economic development elements are included in the general plans of all jurisdictions except Kings County and the City of Corcoran. In the plans that include this element, the focus differs somewhat between the city and county general plans. The county elements focus more on promoting the long-term preservation of productive agricultural lands, while the city elements focus more on increasing job growth and encouraging the development of a vibrant downtown area. Diversification of industries is a key policy in all general plans.

The local jurisdictions in the study area have other relevant plans, policies, and codes that are related to socioeconomics. Local zoning codes have regulations limiting density and require land use conformance. Other relevant plans include economic development strategies, downtown revitalization plans, housing needs allocation plans, specific community plans, and bicycle master plans.

3.12.3 Methods for Evaluating Impacts

A. SOCIOECONOMICS, COMMUNITIES, AND ENVIRONMENTAL JUSTICE DATA COLLECTION AND ANALYSIS

The following sections summarize the methodologies that were used in the analysis for socioeconomic, community, and environmental justice issues. Specific details on these methodologies can be found in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a) and the *Draft Relocation Impacts Report* (Authority and FRA 2011b).

Disruption or Division of Established Communities

Operation of the Fresno to Bakersfield Section of the HST project could potentially divide adjacent communities by physically removing homes, businesses, and important community facilities. (Please refer to the Relocation of Local Residents or Businesses section for a description of the number and type of facilities that would be affected by each project alternative.) This could disrupt established patterns of interactions among community residents, isolate one part of a community from another, or disrupt residents' access to community facilities and services. In addition, other environmental impacts on communities or neighborhoods—such as substantial increases in noise or traffic—could have adverse consequences on community members' interactions in the project vicinity. Similarly, substantial changes in visual quality or aesthetics could result in a perceived change to community character or the quality of life experienced in affected neighborhoods. (Please refer to the sections on Transportation; Noise and Vibration; and Aesthetics and Visual Resources for a full discussion of such impacts in the urban and rural communities located along the alternative alignments.)

Initially, potential impacts were identified through intensive review of aerial photographs and GIS layers showing the spatial relationship between the proposed alternatives and existing community resources. Census information, the assessor's parcel data, and other databases (e.g., ReferenceUSA [Infogroup 2010]) were used to identify the number and types of community facilities that may be displaced or disrupted. Secondary research, such as a review of local planning documents and city websites, was conducted on the unique attributes and resources of the affected communities. Potential impact findings were verified through field research and discussions with persons knowledgeable about local community conditions and neighborhood characteristics, such as local elected officials, service providers, city planners, and community residents.

Project benefits were considered on a regional scale, whereas potentially adverse impacts associated with the project were evaluated at the community or neighborhood level. While benefits are typically regional in nature, the construction and operation impacts are more localized in specific communities. Alternative project alignments were considered in relation to the existing physical boundaries of communities, to the locations of key community facilities and services, and to unique neighborhood attributes. This review was done to determine the potential impacts on access to facilities and services as well as on community character or community cohesion.

Relocations of households, businesses, and community facilities were considered for their potential to alter the physical shape, character, or function of communities or neighborhoods. Temporary or permanent barriers that could be created by the project were identified to determine whether they would isolate portions of a community, separate residents from important community facilities or services, or alter access to such resources. For the purpose of this analysis, a community is defined as "a population rooted in one place, where the daily life of each member involves contact with and dependence on other members," and community cohesion is defined as "the degree to which residents have a 'sense of belonging' [...] and the degree of interaction among the individuals, groups, and institutions that make up the community" (Caltrans 1997).

Relocation of Local Residents and Businesses

Full or partial acquisition of parcels required for the HST project were identified using aerial photographs, conceptual engineering plans, profiles, and right-of-way data showing potential parcel acquisitions. Potential full and partial acquisitions were tabulated for the project alternatives. The availability of suitable replacement housing and business locations were also examined. It is assumed that current vacancy conditions are representative of the 2012 to 2013

timeframe, when the project would begin to acquire the right-of-way. A potential full parcel acquisition was identified if the project would displace existing structures or acquire a substantial portion of the property that would affect its continued use. In the case of full acquisition, all residences and businesses on the parcel are assumed displaced and relocated. The term "displacement" is used to represent property acquisition of a parcel or structure, while the term "relocation" is used to represent the need to find new properties for displaced residents, businesses, and organizations in acquired structures. Many parcels would be partially acquired, and acquisition of the structures located on the parcel would not be necessary. However, this does not mean there would be no adverse impacts on these properties. For example, acquisition could result in the edge of the right-of-way being within several feet of the structure, making use of the structure questionable. Property acquisition could require relocation of driveways or eliminate access to business loading docks. During construction, building occupants would be exposed to noise, dust, and heavy vehicle traffic that could adversely affect property use. Access to properties as well as structures could also be restricted during construction.

At this stage of project design, identifying the individual circumstances surrounding each partial acquisition of parcels is not possible. To be conservative and to avoid underestimating displacements and relocations, all residences and businesses on partially acquired parcels, including those that may ultimately be temporary impacts—impacts associated with construction that are not expected to last through project operation—are counted as full displacements requiring relocation. This assumption allows for a worst-case assessment of potential property acquisition impacts. The final full and partial parcel acquisition decisions would ultimately be determined on a case-by-case basis during the land acquisition phase of the project.

Economic Effects

Overall, the proposed project would provide economic benefits and facilitate broader economic expansion for the entire region. These benefits would accrue near term from project construction spending. Long-term project operation would provide travel-time savings and improved connectivity of the region to the rest of California. This increased connectivity would improve accessibility to labor and customer markets, thereby strengthening the region's businesses and overall economy. In addition to these region-wide benefits, there is the potential for some short-term negative effects. The methodologies for examining these effects are provided below.

Property and Sales Tax Revenue Changes

Property and sales tax revenues are expected to increase as a result of the project. Short-term reductions in these revenues caused by land acquisition are expected to be more than offset by long-term increases in the regional property and sales tax bases resulting from the improved connectivity of the region to the rest of the state.

The assessment of changes in property tax revenues was based on anticipated full property acquisitions as a proportion of the 2009 county tax assessed values of acquired properties. The resulting estimated tax revenues reductions were then compared to the entire county tax base to assess whether this change would be substantial.

The assessment of changes in sales tax revenues examined effects during the first few years of the project after the start of construction, as well as the anticipated long-term change in sales tax revenues during operation. The first analysis assessed whether or not the short-term temporary changes in sales tax revenues from the acquisition of commercial and industrial properties would be substantial as these businesses relocate and re-establish themselves. The long-term assessment of sales tax revenues examined the ongoing sales tax revenues that would result from the purchase of goods and services associated with the continued operation and maintenance of the HST.

Employment

It is anticipated that the project would improve state and regional interconnectivity, while creating job opportunities across many sectors of the regional economy. This job creation would occur both during the short-term construction and long-term operation of the project. Analysis was conducted to determine if project-related job creation could be expected to be filled by the region's existing labor force, or would attract labor to the region.

To estimate short-term construction employment, the Bureau of Economic Analysis RIMS II direct-effect multipliers were used to estimate the region-wide potential direct, indirect, and induced job creation resulting from project spending in the construction and manufacturing sectors.[1] The estimated long-term employment expansion resulting from the operation of the HST was previously studied by others and is summarized in this analysis (Cambridge Systematics, Inc. 2010). The long-term increase in employment would occur as new businesses are attracted to California and businesses already located in the state expand. Regionally, the spatial reallocation of employment would be based on changes in business location by firms, benefiting from increased statewide mobility provided by the HST project.

Changes in School District Funding

The potential financial impact on school districts was assessed based on potential changes in school district funding due to changes in student populations in communities with substantial numbers of residential displacements. School district funding in California is dependent on student attendance; therefore, relocation of large populations of students outside of affected school districts would reduce district funding. To determine the potential likelihood of any such adverse effects, areas with large numbers of residential displacement were examined to determine if relocation outside of current school district boundaries would be necessary.

Economic Effects on Agriculture

The project would acquire agricultural land; therefore, some agricultural production would be lost. Compensation for any lost production would be incorporated into the property acquisition compensation paid to owners. It is important to note, however, that there is likely to be some production that cannot be easily relocated; and production that is relocated would take time to become re-established. Therefore, some short-term reduction in production would be likely.

A dollar-value estimate of reduced agricultural production within 500 feet of the centerline of the project alternatives was calculated, and the corresponding potential job loss was estimated. These losses would be a result of both land acquisition and potential yield impacts on agricultural production near the project during operation. Data addressing the locations of particular crop production and animal operations were obtained from county agricultural sources (Fresno County 2010a; Kings County 2007; Tulare County 2010; Kern County 2008). The value of agricultural production affected by property acquisition was estimated using county price data for affected crops and animals.

This methodology to assess the economic effects on the agricultural industry provides an indication of impacts across the region and allows for the comparison of the HST project

[1] Direct job creation is a measure of those new construction-related jobs that result from building the project itself. Indirect job creation is a measure of new jobs generated in businesses in the area that would supply goods and services to the project construction, such as equipment suppliers, construction companies, and maintenance firms. Induced job creation is a measure of new jobs in new or existing businesses, such as retail stores, gas stations, banks, restaurants, and service companies, which may supply goods and services to these new direct and indirect workers and their families.

alternatives. Some individual agricultural operations would be affected more than others, and this cost to agricultural operations would be considered on a case-by-case basis during the land acquisition phase of the project.

Environmental Justice

The environmental justice (EJ) analysis conducted for the Fresno to Bakersfield Section of the HST EIR/EIS identified the potential for the project to result in disproportionately high and adverse effects on minority and low-income populations. The locations of minority and low-income populations were identified and are referred to as "communities of concern." The presence of low-income and minority populations was determined based on Census data. The EJ study area included all census blocks and block groups within a 0.5-mile radius of the BNSF Alignment as well as station and heavy maintenance facility locations.

For the EJ analysis, minority persons were defined as individuals identified as non-White and Hispanic or Latino in the 2000 Census. Low-income persons were defined as those individuals with household incomes below the poverty threshold (see Authority and FRA 2011a, Appendix A, for an examination of the appropriate poverty threshold for this analysis). A minority or low-income population is defined as a community of concern if it meets either or both of the following criteria:

1. The census block contains 50%, or more, minority persons and/or the census block group contains 25%, or more, low-income persons.

2. The percentage of minority and/or low-income persons in any census block or block group is more than 10% greater than the county average.

At the time this analysis was conducted in mid-2010, the 2000 Census data were the most recent data available. However, the 2000 Census data were 10 years old and therefore demographics may have changed within the study area over the decade. Therefore, to confirm the findings in the analysis, additional quantitative and qualitative methods were undertaken. Quantitative analysis included examining more current data sources that would indicate the locations of communities of concern. These sources included the American Community Survey and participation data by zip code for state social service programs, food stamps, Section 8 housing and free or reduced-fee school lunch programs. Qualitative investigations included outreach to 22 local agencies and organizations to inquire about recent changes in local demographics that would lead to changes in the locations of identified communities of concern. In addition, these local experts were asked to review maps of the identified communities of concern to assess whether or not the locations and/or boundaries represent known minority and low-income populations.

To determine whether impacts would be disproportionately high and adverse on the identified communities of concern, the analysis included a review of impacts analyzed in other sections of this EIR/EIS. Sections reviewed include Sections 3.2, Transportation; 3.3. Air Quality and Global Climate Change; 3.4, Noise and Vibration; 3.13, Station Planning, Land Use, and Development; 3.15, Parks, Recreation, and Open Space; and 3.16, Aesthetics and Visual Resources. These impacts were identified by area, by alternative alignment, and by type of impact. The EJ analysis determined whether communities of concern would experience disproportionately high and adverse effects using either of the two following criteria:

1. Communities of concern would predominantly bear the impact.

2. Communities of concern would suffer the impact, and the impact would be considerably more severe or greater in magnitude than the adverse impact suffered by the general population.

In addition, the analysis considered if the project would (1) implement measures to avoid or minimize high and adverse disproportionate impacts, and (2) provide benefits that would affect the communities of concern.

B. METHODS FOR EVALUATING EFFECTS UNDER NEPA

Pursuant to NEPA regulations (40 CFR 1500-1508), project effects are evaluated based on the criteria of context and intensity. Context means the affected environment in which a proposed project occurs. Intensity refers to the severity of the effect, which is examined in terms of the type, quality, and sensitivity of the resource involved, location and extent of the effect, duration of the effect (short- or long-term), and other consideration of context. Beneficial effects are identified and described. When there is no measurable effect, impact is found not to occur. Intensity of adverse effects are summarized as the degree or magnitude of a potential adverse effect where the adverse effect is thus determined to be negligible, moderate, or substantial. It is possible that a significant adverse effect may still exist when on balance the impact is negligible or even beneficial.

For socioeconomics, communities and environmental justice, the terms are defined as follows. Negligible is defined as social or economic effects including those related to the other environmental elements (i.e., air quality, noise, and transportation) that would be measurable but not perceptible in communities. Moderate is defined as those effects that would not divide neighborhoods nor affect the overall quality of community life. Moderate effects would also result in some economic effects but impacts would be localized or short-term in duration. Substantial effects would result in long-term physical division of an established community, relocation of substantial numbers of residential or commercial businesses, and effects on important community facilities. High and adverse disproportionate effects to minority and low-income populations are identified as described above.

C. CEQA SIGNIFICANCE CRITERIA

Pursuant to CEQA Guidelines, the project would have a significant impact if it would:

- Physically divide an established community.
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Relocate substantial numbers of people, necessitating the construction of replacement housing elsewhere.
- Result in substantial adverse physical impacts associated with the provision of new or physically altered community and governmental facilities or with the need for new or physically altered community and governmental facilities, the construction of which could cause significant environmental impacts.

This section discusses project impacts on the agricultural economy of the study area. In accordance with Section 15064(e) of the CEQA Guidelines, “economic and social changes resulting from a project shall not be treated as significant effects on the environment.” Therefore, no CEQA significance criteria are provided for economic impacts. CEQA does address the conversion of agricultural land to nonagricultural uses. See Section 3.14, Agriculture Lands, for that evaluation.

D. STUDY AREA FOR ANALYSIS

The study area for direct and indirect impacts on population, communities, and environmental justice is defined as the 0.5-mile radius from the centerline of the BNSF Alternative, as well as the 0.5-mile radius around station locations or access points, maintenance, and other support facilities.

The region consists of the four counties of Fresno, Kings, Tulare, and Kern, and the study area includes six cities (Fresno, Hanford, Corcoran, Wasco, Shafter, and Bakersfield) as well as several smaller communities. Communities in the rural areas that lie between the urban cities along the alignment were identified by reviewing maps and through discussion with local officials and site visits to identify existing conditions. Site visits to all communities were conducted in March and May of 2010.

The small cities of Hanford, Corcoran, Wasco, and Shafter were each examined as whole cities given their limited geographic area, and somewhat more homogeneous populations. The cities of Fresno and Bakersfield were determined to be too large and composed of too many distinct neighborhoods and heterogeneous populations to be examined as a whole. Therefore, study area profiles for these cities include data by neighborhood/community district to present a more project-focused analysis. Data for the city of Fresno are presented for the Central, Edison, and Roosevelt districts. For Bakersfield, data are presented for the Central, Northeast, and Northwest districts.

District boundaries were determined based on current definitions used by city staff (Fresno), interviews with local planners (Bakersfield), and examination of census boundaries (tract, block group, and block) to approximate the identified district boundaries as closely as possible. The district boundaries are not drawn exactly to meet the 0.5-mile study area radius, but rather to identify the relevant area based on demographics and cohesion that needs to be examined in the context of a community.

The Northeastern District of Bakersfield is not completely contained within the project study area. This neighborhood, which lies south of East Truxtun Avenue between Union Avenue and Oswell Street, is only partially within the defined project study area for the Fresno to Bakersfield Section, but is examined as a whole community in this document. This is done because the Bakersfield to Palmdale Section of the HST project would continue from the Bakersfield Station and continue to bisect this neighborhood. Therefore, it is important to examine potential impacts on this community as a cohesive whole rather than have the analysis split the neighborhood between the two environmental documents.

E. ENVIRONMENTAL JUSTICE OUTREACH AND INTEREST GROUPS

Executive Order 12898 requires that federal agencies ensure effective public participation and access to information. Consequently, an extensive EJ public and agency outreach program was conducted throughout the EIR/EIS process and will continue through design and construction phases. Many meetings were held with local officials; public, local, and regional organizations; and government agencies, as well as with representatives of affected communities along the HST alternatives. Outreach conducted to date is documented in Chapter 7, Public and Agency Involvement.

The purpose of these efforts was to gain the input of EJ communities of concern regarding the project and to obtain their comments as part of the public record. Through analysis of the project, staff identified whether any of the communities of concern would potentially be disproportionately affected by the project relative to the potential benefit the community would gain after appropriate alternatives or changes to the project were implemented. A description of the process and a list of public outreach meetings are provided in the *Fresno to Bakersfield*

Section: Community Impact Assessment Technical Report (Authority and FRA 2011a). The process is summarized as follows:

- Identify minority and/or low-income interest groups within the HST project study area.
- Engage EJ Community Leaders and Organizations.
- Identify how project information would be made available to the community.
- Conduct EJ-specific community meetings to inform community members of the project and solicit input about community-based concerns; establish opportunities for participation by potentially affected communities of concern.
- Develop alignment alternatives or modifications to avoid or minimize impacts on communities of concern.
- Document public information meetings and other EJ outreach.

Communities of concern along the alternative alignments were targeted for additional public outreach. The communities identified included the cities of Corcoran, Allensworth, Wasco, and Shafter, as well as West Fresno and East Bakersfield (generally east of Union Street between the UPRR tracks and California Avenue). Special outreach conducted for minority and low-income populations in these communities included Spanish-language publicizing of meetings, availability of Spanish-language versions of presentation materials, and availability of Spanish interpreters at public meetings. Local elected officials were invited to each of these meetings, along with any other known community leaders.

Overall, comments from minority and low-income communities expressed concerns similar to those received from all communities along the project. Outreach to affected communities has been and will continue to be conducted as part of the Authority and FRA decision-making process. Issues raised by EJ community leaders, organizations, and members include concerns related to:

- Noise from the trains.
- Visual impacts from elevated structures.
- Structures being targets for graffiti.
- Division of communities and transportation access.
- Potential impacts to local employment.
- Access to affordable regional and inner-city transportation.
- Affordability for low-income community members.
- Access to the appropriate training for jobs with the high-speed train.
- Emergency response and general safety issues.
- Local funding for the added security.
- Pollution from the proposed heavy maintenance facility (HMF).
- Central Valley (local) benefits.
- Impacts to local churches.
- Housing displacement of low-income or unemployed community members.
- Impacts to public schools and education-related commute times.
- Potential impacts to local landmarks or facilities important to minority or low-income communities.

Public hearings will be held after the publication of the Project Draft EIR/EIS. Specific environmental justice outreach efforts during the public comment period will include providing meeting notices to environmental justice interest groups, listing advertisements in Spanish-language newspapers, posting meeting notices (in English and Spanish) at community facilities

that serve low-income and minority populations, providing a telephone number to call for information in Spanish, and providing Spanish interpreters at public hearings and meetings. In addition, interpreters for the Lao/Hmong community will be at the public hearings, if required. All meeting materials provide contact information for those with special needs, allowing them to make necessary arrangements. A summary of the Project Draft EIR/EIS will be provided in Spanish at the meetings and online at the project web site. A telephone hotline with interpreter services will be established to receive the Draft Project EIR/EIS comments, and information for using the hotline will be provided in all Spanish-language materials. Chapter 7.0, Public and Agency Involvement, provides complete information on the outreach activities that have been conducted to date and a list of future public meetings and outreach activities.

3.12.4 Affected Environment

There are no applicable regional plans or policies pertaining to socioeconomics, communities, and environmental justice within the Fresno to Bakersfield Section study area.

A. POPULATION CHARACTERISTICS

Population and demographic characteristics provide information about the region's social context. Age, household, and disability characteristics are discussed to identify potential special relocation needs. Race and income information is presented to identify communities of concern. See the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a) for detailed population characteristic profiles.

Regional Population Characteristics

Table 3.12-1 provides information on the existing and projected population growth for Fresno, Kings, Tulare, and Kern counties compared to growth for the state of California. The population in the four-county region has increased in the last decade and is projected to increase substantially over the next 25 years, with some county populations expected to nearly double by 2035.

Age distributions across the four counties in the region are similar, and middle-age groups constitute the highest concentration of the population. Analysis of census data for the four counties as well as for the major cities in the study area shows the largest age group of the population shifted to being somewhat younger between 2000 and 2008, reflecting the arrival of younger workers to the area along with their spouses and children (U.S. Census Bureau 2000d).

In 2000, the 606,395 households in the region had an average household size of 3.11 persons. In 2010, the number of households increased to 720,766, and the average household size increased to 3.21 persons (California Department of Finance 2010). Approximately 75% of all households in the region are family households. However, the percentage of married-couple households has decreased across all four counties since 2000, and the percentage of households headed by a single female or a single male has increased across the region.

Linguistic isolation among households in the region was similar to that of the state in 2000, inasmuch as 9.4% of regional households and 9.6% of California households had no one over the age of 14 with the ability to speak English very well (U.S. Census Bureau 2000a).[2] This percentage has increased in both the state and the region since 2000, with 10.8% of the households in the state and 11% in the region estimated to be linguistically isolated in 2008 (U.S.

[2] According to the U.S. Census Bureau, a household is linguistically isolated if "no member 14 years old and over speaks only English or speaks a non-English language and speaks English very well. In other words, all members 14 years old and over have at least some difficulty with English."

Census Bureau 2008a). This percentage has increased in Tulare County at a slightly faster rate with 11.1% of households identified as linguistically isolated in 2000, and 13.4% in 2008 (U.S. Census Bureau 2008a).

Table 3.12-1
Existing and Projected Populations

Location	2000	2010[a]	2035[b]	Change in Population 2010–2035 (%)	Average Annual Growth Rate (2010–2035)
Fresno County	799,407	953,761	1,547,582	62.3	2.5
Kings County	129,461	156,289	274,576	75.7	3.0
Tulare County	368,021	447,814	809,789	80.8	3.2
Kern County	661,653	839,587	1,523,934	81.5	3.3
Regional Total	1,958,542	2,397,451	4,155,881	73.3	2.9
California	33,873,086	38,648,090	51,747,374	33.9	1.4

Sources:
[a] California Department of Finance 2010.
[b] California Department of Finance 2007.

Disabled populations tend to rely more heavily on community services as a result of issues with mobility and accessibility, particularly for the elderly. The Census data show that disabilities increase significantly in the 65, and older, population. Among seniors in Tulare and Kern counties in 2007, almost 50% reported a disability, giving these counties the highest disability rates for this age group in the region (U.S. Census Bureau 2007). It should be noted that the data are collected for many different types of disabilities and individuals can be identified as having more than one type of disability. Therefore, this number likely double counts persons with more than one type of disability.

Minorities in this analysis are defined as all individuals identified as Hispanic and/or non-White. Individuals of a non-Hispanic White background made up approximately 43% of the region's population in 2000, while individuals of Hispanic ethnicity of any race made up a similar 43% of the population with the non-Hispanic non-White comprising the remaining 14% (U.S. Census Bureau 2000b). Between 2000 and 2008, the percentages of these two groups shifted substantially, with the total non-Hispanic White population decreasing to about 38% and the Hispanic population of all races increasing by almost 7%, or 289,916 people. Persons of Hispanic ethnicity now represent approximately half the population of the region.

In 2008, countywide median annual household income was highest in Kings County, at $50,962, and lowest in Fresno County, at $43,737. By comparison, the median annual household income for California was $61,062 in the same year (U.S. Census Bureau 2008d).

HST Study Area Population Characteristics

The study area population data are presented from north to south along the BNSF Alternative. Figure 3.12-1 provides a map of the project and communities in the study area. Data are presented for the Fresno and Bakersfield city districts crossed by the alignment; the small cities of Hanford, Corcoran, Wasco, and Shafter; and the alignment segments between these cities and

small communities.[3] Information pertaining to the study area urban cities is presented below. The U.S. Census American Community Survey single-year estimates for 2008 are available for Bakersfield and Fresno, because both of these cities have a population of greater than 65,000. By contrast, Hanford, Corcoran, and Wasco each have a population of less than 65,000 but greater than 20,000, and therefore 2006–2008 average estimates are available. The city of Shafter, with a population of less than 20,000, currently has no recent estimates available from the American Community Survey.

City of Fresno

Fresno's population of 427,652 in 2000 grew to 502,303 in 2010, resulting in an annual average growth rate of 1.8%. This is lower than the growth rates of Fresno County (1.9%) and the region (2.2%) during the same period (California Department of Finance 2010).

Communities within Fresno are examined as three districts (see Figure 3.12-2 for the city of Fresno district map). The Census 2000 populations of the districts in Fresno vary widely, ranging from 16,754 people in the Central District to 102,489 people in the Roosevelt District.[4] All of the districts have very high proportions of minority populations, with each district having a minority population of at least 85% (see Table 3.12-2).

The number of households and the average household size were 160,763 and 3.07 people, respectively, in 2010 (California Department of Finance 2010). Approximately 68% of the households were family households in 2008. In 2000, the average household size was similar across the districts of Edison (3.74) and Roosevelt (3.75), but the average household size in the Central District was smaller, at 3.33 persons (U.S. Census Bureau 2000c).

Linguistic isolation in Fresno was 9.7% in 2008, and within the three districts, linguistic isolation was significantly higher (ranging between 16% and 26%) than in the city as a whole (U.S. Census Bureau 2000a; U.S. Census Bureau 2008a).

City of Fresno to City of Hanford

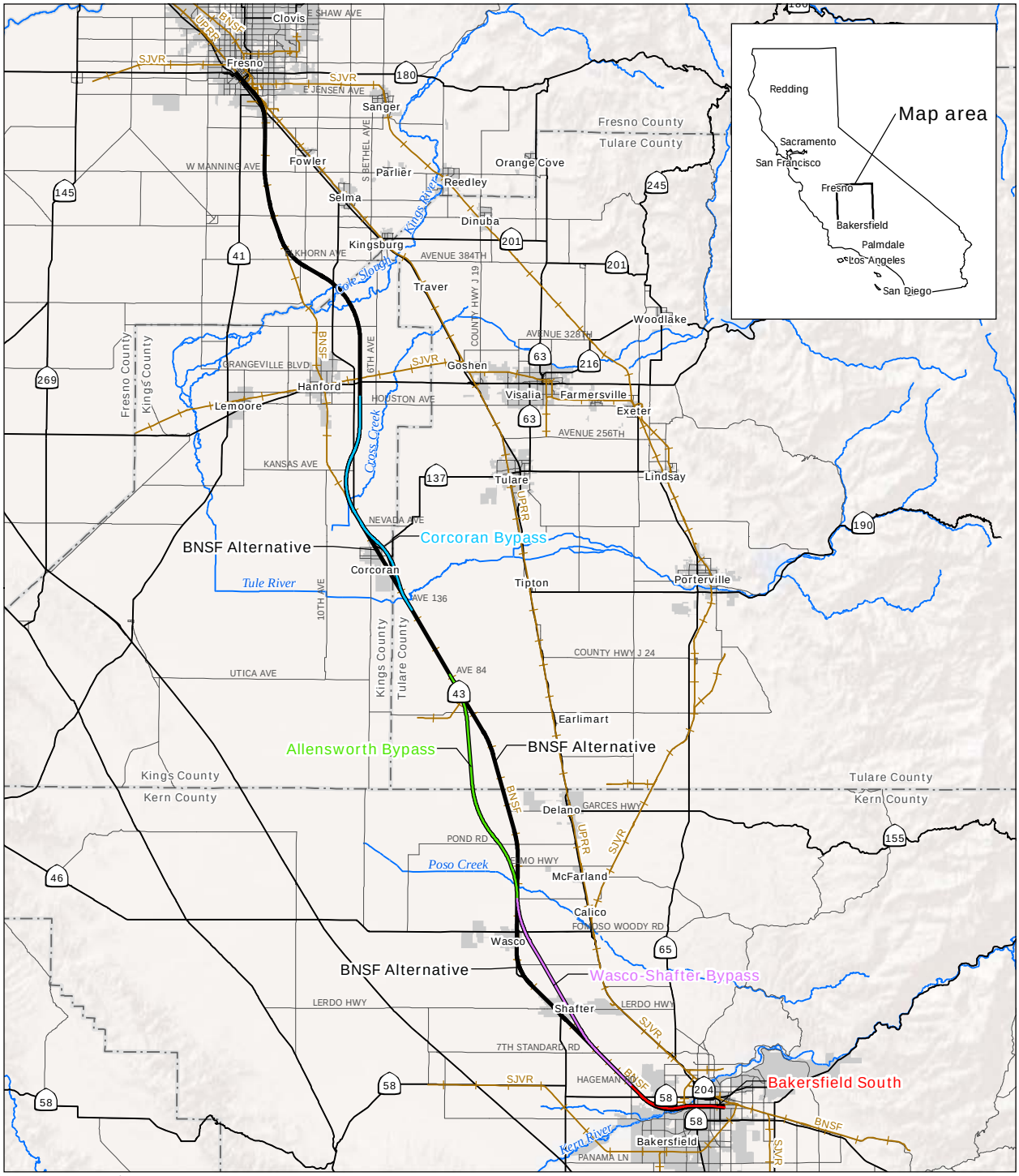
Seven small communities are interspersed along this section of the alignment. Community population estimates range from fewer than 100 people in the smallest communities, Oleander and Conejo, to approximately 1,500 residents in the largest community, Malaga.

City of Hanford

Hanford's population of 41,686 residents in 2000 grew to 53,266 in 2010, resulting in an average annual growth rate of 2.8% (California Department of Finance 2010). The number of households and the size of the average household were 17,070 and 3.07, respectively, in 2010 (California Department of Finance 2010). Approximately 74% of the households were family households in the 2006–2008 estimate (U.S. Census Bureau 2008a). Linguistic isolation averaged 9.2% in 2006–2008 (U.S. Census Bureau 2008a). Hanford's minority population was approximately 60% of all residents in 2006–2008 (see Table 3.12-2).

[3] In small rural communities located between the larger cities, population figures were sometimes unavailable. In these cases, the population was estimated by counting the number of residences and multiplying by the average household size for the four-county region (3.18 people per household).

[4] The data available to examine the three bisected Fresno neighborhood districts within the study area are derived from Census 2000 data aggregated at the Census-tract level to match district boundaries as closely as possible (see Figure 3.12-2 for the city of Fresno district map).



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

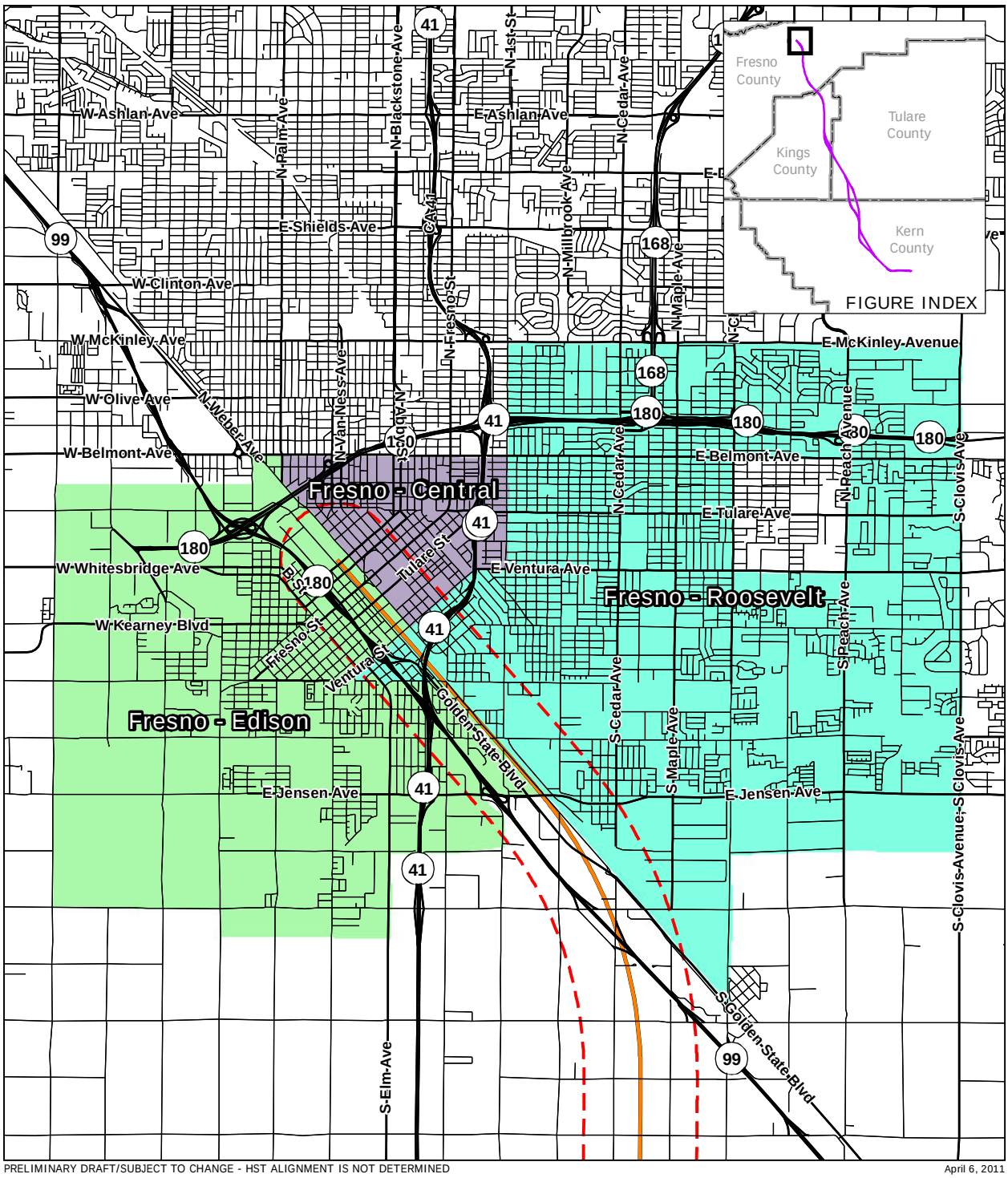
April 6, 2011

Source: URS, 2011.

- BNSF Alternative
- Allensworth Bypass
- Bakersfield South
- Corcoran Bypass
- Wasco-Shafter Bypass
- Existing rail line
- Major road
- Hydrographic feature
- Community/Urban area
- County boundary

0 5 10 Miles

Figure 3.12-1
Fresno to Bakersfield
HST alignments



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

April 6, 2011

Sources: URS, 2011

N

0 1 2
Miles

0 2 4
Kilometers

Road

BNSF Alignment

Half-mile buffer from alignment

Figure 3.12-2
Districts within the
City of Fresno

City of Hanford to City of Corcoran

The study area between the cities of Hanford and Corcoran is in Kings County. El Ranchero is the one community identified in this segment. El Ranchero lies south of Lacey Boulevard, 1 mile east of Hanford, and has an estimated population of 400 residents.

City of Corcoran

In 2000, Corcoran had a population of 20,843 residents; by 2010, the population had grown to 25,692 people, for an average annual growth rate of 2.3% (California Department of Finance 2010). Corcoran had markedly higher percentages of the population in the middle-age groups in 2008, which is likely the result of the population housed in the state prison facilities located within the city limits. The number of households and the average household size were 3,690 and 3.61, respectively, in 2010 (California Department of Finance 2010). Approximately 80% of the households were family households in the 2006–2008 estimate (U.S. Census Bureau 2008a). In 2000, 12.1% of the city's households had no one over the age of 14 with the ability to speak English very well. More recent data are not available from the Census American Community Survey for 2006–2008; however, with the increase in minority population and the trends seen in both the county and region, it can be assumed that linguistic isolation has not decreased. Corcoran's minority population, which represented approximately 75% of all residents in 2000, increased to approximately 80% of all residents by 2006–2008 (see Table 3.12-2).

City of Corcoran to City of Wasco

Four communities are located along the alignment between Corcoran and Wasco. The communities of Blanco and Allensworth are located in Tulare County, while Kernell and Pond are located in Kern County. The population estimates for these communities range from less than 10 in Kernell to around 400 residents in the community of Allensworth. None of these communities have experienced significant growth in the past several years, and no growth is anticipated in the foreseeable future (Kinney 2010, personal communication; Smith 2010, personal communication; Waters 2010, personal communication).

City of Wasco

Wasco had a population of 21,263 residents in 2000, and by 2010, the population had grown to 25,541, resulting in an average annual growth rate of 2.0% (California Department of Finance 2010). When compared to the other cities in the region, Wasco had markedly higher percentages of the population in the middle-age groups in 2008 which is likely as a result of the population housed in the state prison facilities located within the city limits. The number of households and the average household size were 4,892 and 3.95, respectively, (California Department of Finance 2010). Approximately 80% were family households in the 2006–2008 estimate. Linguistic isolation among households was 20.2% in 2000 (U.S. Census Bureau 2000a). More recent data are not available from the Census American Community Survey for 2006–2008; however, as with Corcoran, with the increase in minority population and with trends seen in both the county and region, it can be assumed that linguistic isolation has not decreased. Wasco's minority population, which represented approximately 80% of all residents in 2000, increased to over 85% of all residents, based on the 2006–2008 American Community Survey (see Table 3.12-2).

Table 3.12-2[a]
Minority Group Representation in the Region

Location	% of Population											
	Hispanic of All Races		Non-Hispanic Native American		Non-Hispanic Asian		Non-Hispanic African American		Non-Hispanic Other		Total	
	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008
Fresno County	44.0	48.7	0.8	0.6	7.9	8.4	5.0	4.9	2.6	2.3	60.3	65.0
City of Fresno	39.9	46.6	0.8	0.3	11.0	9.9	8.0	7.5	3.0	2.4	62.7	66.7
Fresno Central District	64.3	—	0.8	—	9.9	—	9.0	—	3.5	—	87.5	—
Fresno Edison District	47.3	—	0.4	—	11.1	—	36.4	—	1.8	—	97.0	—
Fresno Roosevelt District	58.7	—	0.8	—	15.5	—	6.7	—	2.8	—	84.4	—
Kings County	43.6	49.3	1.0	1.2	3.0	3.1	8.0	7.5	2.8	1.7	58.4	62.8
City of Hanford*	38.7	45.5	0.7	0.8	2.8	4.2	4.8	7.3	3.1	0.9	50.1	58.8
City of Corcoran*	59.6	62.6	0.5	1.5	0.7	2.0	14.0	12.8	1.1	0.9	75.9	80.8
Tulare County	50.8	57.5	0.8	0.6	3.1	2.8	1.4	1.3	2.1	2.2	58.2	64.4
Kern County	38.4	47.1	0.9	0.5	3.2	3.6	5.7	5.4	2.3	2.5	50.5	59.0
City of Wasco*	66.7	74.4	0.5	0.4	0.6	1.7	9.8	7.5	0.8	1.2	78.4	85.2
City of Shafter**	68.1	—	0.5	—	0.3	—	1.4	—	0.7	—	71.0	—
City of Bakersfield	32.7	43.3	1.0	0.5	2.5	4.8	12.2	8.6	3.1	3.0	51.5	60.2

Table 3.12-2[a]
Minority Group Representation in the Region

Location	% of Population											
	Hispanic of All Races		Non-Hispanic Native American		Non-Hispanic Asian		Non-Hispanic African American		Non-Hispanic Other		Total	
	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008
Bakersfield Central District	32.7	—	1.0	—	2.5	—	12.2	—	3.2	—	51.5	—
Bakersfield Northeast District	46.7	—	1.0	—	1.4	—	4.5	—	2.1	—	55.7	—
Bakersfield Northwest District	13.6	—	1.0	—	1.9	—	1.5	—	2.4	—	20.4	—
Region	43.3	49.8	0.8	0.6	5.1	5.3	4.8	4.6	2.5	2.3	56.5	62.6
California	32.4	36.6	0.5	0.4	10.8	12.2	6.4	5.9	3.2	2.8	53.3	58.0

[a] U.S. Census Bureau 2000b.
[b] U.S. Census Bureau 2008c.
*Cities of Hanford, Corcoran, and Wasco data provided by American Community Survey 2006-2008 (U.S. Census Bureau 2008).
**City of Shafter data for ACS 2008 or ACS 2006-2008 recent data are not available.
Note: The California Department of Finance does not provide annual racial profile estimates, so the most current American Community Survey data are used. This explains the difference between the 2010 total population estimates presented in the text and the 2008 or 2006-2008 totals in this table. Also, Census Racial and Ethnicity Characteristics data includes institutionalized population, of which Corcoran and Wasco have a significant number given the presence of State Prison facilities. Also, 2008 data are not available at the district level so only 2000 data are presented.

City of Wasco to City of Shafter

The three communities identified in the study area between the cities of Wasco and Shafter are Palmo, the North Shafter Labor Camp, and Myricks Corner. Palmo, which is the smallest of the communities, has an estimated population of fewer than 25 people. The North Shafter Labor Camp has approximately 300 residents, and Myricks Corner has approximately 250 residents.

City of Shafter

Shafter's population was 12,736 in 2000 and grew to 16,208 by 2010, which is an average annual growth rate of 2.7% (California Department of Finance 2010). The number of households and the average household size were 4,052 and 3.83, respectively, in 2010 (California Department of Finance 2010). Linguistic isolation was 17.1% in 2000 (U.S. Census Bureau 2000a). More recent information is not available from the Census American Community Survey for 2006–2008; however, as previously discussed for the other communities, it can be assumed that linguistic isolation has not decreased. Shafter's minority population represented approximately 70% of all residents in 2000 (see Table 3.12-2).

City of Shafter to City of Bakersfield

The one identified community in the study area between the cities of Shafter and Bakersfield is Crome. This small community is unincorporated and has an estimated population of about 75 people.

City of Bakersfield

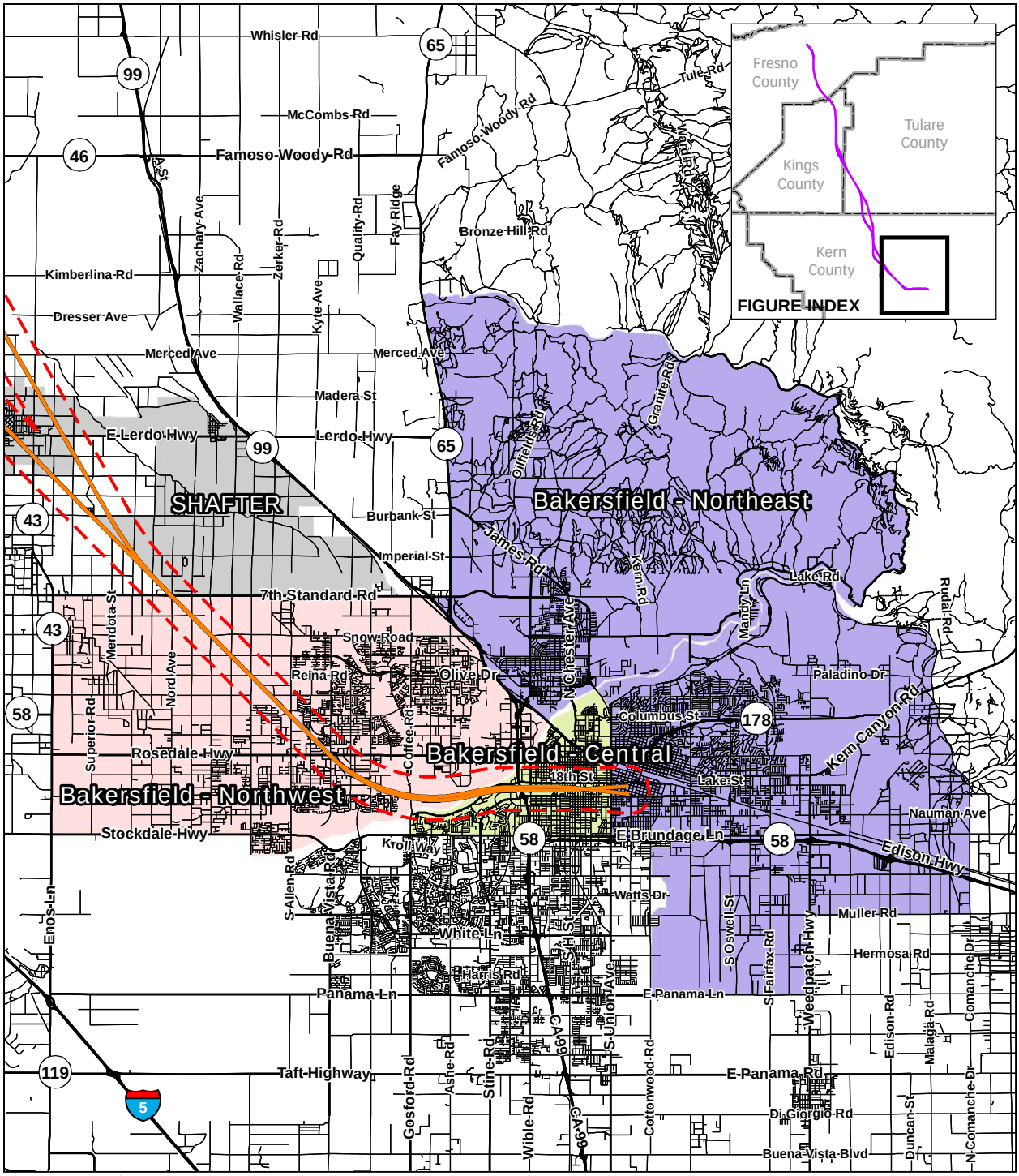
In 2000, Bakersfield had a population of 247,057 residents; the population grew to 338,952 in 2010, for an average annual growth rate of 3.7% (California Department of Finance 2010).

Communities within Bakersfield are examined as three districts (see Figure 3.12-3 for the city of Bakersfield district map). The Census 2000 populations of the three districts in Bakersfield vary widely, ranging from 38,610 people in the Central District to 140,082 people in the Northeast District.[5] Both the Central and Northeast districts had similar percentages of minorities (51.5% and 55.7%, respectively) when compared to Bakersfield as a whole, while the Northwest neighborhood had a much lower percentage of minorities (18.8%) (see Table 3.12-2).

In Bakersfield, the number of households and the average household size were 110,316 and 3.04, respectively, in 2010 (California Department of Finance 2010). Family households were 71.6% in 2008. The percentage of married-family couples decreased by approximately 3%, and both the number of non-family and male-householder-family households increased. There was no significant growth in housing stock from 2000 to 2008 in the neighborhood districts.

Average household size was similar in the Northeast (3.07) and Northwest (3.03) districts, while the Central District's average household size (2.57) was considerably smaller (U.S. Census Bureau 2000a). This could be due to the urban nature of the area as well as to the lower percentage of family households in and around the downtown area. The differences in the makeup of households across the Bakersfield districts in 2000 showed that the Central District had a percentage of family households (62.5%) below the city average, which was (73.7%). The Northeast District was similar to the city average (73.9%), while the Northwest District had a higher-than-average percentage of family households (84.2%).

[5] The data available to examine the three bisected Bakersfield neighborhood districts within the study area are Census 2000 data aggregated at the Census tract level to match district boundaries as closely as possible (see Figure 3.12-3 for the city of Bakersfield district map).



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

April 6, 2011

Source: URS, 2011

Road

Alternative alignments

Half-mile buffer from Alternative

N

0 2 4 Miles

0 4 8 Kilometers

Figure 3.12-3
Districts within the City of Bakersfield

Linguistic isolation was 6.8% in 2008 in Bakersfield (U.S. Census Bureau 2008a). Among the districts, the Northeast District (8.9%) had a higher percentage of linguistic isolation than that of the city (5.8%), the Northwest District had a very low percentage (1.2%), while the Central District was similar to the city average (U.S. Census Bureau 2000a).

B. HOUSING SETTING

This section provides details on housing: specifically, housing structure types, community tenure and vacancy rates that are all useful in understanding the availability of suitable housing in areas where residential property displacements would occur with project implementation.

Regional Housing Setting

The single-family home is the predominant housing type across the study area, accounting for 73% of existing units in the region in 2010. Multifamily units and mobile homes account for 20% and 7% of the remaining housing stock, respectively. Table 3.12-3 provides a summary of housing characteristics, including vacancy rates for the region. Kings County is unique because approximately 14% of the population is housed in group quarters, including the state prison facilities located in Corcoran and Wasco, and the military housing at NAS Lemoore. The housing data in Table 3.12-3 exclude these group quarters. A full listing of housing characteristics for the counties, cities, and communities is provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a).

Table 3.12-3
Housing Characteristics (2010)

Location	Single-Family Housing Units		Multifamily Housing Units		Mobile Homes	Occupied	Percent Vacant
	Detached	Attached	2 to 4	5 Plus			
Fresno County	210,874	10,083	25,755	53,912	14,134	294,547	6.42
City of Fresno	103,640	6,028	17,142	40,301	3,923	160,763	6.01
Fresno Central District[a]	1,277	248	986	2,244	8	4,165	12.6
Fresno Edison District	4,593	354	1,138	603	49	6,231	7.5
Fresno Roosevelt District[a]	16,768	1,058	3,561	6,944	572	26,807	7.3
Kings County	30,227	2,637	3,011	4,624	2,278	40,347	5.68
City of Hanford	13,212	864	1,538	2,082	343	17,070	5.37
City of Corcoran	2,970	180	373	334	164	3,690	8.23
Tulare County	106,474	4,917	10,320	9,001	11,812	131,915	7.44
Kern County	196,958	8,536	23,912	25,929	26,400	253,957	9.86
City of Wasco	3,861	361	445	441	134	4,892	6.68
City of Shafter	3,512	177	278	283	209	4,052	9.13
City of Bakersfield	83,006	3,224	11,658	16,055	2,749	110,316	5.46
Bakersfield Central District[a]	7,848	775	2,944	3,651	451	14,447	7.8

Table 3.12-3
Housing Characteristics (2010)

Location	Single-Family Housing Units		Multifamily Housing Units		Mobile Homes	Occupied	Percent Vacant
	Detached	Attached	2 to 4	5 Plus			
Bakersfield Northeast District[a]	32,352	1,999	5,426	5,262	3,099	44,351	7.9
Bakersfield Northwest District[a]	16,067	159	488	1,068	884	17,936	3.9
Regional Total	544,533	26,173	62,998	93,466	54,624	720,766	7.81

Sources: California Department of Finance 2010 and U.S. Census 2000e.
Notes:
[a] Housing data not available at the district level for 2010, so 2000 Census data are presented.

HST Study Area Housing Setting

Housing profiles for individual cities and communities along the alignment, as well as for segments connecting the urbanized areas, are presented in the sections that follow. In addition to data describing housing stock, ownership and residency tenure data are provided to help illustrate levels of community cohesion within the affected area. Community cohesion refers to the sense of belonging and commitment that residents have to their communities. High levels of home ownership, low residential unit turnover, and the presence of public facilities, among other community characteristics, are signs of a potentially high level of community cohesion (Caltrans 1997).

City of Fresno

As is the case in Fresno County and the region overall, the largest increase in Fresno's housing stock occurred in single-family detached homes between 2000 and 2010, accounting for 77.5% of the housing stock growth. Given the recent economic recession, the majority of this growth occurred before 2008, with little occurring since. The city's housing inventory is different from that of either the county or the region because a larger percentage of the housing units are multifamily residences, which reflects the more urban nature of the city of Fresno compared to the unincorporated areas in the region.

The housing stock varies substantially among Fresno's three districts. The Central District has a much higher percentage of multifamily units when compared with either the Edison or Roosevelt districts. When compared with the city as a whole, the Roosevelt District reflects the citywide housing stock very closely, whereas the Central District has a much higher percentage of multifamily units, and the Edison District had a higher percentage of single-family homes.

The rate of homeownership in Fresno has decreased since 2000, and these rates varied widely across the three districts. In 2000, the Central District, which is the most urban of the three, had the highest percentage of individuals who rent (86.2%), making its residents about twice as likely to rent as the city residents as a whole (43.2%). Edison (59.5%) and Roosevelt (56.4%) had lower percentages of renters, but these percentages were still above those of the city as a whole. As of 2008, residents of 69.4% of the occupied housing units in Fresno had moved into their homes since 2000, while 13.6% of households were more established, having lived in the same residences since at least 1990. These percentages are similar to the percentages in the county

(67% and 14.5%) and the region (66% and 15.2%) as a whole (U.S. Census Bureau 2000e, 2008b).

In 2000, the Edison District had a higher percentage of housing units with the same residents for 20 years, or more, than did either the Central or Roosevelt districts. Slightly more than a quarter of the housing units in the Edison District had been occupied by the same residents for at least 20 years, while in the Central and Roosevelt districts, 81.6% and 73.1% of units, respectively, had turned over in the past 10 years.

City of Fresno to City of Hanford

Along the Fresno to Hanford portion of the alignment, the community of Malaga has an estimated 450 homes, with the main residential area completely surrounded by an industrial park. Census data show that the community of Bowles had an estimated 35 housing units in 2000, 23 of which were owner-occupied (U.S. Census Bureau 2000e; California Department of Finance 2010). The remaining communities had between 20 and 50 identified residences. The two communities in Kings County (Hamblin and Ponderosa) experienced growth over the past several years, and continued growth is expected (Gorman 2010, personal communication; Kinney 2010, personal communication).

City of Hanford

The largest increase in Hanford housing stock occurred in single-family detached homes between 2000 and 2010, and accounted for 84.8% of the housing stock growth. The composition of the housing stock in Hanford is similar to that of the county and the region, except that it includes a smaller percentage of mobile homes. Home ownership in Hanford has decreased slightly, from 59.3% in 2000 to 58.7% in 2008, which is similar to decreases in the county and region. As of 2008, residents of 62.5% of the occupied housing units in Hanford had moved into their homes since 2000, while 14.5% of households were more established, having lived in the same residences since at least 1990. These percentages are similar to the percentages in the county (67% and 14.5%) and the region (66% and 15.2%) as a whole (U.S. Census Bureau 2000e).

City of Hanford to City of Corcoran

The study area between the cities of Hanford and Corcoran is entirely in Kings County. El Ranchero is the only community identified in this segment of the project. El Ranchero lies south of Lacey Boulevard, 1 mile west of Hanford, and the community has approximately 125 homes (Kinney 2010, personal communication).

City of Corcoran

Corcoran's housing stock is very similar to that of the county and region, except for the smaller proportion of mobile homes. Single-family detached homes accounted for 82.5% of the housing stock growth between 2000 and 2010. The city's housing vacancy rate at 8.2 % was higher than the rates in both the county (5.7%) and the region (7.4%) (California Department of Finance 2010). The rate of home ownership in Corcoran has increased from 57.2% in 2000 to 60.2% between 2006 and 2008. This increase is counter to trends observed in the county and region, which both experienced decreases over this period. In 2008, residents of more than half of the occupied housing units in Corcoran (55.4%) had moved into their homes since 2000, while 22.8% of these households were more established, having lived in the same unit since at least 1990. The percentage of housing units that have turned over in the past 8 years is substantially lower than in the county (67%) and region (66%). Similarly, the percentage of units with the same residents since at least 1990 is substantially higher, suggesting that the population of Corcoran is more stable than that in other communities in the region (U.S. Census Bureau 2000e).

City of Corcoran to City of Wasco

All eight communities identified in the study area between the cities of Corcoran and Wasco are unincorporated. The communities of Blanco, Angiola, Stoil, and Allensworth are located in Tulare County, and Kernell, Pond, Elmo, and Neufeld are located in Kern County. None has experienced significant growth in the past several years, and no growth is anticipated in the foreseeable future (Smith 2010, personal communication; Waters 2010, personal communication). The community of Allensworth is home to approximately 120 households, and most of the housing stock consists of mobile homes. The remaining seven communities are quite small with the largest having about 20 residences.

City of Wasco

As with the county and region, the largest increase in the Wasco housing stock was in single-family detached homes between 2000 and 2010, accounting for 80.3% of the housing stock growth. The composition of the housing inventory is similar to that of the county and region, although Wasco has a smaller percentage of mobile homes. The rate of home ownership in Wasco has decreased from 57.6% in 2000 to 50.8% between 2006 and 2008, consistent with changes seen in the county and region over this same period. Residents of 61.3% of the occupied housing units in Wasco in 2008 moved into their homes since 2000, while 19.8% of households in the city were more established, having lived in the same home since 1990 or earlier. The percentage of recent turnover is lower, and the percentage of more established residents is higher in Wasco than in the county (68.6% and 13.6%, respectively), and in the region (66% and 15.2%, respectively), suggesting a somewhat more stable community than is typical of the region (U.S. Census Bureau 2000e).

City of Wasco to City of Shafter

The three communities identified in the study area between the cities of Wasco and Shafter are Palmo, North Shafter Labor Camp, and Myricks Corner. These communities are unincorporated and all are in Kern County. Palmo with approximately five homes has the fewest residences of the communities in this area. North Shafter Labor Camp contains approximately 45 dwellings and Myricks Corner approximately 75 residences (Smith 2010, personal communication).

City of Shafter

The largest increase in the Shafter housing stock between 2000 and 2010 is consistent with the region, with single-family detached homes accounting for 95% of the housing stock growth. The composition of the local housing stock is similar to that of the county and region. Housing vacancy rates in the city were 9.1% in 2000, and remained approximately the same in 2010 (California Department of Finance 2010). These rates are higher than those in the region (7.81%), but lower than those in the county (9.86%).

The rate of home ownership in 2000 in Shafter was 60%, which was similar to that of both the county and the region. Residents of 66.2% of the occupied housing units in Shafter had moved into their homes between 1990 and 2000, while 18.6% of households were more established, having lived in the same residence since at least 1980.[6] These values are similar for the county (71.2% and 13.9%) and the region (70.4% and 16%) for the same period (U.S. Census Bureau 2000f).

[6] Because Shafter data are not available for years after 2000, the analysis was adjusted to compare 1990–2000 and pre-1980 data to identify community stability of and length of residency trends.

City of Shafter to City of Bakersfield

Chrome is the one identified community in the study area between the cities of Shafter and Bakersfield. This community is unincorporated and has approximately 20 homes. No residential development is anticipated in the foreseeable future (Smith 2010, personal communication).

City of Bakersfield

The housing stock in Bakersfield grew by 32.2% between 2000 and 2010, which was significantly greater than that of the county (21.7%) and the region (18.7%). As with the county and region, though, the largest increase in the Bakersfield housing stock occurred in single-family detached homes, which accounted for 89.3% of the housing stock growth. The composition of the city's housing stock is also similar, except for the smaller percentage of mobile homes. Housing vacancy rates in the city were 5.5% in 2000, and according to California Department of Finance estimates remained stable into 2010 (California Department of Finance 2010).[7] The 2010 vacancy rate was lower than the rates of both the county (9.86%) and the region (7.81%).

A comparison of the 2000 housing stock by district shows some large differences in numbers and types of housing units. The Central District had the lowest percentage of single-family homes and a very high percentage of multifamily housing, while the Northeast District showed a higher percentage of single-family homes. The Northwest District had the highest percentage of single-family homes, which comprised 86.2% of the total housing stock.

The rate of home ownership in Bakersfield has decreased from 60.4% in 2000 to 57.2% in 2008. This decrease is consistent with changes seen in the county and region over this period. The rate of home ownership across districts varied widely in 2000. The Central District, which is the most urban of the districts, had the highest percentage of individuals who rented (57.5%), which is substantially higher than that of the city as a whole (39.6%). In contrast, the Northwest District had the lowest percentage of renters (14.6%), which is significantly below the city average. The Northeast District had rates more similar to the city averages, with 56.7% of individuals owning homes, and 43.3% of individuals renting (U.S. Census Bureau 2000e, 2008b).

Residents of 75.4% of the 2008 occupied housing units in Bakersfield had moved into their homes after 2000, while only 9.4% of the households had lived in the same residences since at least 1990. The rate of recent turnover is higher and the percentage of more established residents is lower in Bakersfield than in the county (68.6% and 13.6%) and region (66% and 15.2%) (U.S. Census Bureau 2008b). This may suggest a newer population and potentially less stable community cohesion.

In 2000, both the Central and Northeast districts had a higher percentage of housing units with the same residents for at least 10 years than did the Northwest District. About 30% of the housing units in these two districts were occupied by residents who had moved in before 1990; while in the Northwest District, almost 80% of the district's units had new residents in the past 10 years, a much higher rate of population turnover than in the other two districts.

The Northeast District of Bakersfield is home to several established residences and businesses. The neighborhood south of East Truxtun Avenue between Union Avenue and Oswell Street lies partially in the project study area. This neighborhood is examined as a whole community in this document since the Bakersfield to Palmdale section of the HST project would bisect this neighborhood as well. This neighborhood has a relatively high density of churches, a community dental clinic, schools, markets, and a veterinary hospital. A relatively high level of pedestrian and

[7] California Department of Finance vacancy data likely underestimate current vacancy rates given it uses 2000 Census as a basis to estimate values.

bicycle travel was observed in the neighborhood. Community groups have organized activities in response to the proposed HST project. These neighborhood characteristics indicate the presence of a shared sense of community as well as interest in this project.

The Northwest District of Bakersfield is residential in character, with many single-family, ranch-style homes constructed before 1990. The rate of home ownership in this area (81%) is substantially higher than the citywide average (57.2%), and census information indicates that there is considerable racial and socioeconomic homogeneity. The relatively large yards surrounding the modest single-family homes appear to be well cared for, and residents were observed actively engaged in yard maintenance—one potential indicator of a shared sense of community pride and commitment to place. Recent community organizing activities have also been conducted specifically to raise awareness about the proposed HST project and its potential impacts on the neighborhood, an indication of the level of shared community interest associated with this proposed project. These factors indicate a relatively high degree of community cohesion in this area.

C. ECONOMIC SETTING

Regional Economic Setting

Levels of employment and income in the region have historically lagged behind those in other parts of the state as a result of the seasonal nature of agricultural employment and slower growth in the other nonagricultural sectors. The four counties of Fresno, Kings, Tulare, and Kern make up one of the most agriculturally productive areas in the world, and the regional economy has been driven by the farming industry and comprising about 20% of total employment. In 2008, the counties of Fresno, Tulare, Kern, and Kings were ranked first, second, third, and eighth, respectively, in total agricultural production value in California. In total, these counties accounted for about $16.4 billion of the total $36.2 billion (or 45%) of the agricultural revenue generated in the state in 2008 (California Department of Food and Agriculture 2010).

Although this region has been leading the state in agricultural revenues, the regional economy has also been diversifying in recent decades to become more oriented toward the services sector industry. Growth in employment across sectors came as a result of the real estate boom in the mid-2000s, which generated many jobs in construction, fueled retail sales, and generated increased property sales and tax revenues (Cowan 2005).

Unemployment rates have increased sharply since 2007 across all four counties. Tulare County's 15.3% average annual unemployment rate was the highest in the region in 2009, and substantially higher than the state average of 11.4% (California Employment Development Department 2010a). Moreover, monthly unemployment rates in these counties have remained high or even increased in 2010.

The Fresno to Bakersfield Section: Community Impact Assessment Technical Report (Authority and FRA 2011a) contains more detailed information.

HST Study Area Economic Setting

Because agriculture has historically been the main industry in the region, many jobs in the study area are still related to this sector (e.g., food processing, manufacturing, warehousing, and distribution). The occupational profiles of the cities themselves tend to differ from the region because a much larger percentage of the work force participates in professional and service occupations. Agriculture is still the dominant occupation in the rural areas outside the cities, and the majority of those who live in and near the study area are employed in that industry.

City of Fresno

Despite the strength of the agricultural sector, unemployment in Fresno remains high and wages relatively low. Public administration is the largest occupational sector, followed by educational, health, and social services (City of Fresno Planning and Development Department 2002). Unemployment data for the districts in the city of Fresno show that individuals living in the Central District (30%) were much more likely to be unemployed in 2000 than those living in either the Edison (23%) or Roosevelt Districts (16.8%).

City of Hanford

Public administration is the largest occupation group within the Hanford city limits. The occupational profile of the city is very different from that of either the county or region, with a much smaller percentage of the work force participating in agriculture-related jobs. During 2009, unemployment rates in Hanford reached 12.8%, somewhat lower than the county's at 14.6%.

City of Corcoran

Public administration is the largest occupation within Corcoran's city limits. The city's occupational profile differs from that of the county and region, with a much smaller percentage of the work force participating in agriculture-related activities. Compared with other communities, Corcoran has a very high percentage of individuals working in the public administration field because of the location of two major state prison facilities. During 2009, the city's average annual unemployment rate reached 15.2%.

City of Wasco

Public administration and agriculture are the two largest occupations and account for approximately 70% of Wasco's occupational profile. A large number of Wasco's jobs provide services to the agricultural industry. During 2009, Wasco's annual average unemployment rate was 26.1%.

City of Shafter

Agriculture and related occupations comprise the largest occupational sector in Shafter. Between 2000 and 2008, the agricultural industry in Shafter experienced substantial growth, more than doubling in size, in large part as a result of the opening of the Bidart Brothers apple-packing facility and the expansion of Grimmway's citrus- and carrot-packaging facilities (Sweeny 2010, personal communication). The occupational profile of Shafter is even more dominated by the agricultural sector than that of either the county or region. Despite the growth in agriculture, Shafter's 2009 annual average unemployment rate was 25.1%.

City of Bakersfield

Bakersfield's economy has historically been more diversified than others in the region, with both the oil and gas industry and agriculture playing major roles. Public administration is the largest occupational sector in Bakersfield. Bakersfield's occupational profile includes a much smaller percentage of the work force engaged in agriculture-related activities, while other occupations that form a small percentage of the county and regional occupational profiles are larger here. The 2009 annual average unemployment rate was 10.1%. In 2000, unemployment rates for both the Central and Northeast districts were significantly higher at 18.5% and 20.5%, respectively, than the 12.4% unemployment rate in the Northwest District (U.S. Census Bureau 2000g).

Tax Revenues

State and local governments have been hit hard by the loss of tax revenues since the onset of the national recession in 2007. The slowdown in the economy has reduced business sales and sales tax revenues to local governments. Property assessment values are being reset to lower levels with the sale of foreclosed homes, which results in lower property tax revenues. In addition, even homes that have not been resold are subject to temporary property tax reductions linked to Proposition 13. As a result of reduced local government revenues in 2008 and 2009, local governments in the region are actively reducing staff, cutting services, and furloughing employees to adjust to the available financial resources. Overall, current conditions are due to the severe recession, and while indicative of likely short-term circumstances, are not a good marker by which to measure the long-term horizon of project impacts.

Agricultural Economic Setting

The Central Valley of California is one of the most productive agricultural areas in the world. Key crops and agricultural products produced in this region include grapes, almonds, walnuts, milk, poultry, tomatoes, citrus, and alfalfa hay. This production includes a wide variety of different commodities with California being the nation's sole producer of a large number of specialty crops (California Department of Food and Agriculture 2010).

Agricultural employment in these counties is critical and accounts for almost 20% of all jobs. This is a slight decrease from 21.1% in 2000. This decreasing trend is expected to continue, dropping to 16.9% by 2016 due to a decline in small family farms and an increase in larger-scale agricultural operations (California Employment Development Department 2009). As a result, the types of agricultural operations in the region are arguably the current model of large-scale, industrial agriculture in the world. A December 2005 report notes that recent data suggest that this trend toward larger farms may be accelerating as pressures increase from global competitors and as new agricultural technologies continue to reinforce the substitution of capital for labor to create even greater-scale efficiencies (Cowan 2005).

Section 3.14, Agricultural Lands, summarizes the most recent land use and farmland classification survey conducted by the California Department of Conservation in conjunction with the United States Department of Agriculture, Natural Resources Conservation Service, and its Farm Mapping and Monitoring Program in Fresno, Kings, Tulare, and Kern counties.

School District Funding

Funding for California's K through 12 public schools comes primarily from the state budget (60%), with local property taxes (23%) and the federal government (10%) as the other significant contributors. Each individual school district's income is based on the average number of students attending district schools during the year, typically referred to as the average daily attendance (EdSource 2009). Public schools across California are facing difficult budget issues, and in the 2011–2012 school year, K through 12 funding is anticipated to be substantially reduced for the third year in a row. As such, school districts are struggling to hold on to funds they currently receive (EdSource 2011).

D. COMMUNITIES AND NEIGHBORHOODS

Regional Community Setting

The region comprises four counties: Fresno, Kings, Tulare, and Kern with the large urban areas of Fresno and Bakersfield acting as the major social and economic focal points of the region. Specifics for each of the communities are presented below. In addition, the *Fresno to Bakersfield*

Section: Community Impact Assessment Technical Report (Authority and FRA 2011a) provides complete information on communities within the study area.

HST Study Area Community Setting

Most of the residents, businesses, and community resources in the study area are in the largest two cities in the region, Fresno and Bakersfield. Alternative alignments also pass through four smaller cities that contain residences and businesses: Hanford, Corcoran, Wasco, and Shafter. The remainder of the study area consists mostly of rural agricultural land with no concentrations of residences, businesses, or services and community facilities.

Services and facilities include schools (public and private), religious institutions, parks and recreation facilities, government facilities (such as courthouses, city halls, post offices, and libraries), cemeteries, fire halls, police stations, hospitals, transit stations, and social institutions (such as community centers, senior facilities, and social clubs). The majority of these are in the urban areas, with many centered in the downtown areas of both the large and small cities. Religious facilities represent approximately half, or more, of the study area community facilities in the cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield.

Circulation and access in a community are important to community character and quality of life. Non-motorized circulation issues associated with pedestrian and bicycle transportation are key concerns in the analysis and the focus of this discussion. The greatest numbers of non-motorized facilities in the study area are located in the largest cities in the region, Fresno and Bakersfield.

Planning documents in the region recognize the importance of the availability and accessibility of alternative modes of transportation, and plan for additional pedestrian- and bicycle-friendly features. These pedestrian- and bicycle-friendly facilities cross the project alignment in the cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield. Issues associated with main roads, public transportation, and parking can also affect communities. More detail on these aspects of circulation and access can be found in Section 3.2, Transportation.

The sections below describe the setting of the communities where the proposed alternatives would be located. Table 3.12-4 identifies the major communities through which each alternative alignment would travel. Other, very small, unincorporated communities in the study area are also identified and described in the text below.

Table 3.12-4
Communities Affected by Alternative Alignment

Alternative Alignment	Communities
BNSF Alternative	Fresno (Central, Roosevelt and Edison districts), Hanford, Corcoran, Wasco, Shafter, Bakersfield (Northwest, Central and Northeast districts)
Corcoran Elevated Alternative	Corcoran
Corcoran Bypass Alternative	Unincorporated Kings and Tulare County
Allensworth Bypass Alternative	Unincorporated Tulare and Kern County
Wasco-Shafter Bypass Alternative	Unincorporated Kern County
Bakersfield South Alternative	Bakersfield (Northwest, Central and Northeast districts)
Fresno Station Alternatives	Fresno (Central District)

Table 3.12-4
Communities Affected by Alternative Alignment

Alternative Alignment	Communities
KTR Hanford Station	Hanford
Bakersfield Station Alternatives	Bakersfield (Central District)
HMF Fresno Works	Fresno
HMF Kings County	Hanford
HMF Kern Council of Governments–Wasco	Wasco
HMF Kern Council of Governments–Shafter (East and West)	Shafter

City of Fresno

Fresno is the fifth-largest city in California and one of the main cultural, economic, and service hubs of the Central Valley. The BNSF Alternative would enter Fresno northwest of the downtown area and move southeastward through three of Fresno's oldest and poorest neighborhoods. The alignment would generally parallel the existing BNSF railroad tracks, passing through the southwestern portion of the Central neighborhood, touching the northeastern edge of the Edison neighborhood, and traversing the southern section of the Roosevelt neighborhood. Residents of the area adjacent to the alignment generally have much higher percentages of minority status than the city of Fresno as a whole, larger average family sizes, lower educational attainment levels, lower median household incomes, and substantially higher rates of unemployment. The proposed alignment, however, is located in an area of predominately industrial and commercial uses along the railroad tracks that buffer the surrounding residential areas from the existing transportation corridor. A relatively substantial homeless population resides under State Route (SR) 41 structures along the BNSF railroad tracks, near several facilities providing services (meals, shelter, rehabilitation, and counseling) to this population.

City of Fresno to City of Hanford

The seven small communities that are interspersed along this section of the BNSF Alternative are Malaga, Oleander, Bowles, Monmouth, Conejo, Hamblin, and the Ponderosa Road rural residential area. Malaga community facilities in the study area include a school, a park, and a water district office that serves as the administrative center of the community. The key community facilities identified in the study area in the community of Bowles are the Pacific Union School, Marion Homes (nursing home), and the Manning Gardens Convalescent Home. Monmouth community facilities identified in the study area are the Monroe Elementary School and the Monmouth Community Presbyterian Church. A key community facility identified on the boundary of the study area in the Ponderosa Road vicinity is the Kit Carson Elementary School. No key study area community facilities were identified in Oleander, Conejo, or Hamblin.

City of Hanford

The BNSF Alternative would bypass the main residential and service area of Hanford, passing through a predominately agricultural area east of the city, although the area northeast of the city also contains several small, unincorporated communities and clusters of rural residences. No key community facilities are located within the study area

City of Hanford to City of Corcoran

The study area between the cities of Hanford and Corcoran is entirely within Kings County, running parallel to SR 43 through a rural agricultural area. Some clusters of rural residences are in the vicinity of Corcoran, but outside the city limits. A county fire station is located within the study area.

City of Corcoran

The city of Corcoran, located about 15 miles south of Hanford and 15 miles west of the SR 99 corridor, is surrounded by agricultural land. Corcoran has three public buildings in the study area that serve the needs of the community. One building houses the administrative offices of the city and serves as the city hall. There is also a library operated by Kings County, and a veterans' center. All three facilities are in the project study area. Public safety facilities include Corcoran's two police stations, both of which are located in the study area. There is one fire station in the city and two medical facilities. The fire station and one of the medical facilities, the Corcoran District Hospital, are also located in the study area, as are 10 religious facilities, 5 parks, and 3 of the city's 6 schools.

The Corcoran Bypass Alternative Alignment would diverge from the BNSF line for approximately 21 miles, passing around Corcoran on the eastern side. This is a rural agricultural area with no concentrations of residences, businesses, or community facilities or services.

City of Corcoran to City of Wasco

The study area between the cities of Corcoran and Wasco parallels SR 43 and is predominately rural agricultural land, with several small communities (or clusters of residences and/or businesses) interspersed between the cities in Blanco, Angiola, Allensworth, Kernell, Pond, and Neufeld. Of the six communities identified in the study area between Corcoran and Wasco, only the community of Allensworth has any community facilities in the study area. These facilities include a school, church, and a community center. The Allensworth Bypass would diverge from the BNSF Alternative, traveling 19 miles, and bypassing the community of Allensworth on the western side.

City of Wasco

Agriculture has been the historical mainstay of Wasco's economy, but a state prison is now the city's biggest employer. Wasco has three public buildings in the study area: the city administrative offices and city hall, a library operated by Kern County, and the local historical society museum. Public-safety facilities include a single county sheriff's station and one fire station, both located in the study area. Wasco's one medical facility is an independent medical center and is also located in the study area. There are 9 public and private schools in the community, 5 of which are in the study area. Wasco has many places of worship.

The Wasco-Shafter Bypass Alternative Alignment would diverge from the BNSF Alternative, traveling for a distance of 23 miles to bypass Wasco and Shafter on the eastern side. This is a rural agricultural area with no concentrations of residences, businesses, or community facilities or services.

City of Wasco to City of Shafter

The area between the cities of Wasco and Shafter is predominately rural agricultural land, with three small communities (Palmo, North Shafter Labor Camp, and Myricks Corner) interspersed between the cities. The University of California's Shafter Research and Extension Center is also located in this portion of the study area.

City of Shafter

Shafter's city limits, which encompass a substantial amount of farmland and open space to accommodate future growth, extend eastward to SR 99 and southeast almost to the Bakersfield city limits. The city is bisected from northwest to southeast by both SR 43 and the BNSF railroad tracks so that most of the relatively small urbanized area of the city falls within the study area boundaries. Shafter has 5 public buildings that serve the needs of the community. One building houses the administrative offices of the city and serves as the city hall. Other buildings include the local library, which is operated by the county, and 3 museums. City hall and 2 of the museums are in the study area. Across the BNSF grade-crossing to the east on 7th Standard Road are the Shafter International Trade and Transportation Center (IT&TC) on the north side and another industrial complex on the south side.

City of Shafter to City of Bakersfield

The study area between the cities of Shafter and Bakersfield is predominately rural agricultural land, with only one very small, unincorporated community (Crome) located between the cities. Crome is situated at the corner of Santa Fe Way and 7th Standard Road, approximately 5 miles northwest of Bakersfield. There are approximately 20 homes in the community, as well as a large auto-wrecking operation to the north of the residential area. The community has one church, and no other businesses or key community facilities. The Shafter Cemetery is also located in this portion of the study area, near the Central Valley Highway and the BNSF tracks southeast of the city of Shafter, in an area surrounded by agricultural land and open space.

City of Bakersfield

Bakersfield, the largest city and main commercial center in Kern County, is at the southern end of the San Joaquin Valley, equidistant from Fresno to the north and Los Angeles to the south. While Bakersfield is not as populated as Fresno, Bakersfield offers a wide array of community facilities and amenities compared with the smaller communities in the region. The study area passes through the Central, Northeast, and Northwest districts in Bakersfield.

Public facilities located in the study area include libraries, museums, community centers, and government offices. Seven of these facilities are in the Central District and three are in the Northeast District. Public-safety facilities include four police stations, one of which is in the study area. The county sheriff has one station, a jail, and a crime lab in the city. Two federal law enforcement agencies have offices in the study area as well—the FBI and the Federal Bureau of Alcohol, Tobacco, and Firearms. All these facilities are in the Central District, except for the FBI building, which is in the Northwest District. Bakersfield's 26 fire stations are spread throughout the city: three are in the study area (two in the Central District and one in the Northeast District). In addition, there are many religious facilities in the study area.

A community icon of particular note in the Northeast District is the Mercado Latino Tianguis (Mercado), a shopping complex in the city's Northeast District that re-creates the feel of a Mexican village market. This facility is not a single business entity; rather, it rents stall space to approximately 118 small businesses and microbusinesses that cater to Kern County's Hispanic population.

Bakersfield High School is one of the seven schools in the study area in the Central District. In addition to the critical nature of the educational services it provides to the greater Bakersfield community and the adjacent low-income and minority neighborhood, the high school holds historical importance for the many alumni who continue to support the school and its events. The campus is located in a built-out urban area.

Sixty-one religious facilities representing a wide range of faiths are located in the city. A majority of the religious facilities in the study area are in the Northeast District (32), with fewer in the Central (19) and Northwest (10) districts. Six parks operated by the city, as well as existing bicycle facilities, are in the study area (City of Bakersfield 2007). The district's existing parks are neighborhood parks close to schools, serving the Beardsley, Fruitvale, Norris, Rosedale, Standard School, and Rio Bravo–Greeley School Districts (North of the River Recreation and Park District 2009). Detailed park information is provided in Section 3.15, Parks, Recreation, and Open Space.

The Bakersfield South Alternative would diverge from and run parallel to the BNSF Alternative, approximately 250 feet to the north for about 9 miles, from the Rosedale Highway area to the downtown station area. The study area for this alternative alignment would affect slightly different but similar areas in the Central, Northeast, and Northwest districts of Bakersfield.

E. ENVIRONMENTAL JUSTICE

The communities of concern within the region are identified and presented below. Table 3.12-5 presents population estimates with minority and low-income percentages for the total area of the counties and cities and also for the population living only in the EJ study area. The *Bakersfield to Fresno Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a) provides more details on the locations of EJ populations in the EJ study area.

The region as a whole has a high percentage of minority and low-income individuals. According to the 2000 Census, 56.5% of the total regional population is minority, and 22.2% is living below the U.S. Census poverty threshold. Within the EJ study area, there are locations where these percentages are even higher, with minority and low-income individuals totaling 69.3% and 29.3% of the EJ study area population, respectively. Hispanics are the predominant minority group in the EJ study area, accounting for 80% of the minority population (U.S. Census 2000d). The presence of large concentrations of communities of concern is not surprising given the importance of agriculture and agricultural workers in the region. In the 1997 National Agricultural Workers Survey, almost 70% of farm workers surveyed were migrant workers (U.S. Department of Labor 1997).

Table 3.12-5
Minority and Low-Income Percentages in the Region

Location	Region			Environmental Justice Study Area			
	Population 2000[a]	% Minority[a]	% Low Income[b]	Population 2000[a]	% Minority[a]	% Low Income[b]	Key Minority Demographic
Fresno County	799,407	60.3	22.9	36,078	76.2	37.7	Hispanic
City of Fresno	427,652	62.7	26.2	31,055	77.2	40.0	Hispanic
Fresno Central District	16,754	87.5	57.7	3,640	73.4	43.1	Hispanic
Fresno Edison District	23,693	97.0	48.0	5,148	79.8	37.9	Hispanic
Fresno Roosevelt District	102,489	84.4	38.2	22,267	74.2	36.0	Hispanic
Kings County	129,461	58.4	19.5	11,466	69.3	20.0	Hispanic
City of Hanford	41,686	50.1	17.3	NA	NA	NA	NA
City of Corcoran[c]	14,458	75.9	26.9	10,240	73.4	24.2	Hispanic

Table 3.12-5
Minority and Low-Income Percentages in the Region

Location	Region			Environmental Justice Study Area			
	Population 2000[a]	% Minority[a]	% Low Income[b]	Population 2000[a]	% Minority[a]	% Low Income[b]	Key Minority Demographic
Tulare County	368,021	58.2	23.9	619	83.0	35.3	Hispanic
Kern County	661,645	50.5	20.7	80,526	66.0	26.3	Hispanic
City of Wasco	21,263	78.4	27.5	7,868	91.3	31.9	Hispanic
City of Shafter	12,736	71.0	29.2	8,849	63.8	29.9	Hispanic
City of Bakersfield	247,057	48.9	18.0	30,546	60.8	24.8	Hispanic
Bakersfield Central District	38,610	51.5	25.5	5,193	72.7	31.2	Hispanic
Bakersfield Northeast District	137,679	55.7	27.1	15,327	74.2	34.3	Hispanic
Bakersfield Northwest District	55,026	20.4	6.8	10,026	15.2	5.0	Hispanic
Regional Total	1,958,534	56.5	22.2	128,689	69.3	29.3	Hispanic

[a] U.S. Census Bureau 2000d (P4. Hispanic or Latino, and Not Hispanic or Latino by Race).
[b] U.S. Census Bureau 2000d (P88. Ratio of Income in 1999 to Poverty Level).

[c] An error in the Census 2000 data for Corcoran was later corrected by the Census Bureau, but only for total population and not for the racial profile breakdown. Minority percentages for Corcoran are therefore based on the original 14,458 total population estimate provided by the Census.

Note: The EJ study area does not intersect the city limits of Hanford. Census 2000 Racial Profile data do not include the institutionalized population, of which Corcoran has a significant number, given the presence of the Corcoran State Prison facilities.

Abbreviation:
NA = Not applicable because the project runs to the east of Hanford city limits.

Overall, the census blocks in the EJ study area total 350.4 square miles, and 112.3 square miles (or 32.1%) of this area is identified as census blocks containing communities of concern. The vast majority of these blocks with EJ populations are in very large census blocks that are rural, with low-density populations (102.8 of the 112.3 square miles), and only 9.5 square miles (or 8%) of the EJ study area blocks encompassing more urbanized populations (U.S. Census Bureau 2000d).

The region's urban cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield have many communities of concern as defined by high proportions of minority and low-income populations.

Fresno's Central District contains scattered communities of concern, and the Edison District contains a contiguous stretch of communities of concern along the EJ study area's southern extent at the city limits. The Roosevelt District around Calwa, where the EJ study area curves southward to leave the city, also contains a number of communities of concern (U.S. Census Bureau 2000d).

Fresno also has the largest homeless encampment in the San Joaquin Valley. Hundreds of homeless individuals live in makeshift shelters under the SR 41 freeway structures between the

Central and Edison districts (Barfield 2010, personal communication). Also located in the vicinity are the Fresno Rescue Mission, the Poverello House (a women's shelter), and other facilities that serve this population. Census 2000 data-collection methods attempted to include homeless people in the overall population counts, but limitations in this data-collection effort likely led to an underestimation of homeless populations in various locations (U.S. Census Bureau 2001).

The EJ study area for the BNSF Alternative through Corcoran encompasses several communities of concern that are fairly continuous throughout the EJ study area within the Corcoran city limits, particularly to the west of SR 43 and Pickerell Avenue. The EJ study area for the Corcoran Bypass Alternative (to the east of the town) contains a smaller total population and scattered communities of concern (U.S. Census Bureau 2000d).

Wasco contains a number of communities of concern along the entire length of the EJ study area for the BNSF Alternative. These communities are, for the most part, west of SR 43, extending between SR 43 and Griffith Avenue, with the exception of a major farm labor housing development east of SR 43. The EJ study area for the Wasco-Shafter Bypass Alternative Alignment, which lies to the east of Wasco and Shafter, contains several small scattered communities of concern (U.S. Census Bureau 2000d).

Within Shafter, the existing BNSF railroad appears to be a dividing line through the city. The high school and newer, higher-income housing are located to the northeast of the BNSF Railway, and the low-income neighborhoods and downtown area are to the southwest. A farm labor housing development is located along SR 43 north of the Shafter Central Business District. As stated in the Wasco EJ discussion in the paragraph above, the EJ study area for the Wasco-Shafter Bypass Alternative contains small scattered communities of concern (U.S. Census Bureau 2000d).

No communities of concern were identified in the Northwest District of Bakersfield. Central Bakersfield contains a number of communities of concern, particularly south of Truxtun Avenue. The EJ study area in the Northeast District of Bakersfield also contains communities of concern moving west to east from Central Bakersfield through Oswell Street (U.S. Census Bureau 2000d).

3.12.5 Environmental Consequences

This section describes the impact analysis relating to socioeconomics, communities, and environmental justice for the proposed project. Measures to mitigate (that is, avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion. Analysis included a review of the data and impact analyses in the other sections prepared for this EIR/EIS to determine impacts related to socioeconomics, communities, and environmental justice, including Section 3.2, Transportation; Section 3.3, Air Quality and Global Climate Change; Section 3.4, Noise and Vibration; Section 3.11, Safety and Security; Section 3.13, Station Planning, Land Use, and Development; Section 3.14, Agricultural Lands; Section 3.15, Parks, Recreation, and Open Space; Section 3.16, Aesthetics and Visual Resources; Section 3.17, Cultural Resources; and Section 3.18, Regional Growth.

Overview

All of the HST project alternatives would result in both beneficial and adverse socioeconomic, community, and environmental justice impacts. The HST stations in the cities of Fresno and Bakersfield would have the potential to encourage redevelopment, attract new businesses, and revitalize the downtowns, resulting primarily in beneficial social impacts in these areas, although many displacements would also occur in Bakersfield. Overall, the HST alternatives would result in increased employment opportunities and overall regional economic benefits that would not occur under the No Project Alternative.

Substantial adverse effects associated with the BNSF and Bakersfield South alternative alignments would result from residential displacements in the Northeast and Northwest districts of Bakersfield and in Corcoran. Commercial displacements would result in substantial effects in the Central and Northeast districts of Bakersfield associated with the BNSF and Bakersfield South alternative alignments. Substantial commercial and industrial impacts would occur in Corcoran as a result of the BNSF Alternative. Moderate effects from residential displacements would occur in unincorporated Fresno and Kings counties from the BNSF Alternative. Commercial and industrial displacements from the BNSF Alternative and Fresno HMF location would result in moderate effects in the Fresno Edison District and in unincorporated Fresno County. Moderate short-term effects from fiscal changes and agricultural displacement would result from the BNSF and the alternative alignments.

Disproportionately high and adverse effects to EJ communities would occur during both construction and operation. During construction, disproportionate effects would be a result of impacts on cultural and paleontological resources as a result of historic architectural impacts to building that holds considerable value for certain minority groups. During operation, these disproportionate effects would be a result of impacts from noise through an increase in ambient noise levels above noise standards; the disruption of communities as communities of concern are divided and key community facilities displaced; acquisition of parks, recreation, and open space land, and changes in character from the operation and increased use of the HST; detrimental changes to aesthetics and visual quality as a result of impacts from noise walls blocking views, elevated structures, and lower visual quality; and cumulative impacts for noise and vibration, aesthetics and visual resources, and cultural and paleontological resources.

In summary, the HST System would result in substantial effects under NEPA, and significant impacts under CEQA related to the division of existing communities, as well as residential, commercial, industrial, and agricultural property displacements.

A. NO PROJECT ALTERNATIVE

The No Project Alternative does not include construction and operation of the HST project in the Fresno to Bakersfield Section, but does include many planned actions that would be implemented by the year 2035. A complete definition of the No Project Alternative is provided in Chapter 2. Section 3.19, Cumulative Impacts, provides foreseeable future projects, which include large residential and commercial developments as well as local and regional transportation projects. The many specific planned development projects that could affect population, housing, and economic activity are listed in Section 3.19, Cumulative Impacts.

Disruption or Division of Existing Communities

The No Project Alternative would not include the community benefits associated with the HST project: reduction of traffic congestion on highways and major roadways and improved mobility and access to jobs, educational opportunities, and recreational resources. Currently planned projects primarily include transportation improvements and residential and industrial development projects. It is uncertain if these projects would create new barriers that would disrupt community interactions or divide established communities, but they would result in a net increase in housing units and industrial space in the region.

If the planned projects are carried out, the development is assumed to be consistent with adopted general plans and policies, which aim to strengthen socioeconomic conditions in existing communities and improve neighborhood amenities, potentially benefiting community cohesion. The many development projects planned under the No Project Alternative would include typical design and construction practices to avoid or minimize potential impacts to the extent possible. These projects would be subject to separate project-level environmental review processes to

identify potentially significant impacts and to include feasible mitigation measures to avoid or substantially reduce potential impacts.

Based on current development trends, the No Project alternative would likely affect some community facilities; however, any potential impacts are assumed to be mitigated to the extent possible. Emergency response times and access would likely be enhanced from transportation improvements. It is not known if direct or indirect adverse impacts on Section 4(f) lands (that is, public school facilities open for use for public recreation) would occur. Again, it is assumed that the projects planned under the No Project Alternative would be subject to a project-level environmental review and include feasible mitigation measures to avoid or substantially reduce potential impacts.

Displacement and Relocation of Local Residents and Businesses

The planned projects comprising the No Project Alternative would require acquisition of land and may result in displacement of residences and/or relocation of businesses. It is expected that the planned projects would undergo project-specific environmental review and include feasible mitigation measures to avoid or substantially reduce potential impacts, and to adequately compensate property owners.

Economic Effects

The projects comprising the No Project Alternative would result in some economic benefits as well as potential fiscal and employment losses as a result of relocations. These planned projects that comprise the No Project Alternative, however, would undergo project-specific environmental review that would require mitigation measures to minimize adverse economic effects.

Environmental Justice Effects

Under the No Project Alternative, the HST System would not be constructed, but other planned transportation improvements would be made to rail, highway, airport, and transit systems and commercial and residential development projects would occur. These projects would occur throughout the region, which as a whole has substantial numbers of communities of concern. As a result, these planned projects may disproportionately affect minority and/or low-income populations. It is assumed that project-specific environmental review and community outreach would address these potential EJ issues and feasible mitigation measures to avoid or substantially reduce potential impacts would be required.

B. HIGH-SPEED TRAIN ALTERNATIVES

This section evaluates impacts that would result from the construction and operation of each HST alternative alignment of the proposed project. Impacts during the construction period would be temporary (such as use of land for construction staging) because they would cease when construction is completed. Project operation impacts and property acquisitions for the HST alignment and associated facilities would be permanent because these effects would be ongoing long term.

Construction Period Impacts

Project construction is expected to be completed within 7 years. This period extends from the beginning of the first phase of construction and continues through operational testing the HST System. It is expected that the heavy construction activities such as grading, excavating, and laying the HST railbed and trackway would be accomplished within a 5-year period. Construction would also require property acquisition and displacement of homes and businesses along the

selected alignment. Because these impacts would involve permanent changes to communities, they are addressed below under project operation (rather than temporary construction impacts).

Disruption or Division of Existing Communities

The 5 years of heavy construction would involve grading, excavating, constructing the HST railbed, and laying the trackway. The degree of construction intensity would vary among the alignment alternatives and project elements. For example, construction duration in the station areas in Fresno and Bakersfield would be longer than that for construction of the rail tracks because of the comparatively larger number of structures (e.g., stations, parking garages, and other buildings). Associated construction activities would include receiving and moving equipment and materials, clearing and grading soils, introducing lights for nighttime work, and storing construction materials. To the extent feasible, construction would occur within the right-of-way acquired for the project.

Construction impacts would include temporary increases in noise and dust, visual changes, and traffic congestion related to temporary road closures or detours. (Please refer to sections on Noise and Vibration, Air Quality, and Visual Resources and Aesthetics for full discussion of these construction impacts). Construction-related noise impacts on residents would be greater during nighttime periods because of the extra sensitivity of people trying to sleep. Construction noise impacts on both residential and commercial properties would vary at different locations along the alignment depending on proximity to sensitive receptors, but with proposed mitigation are expected to be reduced to negligible under NEPA, and less than significant under CEQA. Construction noise and vibration impacts are evaluated and discussed in Section 3.4, Noise and Vibration.

Adverse impacts as a result of local roadway modifications and construction activities may temporarily disrupt circulation patterns in some communities. Although access to some neighborhoods would be disrupted and detoured for short periods of time during construction, access would continue to be available. Any roadways that would require realignment would be constructed before the closure of the existing roadway to minimize impacts. Construction would also require an increase in truck trips that could increase congestion. In addition, construction activities would affect pedestrians, bicyclists, and transit because of required detours and traffic delays, and increased congestion.

Emergency vehicle access for police and fire protection services would be maintained at all times. Law enforcement, fire, and emergency services could experience increased response times because of construction-related road closures, detours, and increased traffic congestion in some locations. Trip duration could be longer in rural areas where temporary road closures could result in several miles of out-of-direction travel.

Access to some community facilities could be modified temporarily during construction, and potentially inconvenience patrons. Access to these facilities would not be eliminated except in cases where facilities would relocate. Noise, dust, and glare could affect the use of community facilities, including schools and parks.

Construction would require a large number of employees, but is not expected to have any substantial negative effects under NEPA or significant impacts under CEQA related to temporary population increases and the potential increased demand for housing and community services. Unemployment in the region is high, so project-related construction jobs are expected to be filled by current residents in the region who have the needed skills (see the Employment Growth section below for more discussion).

In general, construction would occur primarily outside (but in some areas within or adjacent to) established residential neighborhoods or areas associated with agricultural, commercial, or

industrial uses. Where the alternatives are aligned adjacent to existing transportation corridors, construction would not bisect or isolate established communities, but could change the existing community character and potentially affect community cohesion—especially in small, established rural communities--by encroaching on community facilities located near the existing freight rail tracks and introducing new obtrusive visual and noise elements associated with numerous high speed trains passing through the community daily (and potentially including sound walls or other barriers constructed to mitigate environmental impacts).. Impacts on pedestrian and vehicular circulation would not be a barrier to community interaction because the HST project would not substantially affect the use of adjacent transportation corridors. Although project construction would affect individuals and property owners, these impacts would be temporary and would not substantially affect community cohesion. Therefore, construction effects and impacts related to disruption or severance of community interactions or division of established communities would be moderate under NEPA, and less than significant under CEQA.

Economic Effects

Construction of the project would provide economic benefits for the entire region. These economic benefits include gains in sales tax revenues and job creation as a result of construction. The new jobs would be created both directly in the construction sector as well as across other related sectors that supply materials, equipment, and services for the project and its workers. See the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* for a more detailed discussion of the anticipated economic effects of project construction (Authority and FRA 2011a).

Construction-Related Property Tax Revenue Reductions

There is the possibility of short-term property tax revenue reductions as a result of lower perceived property values caused by nearby construction activities. Sales prices of such properties changing ownership in advance of planned construction or during the construction period may be lower than current assessed values and may result in lower property tax revenues. While this effect cannot be quantified, it would be short term and likely affect only areas adjacent to project construction activities.

Construction-Related Sales Tax Revenue Gains

An estimated increase in sales tax revenues is expected for the counties and cities of the region as a result of project construction. This increase is a result of project spending on construction equipment and materials. Unless specifically exempted, all transactions for tangible assets related to the project would be subject to sales tax. Sales tax revenues during construction were estimated using the sales tax rates specific to each county and the estimated local expenditures on equipment and materials for each year of construction. For this analysis, it is estimated that roughly 25% of the total project spending on construction equipment and materials would occur within the region.

It is estimated that the BNSF Alternative would generate about $14 million in sales tax revenues for the region over the construction period. Estimated increases in tax revenues for each of the counties are $7 million for Fresno, $700,000 for Kings, $2.8 million for Tulare, and $3.5 million for Kern. The *Fresno to Bakersfield Section*: *Community Impact Assessment Technical Report* provides more details on this estimate (Authority and FRA 2011a). Local project construction expenditures and sales tax revenues differ slightly for all alignment alternatives and station alternatives. Construction spending on the Wasco-Shafter Bypass Alternative is significantly lower than that on the corresponding portion of the BNSF Alternative. This decrease in construction spending would be expected to reduce regional sales tax gains by approximately $700,000 over the construction period. The sales tax revenue generated from construction activities would

increase local government revenues during the construction period, and would be a moderate beneficial effect under NEPA.

Employment Growth

The employment created through project construction would employ workers in the regional labor force and has the potential to attract small numbers of workers to the region as a result of employment opportunities. The increase in population from in-migrating construction workers would not affect the ability of local jurisdictions to provide government and public services. Overall, employment growth from the project construction is expected to be a net benefit for the region as a whole.

It is estimated that approximately 22,200 one-year, full-time job equivalents would be created within Fresno, Kings, Tulare, and Kern counties over the entire construction period of the BNSF Alternative. Direct jobs in the construction sector comprise around 33% of this total estimate—or 7,200 one-year, full-time job equivalents—while annual indirect and induced jobs created in the region comprise approximately 67% of this total, or 15,000. This job creation would peak during the years of heaviest project construction (2014–2017), and during those years would represent the need for around 3,900 workers annually (with approximately 1,300 direct jobs in the construction sector and 2,600 indirect and induced jobs in other sectors).[8]

In terms of workers to fill these jobs, annual average unemployment across the four-county region was at 14.9% in 2009, with 159,300 persons out of work (California Employment Development Department 2010b). In addition, a 2009 California Employment Development Department study reported a loss of 32,300 construction-specific jobs in the San Joaquin Valley during the current recession (Eberhardt School of Business 2009). As such, it is anticipated that the existing regional labor force would be sufficient to fill the demand for the estimated direct project construction jobs, as well as the resulting indirect and induced jobs.

As with any large construction project, some influx of construction workers would be expected. Moreover, sufficient numbers of special skilled construction workers may not be available in the region. However, this influx is expected to be a small proportion of the total demand for construction workers. Therefore, there would be no need to expand existing or add new community or government facilities to maintain acceptable service ratios, response times, or other performance objectives for any public services, including fire protection, police protection, schools, parks, or other public facilities.

Potential adverse effects from a NEPA perspective, examined from the standpoint of intensity and context, show that the intensity would be slight given the availability of construction workers in the region. However, given current budget deficits for local county and city jurisdictions, the context is one of challenging funding constraints for the provision of governmental and public services. As a result, an additional potential burden, however small, could be of consequence. Therefore, the effect is moderate under NEPA. Because no new facilities would need to be constructed to serve the expected influx of construction workers, the potential physical impacts from the short-term provision of new or altered governmental and public facilities would be less than significant under CEQA.

[8] A 1-year full-time job equivalent is one person fully employed for 1 year. It is likely that many of these jobs created would be held by the same person for more than a single year. Therefore, the total annual employment during the heaviest period of construction is also presented in order to better identify the peak number of job openings created, and the number of additional workers that will be needed in the region.

Short-term job creation estimates would be similar under all alternative alignments, all station alternatives, and all HMF sites. Of note is construction spending on the Corcoran Elevated Alternative as it is higher than that of the corresponding portion of the BNSF Alternative. This increased construction spending would be expected to add an average of approximately 100 direct, indirect and induced jobs annually over the construction period—not enough of an increase to alter the findings for the BNSF, described above. Therefore, similar to the BNSF Alternative, above, the adverse effect on the potential need to provide new or altered governmental and public facilities resulting from short-term job creation associated with the construction of all alternative alignments, stations, and HMF sites would be moderate under NEPA, and the physical impact would be less than significant under CEQA.

Environmental Justice Effects

This section evaluates and summarizes significant construction impact findings for all resources that are pertinent to studying potential disproportionately high and adverse effects on minority and low-income populations along the alternative alignments (BNSF, Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, and Bakersfield South), the five alternative station locations, and the five alternative HMF locations. The following resources were found not to be pertinent to an EJ analysis, and therefore are not discussed below: biological resources and wetlands; hydrology and water quality; geology, soils, and seismicity; and regional growth. Impacts from construction occurring in all relevant resource areas were compared to the locations of communities of concern discussed in the affected environment section above. Communities of concern are primarily in the urban communities along the project alignment alternatives.

BNSF Alternative

The findings for the BNSF Alternative are provided in Table 3.12-6 below. The alternative alignments (Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, and Bakersfield South), alternative stations (Fresno–Mariposa, Fresno–Kern, Kings/Tulare Regional, Bakersfield–South, and Bakersfield–North) and the alternative HMF locations (Fresno Works, Kings County, Kern Council of Governments–Wasco, and Kern Council of Governments-Shafter–North, Kern Council of Governments–Shafter-South) are presented in text after the table.

Table 3.12-6
Construction-Related Environmental Justice Impacts

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Transportation	Construction would result in additional traffic in the study area, which would be concentrated mostly in the urban areas; with mitigation, these impacts would be reduced to a less-than-significant level.	EJ populations in urban areas would be disproportionately affected; however, with mitigation measures, impacts would become less than significant. Therefore, no disproportionately high and adverse effects would affect minority and low-income populations.
Air Quality and Global Climate Change	Emissions associated with the concurrent construction of track, station, and maintenance facilities would exceed the San Joaquin Valley Air Pollution Control District (SJVAPCD) regional pollutant emissions thresholds. After mitigation, this would still remain a significant impact.	Air quality impacts would be evenly dispersed along the entire alignment and would not affect any one area or population more than another. Therefore, no disproportionately high and adverse effects would affect minority and low-income populations.

Table 3.12-6
Construction-Related Environmental Justice Impacts

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Noise and Vibration	Noise and vibration from construction activities would temporarily exceed standards, but mitigation would decrease impacts to a less-than-significant level.	Impacts would be evenly dispersed along the entire alignment, with construction lasting longer and possibly being more intense around the station areas. With mitigation, no disproportionately high and adverse effects would affect minority and low-income populations.
EMI/EMF	There would be no significant EMI/EMF construction impacts on communities.	No disproportionately high and adverse effects would affect minority and low-income populations.
Public Utilities and Energy	Construction could result in damage to utilities and unscheduled interruption of services. Demolition of current infrastructure would require landfill capacity. These impacts would be reduced to a less-than-significant level with proposed mitigation.	Impacts would be evenly dispersed along the entire alignment and reduced to a less-than-significant level with mitigation, so no disproportionately high and adverse effects would affect minority and low-income populations.
Hazardous Materials and Wastes	Construction could result in accidental releases of hazardous materials and wastes, including ACM and lead-based paint, impacting sensitive receptors and several schools. Construction could also inadvertently disturb sites with previously undocumented contamination, or could affect known sites with contaminated soil and groundwater and potentially interfere with ongoing remediation activities. These impacts would be reduced to a less-than-significant level with proposed mitigation.	Impacts would be evenly dispersed along the entire alignment, and reduced to a less-than-significant level with mitigation, so no disproportionately high and adverse effects would affect minority and low-income populations.
Safety and Security	Detours around construction sites could result in increased accident risk and longer emergency response times. Impacts would be reduced to a less-than-significant level with proposed mitigation.	These impacts would likely occur mostly in non-urbanized areas, which are areas with a few EJ populations. With impacts reduced to a less-than-significant level, no disproportionately high and adverse effects would affect minority and low-income populations.
Socioeconomics and Communities	There are no significant socioeconomic or community construction impacts.	No disproportionately high and adverse effects would affect minority and low-income populations.
Land Use	There are no significant construction impacts on land use.	No disproportionately high and adverse effects would affect minority and low-income populations.
Agricultural Lands	There are no significant construction impacts to agricultural lands.	Therefore, no disproportionately high and adverse effects would affect minority and low-income populations.

Table 3.12-6
Construction-Related Environmental Justice Impacts

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Parks, Recreation, and Open Space	Construction activities would require temporary closures of some park facilities, including bike and equestrian facilities, as well as visual changes to some areas. Impacts would not be reduced to a less-than-significant level with proposed mitigation.	With impacts not decreased to a less-than-significant level, there would be disproportionately high and adverse effects on minority and low-income populations.
Aesthetics and Visual Resources	Visual impacts from the construction of the BNSF Alternative would occur along the entire alignment. The areas that would be the most affected are the urban areas where stations are proposed and nighttime construction lighting and construction of the elevated track would result in adverse impacts. Impacts would be reduced to a less-than-significant level with proposed mitigation.	With impacts decreased to a less-than-significant level, there would be no disproportionately high and adverse effects on minority and low-income populations.
Cultural and Paleontological Resources	Construction activities would result in significant impacts on both cultural and paleontological resources. Significant impacts to cultural resources would be in Fresno and Bakersfield. Impacts to paleontological resources would be evenly distributed along the entire alignment. Impacts would be reduced to a less-than-significant level, except for historic architectural resources.	Impacts that cannot be mitigated to a less-than-significant level have their impacts in urban areas that have high concentrations of EJ populations. Therefore, there are disproportionately high and adverse effects on minority and low-income populations.
Cumulative Impacts	There are significant cumulative impacts from multiple construction projects occurring at the same time as the HST construction period, especially in the urbanized areas. Impacts are significant and unavoidable.	Although impacts are significant and unavoidable, impacts would occur along the entire alignment, but most likely affecting communities of concern in Fresno and Bakersfield, given the presence of station construction in these areas. Therefore, some disproportionately high and adverse effects would be imposed on minority and low-income populations.

Acronyms and Abbreviations:
ACM asbestos-containing material
EJ environmental justice
EMI/EMF electromagnetic interference/electromagnetic field
HST high-speed train

Corcoran Elevated Alternative Alignment

The EJ findings for the Corcoran Elevated Alternative would be similar to those of the corresponding portion of the BNSF Alternative. Therefore, no disproportionately high and adverse cultural and paleontological impacts exist for minority and low-income populations.

Corcoran Bypass Alternative Alignment

The EJ findings associated with the Corcoran Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative. Impacts are not in an area with a high concentration of EJ populations, so impacts would not result in disproportionately high and adverse effects on minority and low-income populations.

Allensworth Bypass Alternative Alignment

The EJ findings associated with the Allensworth Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative. Therefore, the Allensworth Bypass Alternative would not result in disproportionately high and adverse effects on minority and low-income populations.

Wasco-Shafter Bypass Alternative Alignment

The EJ findings associated with the Wasco-Shafter Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative. Therefore, the Wasco-Shafter Bypass Alternative would not result in disproportionately high and adverse effects on minority and low-income populations.

Bakersfield South Alternative Alignment

The EJ findings associated with the Bakersfield South Alternative would be similar to those of the corresponding portion of the BNSF Alternative. The same communities would be divided as those under the BNSF Alternative, but only some of the same homes, businesses, and community facilities would be affected (some would be different). The cultural and paleontological impacts would remain significant and unavoidable; therefore, the Bakersfield South Alternative would result in disproportionately high and adverse effects on minority and low-income populations.

Station Alternatives

The effects associated with the construction of the station alternatives were analyzed as a part of the alternative alignments presented above. Although the EIR/EIS considers alternative designs (i.e., Tulare and Kern alternatives at Fresno, and north and south alternatives at Bakersfield), these alternatives represent reconfigurations of station facilities in almost the same locations with similar footprints. For this reason, EJ findings would not vary from one station design alternative to another. Given that communities of concern are concentrated in the urban areas of Fresno and Bakersfield where station construction will occur, all station alternatives would have disproportionately high and adverse effects on minority and low-income populations.

Heavy Maintenance Facility Alternatives

Two of the alternative HMF locations (the Fresno Works HMF location and the Kern Council of Governments-Wasco HMF location) would be in areas near minority and low-income populations, and the construction of the facility would result in noise and aesthetic and visual impacts that would be significant and unavoidable. For this reason, the Fresno Works HMF location and the Kern Council of Governments-Wasco HMF location would impose disproportionately high and adverse effects on minority and low-income populations. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Project Operation Impacts

Overall, the HST project has the potential to result in both beneficial and adverse long-term effects to social conditions and the quality of life experienced by residents of the communities and neighborhoods in the study area. The project would improve state and regional access, reduce travel times, and reduce traffic congestion on many local roadways, thus increasing overall mobility and strengthening the economy of the region (see Section 3.2, Transportation). People who live and/or work in the general vicinity of the proposed station locations would likely benefit the most from the new facilities. Those who live along the portions of the alignment without station access would not enjoy the same level of mobility and access benefits but would potentially be exposed to adverse project-related effects. The project could enhance social conditions on a regional scale by facilitating new access to employment and educational opportunities through increased connectivity of the region to the rest of the state and by providing another means for people to visit friends and relatives living in other parts of the San Joaquin Valley.

However, project operation would result in impacts. They would include the disruption and division of communities; displacement and relocation of residences, businesses, and agricultural facilities; and economic effects. And though property acquisitions would occur before construction, the impacts would be permanent and are discussed in this section.

Disruption or Division of Existing Communities

This section examines the potential for the project to divide existing communities, or to affect important facilities providing services to the communities, or to bring about changes in community character that could alter social interactions or affect community cohesion. Potential impacts are examined for each alternative alignment. Because none of the alternatives would permanently close existing pedestrian or bicycle facilities, these key community resources are not discussed further in this section.

According to CEQA and FTA guidance, the effect of a project on a neighborhood or community is significant if a project would create a new physical barrier that isolates one part of an established community from another and potentially results in a physical disruption to community cohesion. Impacts are typically considered to be less than significant under CEQA if they would not specifically divide an existing community; however, they could be considered moderate or substantial impacts under NEPA when intensity, duration, and local context are considered.

Table 3.12-7 summarizes the findings from the analyses conducted for Transportation, Aesthetics and Visual Resources, Noise and Vibration, Air Quality, and Safety and Security, because impacts to these resources have the potential to affect community character and community cohesion.

BNSF Alternative

Much of the BNSF Alternative would follow existing rail lines in established transportation corridors. In most areas where the alignment would diverge from existing rail corridors, it would cross rural agricultural land or open space, where for the most part no concentrations of homes, businesses, or community facilities are found. There are, however, some rural residential developments or small, unincorporated communities located along the alignment. The portions of the BNSF Alternative in existing transportation corridors would not divide existing communities, because the project would not introduce a new barrier, but it could affect social relationships by displacing homes and businesses. It could also affect perceptions of quality of life by introducing an incongruous new feature into the community with associated noise and visual impacts. The paragraphs below describe impacts associated with the BNSF Alternative on a community-by-community basis, addressing not only the two major cities (Fresno and Bakersfield) and the four

smaller cities (Hanford, Corcoran, Wasco, and Shafter) but also the small, unincorporated communities situated in rural areas along the alignment.

Table 3.12-7
Resource Impacts from Project Operation Potentially Affecting Community Character and Cohesion—Impacts Common to All Alternatives

Resource	Potential Impact
Transportation	There would be no new barriers to access in urban areas where the alignment would be elevated, and existing road networks would be maintained. Some existing roads would be closed in rural areas, as well as in urban areas where the HST tracks would be constructed at-grade. Traffic would be diverted and crossings would be maintained at least every 2 miles, which would reduce impacts. Because traffic volumes and population densities are sparse in rural areas, transportation and access impacts are expected to be minimal. Urban traffic impacts outside of the Downtown Fresno and Downtown Bakersfield station areas would be negligible, except for the BNSF at-grade alternative through Corcoran, where the project would cause adverse impacts. Parking would be provided in the station areas, and the additional traffic associated with the stations could adversely affect some of the surrounding neighborhoods. Mitigation measures would minimize or avoid permanent adverse traffic impacts.
Aesthetics and Visual Resources	The HST alternatives would have adverse effects on visual quality in some areas, either by blocking views or adding elevated structures that would be out of character, scale, and harmony with the surroundings. These proximity impacts would be most prevalent where project components would be near historic resources or residential areas. The lower visual quality would be a substantial adverse effect under NEPA.
Noise and Vibration	The number and severity of noise impacts would vary depending on the type of alignment (elevated versus at-grade) and the speed the HSTs are traveling. The noise analysis found that severe noise impacts would remain at several locations along the alignments, but would not affect entire neighborhoods or communities. Nearly all of the severe impacts could be effectively mitigated for all alternatives; however, mitigation may cause secondary, including unwanted visual impacts. For this reason, communities may choose to have some increase in noise impacts where conditions are already noisy, such as adjacent to existing railroads. No vibration impacts would affect quality of life in nearby neighborhoods or communities.
Air Quality	All alternatives have the potential to improve regional air quality by reducing regional automobile travel and associated emissions. Operation of all the HST alternatives would have a beneficial or less-than-significant impact on air quality. Operation of the HMF would have a less-than-significant impact on air quality after mitigation.
Safety and Security	The project would be grade-separated from all other forms of transportation, including railroads, roadways, and local pedestrian and bike paths. Because the project would be grade-separated, with crossings at a minimum of every 2 miles, no significant impacts related to response or travel times of emergency service vehicles are anticipated. At some locations along the BNSF Alternative, local emergency responders would not have a ladder tall enough to reach the elevated HST guideways, but these significant impacts would be reduced to a less-than-significant level by proposed mitigation. Maintaining safety and security at the stations and park-and-ride lots is an important consideration for many residents in surrounding neighborhoods. The HST System would provide benefits to safety and security under all project alternatives. Security enforcement officers would be provided at stations, with the requirements for security patrols and the appropriate agency or agencies to provide such security to be determined.

Acronyms and Abbreviations:
HMF heavy maintenance facility
HST high-speed train

Fresno County

The BNSF Alternative Alignment would extend through approximately 17 miles of Fresno County, from the new proposed downtown HST station to the Kings County border. Within the city of Fresno, the BNSF Alternative would follow the western side of the existing UPRR right-of-way at-grade from Amador Street to East Jensen Avenue. The HST tracks would pass through predominantly industrial areas in portions of Fresno's Central, Edison, and Roosevelt districts. The BNSF Alternative would not displace any homes in these neighborhoods, but would displace 37 businesses (35 in the Edison District and 1 each in the Central and Roosevelt districts), including a café, a barber shop, a gas station, a furniture store, and a mix of light-industrial and warehousing uses. The affected area has a high number of commercial vacancies, thus offering opportunities for nearby relocation and avoiding disruption of the business community. The majority of the affected businesses are not neighborhood-serving (with the exception of the café and barber shop), and there are few residences in the study area, so community cohesion is not anticipated to be substantially affected by the project.

The BNSF Alternative would affect the homeless population living in clusters of tents in the vicinity of SR 41 and Golden State Boulevard near Downtown Fresno in the Roosevelt District (referred to locally as Tent City) (Barfield 2010, personal communication; Prout 2010, personal communication).[9] Although the tents themselves are portable and could be moved to other nearby locations outside the project footprint, the BNSF Alternative would also displace a key facility that provides critical services to this population. The Fresno Rescue Mission provides meals and services, including overnight shelter accommodations for up to 250 persons, and an onsite 18-month drug and alcohol recovery program that currently has approximately 110 persons enrolled full-time. The Fresno Rescue Mission owns and operates other related facilities (and some additional vacant land) in the immediate vicinity, including an emergency family shelter, a food warehouse, and the Save the Children playground. Because the displacement of the Fresno Rescue Mission would result in the division of a community and the loss of access to an important community resource, the effect would be substantial under NEPA, and the impact would be significant under CEQA. Although with mitigation, this impact would be reduced to less than significant. [10]

South of the city of Fresno, the BNSF Alternative Alignment would continue along the BNSF railway right-of-way, and pass through mainly rural agricultural areas of Fresno County. This alternative would be located in the vicinity of five small, unincorporated communities: Malaga, Oleander, Bowles, Monmouth, and Conejo. The alignment would pass about ¾ mile to the west of Malaga—far enough away that community impacts would be negligible, although the elevated HST guideway spanning Golden State Boulevard and SR 99 would be visible from the community. The alignment would pass approximately 0.25 mile east of the small community of Oleander, and one of the proposed HMF sites would lie 0.1 mile northeast of this community. Gas-line relocation and roadway work would inconvenience homes and businesses along East Adams Avenue, including Oleander's only market, but it is likely there would be no permanent residential or business displacements.

[9] Fresno's Homeless Coordinator estimates that approximately 100 people are living in the G and H Street encampments, while the Fresno Rescue Mission estimates that around 200 homeless persons are living on streets in the vicinity of the Mission, in addition to the several hundred that seek overnight shelter at the Mission or participate in its 18-month residential program (Barfield 2010, personal communication).

[10] According to the Rescue Mission's executive director, if the BNSF Alternative were implemented, the Mission would rebuild the facility on land it owns in the immediate vicinity, which could present an opportunity to improve and consolidate some of its functions that are now scattered, as well as meet ADA and other requirements that have come into existence since the original Rescue Mission was established.

The alignment would pass immediately east of the community of Bowles, within 300 feet of the closest residences, 500 feet from Manning Gardens Convalescent Hospital, and 800 feet from Pacific Union School—an elementary school and the only school facility in Bowles. The existing freight line running through the community would be relocated to the eastern side of the new HST tracks, so that freight-rail trains would be further removed from the residential area of town. Roads at the northern and southern ends of the community (East Springfield and East Manning avenues) would be realigned to overpass the train tracks and maintain east-west connections in the community. Although HST construction and operation and associated noise and visual impacts would disrupt the community, no homes or businesses in Bowles would be displaced.

The alignment would pass at-grade along the western border of Monmouth, through agricultural land and across the existing freight tracks, within 250 feet of homes and within 500 feet of the community's only church. Realignment of East Nebraska Avenue would displace one home and disrupt one local business.

The BNSF alignment would not cause any displacements in Conejo, but the right-of-way would pass within 200 feet of many homes and would be elevated 45 feet to cross the existing BNSF railroad, resulting in substantial noise and visual impacts in the community.

These impacts on small communities would be considered less than significant under CEQA, but would range from negligible (Malaga) to moderate (Oleander, Monmouth, Conejo, Bowles) under NEPA. This is because of the change in community character and perceived quality of life that would result from operation of numerous HSTs (in addition to existing freight and passenger trains) very close to these communities. Even if noise impacts are reduced through construction of the barrier walls, such walls would be an intrusive visual element in these rural communities.

Kings County

The BNSF Alternative would travel approximately 30 miles through Kings County, traversing primarily rural agricultural areas. It would bypass the city of Hanford but would pass east of the unincorporated community of Hamblin and through a rural residential development with 25 homes in the vicinity of East Lacey Boulevard and Ponderosa Road. Hamblin is an unincorporated community on the outskirts of Hanford. The HST tracks in this area would be elevated approximately 40 feet for about 2.5 miles, from Fargo Avenue to Hanford-Armona Road, to span the San Joaquin Valley Railroad and SR 198. The elevated HST tracks would be 1 mile east of Hamblin. Although the HST tracks and station would be visible from Hamblin, impacts on community character and cohesion would be negligible under NEPA, and none would exist under CEQA because of the distance between the community and the HST facilities.

In the Ponderosa Road community, however, approximately half of the existing ranch homes would be displaced by the project, and other homes would remain close (less than 200 feet) to the new HST guideway, which would be elevated 40 feet above ground level. The Hanford Station would be built on the elevated guideway in the immediate vicinity, just north of the existing freight-rail tracks. The project would affect community character, social interactions, and community cohesion by displacing half of the households, and by exposing the remaining rural residential homes to increased noise, visual, and traffic impacts. This would be a substantial effect under NEPA and a significant impact under CEQA.

To the south, the BNSF Alternative Alignment would curve west and then south through agricultural areas, rejoining the BNSF Railway right-of-way (along the western side) just north of the city of Corcoran. The alignment would travel through the eastern edge of the city of Corcoran at-grade, along the western side of the existing BNSF Railroad right-of-way. The HST tracks and new road overcrossings would displace 50 homes and 19 businesses in Corcoran, including the Amtrak station building that houses the city's Chamber of Commerce offices, as well as 1 church,

a market, and portions of a mobile home/RV park. The HST tracks would be within approximately 200 feet of the City Hall building. The displacements, along with the increased noise and visual impacts associated with the HST project, could affect social interactions, community cohesion, and perceived quality of life in Corcoran. This would be a moderate to substantial effect under NEPA, but a less-than-significant impact under CEQA, because of the presence of an existing transportation corridor and availability of relocation resources in the community.

Tulare County

The BNSF Alternative crosses approximately 25 miles of rural agricultural land in Tulare County, adjacent to the western side of the BNSF Railway right-of-way. The only community in this segment of the alignment is the unincorporated community of Allensworth, situated immediately south of the Colonel Allensworth State Historic Park. This community has about 120 homes, a school, a church, and a community center. The HST tracks would pass along the eastern side of the community at-grade. The alignment would not displace any homes, but would pass as close as approximately 150 feet from several homes and within 2,000 feet of the school. The project would not divide the community, but it would introduce new visual and noise elements into this rural setting. This effect would be considered moderate under NEPA and less than significant under CEQA.

Kern County

The BNSF Alternative in Kern County is approximately 40 miles long. It would pass through the cities of Wasco and Shafter on an elevated guideway following the BNSF Railway right-of-way—on the western side through Wasco, and on the eastern side through Shafter, then switching to the western side again south of Shafter. In Wasco, the elevated structure would span approximately 3 miles, from Margola Street to Prospect Avenue, reaching a height of 50 feet above the Paso Robles Highway. HST facilities would result in the displacement of two homes and nine businesses in Wasco, as well as introduce new noise and visual elements along the existing transportation corridor. HST trains would pass within 400 feet of the city's administrative offices, and about 600 feet from the downtown Wasco Plaza area. This effect would be considered moderate to substantial under NEPA and less than significant under CEQA.

The BNSF Alternative would also pass three very small, unincorporated communities that are located along the existing railroad tracks in the Wasco vicinity: Kernell (11 miles north of Wasco), Pond (8 miles north of Wasco), and Palmo (2.5 miles south of Wasco). The HST tracks would pass each of these communities at-grade, and on the far side of the existing railroad and Central Valley Highway rights-of-way. In Kernell, homes would be buffered from noise and visual impacts to some extent by a series of long industrial buildings. In Pond, the new HST tracks would pass about 600 feet from several homes (and even closer to some isolated farmsteads in the vicinity). In Palmo, the HST tracks would be approximately 500 feet from existing homes, and the alignment would also displace several industrial buildings on the southern side of Kimberlina Road in that vicinity (almond processing facilities and a building that houses a youth counseling program serving the cities of Shafter and Hanford). Project effects on these very small communities would be considered moderate under NEPA and less than significant under CEQA.

Similarly, the BNSF Alternative would pass three unincorporated communities just north of the city of Shafter: the North Shafter Labor Camp (2 miles north of Shafter), Myrick's Corner (1.25 miles north of Shafter), and North Shafter (approximately 1 mile north of the city). The project would not require any property acquisition in these communities, but the new HST trains would pass close to existing homes (within 200 to 300 feet). The HST tracks would be at-grade passing the North Shafter Labor Camp but would begin to elevate north of Madera Avenue, passing Myrick's Corner at an elevation of 40 to 50 feet above-grade, and approximately 60 feet above-grade near the suburb of North Shafter, exposing these communities to new sources of noise and

visual intrusion within several hundred feet of homes. The effects on these communities would be considered moderate to substantial under NEPA and less than significant under CEQA.

In the Shafter vicinity, the elevated structure would span a distance of about 3.5 miles, descending to grade at Cherry Avenue. The HST facilities and related road and utility work would displace three homes and six businesses in Shafter, including a hardware or general store and a gas station/minimart. Because of the displacements and noise and visual impacts, this effect would be considered moderate under NEPA and less than significant under CEQA.

Between Shafter and Bakersfield, the BNSF Alternative would pass the small, unincorporated community of Crome, a cluster of about 20 homes located 5 miles northwest of Bakersfield in the northwestern quadrant of the intersection of 7th Standard Road and the Central Valley Highway. The HST project would relocate the Central Valley Highway to the south through this area displacing several buildings currently fronting on the Central Valley Highway (including one building associated with the only church in the community). The new SR 43 right-of-way would pass very close (within as little as 20 feet) to some remaining homes, with the HST tracks about 100 feet east of the residential area. Because of the displacements, and noise and visual impacts, this effect would be considered moderate under NEPA and less than significant under CEQA.

The BNSF Alternative would enter the northwestern portion of Bakersfield at-grade; from approximately Palm Avenue to the new downtown station, the alternative would be on an elevated structure ranging from 50 to 80 feet above-grade. This alignment would pass through three districts of Bakersfield: Northwest, Central, and Northeast. In several areas, the alignment deviates from the existing transportation corridor, to accommodate turning-radius requirements of a high-speed train and to incorporate the downtown station. In these areas, the substantial acquisition of right-of-way and redevelopment of properties for the BNSF Alternative would divide established communities—particularly the formerly unincorporated Greenacres area of the Northwest District near Rosedale, and the mixed-minority residential Northeast District, which has large populations of African-American and Hispanic residents.

In the Northwest District, the BNSF Alternative would depart from the BNSF right-of-way just south of Rosedale Highway and rejoin the rail right-of-way after crossing the Kern River. The alignment would cut through an existing suburban development in Bakersfield's Northwest District, displacing 122 homes and 10 non-residential properties, including a gas station/minimart, an art studio, 2 health centers, and 2 churches (Chinmaya Mission and Korean Presbyterian Church). This alignment would alter community social interactions and community cohesion, and would change the physical character of the community. These impacts would be substantial under NEPA and significant under CEQA.

In the Central District, the BNSF Alternative would displace only one home and no churches, but it would displace approximately 100 businesses—a mix of office and industrial uses, retail services, and medical clinics, as well as the Industrial Arts building on the Bakersfield High School campus. The school's historical importance, combined with the critical nature of the educational services it provides, makes it an important community resource. The displacement of this facility—as well as numerous businesses—in the Central District is considered a substantial effect under NEPA and significant under CEQA.

In the Northeast District, 116 homes and 173 non-residential properties (including a mix of retail and industrial businesses and several churches) would be displaced by the BNSF Alternative. Christ First Ministries would be displaced, and a portion of the parking at Iglesia de Dios would be taken. In addition, the HST alignment would pass very close to the building that houses the Bethany United Methodist Church and Centro Cristiano Agape. The BNSF Alternative would roughly parallel East Truxtun Avenue and would result in the displacement of a swath of older

homes and businesses several hundred feet south of this roadway.[11] It would bisect the building that houses the Mercado Latino Tianguis (Mercado) at 2105 Edison Highway. Because of its size and location, the Mercado building would most likely be demolished, redesigned, and rebuilt to avoid the support columns. This could mean closing or relocating the building for approximately 1 year, potentially affecting the livelihoods of 118 merchants and temporarily removing a facility of substantial cultural importance for the local and regional Hispanic community. Together, the displacement of the Mercado and the displacement of a substantial number of residences and businesses in the Northeast District of Bakersfield would be a substantial community effect under NEPA and a significant impact under CEQA.

Corcoran Elevated Alternative Alignment

This Alternative Alignment would be identical to the BNSF Alternative, except for the portion of the alignment that passes through the city of Corcoran. Here the alignment would be elevated from Nevada Avenue to 4th Avenue, traveling along the eastern side of the existing BNSF Railway right-of-way. Because the guideway would be elevated and on the eastern side of the tracks, there would be substantially fewer property displacements than under the BNSF Alternative Alignment. No homes and only one business (an auto body shop) would be displaced in Corcoran. The associated noise and visual impacts close to the downtown center and residential areas would be considered a moderate to substantial effect on the community under NEPA and a less-than-significant impact under CEQA.

Corcoran Bypass Alternative Alignment

The Corcoran Bypass Alternative would follow most of the BNSF Alternative, but would curve to the southeast to bypass the city of Corcoran on the eastern side. The community impacts associated with this alternative would be similar to those described above for the BNSF Alternative, except in the immediate vicinity of Corcoran. By extending through predominately rural agricultural areas outside the city limits, the alternative would avoid operational impacts within the city of Corcoran that would occur with the BNSF Alternative or the Corcoran Elevated Alternative. The Corcoran Bypass, however, would divide the small, unincorporated rural residential community that lies immediately northeast of the city limits, in the vicinity of Newark Avenue, between SR 43 and the irrigation canal. The proposed Corcoran Bypass would pass through the middle of this community, which consists of about 20 homes on adjacent large lots. The HST tracks and associated roadway work would displace about 40% of the homes, and leave some of the remaining homes very close (within 50 to 150 feet) to the HST train tracks. Similar impacts would occur to the smaller enclave of rural residential homes approximately 1 mile to the southeast, in the vicinity of 5th Avenue and Wakena Avenue. Even though the Corcoran bypass would involve fewer displacements than the BNSF Alternative, the effect on these small, rural residential communities would be considered substantial under NEPA and significant under CEQA.

Allensworth Bypass Alternative Alignment

The Allensworth Bypass Alternative alignment would pass west of the community of Allensworth, farther away from the existing community than would the BNSF Alternative. As such, noise and other operational impacts on the community would be less than they would be under the BNSF Alternative. If the BNSF tracks are relocated to run adjacent to the HST tracks in this area, there would be no expected additional community effects. Because the Allensworth Bypass Alternative

[11] Some commercial and industrial uses could remain if HST support columns that would carry the elevated guideway do not affect property use. In some cases, existing business structures might be modified or demolished and rebuilt in new locations to accommodate the project, resulting in temporary business disruptions rather than in permanent displacements.

would not result in the division of an existing community or changes in community character, the effect would be negligible under NEPA, and there would be no impact under CEQA.

Wasco-Shafter Bypass Alternative Alignment

The Wasco-Shafter Bypass Alternative would traverse agricultural land and open space east of Wasco and Shafter, where no population concentrations are found. This bypass alternative would not divide existing communities and would avoid the operational impacts on the downtown areas of Wasco and Shafter associated with the BNSF Alternative by extending through rural agricultural areas instead. Because the Wasco-Shafter Bypass Alternative would not result in the division of an existing community or changes in community character, effects would be negligible under NEPA and non-existent under CEQA.

Bakersfield South Alternative Alignment

The Bakersfield South Alternative Alignment, like the BNSF Alternative, would pass through Bakersfield's Northwest, Central, and Northeast districts, affecting similar but somewhat different community facilities. Impacts in the Northwest District of Bakersfield would be similar to those identified for the BNSF Alternative, displacing many homes and several churches. Like the BNSF Alternative, the Bakersfield South Alternative would divide the existing community and result in a considerable number of residential property acquisitions in this neighborhood, as well as the displacement of churches (the Korean Presbyterian Church would be fully displaced and parts of Chinmaya Mission property would be displaced).

In the Central District, the Bakersfield South Alternative would parallel the BNSF Railway line north of the existing rail yard that lies east of SR 99, avoiding the impacts on Bakersfield High School associated with the BNSF Alternative. However, in this vicinity, this alternative would instead displace commercial-industrial businesses, as well as a church (Saints Memorial Church of God in Christ) and a building that houses services associated with the Mercy Hospital medical complex. The elevated guideway would also span an existing staff and patient parking lot, permanently removing a small portion of the parking spaces when the supports are constructed. The Mercy Hospital medical complex provides critical care to the greater Bakersfield community, and there are inherent challenges in finding suitable replacements for large facilities nearby (such as the four-story medical office and pharmacy building) in a built-out urban environment.

In the Northeast District, the Bakersfield South Alternative would also divide and disrupt the existing neighborhood southeast of the downtown area, between East Truxtun and East California avenues, and from Union Avenue to the section terminus at Oswell Street. This established neighborhood in the Northeast District would be traversed further south under this alternative, from East Truxtun Avenue and much closer to California Avenue, compared to the BNSF Alternative. Similar to the BNSF Alternative, the Bakersfield South Alternative would divide parts of this older, established neighborhood by a 100-foot right-of-way beneath the elevated guideway, which would be cleared of homes, churches, and other facilities that were once a part of the community. Three churches (Baker Street Church of Christ, Full Gospel Lighthouse, and First Free Will Baptist Church) would all be fully displaced, and the alignment would pass very close to two other churches (Grace Christian Center and the Chapel of Praise Church of God). Because the HST facility would not be within an existing rail corridor, it is considered a new linear element dividing an established community. Also, the only veterinary hospital in this neighborhood, which has served the community since 1968, would be immediately adjacent to the new rail facility, and would likely be forced to close or relocate because of the need for a quiet environment at this sensitive facility where surgical procedures and other treatments and recovery take place.

The Bakersfield South Alternative would result in the division of existing communities in the Northeast and Northwest districts of Bakersfield. The alternative would require relocation of many commercial-industrial businesses, facilities associated with the Mercy Hospital medical complex, and community religious facilities. The effect would be substantial under NEPA, and the impact would be significant under CEQA.

Station Alternatives

Fresno Station–Mariposa Alternative. The Fresno Station – Mariposa Alternative would be centered on Mariposa Street, adjacent to the HST tracks west of Chukchansi Park. Some commercial-industrial businesses in the area would be relocated, but the station would not divide an existing community, and it has the potential to benefit community cohesion by improving neighborhood aesthetics and providing an active transportation hub and associated service businesses. Therefore, the effect would be negligible under NEPA, and any impact would be less than significant under CEQA.

Fresno Station–Kern Alternative. The Fresno Station–Kern Alternative would be similar to the Mariposa Alternative, except that this alternative would not encroach on the historic Southern Pacific depot, and would not require relocation of the Greyhound bus depot. The impacts on existing community resources would have similarly negligible effects under NEPA and less-than-significant impacts under CEQA.

Kings/Tulare Regional Station. The Kings/Tulare Regional Station would be located in a rural agricultural area. The station itself would not displace any homes, businesses, or community facilities. However, the visual, noise and traffic impacts associated with the station would adversely affect the quality of life in the adjacent rural residential area in the vicinity of Ponderosa Road and Edna Way—for those homes that are not displaced by the HST tracks. These effects would be moderate under NEPA and impacts would be less than significant under CEQA.

Bakersfield Station–North Alternative. This station alternative would span the existing BNSF rail line east of the existing Amtrak station. The Bakersfield Station–North Alternative would displace and relocate 14 residential households and 20 businesses, as well as Saint George Greek Orthodox Church and its associated school, playground, and meeting facilities. These community effects would be substantial under NEPA, and the impacts would be significant under CEQA.

Bakersfield Station–South Alternative. The Bakersfield Station–South Alternative would relocate approximately eight commercial and industrial facilities, as described in the Relocation of Local Residences and Businesses section below. However, this alternative would be on the southern side of the existing BNSF rail line and would generally not interfere with established patterns of interactions among community residents, would not isolate one part of a community from another, or disrupt resident access to community facilities and services (although the alignment would be very close to the Bakersfield Word of Life Ministries). These effects would be moderate under NEPA, and community impacts would be less than significant under CEQA.

Heavy Maintenance Facility Alternatives

Operation of the heavy maintenance facilities could result in changes in transportation, visual resources, noise and vibration, air quality, and safety and security that could potentially affect an adjacent community. Table 3.12-8 summarizes the impacts of changes to those resources that could occur in the HMF locations. Two of the alternative HMF locations (the Fresno Works and the Kern Council of Governments–Wasco) are in areas near high concentrations of minority and low-income populations. Long-term air quality impacts would be reduced to less than significant with mitigation. Unavoidable noise impacts would have greater impacts at the Fresno and Wasco

sites because of the comparatively higher concentrations of population near those locations. The other two locations are distant from existing communities.

Table 3.12-8
Potential Impacts on Community Cohesion, Neighborhoods, and Community Resources during Operation—Proposed HMF Sites

Resource	Potential Impact
Transportation	Three of the HMF sites (Fresno, Wasco, and Shafter) would require modifications to surrounding roads, but would not result in adverse traffic impacts on the surrounding communities. The proposed site in Hanford would potentially result in significant traffic impacts due to worker-shift changes overlapping with existing peak-hour traffic. The proposed HMF sites would have no impact on transit services, parking, or bike or pedestrian facilities.
Aesthetics and Visual Resources	The HMF alternatives could substantially degrade the existing visual character or quality of the site and surroundings as seen from any sensitive receptors, such as rural residences, within roughly 0.5 mile. These impacts would be highest in locations close to residences, such as the Fresno and Wasco sites.
Noise and Vibration	Moderate-to-severe noise impacts may remain at sensitive receptors within 900 feet of proposed HMF sites. The Hanford and Shafter sites have 6 sensitive receptors within 900 feet, the Fresno site has 100, and the Wasco site has 327 such sensitive receptors. No vibration impacts would affect neighborhoods or communities.
Air Quality	As a result of HMF operations, impacts on nearby sensitive receptors from emissions and odors would be substantial; however, these impacts would be less than significant after mitigation.
Safety and Security	The design of the HMF sites would follow safety design standards. No safety effects related to motor vehicles, pedestrians, or bicycles are anticipated.
Acronyms and Abbreviations: HMF heavy maintenance facility	

Displacement and community division impacts associated with the HMF alternatives would be similar. The Fresno Works HMF would relocate several rural households and businesses, but would not divide an existing community; impacts would therefore be less than significant. The Kings County–Hanford HMF and the Kern Council of Governments–Shafter HMF (both the East and West alternatives) are located in rural agricultural areas. Because neither location would displace or relocate any homes, businesses, or community facilities nor divide an existing community, no community impacts would occur. The Kern Council of Governments–Wasco HMF would not physically displace homes or community services, but would be immediately adjacent to the Wasco Labor Camp. Because these HMF locations would not divide an existing community or affect community cohesion, any effect would be negligible under NEPA, and any impact would be less than significant under CEQA.

If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Displacement and Relocation of Local Residents and Businesses

The Fresno to Bakersfield Section of the HST system is approximately 114 miles long; the section crosses both urban and rural lands. To comply with the Authority's guidance to use existing transportation corridors when feasible, the Fresno to Bakersfield Section would be primarily sited adjacent to the existing BNSF Railway corridor. In some cases, engineering constraints and avoidance of environmental impacts would require deviation from the existing railway corridor. In these cases, the potential for property acquisition leading to displacement and relocation is present, particularly in the vicinity of urbanized areas.[12] This impact would be direct and would result from the need to acquire land for placement of track, maintenance facilities, detours, overpasses, and associated structures. Guidance for impacted parties is provided in several documents detailing the relocation assistance programs provided by the Authority. Which document to use depends upon whether the party is a farm, business owner, home owner, or mobile home owner. See Appendix 3.12-A for all relocation assistance programs.

Residential Displacements

BNSF Alternative. In total, an estimated 374 residential units and a corresponding 1,190 residents would be relocated along the entire BNSF Alternative (see Table 3.12-9). The majority of these 374 displacements are in the Bakersfield area, where 239 households would be relocated. These 239 units are divided between the Bakersfield Central District (1 unit and 3 residents), Northeast District (116 units and 355 residents), and Northwest District (122 units and 373 residents).

The remaining displacements along the BNSF Alternative are primarily in the city of Corcoran (50 units and 179 residents) and also in the unincorporated portions of Kings (45 units and 150 residents), Fresno (20 units and 63 residents) and Kern (12 units and 38 residents) counties. The other urban areas have a small number of residential displacements, with 3 housing units and 11 residents displaced in Shafter, and 2 units with 8 residents in Wasco. The cities of Fresno and Hanford would experience no residential displacements.

An examination of suitable replacement housing alternatives indicates that all areas with displacements have a sufficient number of comparable replacement residences currently available. The communities in unincorporated Fresno and Kings counties, as well as in Corcoran and the Bakersfield districts – where 95% of the total residential displacements would occur – have vacancies in excess of the estimated displacements.

For example, 945 single-family homes were available in July 2010 for sale in the Northeast District of Bakersfield. With only a total of 116 units displaced, there is an 8-to-1 vacancy-to-displacement ratio, which substantially exceeds what would be necessary to house relocated residents. Similarly, the Northwest District currently has 500 vacancies, which exceed by more than a 3-to-1 ratio the 122 units that would be displaced by the proposed project. Total vacancies are again larger in Corcoran, where there are 75 vacant residences for the 50 displacements.

Examination of the HUD-aggregated U.S. Postal Service (USPS) administrative data on address vacancies in the heavily affected areas of Bakersfield and Corcoran further verified that residential vacancies would be sufficient to accommodate relocated residents. Approximately 1 out of every 18 residences in the Central and Northeast districts of Bakersfield was identified as vacant, and 1 out of 70 residences is vacant in the Northwest District. In Corcoran, the ratio of vacancies is approximately 1 out of every 20 residences. These vacancy levels equate to a total

[12] The term "displacement" is used to represent property acquisitions of a parcel or structure, while the term "relocation" is used to represent the need to find new properties for residents and businesses located in affected structures.

of 856 vacant units in the Central District, 4,672 vacant units in the Northeast District, 481 vacant units in the Northwest District, and 252 in Corcoran. These levels far exceed the number of residential displacements expected from the project in all of these locations.

Vacant residential properties identified in zip codes along the project alignment in unincorporated Fresno and Kings counties numbered 589 and 342, respectively. These vacancies are more than sufficient for the respective 20 and 45 potential displacements in these locations, and do not include consideration of existing adjacent vacant land, where the current units could be moved. Given the types of residential units displaced and the large number of vacancies in these communities, the range of price levels is assumed to be comparable to the similar type of units being displaced.

Table 3.12-9
Residential Displacement under the BNSF Alternative

Location	Residential Units Displaced	Estimated Residents to be Relocated
Urban Areas		
Fresno Central	0	0
Fresno Edison	0	0
Fresno Roosevelt	0	0
Hanford	0	0
Corcoran	50	179
Wasco	2	8
Shafter	3	11
Bakersfield Northwest	122	373
Bakersfield Central	1	3
Bakersfield Northeast	116	355
Rural Areas		
Unincorporated Fresno County	20	63
Unincorporated Kings County	45	150
Unincorporated Tulare County	3	10
Unincorporated Kern County	12	38
Regional Total	**374**	**1,190**

Source: Authority and FRA 2010.

The values of these potential replacement housing units are comparable to the values of the displaced properties. This comparison of housing price is a good measure of the suitability of replacement housing, since price is a function of important attributes such as size, quality, and neighborhood amenities. This is particularly important in Bakersfield, given the 239 residential displacements across all price ranges. Displaced residential units in the Northeast District have an average value of around $70,000. More specifically, there were 3 units with values greater than $200,000, 15 units with a value between $100,000 and $200,000, and 98 units with a value less than $100,000. Displaced properties in the heavily affected Northwest District have an average

value of around $160,000, with 24 units valued at more than $200,000, 75 units with a value between $100,000 and $200,000, and 23 units with a value below $100,000.

Data from the 2009 U.S. Census American Community Survey show that vacant housing values in Bakersfield are evenly distributed between all three of these price classes, with about 1,100 units in each class (U.S. Census Bureau 2009). In addition, a review of current vacant home prices in the Northeast and Northwest districts reveals a price distribution similar to the displaced properties in each district (Zillow 2010).

Two exceptions to this finding of sufficient vacant current residences are rural residential subdivisions in the vicinity of Ponderosa Road and Edna Way northeast of Hanford and the Newark Avenue area northeast of Corcoran. In these two locations, residents enjoy a unique blend of amenities (spacious lots, city services, and a country setting close to town). There may be very few vacant, comparable, developed rural residential homesteads to be used as relocation resources. If so, it may be necessary to consider constructing housing of last resort, or even duplicating the disrupted residential areas elsewhere in the vicinity. This will not be a substantial number of homes and therefore the impact is less than significant under CEQA.

Multifamily displacements in the heavily affected Bakersfield districts would be 53 units displaced in the Northeast District and 25 multifamily units displaced in the Northwest District.[13] Under the assumption that a large percentage of those in multifamily housing would not purchase a home and would continue to rent, comparable rental units in these communities were quantified. Available houses and apartments for rent in the Northwest District (34 units) are sufficient to house the potential relocated renters in these communities. However, fewer units are available in the Northeast District (27 units) than the potential number of renters relocated. In addition, renters housed in single-family residences could add to this need for rental units in both districts. Even so, given the large numbers of single family residential vacancies, it is not likely that new housing would need to be constructed to house these individuals. The relocation plan for residents in this district will note the fact that rental units available in the immediate area may not be adequate and that as a result, it would be important to have sufficient lead time to allow identification of suitable rental properties and provision of housing of last resort where necessary for low-income renters within the Northeast District.

Two manufactured housing—or mobile home—park communities are affected by the BNSF Alternative. One of these parks is located within the Northwest District of Bakersfield (a total of 23 units) and one is located in the city of Corcoran (20 units displaced). The special characteristics of mobile home parks can make it difficult to relocate residents within the same vicinity. Therefore, special consideration will be included in the project relocation plan to address the unique needs of these residents.

Overall, residential displacements in the Northeast, and Northwest districts of Bakersfield and in the City of Corcoran would total 288 units, housing an estimated 907 individuals. Although sufficient replacement housing is available in these communities, 288 units are a considerable number of displacements and represent over three-quarters of all residential displacements along the entire alignment. Given this high number of displacements, the effect of these displacements would be substantial under NEPA. Although the BNSF Alternative would displace and relocate considerable numbers of existing housing units and people in these communities, adequate replacement housing appears to be available in the area. Because the project would not likely necessitate the construction of substantial numbers of replacement housing, the impact would be less than significant under CEQA.

[13] No multifamily homes are displaced in the city of Corcoran.

Although residential displacements in unincorporated Kings and Fresno counties are smaller in number, they are still considerable and represent about 12% and 5%, respectively, of all residential displacements along the alignment. Because the majority of displacements in unincorporated counties are typically single-family residential homesteads on working agricultural lands, it may be difficult to find comparable replacements and relocating existing housing to nearby land may take time. As discussed above, this may be especially difficult for rural residential subdivisions such as Ponderosa Road northeast of Hanford and the Newark Avenue area northeast of Corcoran. The effect of the displacements associated with the BNSF Alternative in unincorporated Kings and Fresno counties would be moderate under NEPA. Residential displacements in the other communities along the BNSF Alternative are small in number and would have a negligible effect under NEPA.

Based on known demographics of the study area, residential displacements associated with the HST project could result in the relocation of high percentages of sensitive populations, including elderly (over 65), disabled, female heads of household, and linguistically isolated residents. These displacements, particularly in the heavily affected Bakersfield neighborhood districts and in Corcoran, would require that adequate relocation plans be put in place to meet any special needs. Potential effects from the relocation of sensitive populations are a direct result of project construction and the need to acquire land for the project and its associated structures. Impacts from the relocation of minority and low-income populations are examined specifically in the Environmental Justice Effects section below. The anticipated residential displacements resulting from the HST project are not expected to disproportionately relocate sensitive populations. However, relocation plans and resources would take these possibilities into account. The effects on sensitive populations would therefore be negligible under NEPA.

The BNSF Alternative would cause the displacement of an estimated 250 beds in the Fresno Rescue Mission's headquarters building in the Roosevelt District in Fresno. Because this facility provides meals and services, including an overnight shelter to the homeless community in the city, the social effect of displacing these transient residents would be a significant impact on the character and cohesion of this community (see discussion above). A suitable number of existing replacement structures appear to be available within the community (many vacant buildings are found in this area).

If it is determined that a new building should be constructed, it would be a single structure, and also would not have the potential to reduce the number of existing vacant housing units, affect existing housing objectives or plans in the community, or require new, previously unplanned housing to be built. Because displacement of the Rescue Mission would not displace or relocate substantial numbers of existing housing units or people along this alternative, and would not necessitate the construction of replacement housing elsewhere, the effect of residential displacements would be negligible under NEPA, and any impacts would be less than significant under CEQA.

Although no data are available on the demographic characteristics of the homeless population served by the Fresno Rescue Mission, information acquired from shelter staff suggests that a significant portion of the individuals affected would be elderly, potentially linguistically isolated, and single mothers with families (Prout 2010, personal communication). The effect under NEPA would be moderate, and relocation plans and resources provided would address these needs.

Table 3.12-10 provides a summary of the relative changes in residential displacements for each of the alignments. This table compares each of the alternative alignments to the BNSF Alternative.

Table 3.12-10
Change in Residential Displacement Relative to the BNSF Alternative

Residential Displacements and Relocations	BNSF Alternative	Change Relative to the BNSF Alternative				
		Corcoran Elevated	Corcoran Bypass	Allensworth Bypass	Wasco-Shafter Bypass	Bakersfield South
Total Units	374	-50	-29	-5	-8	-11
Total Residents	1,190	-179	-109	-16	-27	-33

Corcoran Elevated Alternative Alignment. The Corcoran Elevated Alternative would displace no residences, thus resulting in 50 fewer displacements than the corresponding portion of the BNSF Alternative within the city of Corcoran. Given there are no residential displacements associated with this alternative, there would be no effect under NEPA, and impacts would be less than significant under CEQA.

Corcoran Bypass Alternative Alignment. The Corcoran Bypass Alternative would displace 32 residences, 3 in Corcoran and 29 in unincorporated Kings and Tulare counties. Because 61 residential displacements would occur along the corresponding portion of the BNSF Alternative, these displacements would be a decrease of 29 units if this alternative were selected instead of the BNSF Alternative. The estimated total number of residents relocated would be 106, or about 109 fewer than under the BNSF Alternative.

An examination of suitable housing alternatives for the displaced residents in this area finds that a sufficient number of alternative homes are currently available. Real estate listings for homes for sale show that unincorporated Kings County (within zip code 93212) and the city of Corcoran had 664 vacancies, well in excess of the 61 residential displacements that would result from the alternative alignment. The alternative would therefore not necessitate the construction of replacement housing elsewhere. Overall, the effect of residential displacements would be moderate under NEPA, and impacts associated with the Corcoran Bypass Alternative would be less than significant under CEQA. The anticipated residential displacements resulting from the Corcoran Bypass Alternative are not expected to disproportionately relocate sensitive populations. However, relocation plans and resources would take these possibilities into account. The effects on sensitive populations would therefore be negligible under NEPA.

Allensworth Bypass Alternative Alignment. The Allensworth Bypass Alternative would not displace any residences, compared to the 5 residential displacements that would occur along the corresponding portion of the BNSF Alternative. If the BNSF tracks are relocated to run adjacent to the HST tracks in this area no additional residential effects are expected. Therefore, the effect of residential displacements would be negligible under NEPA, and there would be no impact under CEQA. Because there are no residential displacements under the Allensworth Bypass Alternative, the effects on sensitive populations would be negligible under NEPA.

Wasco-Shafter Bypass Alternative Alignment. The Wasco-Shafter Bypass Alternative would displace 5 residences, 3 within unincorporated Kern County; 1 unit in Wasco; and 1 unit in Shafter. The corresponding portion of the BNSF Alternative would also displace 13 residences. The residential displacements resulting from the Wasco-Shafter Bypass would affect 17 residents, 27 fewer than the corresponding portion of the BNSF Alternative.

The cities of Wasco and Shafter have 174 vacant homes available to meet the housing needs of these displaced residences. Because the project would not displace or relocate substantial numbers of existing housing units or people and therefore would not necessitate the construction of replacement housing elsewhere, the effect of residential displacements would be negligible under NEPA, and any impacts associated with the Wasco-Shafter Bypass Alternative would be less than significant under CEQA. As high concentrations of residential displacements do not occur under the Wasco-Shafter Bypass Alternative, the effects on sensitive populations would therefore be negligible under NEPA.

Bakersfield South Alternative Alignment. The Bakersfield South Alternative would displace 228 residences in the city of Bakersfield. The corresponding portion of the BNSF Alternative would displace 239 residences. Displacements resulting from the Bakersfield South Alternative would affect 698 residents, compared to the 731 residents that would be relocated by the corresponding portion of the BNSF Alternative.

The displacements related to the Bakersfield South Alternative within the Bakersfield districts are divided between the Northeast and Northwest districts. This alternative would displace 131 units and 401 residents in the Northeast District, and 97 units and 297 residents in the Northwest District. The Bakersfield South Alternative would displace fewer residential units and people than the BNSF Alternative; however, this number of displacements is still large.

Similar to the BNSF Alternative, residential displacements in the Northwest and Northeast districts would be considerable. Given the high number of displacements, the effect of these displacements would be substantial under NEPA.

Sufficient numbers of replacement residences are available in the area. The Northeast District has 945 units available for sale and the Northwest District has 500 units. As noted in the discussion of displacements in the BNSF Alignment, though replacement rental units may be scarce and mobile home park communities are affected, no new residential units are likely to be constructed because all of these districts have sufficient replacement housing for the estimated number of displacements, including housing of last resort. Because the project would not displace or relocate substantial numbers of existing housing units or people and would not necessitate the construction of replacement housing elsewhere, the impacts would be less than significant under CEQA.

The presence of sensitive populations in this area was examined for the BNSF Alternative and is the same here. The analysis suggests that displacements in these districts may affect high numbers of disabled and female head of household populations, and linguistically isolated populations may be a concern in the Northeast District. Therefore, the relocation plans and resources provided will take these displacements into account.

Station Alternatives. A total of four of the five station alternatives (Fresno Mariposa, Fresno Kern, KTR Hanford Station, and Bakersfield South) would not displace any residential units and would not require the construction of replacement housing. Bakersfield Station–North Alternative would displace 16 residential units in the Central District of Bakersfield. As discussed for the BNSF Alternative above, there is sufficient vacant replacement housing in this area. Therefore, because the Bakersfield Station–North Alternative would not displace or relocate substantial numbers of existing housing units or people and would not require the construction of replacement housing, the effect of residential displacements would be negligible under NEPA, and any impacts associated with the Bakersfield Station–North Alternative would be less than significant under CEQA.

Heavy Maintenance Facility Alternatives. Residential displacements associated with each of the HMF facilities are as follows: Fresno – 31 units, Hanford – 1 unit, Wasco – 1 unit, Shafter East - 0

units, and Shafter West – 5 units. As discussed for the BNSF Alternative above, there is sufficient vacant replacement housing in these areas. Therefore, because these HMF sites would not displace or relocate substantial numbers of existing housing units or people and would not necessitate the construction of replacement housing, residential displacements would be negligible under NEPA, and the impacts would be less than significant under CEQA.

If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Commercial and Industrial Businesses

BNSF Alternative. An estimated 380 commercial and industrial businesses would be relocated along the entire BNSF Alternative. These relocations would correspond to an estimated 2,678 relocated employees in total. Bakersfield businesses account for 282 of the 380 total businesses that would be expected to be relocated. The Bakersfield business relocations are divided between the Central District (99 businesses and an estimated 702 employees), Northeast District (173 businesses and 485 employees), and the Northwest District (10 businesses and 165 employees).

The remaining commercial and industrial relocations along the BNSF Alternative are primarily in the city of Fresno (37 businesses and 775 employees), unincorporated Fresno County (24 businesses and 337 employees) and Corcoran (19 businesses and 79 employees). The cities of Wasco (9 businesses and 25 employees) and Shafter (6 businesses and 21 employees), unincorporated Kern County (2 businesses and 51 employees), and unincorporated Kings County (1 business and 40 employees) also have relocations. The city of Hanford and unincorporated Tulare County would not have any business relocations. Table 3.12-11 shows a breakdown of these totals.

Table 3.12-11
Commercial and Industrial Relocations under the BNSF Alternative

Location	Businesses Relocated	Estimated Employees Relocated
Urban Areas		
Fresno Central	1	125
Fresno Edison	35	610
Fresno Roosevelt	1	40
Hanford	0	0
Corcoran	19	79
Wasco	9	25
Shafter	6	21
Bakersfield Northwest	10	165
Bakersfield Central	99	702
Bakersfield Northeast	173	485

Table 3.12-11
Commercial and Industrial Relocations under the BNSF Alternative

Location	Businesses Relocated	Estimated Employees Relocated
Rural Areas		
Unincorporated Fresno County	24	337
Unincorporated Kings County	1	40
Unincorporated Tulare County	0	0
Unincorporated Kern County	2	51
Regional Total	**380**	**2,678**
Source: Authority and FRA 2010.		

Bakersfield's Northeast District is home to the Mercado Latino Tianguis, an important community facility that would be displaced along with all associated businesses. This facility is examined in the Disruption or Division of Existing Communities section above. From a social perspective, the displacement of this facility would be a significant impact in Bakersfield's Northeast District. In terms of displacement of businesses, the Mercado is also an important consideration because it houses an estimated 118 local small businesses with 230 employees.

The North American Industry Classification System (NAICS) designations of the displaced commercial and industrial businesses along the BNSF Alternative reveal that the types of businesses that would be relocated include automotive repair; wholesale trade; professional, scientific, and technical services; machinery and equipment services; accommodation and food services; construction; transportation and warehousing; health care and social services assistance; administrative and support; and waste management and remediation services. Examination of suitable replacement properties for these types of displaced business sites indicates that a sufficient number of sites are currently available in the retail, commercial, office, industrial, and transportation and warehousing sectors. This analysis examined the availability of these types of business properties within the zip codes that intersect the study area in the affected communities. The 180 displaced business sites in Bakersfield, Wasco, and Shafter consist primarily of retail, commercial, and office businesses. Examination of current commercial real estate for sale and lease in these locations identified 363 potential replacement properties available in July 2010.[14] Also important in these areas are displacements of industrial (12 businesses) and transportation/warehousing (7 businesses) sector properties. Property vacancies in these areas total 46 and 111 units, respectively, again showing sufficient availability of suitable properties.

Within the city of Fresno and unincorporated Fresno County, the commercial, retail, and office space vacancies total 174 properties, which would be more than sufficient to meet the needs for the 27 displaced businesses. Industrial and transportation/warehousing vacancies total 64 and

[14] The Mercado houses 118 of the total 173 businesses, and an estimated 230 of the 485 employees displaced by BNSF Alternative in the Northeast District. This facility would only require a single site for relocation, and is therefore counted as a single site in this suitability analysis.

114 properties, respectively, again more than the 11 and 4 businesses of each class that would require relocation.

Within the city of Corcoran, there are 19 business relocations occurring across the industrial, commercial, wholesale, retail, and automotive and transportation sectors. Current vacancies in Corcoran are minimal, and there is a deficit of all types of required business properties in the city. Therefore, business relocation in Corcoran will be an important consideration in the relocation plan.

The HUD-aggregated USPS administrative data on address vacancies support these findings, showing overall business vacancies in the Central and Northeast districts of Bakersfield to be 17% and 16%, respectively. These vacancy rates translate to approximately 1 out of every 6 business properties being vacant, or approximately 2,112 and 834 total vacant business properties in each district, respectively. The overall vacancy rate in Fresno's Edison District is approximately 17%, meaning that 1 out of approximately 6 business sites is vacant, totaling 200 vacant business properties in the district.

The automotive maintenance and repair sector is an important class of business to be relocated in Fresno and Kern counties, as well as in the city of Corcoran. Because of the nature of the services performed, these businesses require specialized facilities. Examination of potential replacement automotive-specific properties identified fewer-than-anticipated projected displacements. In Fresno County, 8 automotive businesses would be relocated, and only 5 properties are vacant. In Kern County, there are 46 automotive businesses would need to be relocated, and only 9 vacancies are identified. In Corcoran, 4 automotive businesses would be relocated, and there are no vacancies. In light of the relative scarcity of these specialized replacement properties, the relocation plan would need to take into account the additional efforts necessary for automotive maintenance and repair businesses during the acquisition and relocation process.

Commercial and industrial business relocations in the Central and Northeast districts of Bakersfield total 272 units employing an estimated 1,187 individuals. Although sufficient replacement space is available in these communities, the number of displacements is considerable and represents about 70% of all commercial and industrial business displacements along the entire alignment. Given this high number and the fact that the BNSF Alternative would result in significant impacts dividing these communities and important community facilities, the effect of these relocations on business operations would be substantial under NEPA.

The number of business relocations in Corcoran is substantial, especially given the small size of the city's overall economy. In addition, the lack of suitable vacant replacement properties has the potential to further disrupt economic conditions. Therefore, the effect of these relocations on business operations in Corcoran would be substantial under NEPA.

Commercial and industrial business displacements in unincorporated Fresno County and the Fresno Edison District are smaller in number, but remain considerable and represent 9% and 6%, respectively, of all business displacements along the alignment. The effect on business operations within these communities would be moderate under NEPA.

Commercial and industrial business displacements in the other communities along the BNSF Alternative are small in number and would have a negligible effect under NEPA.

Table 3.12-12 provides a summary of the relative changes in commercial and industrial business displacements and required relocations, and compares each of the alternative alignments to the BNSF Alternative.

Table 3.12-12
Change in Commercial and Industrial Business Relocation Relative to the BNSF Alternative

Commercial and Industrial Displacements	BNSF Alternative	Relative Change to the BNSF Alternative				
		Corcoran Elevated	Corcoran Bypass	Allensworth Bypass	Wasco-Shafter Bypass	Bakersfield South
Total units	380	-18	--19	0	-16	-172
Total employees	2,678	-76	-79	0	-87	-552

Corcoran Elevated Alternative Alignment. One commercial or industrial business relocation with 3 employees would be displaced along the Corcoran Elevated Alternative compared with the 19 business and 79 employees in the corresponding portion of the BNSF Alternative. This alternative would have a negligible effect on commercial and industrial business operations under NEPA.

Corcoran Bypass Alternative Alignment. No commercial or industrial business relocations would be required along the Corcoran Bypass Alternative compared with the 19 business and 79 employees that would be relocated in the corresponding portion of the BNSF Alternative. This alternative would have no effect on commercial and industrial business operations under NEPA.

Allensworth Bypass Alternative Alignment. No commercial or industrial business relocations would be required along the Allensworth Bypass Alternative. This correlates to the absence of any change in the number of businesses or employees that would be relocated along the corresponding portion of the BNSF Alternative. If the BNSF tracks are relocated to run adjacent to the HST tracks in this area, no additional commercial or industrial effects would be expected. This alternative would have no effect on commercial and industrial business operations under NEPA.

Wasco-Shafter Bypass Alternative Alignment. Two businesses with approximately 18 employees would require relocation along the Wasco-Shafter Bypass Alternative. The corresponding portion of the BNSF Alternative would entail relocation of 18 businesses with an estimated 105 employees. This alternative would have a negligible effect on commercial and industrial business operations under NEPA.

Bakersfield South Alternative Alignment. An estimated 109 commercial and industrial businesses would be displaced and require relocation by the Bakersfield South Alternative. These relocations would correspond to the relocation of an estimated 792 employees. These relocations compare to 281 businesses and 1,344 employees that would be relocated for the corresponding portion of the BNSF Alternative.

Bakersfield South Alternative Alignment relocations are divided between the city's districts, with the Central District experiencing relocations of 55 businesses and 435 employees, the Northeast District 48 business and 214 employee, and Northwest District 6 business and 143 employees. The Mercado Latino Tianguis discussed in the BNSF Alternative above would not be affected by the Bakersfield South Alternative.

A considerable number of businesses would be displaced and relocated by the Bakersfield South Alternative. However, an examination of suitable replacement properties for these businesses resulted in the same findings as for the BNSF Alternative. A sufficient number of potential replacement sites are currently available for relocation of the businesses in the retail, commercial,

office, industrial, and transportation and warehousing sectors. However, relocation of automotive sector businesses may have difficulty finding suitable replacement properties.

Although commercial and industrial relocations in the Central and Northeast districts of Bakersfield would be fewer under the Bakersfield South Alternative when compared with the BNSF Alternative, the totals would still be considerable. Given that the Bakersfield South Alternative would result in significant impacts dividing adjacent communities and would require relocation of important community facilities, the effect of these relocations would be substantial under NEPA.

Station Alternatives. Sufficient numbers of potential replacement sites are available for the anticipated commercial and industrial business relocations associated with the Fresno and Bakersfield station alternatives in all but the automotive sector. Given the number of businesses and employees to be relocated, the effect on businesses associated with three of these station alternatives (Fresno Mariposa Station, Bakersfield Station–North, and Bakersfield Station–South) would be moderate under NEPA. Effects from the Fresno Kern Station would be negligible, and the KTR Hanford Station would have no effect, because there would be no commercial or industrial relocations.

The Fresno Mariposa Station Alternative would require relocation of 5 commercial and industrial businesses with an estimated 47 employees. As with the BNSF Alternative, sufficient numbers of suitable replacement business sites are available in the vicinity for every sector except for the automotive sector. Given the number of businesses and employees displaced in this small area, the effect on business operations would be moderate under NEPA.

The Fresno Kern Station Alternative would require relocation of 3 commercial and industrial businesses, with an estimated 68 employees. The effect on business operations would be negligible under NEPA.

The KTR Hanford Station would not require relocation of any commercial or industrial businesses, and therefore no effect would occur under this station alternative.

The Bakersfield Station–North Alternative would require relocation of an estimated 17 commercial and industrial businesses, with an estimated 158 employees in the Bakersfield Central District. Given the number of businesses and employees displaced in this small area, the effect on business operations would be moderate under NEPA.

The Bakersfield Station–South Alternative would relocate an estimated 4 commercial and industrial businesses, with an estimated 104 employees in the Bakersfield Central district. Given the number of businesses and employees displaced in this small area, the effect on business operations would be moderate under NEPA.

Heavy Maintenance Facility Alternatives. Examination of suitable alternative sites for displaced commercial and industrial businesses in the surrounding areas of the HMF alternatives showed that a sufficient number of replacement sites are currently available for all businesses. However, again the relocation of any automotive sector businesses may be more difficult due to an apparent scarcity of suitable currently vacant locations.

The HMF Fresno Works site would relocate 9 commercial and industrial businesses, with an estimated 70 employees in unincorporated Fresno County. Suitable alternative sites for these displaced commercial and industrial businesses would be the same as for the BNSF Alternative. Given the number of relocated businesses and employees in this small area, the effect on commercial and industrial business operations would be moderate under NEPA.

The HMF Kings County–Hanford site would not displace any commercial or industrial businesses. This alternative site for the HMF facility would not have any effect on commercial and industrial business operations under NEPA.

The HMF Kern Council of Governments–Wasco site would require relocation of 1 commercial and industrial business, with an estimated 8 employees within Wasco. Given the number of businesses and employees that would need to be relocated in this small area, the effect on commercial and industrial business operations would be negligible under NEPA.

The HMF Kern Council of Governments–Shafter East site would not displace any commercial or industrial businesses. There would be no effect on business operations under this alternative.

The HMF Kern Council of Governments–Shafter West site would require relocation of 2 commercial and industrial businesses, with an estimated 2 employees. Given the small number of businesses and employees that would need to be relocated in this area, the effect on commercial and industrial business operations would be negligible under NEPA.

If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Agricultural Businesses

Agricultural parcels account for the largest percentage of acreage to be acquired for the project. This section determines the number of agricultural parcels that would be split into two or more separate parcels due to required right-of-way acquisition and identifies the number of agricultural facilities—structures used for various operational functions including processing, product and equipment storage, and irrigation infrastructure—that would be displaced by the project.

When agricultural parcels are split, the resulting new parcels could be rearranged, and agricultural operations could remain in effect either under existing or new ownership. In these cases, there would likely be added operational expenses to farm this land such as new equipment, new infrastructure installation, and increased access costs incurred as additional labor hours and extra gasoline for tasks such as irrigation, pesticide application, and harvesting. Counting these split parcels provides insight into the potential adverse disruptions and costs incurred by agricultural operations for each of the project's alternative alignments. It should be noted that in some circumstances, portions of the resulting split agricultural parcels may not be able to be rearranged or accessed, and these lands would therefore be lost for future agricultural production. These types of land "remnants" are not examined here, but are accounted for in the Agricultural Lands section of this EIR/EIS.

The number of agricultural facilities that would be displaced by the alternative alignments provides a measure of the potential disruption to agricultural operations. These facilities are used for functions such as processing, product and equipment storage and irrigation infrastructure. The greater the number of these types of facilities that are disturbed by the project, the greater the expected short-term effect on agricultural operations needing to relocate these structures.

BNSF Alternative. Along the entire BNSF Alternative, an estimated 127 agricultural parcels would be split, and 7 parcels contain agricultural facilities that would be displaced (see Table 3.12-13). In Kings County, 42 agricultural parcels would be split by the BNSF Alternative. Split parcels would also result in unincorporated Kern County (32 parcels), Fresno County (30 split parcels),and Tulare County (23 split parcels). Displaced agricultural facilities would be in Kern County (3 parcels), Kings County (2 parcels), Tulare County (1 parcel), and Fresno County (1 parcel).

Table 3.12-13
Agricultural Parcel Splits and Displaced Facilities under the BNSF Alternative

Location	Split Agricultural Parcels	Displaced Facilities (Parcels)
Fresno County	30	1
Kings County	42	2
Tulare County	23	1
Kern County	32	3
Regional Total	127	7

Suitable agricultural land is available in the region for any agricultural facilities that would be required to relocate as a result of the proposed project. Most agricultural disruption would not result in such relocation, but rather in the reassembly of split agricultural parcels to be bought by neighboring agricultural operations. If any relocation was determined necessary, an examination of vacant and for-sale agricultural properties and operations revealed a substantial supply of potential replacement properties were available (Loopnet 2010). In July 2010, there were 380 agricultural properties for sale in the region, with 195 in Fresno County, 23 in Kings County, 97 in Tulare County, and 65 in Kern County. These operations include vacant agricultural land, as well as land and facilities for pasture/ranch, field crops, vineyards, dairy, and nut and fruit tree operations.

In terms of agricultural facilities, special consideration is required in the relocation plan for dairy operations and for a unique rendering facility in Kings County. Dairy operations are important to the local economy and are examined in more detail in the Economic Effects section, below. The affected rendering facility (Baker Commodities) is the only one of its kind in the area, and is critical to the economic well-being of local dairy and livestock operations. It would therefore be important that relocation of this rendering facility occur before the existing facility is closed or that steps be taken to ensure that sufficient capacity is available at other facilities to avoid interruption in the services provided.

The overall effect of the BNSF Alternative on agricultural business operations would be moderate under NEPA in the short term as agricultural operation adjustments are made, and in the long term, these effects would be negligible under NEPA. Table 3.12-14 presents a summary of the agricultural parcel splits and displaced facilities associated with each of the alignment alternatives.

Table 3.12-14
Change in Agricultural Parcel Splits and Facilities Relative to the BNSF Alternative

Agricultural Effects	BNSF Alternative	Relative Change to the BNSF Alternative				
		Corcoran Elevated	Corcoran Bypass	Allensworth Bypass	Wasco-Shafter Bypass	Bakersfield South
Split Parcels	**127**	0	+14	+34	+8	-1
Facilities Displaced	**7**	0	+1	-2	-1	0

Corcoran Elevated Alternative Alignment. The Corcoran Elevated Alternative is located entirely in the developed areas of the city of Corcoran; therefore, no agricultural parcels would be split, and no agricultural facilities would be displaced. The corresponding portion of the BNSF Alternative also is entirely in developed areas, and splits no parcels and displaces no facilities. The Corcoran Elevated Alternative would have no effect under NEPA on agricultural parcel splits and facility disruptions.

Corcoran Bypass Alternative Alignment. Along the Corcoran Bypass Alternative, an estimated 34 agricultural parcels would be split and 2 agricultural facilities would be displaced. The corresponding portion of the BNSF Alternative would split an estimated 20 parcels and would displace 1 agricultural facility. A total of 30 of the 34 split parcels along the bypass are in Kings County, and 4 parcels are in Tulare County. The displaced agricultural facility is in Kings County. Similar to the BNSF Alternative, the effect of parcel splits and facility disruptions on agricultural business operations associated with the Corcoran Bypass Alternative would be moderate under NEPA in the short term and negligible under NEPA in the long term.

Allensworth Bypass Alternative Alignment. An estimated 57 agricultural parcels would be split along the Allensworth Bypass Alternative. This number is much greater than the 23 parcels that would be split along the corresponding portion of the BNSF Alternative. The Allensworth Bypass Alternative does not displace any facilities, although the corresponding portion of the BNSF Alternative displaces 2 facilities. The 48 split parcels along the bypass would be in Kern County (31 parcels) and Tulare County (26 parcels). If the BNSF tracks are relocated to run adjacent to the HST tracks in this area, the resulting effects on agricultural operations would be expected to be of a similar magnitude. Similar to the BNSF Alternative, the effect of split parcels and facility disruptions to agricultural business operations would be moderate under NEPA in the short term and negligible under NEPA in the long term.

Wasco-Shafter Bypass Alternative Alignment. Along the Wasco-Shafter Bypass Alternative, an estimated 29 agricultural parcels would be split, and there would be no displacement of agricultural facilities. The corresponding portion of the BNSF Alternative would split 21 agricultural parcels and displace 1 agricultural facility. Similar to the BNSF Alternative, the effect of split parcels and facility disruptions to agricultural business operations would be moderate under NEPA in the short term and negligible under NEPA in the long term.

Bakersfield South Alternative Alignment. There are no agricultural splits or facility disruptions along the Bakersfield South Alternative because this alternative is primarily within the city limits of Bakersfield. Only 1 agricultural parcel would be split and no agricultural facilities would be displaced by the corresponding section of the BNSF Alternative. The effect on agricultural operations resulting from the Bakersfield South Alternative would therefore be negligible under NEPA.

Station Alternatives. All but one of the station alternatives are in urbanized downtown areas and therefore would not affect agricultural operations. The remaining station site, the KTR Hanford Station, is in an agricultural area but would not split any parcels or displace any facilities. The effect of all station location alternatives would be negligible under NEPA.

Heavy Maintenance Facility Alternatives. The Kern Council of Governments–Shafter West Alternative would split 1 agricultural parcel. None of the other HMF alternatives would split a parcel. The Fresno HMF Alternative would displace 10 agricultural facilities and the Wasco HMF Alternative would displace 1 facility. The other HMF alternatives would not displace any facilities. Therefore, the Fresno HMF Alternative would have a moderate effect under NEPA in the short term, while all the other HMF alternatives would have a negligible effect under NEPA.

If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Economic Effects

Operation of the project would provide economic benefits and facilitate broader economic expansion for the entire region. These economic advantages include user benefits (travel-time savings, cost reductions, accident reductions) and accessibility improvements for the region's citizens through improved connection of the Central Valley to the rest of California. These benefits accrue not only to travelers on the HST, but also to travelers using other transportation modes in the region because trips would be diverted from highways and airports, resulting in reduced congestion (Cambridge Systematics Inc. 2003, 2007).

The project would also improve accessibility to labor and customer markets in the region, thereby improving the competitiveness of the region's industries and the overall economy. This increase in competitiveness would result from businesses' ability to locate close to a HST station, thus allowing for greater connectivity to the entire state than is currently possible. This increased connectivity in business operation and employment also translates into improved efficiencies in population growth as new growth concentrates around these stations' areas, thus reducing urban sprawl into the region's agricultural lands (Cambridge Systematics Inc. 2003, 2007).

As presented in Section 3.18, Regional Growth, the project is expected to increase population growth 3% by 2035 in the four-county region in comparison with the No Project Alternative and also result in a 3% increase in regional employment over this same time period. A recent study determined that this increase in employment would occur across many economic sectors within the region including the service, communications, utilities, finance, insurance, and real estate sectors (Kantor 2008).

This broad-based economic growth would lead to increased fiscal benefits for local jurisdictions through expansion in both the property and sales tax base for the region. Property tax revenues would increase as property values across the region rise as a result of project benefits and also as new housing to accommodate growth is constructed and added to the tax rolls. Sales tax revenues would increase as a result of increased business activity from the project and from the corresponding growth in the consumer tax base. In addition, the project itself would generate new sales tax revenues through spending related to the HST System operations and maintenance.

The project would also provide a unique opportunity to shape future economic growth in the region. A 2010 study examining these opportunities determined that the HST System would encourage more compact and efficient growth in the region. This growth would encourage development within cities by incorporating more multifamily and attached single-family housing

units in downtown areas. This development contrasts to current distributed development trends that result in lower-density, larger-lot, single-family housing located on the outskirts of urban areas.

The resulting economic benefits from this paradigm shift in growth patterns would result in billions of dollars of economic benefits annually to the state in the form of cost savings from more efficient energy use, reductions in infrastructure investment needs, fewer vehicle miles traveled, reductions in greenhouse gas emissions and air pollution, and reductions in household expenditures on energy and water consumption (Calthorpe Associates 2010).

The total economic outcome of project operations may also have potential negative economic effects. These negative economic effects include possible short-term reductions in property and sales tax revenues as a result of land acquisition, reductions in local school district funding, and effects on agricultural production. Potential fiscal effects on local government services from the project are of concern given current and ongoing budget deficits in the region's counties and cities. However, in all cases examined, it is expected that there would be no long-term negative economic effects and that long-term economic benefits would exceed any of the potential short-term negative effects. The following sections provide more discussion on each of these economic issues.

Operations-Related Property and Sales Tax Revenue Effects

Property Tax Revenue Effects. Project operation is expected to result in a long-term net gain in property tax revenues for the region's counties and cities. This net gain would be the result of long-term regional appreciation of property values that the HST project would engender. Property value increases can be expected to occur from project operation, which would increase the connectivity of the region to the rest of the state, as well as from the associated increased density of residential and commercial development around station locations.

There may be a limited decrease in property values immediately adjacent to the project as a result of visual or noise disturbances. Any such impacts would be minimized by the visual and noise mitigations being proposed. In addition, such effects would be limited to a small geographic area in comparison with the expected region-wide increases in property values. These resulting overall changes in property values cannot be quantified. Many factors influence these values and it is not possible to isolate the impact of the project from all the other current and future effects on real estate supply and demand. A complete literature review on the impacts of related transportation projects on property values is provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a).

A short-term reduction in property tax revenues may occur due to property acquisition, and thus removing parcels from county tax rolls. However, this impact on the property tax base is negligible in comparison with the overall tax revenue collected in the region. Therefore, it is expected that the long-term regional benefits to property values and to the property tax base would outweigh these short-term reductions in revenue.

For the BNSF Alternative, the overall long-term net benefits of the project would be positive. Increases in property values and in the associated increased tax base as a result of project-induced growth in the region would more than offset the negligible reduction in property tax revenues due to property acquisition. Along the BNSF Alternative, displacement of residences, businesses, and agricultural lands would result in estimated annual losses of approximately $2.5 million in property tax revenue to the four counties in the region. This estimated amount represents approximately 0.5% of the total fiscal year 2009-2010 combined property tax revenue of the counties and cities in the study area.

Potential effects from a NEPA perspective are examined from the standpoint of both the intensity and context of the effect. As described above, the intensity would be slight given the small percentage of total regional property tax lost in the short term. However, the context is one of potential local budget deficits. This is a result of the current economic climate across the United States, and is exacerbated by the fact that the region has historically lagged behind the state as a whole in economic development. A contributing factor is also the uncertainty surrounding the transition of the region from a purely agricultural-based economy to a more diversified economic structure better able to withstand agricultural price fluctuations. As a result of this context, any additional fiscal burden in the short term, however small, could be of consequence. Therefore, the effect is moderate under NEPA in the short term and there is no effect under NEPA in the long term because property tax revenues are expected to increase as a result of project operation and eventually substantially exceed current downturns.

Similarly for alternative alignments, the overall long-term net benefits of the project would be positive under all alternative alignments. Increases in property values and the associated increase in the tax base as a result of project-induced growth in the region would again offset the short-term revenues lost from property acquisitions and the removal of these properties from county tax rolls. Relative property tax revenue net effects are similar in magnitude for all alternatives when compared with the BNSF Alternative. Therefore, the effect is moderate under NEPA in the short term, and there is no effect under NEPA in the long term.

For the station and HMF alternative sites, the overall long-term net benefits of the station and heavy maintenance facilities would be similar for all alternatives. Each station site and each HMF facility site under consideration are very similar in size to the other station and HMF facility sites, respectively. Moreover, the setting or context of the station sites is generally urban, whereas the alternative sites for the HMF facility sites are generally rural. Thus the trade-offs in property values would be negligible in terms of the overall magnitude of any possible effects. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Sales Tax Revenue Effects. There would be both a short-term and long-term effect on sales tax revenues to local governments. A short-term loss would result from business disruptions on acquired parcels, but a long-term gain would be created from increases in the sales tax base and in sales tax revenue that would be collected on an ongoing long-term basis for project operations and maintenance spending.

Overall, there is an expected long-term net gain in sales tax revenues for the region's counties and cities as a result of project operation. This net gain would be due to increased business activity from project-induced commercial and industrial development and from the corresponding growth in the sales tax base, which would contribute increasing sums to annual sales tax revenues of local jurisdictions. This overall increase in sales tax revenues resulting from the HST System has been estimated as $46 million flowing annually to the cities and counties throughout the entire Central Valley (Kantor 2008). In addition, the project itself would generate around $720,000 annually in new sales tax revenues for the region through spending on operation and maintenance (Authority and FRA 2011a).

Some short-term reductions in sales tax revenues are expected because the need to acquire land will necessitate the relocation of businesses along the project alignment. While negligible at the regional level, this interruption in sales would lead to some potential short-term losses for communities adjacent to the project. As discussed previously in the examination of suitable replacement properties for relocated businesses, most businesses would have the opportunity to

relocate within the same tax jurisdiction. As such, the duration of business disruptions would be expected to be minimal.

Although relocations in the same vicinity would limit losses in sales tax revenues for local jurisdictions, the potential for temporary sales tax loss would remain, either because businesses would temporarily close during these relocations or because some might choose to close down rather than relocate. Although other businesses would eventually replace those that close, temporary revenue losses would nevertheless occur. Overall, it is estimated that the long-term gains in revenue would be much larger than the short-term reductions and lead to an overall net gain in sales tax revenues for the counties and cities in the study area.

For the BNSF Alternative, the overall long-term net benefits of the project to sales tax revenues would be positive. Along the BNSF Alternative, the total estimated potential short-term losses of sales tax revenue from business relocations in the region would be around $350,000. This amount represents about 0.1% of the total fiscal year 2009-2010 combined sales tax revenue collected in the affected cities and counties.

Potential effects from a NEPA perspective are examined from the standpoint of both the intensity and context of the effect. As described above, the intensity would be slight given the small percentage of total regional sales tax lost in the short-term. However, given potential fiscal conditions for local county and city jurisdictions in the region, the context would add to budget deficits and could challenge government and public service budgets. As a result, any additional fiscal burden in the short-term, however small, could be of consequence. Therefore, the effect is moderate under NEPA in the short-term and there is no effect under NEPA in the long-term.

And for the alternative alignments, station and HMF locations sites, the overall long-term net benefits of the project would be positive under all alternatives. Therefore as above, the effect is moderate under NEPA in the short term and there is no effect under NEPA in the long term as sales tax revenues are expected to increase as a result of project operation and eventually exceed current levels. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Employment Growth

Project operation would improve state and regional connectivity while creating job opportunities across many sectors of the regional economy (Cambridge Systematics Inc. 2010; Kantor 2008). The employment created has the potential to draw workers to the region. Section 3.18, Regional Growth, discusses the potential impacts of population growth resulting from project operation. Overall, it is expected that employment growth from project operation would be a net benefit for the region as a whole.

For the BNSF Alternative, it is estimated that approximately 47,500 new jobs would be created by 2035 in the region as a result of the operation of the HST System. This total would include the direct jobs to operate and maintain the project in the region (approximately 2,000 jobs); the indirect and induced jobs created to support these new workers; and the additional jobs created as a result of the improved connectivity of the region to the rest of the state leading to increased competitiveness of the region's industries and growth in the overall regional economy. The total number of new jobs created is estimated to be a 3.2% increase in total employment above the 2035 estimate of 1.4 million total jobs in the region under the No Project Alternative (Cambridge Systematics Inc. 2010). Therefore, the region's workforce would be expected to support much of the 3.2% job growth. However, given the unique ability of a high-speed train system to alter mobility patterns, some population influx is expected. Overall, there would be no need to expand

existing or add new community or government facilities to maintain acceptable service ratios, response times, or other performance objectives for any public services, including fire protection, police protection, schools, parks, or other public facilities.

Potential effects from a NEPA perspective are examined from the standpoint of both the intensity and context of the effect. As described above, the intensity would be slight given the size of the region's labor force. Therefore, the effect is moderate under NEPA in the short term and there is no effect under NEPA in the long term. Overall, the number of jobs expected to be created and the likely levels of available workers in the region suggest that the physical impacts from the provision of new or altered worker housing and the provision of government and public services would be less than significant under CEQA.

For the other alternative alignments, station, and HMF location sites, the demand for employment and long-term job creation estimates would be the same. Therefore, similar to the BNSF Alternative, the effect on the provision of new or altered governmental and public facilities resulting from job creation associated with the operation of all alternative alignments, stations, and HMF sites would be moderate under NEPA in the short term and have no impact under NEPA in the long term, and the physical impact would be less than significant under CEQA. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Changes in School District Funding

Another important fiscal issue for local communities is the potential effect on school district funding. High concentrations of residential displacements have the potential to relocate large numbers of school-age residents out of their current school district. California public schools receive funding based on student attendance, so such relocation of substantial numbers of students would lead to an impact on overall school district funding. As discussed in the property section above, there is suitable vacant residential property within the current vicinity of all residential displacements. Therefore, very little effect is expected to occur on school district funding as a result of project operation.

For the BNSF Alternative, a large number of residential displacements would occur in the Northwest, and Northeast districts of Bakersfield along the BNSF Alternative as well as in Corcoran. As described in the Displacement and Relocation of Local Residents and Businesses section, above, a sufficient number of suitable replacement housing units is available in the vicinity of these anticipated displacements. As a result, students would likely have the opportunity to remain in their current school districts. Therefore, the effect on school district funding would be negligible under NEPA.

For the alternative alignments, a large number of residential displacements would occur in the Northwest and Northeast districts of Bakersfield along the Bakersfield South Alternative. Large numbers of residential displacements are not associated with the Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, or Wasco-Shafter Bypass alternatives. Similar to the BNSF Alternative, the effect on school district funding would be negligible under NEPA for any of these alternatives.

For the station alternatives, no large numbers of residential displacements would occur. Therefore, the effect on school district funding would be negligible under NEPA for any of these alternatives.

For the HMF location sites, four alternatives (Hanford, Wasco, Shafter East, and Shafter West) would have very few residential displacements. A larger number of residential displacements

would occur in unincorporated Fresno County in conjunction with the Fresno HMF site; however, given vacancies in the area, few students would be expected to relocate outside of their school district. As such, the effect on school district funding would be negligible under NEPA for any of these alternatives. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Economic Effects on Agriculture

Given that the Central Valley of California is one of the most productive agricultural areas in the world, it is important to understand the potential effects of the project on the region's agricultural production and movement of goods. The project would acquire agricultural land, thus removing it from production (see Section 3.14, Agricultural Lands, for a detailed description of these lands). Although it is likely much of this production would relocate, there would be some production that could not be easily replaced given the limited availability of suitable replacement lands (e.g., limitations on prime farmland and new locations for animal operations). In addition, reduced agricultural production would have an additional multiplier effect on the region's economy and could adversely affect associated businesses involved in agricultural services, food processing, and the transportation of goods. Overall, there is the potential for moderate short-term effects after land acquisition, but in the long term, these effects would be negligible under NEPA.

Agriculture Revenue and Employment Effects. The project would acquire agricultural land and therefore some production would be lost. Compensation for any lost production would be incorporated into property values and compensation paid to owners during the land acquisition process. This includes any value of existing assets (such as orchards) that have a future value for production. However, it is important to note that there is likely to be some production that could not easily be relocated. Moreover, some relocated agricultural production would take time to re-establish full production levels. In addition, there would be effects on dairy and livestock operations as well as on associated waste ponds and other onsite facilities. The relocation of a waste pond or onsite facility could require undergoing a time-consuming process to obtain a new air quality or water quality permit to replace the lost facility. Also, any full acquisition of an operation, where the project is going through the heart of the facilities, would require the entire operation to relocate, a difficult and time-consuming process given current and projected future environmental regulations. Therefore, given the time likely required to relocate affected crop and animal operations, some short-term reduction in agricultural production can be expected.

For the BNSF Alternative, this estimated total short-term reduction in agricultural production along the BNSF Alternative represents 0.5%, or less, of the total value of agricultural production in each of the four counties. Specifically, there is an estimated total reduction of approximately $15 million for the region as a whole, which represents less than 0.1% of the region's estimated $16 billion annual agricultural production. The associated reduction in agricultural employment would be about 160 employees. Impacts would be highest in Kings County ($8.7 million and 53 employees), with $7 million of this loss occurring in the dairy sector (see details below). Estimated reductions for Kern and Fresno counties are $3.6 million and $1.6 million with 68 and 34 employees affected, respectively. Tulare County would have the lowest estimated short-term reduction of $900,000 and 7 employees (Authority and FRA 2011a).

Effects on dairy operations are a special consideration in Kings County. Overall, it is not expected that any dairy operations would need to be relocated. There are two dairy facilities in Kings County where portions of cattle holding areas and retention basins as well as associated structures would be affected, but relocation of these facilities would not preclude continued operation. In those cases, the Authority's right-of-way agents would work with each affected dairy to address issues of concern. Agents would attempt to resolve conflicts, for example by

reconfiguring facilities so that there is no net loss of operational capacity. The agents may not be able to resolve all issues, and may offer compensation to landowners who demonstrate a hardship from loss of facilities.

Additionally, when the HST right-of-way removes a portion of a dairy site or would otherwise be in close proximity to confined animal facilities, the HST operation might cause noise that would disturb livestock. Based on existing research, the FRA has established a threshold for high-speed train noise effects on livestock of 100 dBA SEL (FRA 2005). As discussed in Section 3.4, Noise and Vibration, the term SEL, or the sound exposure level, represents the noise generated during a single event such as the train passing a given point. At a distance of 100 feet, the SEL for project operations at all dairies along the alignment in Kings County would be less than 100 dBA SEL. Given that all facilities on Kings County dairies would be at least 100 feet from the project, there would be no need to relocate structures as a result of noise effects.

The project would also need to acquire 184 acres of cropland in Kings County that is associated with dairy operations or that is part of neighboring parcels and used for nutrient distribution.[15] This land is important because dairy operations face restrictions on the amount of manure that can be spread per acre of farmland. Some dairies have enough of their own land to manage all of their manure on site, while others must sell manure off site to comply with regulations. Therefore, acquiring these acres could force operations to alter current manure management plans and require them to find replacement locations for nutrient distribution. If such replacement lands are not available immediately or if it is not economically feasible for smaller operations to adjust, operations would be required to reduce the number of cows housed at the facility. To be conservative and not underestimate any potential effect resulting from this loss of land, it was assumed that dairy operations would need to reduce their milk production in the short term until they found replacement lands for all of the 184 acres acquired by the project. As a result, this short-term effect on the Kings County dairy sector is estimated at around $7 million, which represents 1% of the total county revenue generated annually in this sector.

Overall, the value of reduced agricultural production for all counties is a very small percentage of total county production. Property owners would be compensated for this lost production through the land valuation and acquisition process. Even so, there would be potential for temporary disruption to agricultural operations as production is reallocated between owners and as facilities are relocated. Related economic sectors, such as processing facilities, could also experience some short-term multiplier effects from reduced production. Therefore, the effect of the BNSF Alternative on agricultural business operations would be moderate in the short term during this adjustment period and negligible in the long term under NEPA.

For the Corcoran Elevated Alternative Alignment, a dollar value for reduced agricultural production was not calculated because this alternative is different from the BNSF Alternative, most notably in the urban area of Corcoran. Therefore, there would be little difference in agricultural revenue lost between the BNSF Alternative and the Corcoran Elevated Alternative Alignment.

For the Corcoran Bypass Alternative Alignment, the estimated short-term reduction in agricultural production value and employment along the Corcoran Bypass Alternative would be $8.3 million and 45 employees for the two counties of Kings and Tulare. These reductions are greater than the $7.65 million associated with the corresponding portion of the BNSF Alternative. Kings County would experience the majority of this impact ($7.98 million and 42 employees), with the remaining in Tulare County ($337,000 in and 2 employees). Again, as with the BNSF Alternative,

[15] Nutrient distribution is the application of manure from animal operations to cropland in order to safely dispose of the waste and also improve soil productivity.

the majority of this short-term effect would occur in Kings County within the dairy sector as a result of acquisition of croplands used for nutrient distribution. Given that no dairy operations are located along the Corcoran Bypass or along the corresponding section of the BNSF Alternative, the effects to dairies from either alternative would be similar. Overall, these estimated short-term dollar value reductions for the Corcoran Bypass Alternative represent around 0.1% of total agricultural production in both counties. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Corcoran Bypass Alternative would be moderate in the short term and negligible in the long term under NEPA.

For the Allensworth Bypass Alternative Alignment, the estimated total reduction in agricultural production would be $1.1 million, or around 0.02% of the total agricultural production of approximately $8.9 billion in the two counties (Kern and Tulare) affected by this bypass. A total of 13 employees would also be displaced. The corresponding portion of the BNSF Alternative would result in similar reductions. These reductions would mostly occur in Kern County ($820,000 and 11 employees), with the rest in Tulare County ($270,000 reduced and 2 employees). These reductions represent less than 0.1% of total agricultural production in the two counties. If the BNSF tracks are relocated to run adjacent to the HST tracks in this area – resulting in an additional 100 feet of project right-of-way – the resulting effects on agricultural revenues and jobs would be expected to be of a magnitude proportional to this increase in project area. Therefore, similar to the BNSF Alternative, the effect on agricultural business operations associated with the Allensworth Bypass Alternative would be moderate in the short term and negligible in the long term under NEPA.

For the Wasco-Shafter Bypass Alternative Alignment, the estimated total reduction in agricultural production along the Wasco-Shafter Bypass would be $4.5 million. This is the equivalent of about 0.1% of Kern County's estimated $4 billion total agricultural production. A short-term reduction of 95 employees would also occur. The corresponding portion of the BNSF Alternative would result in. $1.8 million less in revenue and 38 fewer jobs lost. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Wasco-Shafter Bypass Alternative would be moderate in the short term and negligible in the long term under NEPA.

For the Bakersfield South Alternative Alignment, a dollar value for reduced agricultural production was not calculated because no acres of land along this alternative are involved in intensive agricultural production. There would be no impact for this alternative.

Agricultural Access and Project Road Closures. Agriculture is central to the economy of the region and as a consequence, permanent road closures resulting from the project were examined to identify potential effects on regional access for agricultural operations. These effects from restriction in regional access include increased costs to operations and increased difficulties in moving workers and equipment to cultivate and harvest fields and deliver products to processing facilities and markets.

For the BNSF Alternative, the road closures associated with the project are dispersed and detours to alternative routes are approximately 2 miles or less, so regional access for agricultural operations (e.g., moving workers and equipment to cultivate and harvest fields and deliver products to processing operations and markets) is not expected to be restricted. Therefore, effects would be negligible under NEPA.

For the alternative alignments, the roads closures resulting from the alternative alignments are similar. All are dispersed and detours to alternative routes are approximately 2 miles or less. Therefore, the effect on agricultural access and road closures would be negligible under NEPA.

For the station alternatives, no major road closures are associated with any of the station alternatives. Therefore, the effect on agricultural access and road closures would be negligible under NEPA.

For the HMF alternative locations, no major road closures are associated with any of the alternative HMF sites. Therefore, the effect on agricultural access and road closures would be negligible under NEPA. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Potential for Physical Deterioration

Although the project would cause the displacement of specific homes, businesses, and/or community facilities, no evidence was found that any of these displacements or the resulting social and economic consequences of the project alternatives would result in physical deterioration of communities. Special consideration by the project is required in Corcoran to ensure that affected businesses have the opportunity to relocate locally, and in Northeast Bakersfield to ensure that businesses in the Mercado Latino Tianguis are able to continue to operate without considerable disruption. In the Fresno, Hanford and Bakersfield areas, the new HST stations would improve community connectivity and aesthetics, and stimulate development. The presence of HST operations close to residential neighborhoods could affect community character and perceptions of quality of life in small rural communities along the route. However no economic consequences can be linked to these effects and the resulting potential for physical deterioration. A summary of project socioeconomic consequences in relation to the potential for physical deterioration is provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2011a).

Environmental Justice Effects

This section evaluates potentially significant operational impacts that would be disproportionately high and adverse on minority and low-income populations. This assessment examined all effects to resources along the alternative alignments (BNSF, Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, and Bakersfield South), the five alternative station locations, and the five alternative HMF locations. Resources that were found not to be pertinent to an EJ analysis and therefore are not discussed below included biological resources and wetlands, hydrology and water quality, geology, soils and seismicity, and regional growth. Operational impacts were compared to the locations of communities of concern discussed in the affected environment section.

BNSF Alternative

The findings of the EJ analysis for the BNSF Alternative are provided in Table 3.12-15 below. The alternative alignments (Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, and Bakersfield South), alternative stations (Fresno-Mariposa, Fresno–Kern, Kings/Tulare Regional, Bakersfield–South, and Bakersfield–North) and the alternative HMF locations (Fresno Works, Kings County, Kern Council of Governments-Wasco, and Kern Council of Governments-Shafter-North, Kern Council of Governments-Shafter-South) are presented in text after the table.

Table 3.12-15
Operation-Related Environmental Justice Impacts

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Transportation	Operation of the BNSF Alternative and associated stations would generate additional traffic in the study area predominately near stations; but with mitigation, these impacts would be less than significant.	Impacts would be focused in urban areas that have high concentrations of EJ populations, but with impacts reduced to a less-than-significant level with mitigation, transportation impacts would have disproportionately high and adverse effects on minority and low-income populations
Air Quality and Global Climate Change	There are no significant operational impacts.	Therefore, there are no disproportionately high and adverse effects on minority and low-income populations.
Noise and Vibration	Noise and vibration from the operation of the HST would increase ambient noise levels above noise standards for all jurisdictions, and would affect sensitive receptors. These effects would constitute a significant impact, and would remain significant and unavoidable even with the proposed mitigation.	Isolated rural residences may be purchased to avoid noise and vibration impacts, but this approach is not feasible in the more densely developed urban areas where minority and low-income populations are concentrated. As a result, HST operational noise and vibration impacts along the BNSF Alternative would have a disproportionately high and adverse effect on minority and low-income populations.
EMF/EMI	There are no significant EMF/EMI operation impacts.	Therefore, there are no disproportionately high and adverse effects on minority and low-income populations.
Public Utilities and Energy	The HST System would increase the demand for energy, water, wastewater treatment and solid waste disposal. Impacts would be reduced to a less-than-significant level with mitigation.	Impacts would be distributed along the entire alignment, and with impacts mitigated to a less-than-significant level, there are no disproportionately high and adverse effects on minority and low-income populations.
Hazardous Materials and Wastes	Operation could result in accidental releases of hazardous materials and wastes. With proposed mitigation measures, impacts would be reduced to a less-than-significant level.	Impacts would be distributed along the entire alignment, and with impacts mitigated to a less-than-significant level, there are no disproportionately high and adverse effects on minority and low-income populations.
Safety and Security	The operation of the train would run in proximity of a private airstrip. With proposed mitigation measures, impacts would be reduced to a less-than-significant level.	With impacts reduced to a less-than-significant level with mitigation, there are no disproportionately high and adverse effects on minority and low-income populations.

Table 3.12-15
Operation-Related Environmental Justice Impacts

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Socioeconomics and Communities	The HST would divide some communities, remove numerous homes, businesses, and community services or amenities, and permanently alter the character of existing communities or neighborhoods. The communities that would experience community cohesion impacts are the Northwest and Northeast districts of Bakersfield, as well as a rural residential area east of Hanford. These impacts are significant and unavoidable.	Because the majority of home and business displacements along the project would occur in Northeast Bakersfield, a community with a high concentration of minority and low-income individuals, a disproportionately high and adverse impact falls on minority and low-income populations. In addition, the community facilities displaced along the alignment all serve EJ populations; therefore, this disruption represents a disproportionately high and adverse effect on minority and low-income populations.
Land Use	There are no significant operation impacts on land use.	No disproportionately high and adverse effects will accrue to minority and low-income populations.
Agricultural Lands	The HST project would result in the loss of agricultural land, and thus a permanent reduction in agricultural resources. This impact is considered a substantial impact and cannot be reduced to a less-than-significant level.	Impacts would be evenly distributed across rural areas with few EJ populations. Thus, agricultural impacts would not have disproportionately high and adverse effects on minority and low-income populations.
Parks, Recreation, and Open Space	Five parks would be affected by the BNSF Alternative. Impacts on the parks would be from acquisition of some park land, changes in character due to the operation of the HST, and increased usage. Impacts from acquisition and increased usage could be mitigated to a less-than-significant level, while impacts on character would remain significant with mitigation.	The Allensworth State Historic Park, Kern River Parkway, Father Wyatt Park, and Orchard Park would all experience significant and unavoidable impacts. The Kern River Parkway and Orchard Park are not located in an EJ neighborhood, and do not cater exclusively to EJ populations. Father Wyatt Park is located in downtown Corcoran and is surrounded by an EJ population. The Allensworth State Historic Park also caters to a minority population and is intended to give the visitor the feeling of a certain time period that operation of the HST would interrupt. Because of the impacts on Father Wyatt Park and Allensworth State Historic Park, there are disproportionately high and adverse effects on minority and low-income populations.

Table 3.12-15
Operation-Related Environmental Justice Impacts

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Aesthetics and Visual Resources	The HST project would have aesthetics and visual resources impacts. The visual quality would change due to a new source of light and glare and new noise walls blocking views. Impacts by the addition of a new source of light and glare can be mitigated to a less-than-significant level. Visual quality impacts can be reduced in Fresno and rural areas, but not in the remaining urban areas.	Impacts on aesthetics and visual resources are concentrated in urban areas where there are many minority and low-income populations. Because impacts on visual quality cannot be mitigated, there are disproportionately high and adverse effects on minority and low-income populations.
Cultural and Paleontological Resources	The BNSF Alternative would not cause significant impacts on historic buildings.	Therefore, there are no disproportionately high and adverse effects on minority and low-income populations.
Cumulative Impacts	There are significant and unavoidable impacts on air quality and global climate change, noise and vibration, agricultural lands, aesthetics and visual resources, and cultural and paleontological resources.	Impacts on air quality and global climate changes—as well as on agricultural land impacts—are spread throughout the alignment and are not focused in communities of concern. Impacts on noise and vibration, aesthetics and visual resources, and cultural and paleontological resources are focused in the urban areas where there are high concentrations of minority and low-income populations. Therefore, there are disproportionately high and adverse effects on minority and low-income populations.

Corcoran Elevated Alternative Alignment

The EJ findings for the Corcoran Elevated Alternative would be similar to those of the corresponding portion of the BNSF Alternative, as shown in Table 3.12-16, because this alternative would affect an area directly adjacent to the BNSF alternative. Noise and vibration and visual impacts would remain significant and unavoidable along much of the alternative, and therefore would result in disproportionately high and adverse effects on minority and low-income populations.

Corcoran Bypass Alternative Alignment

The EJ findings associated with the Corcoran Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative. Noise and vibration and visual impacts, which would remain significant and unavoidable along much of the alignment, would be reduced because the bypass alternative traverses an area that has fewer sensitive receptors. The area outside Corcoran has a lower-density population and fewer identified minority and low-income populations. Therefore, impacts from the HST System on these populations would be slightly reduced if the Corcoran Bypass Alternative were incorporated into the project. As discussed in the Disruption or Division of Existing Communities section above, the Corcoran Bypass would

divide the small, unincorporated rural residential EJ community that lies in the vicinity of Newark Avenue (approximately 83% Hispanic), and would displace about 40% of the homes and leave some of the remaining homes very close (within 50 to 150 feet) to the HST train tracks. Because there are similar impacts resulting from the BNSF Alternative to the non-EJ Ponderosa Community (also discussed in Disruption or Division of Existing Communities above), such an impact would not be disproportional along the project. Therefore, the Corcoran Bypass Alternative would not result in disproportionately high and adverse effects on minority and low-income populations.

Allensworth Bypass Alternative Alignment

The EJ findings associated with the Allensworth Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative, except that the significant park and recreation impacts associated with Allensworth State Park would be avoided under this alternative. Noise and vibration and visual impacts, which would remain significant and unavoidable along much of the alignment, would be somewhat reduced because the bypass alternative traverses an area that has fewer sensitive receptors. The area outside of Allensworth has a lower-density population overall, and fewer minority and low-income populations. Therefore, the Allensworth Bypass Alternative would not result in disproportionately high and adverse effects on minority and low-income populations.

Wasco-Shafter Bypass Alternative Alignment

The EJ findings associated with the Wasco-Shafter Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative. Noise and vibration and visual impacts, which would remain significant and unavoidable along much of the alignment, would be somewhat reduced because the bypass alternative traverses an area that has fewer sensitive receptors. The areas outside of Wasco and Shafter have lower-density populations and fewer minority and low-income populations.

The bypass would affect a proposed future park that the BNSF Alternative would not, and impacts on the park would be significant and unavoidable. However, the park is in an area that does not have nearby EJ populations. The impacts from the HST System on these populations would be slightly less when compared to the BNSF Alternative. The Wasco-Shafter Bypass Alternative would not result in disproportionately high and adverse effects on minority and low-income populations.

Bakersfield South Alternative Alignment

The EJ findings associated with the Bakersfield South Alternative would be similar to those of the corresponding portion of the BNSF Alternative. The same communities would be divided; however, different homes, businesses, and community facilities, such as churches, would be displaced. The Bakersfield South Alternative would affect fewer residences and businesses, but more churches than the equivalent segment of the BNSF Alternative. In addition, the Bakersfield South Alternative would have EMF/EMI impacts on Mercy Hospital; however, these impacts could be reduced to a less-than-significant level with mitigation. The Bakersfield South Alternative would have disproportionately high and adverse effects on minority and low-income populations.

Station Alternatives

The impacts associated with the operation of the station alternatives were analyzed as a part of the alternative alignments presented above. Although the EIR/EIS considers alternative designs (e.g., the Fresno Mariposa and Fresno Kern alternatives and the Bakersfield–South and Bakersfield–North alternatives), these alternatives represent reconfigurations of station facilities in the same general locations with similar footprints. For this reason, the EJ findings would not

vary from one station design alternative to another. Three of the stations (Fresno Mariposa, Fresno Kern, and Kings/Tulare Regional) would not result in disproportionately high and adverse effects on minority and low-income populations. The alternative station locations in Bakersfield (Bakersfield–South and Bakersfield–North) would have disproportionately high and adverse effects on minority and low-income populations as a result of property displacements in these areas.

Heavy Maintenance Facility Alternatives

Two of the alternative HMF sites (the Fresno Works and the Kern Council of Governments-Wasco) are in areas near minority and low-income populations, and the operation of the facility would result in noise and aesthetic and visual impacts that would be significant and unavoidable. For this reason, only the Fresno Works HMF site and the Kern Council of Governments–Wasco HMF site would result in disproportionately high and adverse effects on minority and low-income populations. If the HMF is not located in the Fresno to Bakersfield Section of the HST system, then the co-located maintenance-of-way facility would be located in either the Shafter East or Shafter West alternative locations. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

3.12.6 Mitigation Measures

The project has considered avoidance and minimization measures consistent with the Statewide and Bay Area to Central Valley Program EIR/EIS commitments. The project incorporates the application of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the Uniform Act).

The provisions of the Uniform Act, a federally mandated program, would apply to all acquisitions of real property or displacements of persons resulting from this federally assisted project. It was created to provide for and ensure fair and equitable treatment of all affected persons. Additionally, the Fifth Amendment of the United States Constitution provides that private property may not be taken for a public use without payment of “just compensation.”

The Uniform Act requires that the owning agency provide notification to all affected property owners of the agency’s intent to acquire an interest in their property. This notification includes a written offer letter of just compensation. A right-of-way specialist is assigned to each property owner to assist them through the acquisition process. The Uniform Act also provides benefits to displaced individuals to assist them financially and with advisory services related to relocating their residence or business operation. Benefits are available to both owner occupants and tenants of either residential or business properties.

The Act requires provision of relocation benefits to all eligible persons regardless of race, color, religion, sex, or national origin. Benefits to which eligible owners or tenants may be entitled are determined on an individual basis and explained in detail by an assigned right-of-way specialist.

Similarly, the project must adhere to California Relocation Assistance Act Requirements. Owners of private property have federal and state constitutional guarantees that their property will not be acquired or damaged for public use unless owners first receive just compensation. Just compensation is measured by the “fair market value,” where the property value is considered to be the highest price on the date of valuation that would be negotiated. The value must be agreed upon by a seller who is willing, not obliged to sell, but under no particular or urgent necessity and a buyer who is ready, willing, and able to buy but under no particular necessity. Both the owner and the buyer must deal with the other with the full knowledge of all the uses and purposes for which the property is reasonably adaptable and available (Code of Civil Procedure Section 1263.320a).

Additionally, the Statewide Program EIR/EIS mitigation strategies have been refined and adapted for this project-level EIR/EIS. The evaluation of impacts in this section is based largely on impacts identified in other sections of this Draft EIR/EIS, including Section 3.2, Transportation; Section 3.3, Air Quality and Global Climate Change; Section 3.4, Noise and Vibration; Section 3.13, Station Planning, Land Use, and Development; Section 3.15, Parks, Recreation, and Open Space; Section 3.16, Aesthetic and Visual Resources; and Section 3.18, Regional Growth. These sections include mitigation measures that will minimize or avoid some of the social, economic, and environmental justice impacts identified. In addition, the Authority will apply the following mitigation measures to reduce substantial adverse environmental impacts resulting from implementation of the Fresno to Bakersfield Section of the HST project.

A. CONSTRUCTION PERIOD

Mitigation Measure SO-1: Develop and implement a construction management plan. The Authority will develop and implement a construction management plan to address communications, community impacts, visual protection, air quality, safety controls, noise controls, and traffic controls to minimize impacts on low-income households and minority populations. The plan will assure property access is maintained for local businesses, residences, and emergency services. This plan will include maintaining customer and vendor access to local businesses throughout construction by using signs to instruct customers about access to businesses during construction. In addition, the plan will include efforts to consult with local transit providers to minimize impacts on local and regional bus routes in affected communities.

Mitigation Measure SO-2: Develop a relocation mitigation plan. Before any acquisitions occur, the Authority will consult with affected communities and counties to develop a relocation mitigation and enhancement plan that will (1) arrange for meetings with affected property and business owners and tenants to provide counseling and assistance in applying for relocation funding, including research to summarize loans, grants, and federal aid available and the location of demographically similar areas; (2) consult with affected communities to develop enhancements and address indirect social and psychological impacts on communities; and (3) provide housing of last resort, if required.

B. PROJECT OPERATION

Mitigation Measure SO-3: Implement measures to reduce impacts associated with the division of existing communities in the unincorporated areas northeast of Hanford and Corcoran. The Authority will minimize impacts associated with the BNSF Alternative in the rural residential areas around Ponderosa Road/Edna Way northeast of Hanford and the Newark Avenue vicinity northeast of Corcoran by conducting special outreach to affected homeowners to fully understand their special relocation needs. The Authority will make every effort to locate suitable replacement properties that are comparable to those currently enjoyed by these residents, including constructing suitable facilities if necessary. In cases where residents wish to remain in the immediate vicinity, the Authority will take measures to purchase vacant land or buildings in the area, and consult with local authorities over matters such as zoning, permits, and moving of homes, as appropriate. The Authority will conduct community workshops to obtain input from those homeowners whose property would not be taken, but whose community would be substantially altered by construction of HST facilities, including the loss of many neighbors, to identify measures that could be taken to mitigate impacts on those who remain (including placement of sound walls and landscaping, and potential uses for remnant parcels that could benefit the community in the long term).

Mitigation Measure SO-4: Implement measures to reduce impacts associated with the division of existing communities in the Northeast District of Bakersfield. The Authority will minimize impacts associated with the BNSF Alternative and the Bakersfield South Alternative in the existing mixed-

use community of Bakersfield's Northeast District through initiation of additional outreach to homeowners, business owners, and community organizations in affected neighborhood. The Authority will make every effort to locate suitable replacement housing for displaced residents. In cases where residents wish to remain in their neighborhoods, the purchase and development of infill lots or other real estate, relocation of existing buildings to vacant lots, and consultation with city staff regarding zoning and permit issues may be required.

Before land acquisition, the Authority will consult with officials and representatives of community facilities affected by significant noise impacts (e.g., churches, schools, and the veterinary hospital if the southern alignment is selected) to identify suitable noise abatement measures or to help affected businesses and organizations find more-suitable locations in the community. Once a preferred alignment has been selected, the Authority will also initiate community workshops and conduct other types of community outreach to obtain input from neighborhood residents about the future use of the area beneath the rail guideway and identify design and use options that could strengthen community cohesion and be compatible with the character of the adjacent community. If safety considerations prohibit such uses as bike paths or community gardens, then alternatives such as sculpture gardens or managed landscaping would be considered.

The Authority will be responsible for the long-term management of the area beneath the elevated rail guideway. This will involve documenting the desired design concepts and facilitating implementation and ongoing maintenance. The Authority will identify potential uses that may be developed in the project right-of-way. These uses should be compatible with the character of the adjacent community and sensitive to project needs, as outlined in Section 3.11, Safety and Security). The costs associated with the development of these associated uses and how costs will be paid will be identified. Furthermore, additional parties or entities (i.e., HSRA, local government, park or recreation district, or nonprofit organization) responsible for some ongoing maintenance of these community areas will be determined.

Mitigation Measure SO-5: Implement measures to reduce impacts associated with the division of existing communities in the Northwest District of Bakersfield. The Authority will minimize impacts associated with the BNSF Alternative and the Bakersfield South Alternative on the existing community in Bakersfield's Northwest District by maintaining key local pedestrian, bicycle, and vehicle linkages across the rail corridor and by incorporating future planned uses within the rail corridor that are compatible with the character of the adjacent neighborhood.

The Authority will initiate community workshops in the district to begin the process of determining potential use of the area adjacent to the HST tracks. These meetings will provide neighborhood residents the opportunity to contribute to the process, and will help to identify community preferences for private-property uses (e.g., parking, equipment storage, new businesses, or residential properties) or alternative public uses that could strengthen community cohesion (e.g., community gardens, a linear park, or bike paths).

Mitigation Measure SO-6: Implement measures to reduce impacts associated with the relocation of important facilities. Depending on the alternative selected, the Authority will minimize impacts resulting from the disruption to community facilities: Bakersfield High School, Mercado Latino Tianguis, Fresno Rescue Mission, the Corcoran Amtrak station, Mercy Hospital medical complex facilities, religious facilities, as well as an important livestock rendering facility (Baker Commodities) in the Hanford area.

The Authority will consult with the respective parties before land acquisition to assess potential opportunities to reconfigure land use and buildings and/or relocate affected facilities, as necessary, to minimize disruption of facility activities.

Because many of these community facilities are located in Hispanic communities, the Authority will develop and implement a comprehensive Spanish-language outreach program for these communities before land acquisition begins. This program will facilitate the identification of alternatives that would maintain continuity of operation and allow space and access for the types of services currently provided and planned for these facilities. Also, to avoid disruption to these community amenities, the Authority will ensure all reconfiguring of land uses or buildings, or relocating community facilities is completed before the demolition of any existing structures.

In regards to Bakersfield High School, if the BNSF Alternative is selected through Bakersfield, the Authority will work with the school district on a replacement for the Industrial Arts building in accordance with California Department of Education policies.

In addition, the unique services provided by the rendering facility in Kings County are critical to dairy and livestock operations in the region. Therefore, relocation of this facility will occur before the existing facility is closed or steps will be taken to ensure that sufficient capacity is available at other facilities so there is no interruption to the services provided.

Mitigation Measure SO-7: Provide access modifications to affected farmlands. In cases where partial property acquisitions result in division of agricultural parcels, the Authority will evaluate with property owner input the effectiveness of providing overcrossings or undercrossings of the HST track to allow continued use of agricultural lands and facilities. This would include the design of overcrossings or undercrossings to allow farm equipment passage. (Refer to Section 3.14, Agricultural Lands, for additional information.)

Mitigation Measure SO-8: Continue outreach to disproportionately and negatively impacted environmental justice communities of concern. The Authority will undertake substantial additional EJ outreach in adversely affected minority and low-income neighborhoods to obtain resident feedback on potential impacts and to elicit suggestions for mitigation measures. This input from the communities will be used to fine-tune the alternatives during ongoing design efforts. In addition, to offset any disproportionate effects, the project will consider developing special recruitment, training, and job set-aside programs to ensure study area minority and low-income populations are able to benefit from the project's job creation.

3.12.7 NEPA Impacts Summary

Direct and indirect effects have been identified under NEPA for the construction and operation periods of the project. The sections below discuss impacts related to the following topics: communities in general, displacement of residences and businesses, economic impacts, and impacts on communities of concern.

A. CONSTRUCTION PERIOD IMPACTS

Disruption or Division of Existing Communities

The impacts of noise, dust, visual changes, and changes in traffic patterns would not affect overall community integrity, but would affect quality of life in the communities surrounding project construction zones. (Note: permanent displacement impacts are discussed under Project Operation, above). All of the alternatives would result in moderate impacts on community interactions during construction.

Economic Effects

HST System construction spending for the BNSF Alternative and all alternative alignments would result in long-term beneficial impacts on sales tax revenues and employment in the region. There may be a moderate short-term adverse effect on property and sales tax revenue and the

provision of government and community services to accommodate the potential influx of construction workers given the current context of challenging county and city budget deficits in the region.

Environmental Justice Effects

Construction effects occurring disproportionately to minority and low-income population would result from the BNSF Alternative and proposed station locations and be concentrated in the Fresno and Bakersfield areas. These include impacts to cultural and paleontological resources that would occur as a result of historic architectural impacts to buildings in these areas, where the residents are predominately minority.

B. PROJECT IMPACTS

Disruption or Division of Existing Communities

The HST project has the potential to cause both beneficial and adverse impacts on social conditions and the quality of life experienced by residents of study area communities and neighborhoods. Short-term impacts associated with the displacement and relocation of homes and businesses would be substantial in some areas. Although mitigation measures can reduce the impact of the BNSF Alternative, Bakersfield South Alternative and Corcoran Bypass Alternative, specific community facilities, in areas where the project would divide communities, impacts would remain substantial and significant, even with measures to address noise and visual impacts. In the long term, the project would improve regional access, reduce travel times, and reduce traffic congestion on many local roadways. People who live and/or work in the general vicinity of proposed stations would likely benefit the most from the proposed new rail facilities.

Those who live along the portions of the alignment without station access would not enjoy the same level of mobility and access benefits and would potentially be exposed to adverse project-related effects. These effects include the potential to divide adjacent communities by physically removing homes, businesses, and community facilities. This effect would be substantial for several small, unincorporated communities along alternative alignments (Newark Avenue northeast of Corcoran and Ponderosa Road northeast of Hanford), as well as in the affected neighborhoods of Bakersfield, where right-of-way acquisition would divide communities and disrupt community facilities such as the Mercado Latino Tianguis, Bakersfield High School, the Mercy Hospital Medical Complex, and several religious facilities.

Displacement and Relocation of Local Residents and Businesses

Substantial effects associated with the BNSF Alternative and Bakersfield South alternative alignments would result from residential displacements in the Northwest and Northeast districts of Bakersfield. Substantial effects would also occur from residential displacements in Corcoran as a result of the BNSF Alternative. Commercial and industrial business displacements and required relocations associated with the BNSF and Bakersfield South alternatives would result in substantial impacts in Bakersfield's Central and Northeast districts. Substantial effects would also occur from commercial and industrial business displacements in Corcoran as a result of the BNSF Alternative. Moderate effects from residential displacements would result in unincorporated Fresno and Kings counties from the BNSF Alternative. Commercial and industrial business relocations required under the BNSF Alternative and the Fresno HMF site would result in moderate impacts in Fresno's Edison District and unincorporated Fresno County. Moderate short-term impacts from fiscal changes and agricultural production displacement would result from the BNSF and the other alternative alignments.

Economic Effects

Operation of the HST System for the BNSF Alternative and all alternatives would result in benefits to the region, including long-term increases in property and sales tax revenues to the region's local governments. Some short-term reductions may occur in these revenues as a result of land acquisition, but in the long term, expected gains would outweigh these short-term losses. As a result, there would be a moderate short-term effect from property and sales tax revenue reductions given the context of likely county and city budget deficits at the start of project construction. Employment in the region would increase as a result of new jobs created by the project. Again, as a result of likely local budget challenges, there is the possibility of a short-term moderate effect on the provision of government and community services from related population growth from an influx in construction workers. Impacts on agricultural production would be moderate in the short term and negligible in the long term as farm operations logically reallocate land resources and relocate agricultural facilities.

Environmental Justice Effects

Project impacts occurring disproportionately on minority and low-income populations would be concentrated in urban areas along the BNSF Alternative. These impacts would include an increase in both ambient noise levels and vibratory impacts above standards; disruption to the cohesion of communities of concern divided by proposed rail facilities and affected by the displacement of community facilities; a loss of some park, recreation, and open-space lands due to acquisition; changes in community character from the operation of the HST System; changes to aesthetics and visual resources as a result of impacts on visual quality, decreases in visual quality, and noise walls blocking views; and cumulative impacts for noise and vibration, aesthetics and visual resources, and cultural and paleontological resources.

In accordance with Executive Order 12898, offsetting benefits should be considered when evaluating potential disproportionately high and adverse effects on minority or low-income populations. The proposed HST project overall would result in long-term economic benefits to the region, including employment growth and related increased revenues to local governments. A majority of the construction and operation jobs would be filled by the regional labor force and thus would benefit regional employment broadly due to multiplier effects. The jobs would not disproportionately benefit minority and low-income populations in the absence of special recruitment, training, or job set-aside programs.

Although elevated guideways would introduce significant adverse aesthetic and visual impacts through Bakersfield, station construction and planned station area improvements in downtown Fresno and Bakersfield would improve the aesthetics and visual environment in both of these locations, benefiting the nearby minority and low-income communities. Other station-related benefits, including improved accessibility and property value increases, would benefit those who live and work closest to the new stations. In Fresno and Bakersfield, these benefits would be disproportionately incurred in minority and low-income communities.

3.12.8 CEQA Significance Conclusions

Table 3.12-16 provides a summary of significant impacts limited to CEQA thresholds only, associated mitigation measures, and level of significance after mitigation.

Table 3.12-16
Summary of Significant Social Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
Operations			
SO-1: Division of existing community Ponderosa Road/Edna Way northeast of Hanford and the Newark Avenue vicinity northeast of Corcoran. Impacts associated with the BNSF Alternative and the Corcoran Bypass Alternative would relocate and displace residents of small tightly knit communities.	Significant	**SO-MM#3: Implement measures to reduce impacts associated with the division of existing communities in the unincorporated areas northeast of Hanford and Corcoran.**	Significant
SO-2: Division of existing community in Bakersfield's Northeast District. Impacts associated with the BNSF Alternative and the Bakersfield South Alternative would relocate and displace residents, businesses, and community facilities.	Significant	**SO-MM#4: Implement measures to reduce impacts associated with the division of existing communities in the Northeast District of Bakersfield.**	Significant
SO-3: Division of existing community in Bakersfield's Northwest District. The BNSF Alternative and the Bakersfield South Alternative would create a new physical barrier, isolating one part of an established community from another and potentially resulting in a physical disruption to community cohesion.	Significant	**SO-MM#5: Implement measures to reduce impacts associated with the division of existing communities in the Northwest District of Bakersfield.**	Significant
SO-4: Displacement of Bakersfield High School's Industrial Arts building.	Significant	**SO-MM#6: Implement measures to reduce impacts associated with the displacement of Bakersfield High School facilities.**	Less than significant
SO-5: Displacement of the Mercado Latino Tianguis.	Significant	**SO-MM#6: Implement measures to reduce impacts associated with the displacement of the Mercado Latino Tianguis.**	Less than significant

Table 3.12-16
Summary of Significant Social Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
SO-6: Displacement of the Fresno Rescue Mission and associated facilities.	Significant	**SO-MM#6: Implement measures to reduce impacts associated with the displacement of the Fresno Rescue Mission and associated facilities.**	Less than significant
SO-7: Displacement of Mercy Hospital medical complex facilities.	Significant	**SO-MM#6: Implement measures to reduce impacts associated with the displacement of Mercy Hospital medical complex facilities.**	Less than significant
SO-8: Displacement of religious facilities.	Significant	**SO-MM#6: Implement measures to reduce impacts associated with the displacement of religious facilities.**	Less than significant

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