

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 2012a). Additional information on property displacements and relocation impacts is provided in the Fresno to Bakersfield Section: Draft Relocation Impacts Report (Authority and FRA 2012b).

Federal agencies are required to address environmental justice, 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 that affect communities are also discussed in the various resource areas in Chapter 3 of this document.

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; Authority 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.

3.12.2.1 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.

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.

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 its programs and activities, including applicants and beneficiaries with limited English proficiency.

Executive Order 13045

EO 13045 (EO 13045) requires federal agencies to minimize environmental health and safety risks to children, and to prioritize the identification and assessment of environmental health and safety risks that may have a disproportionate impact on children.

3.12.2.2 State

CEQA [California Public Resources Code Section 21000 et seq.] and CEQA Guidelines [California Code of Regulations, Title 14, Section 15000 et seq.]

California Environmental Quality Act (CEQA) requires state and local agencies to identify the significant environmental impacts of their actions, including potential significant impacts on established communities, and to avoid or mitigate those impacts when feasible. Pursuant to CEQA Guidelines Section 15131(b), economic and social impacts of a project that are not related to physical changes in the environment are not treated as significant impacts on the environment, but may be used to evaluate the significance of physical changes that would be caused by the project.

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.

California High-Speed Rail Authority Title VI Plan

In March 2012, the Authority adopted a Title VI policy and plan. The policy states:

- The California High Speed-Rail Authority (Authority) is committed to ensuring that no person in the state of California is excluded from participation in, nor denied the benefits of, its programs, activities, and services on the basis of race, color, national origin, age, sex, or disability as afforded by Title VI of the Civil Rights Act of 1964 and Related Statutes.
- The Authority, as a federal grant recipient, is required by the Federal Railroad Administration to conform to Title VI of the Civil Rights Act of 1964 and related statutes. The Authority's sub-recipients and contractors are required to prevent discrimination and ensure non-discrimination in all of their programs, activities, and services.
- As permitted and authorized by Title VI, the Authority will administer a Title VI Program in accordance with the spirit and intent of the non-discrimination laws and regulations.

The Title VI Plan includes a commitment to inclusive public involvement of all persons affected by the high-speed train project (Authority 2012).

California High-Speed Rail Authority Limited English Proficiency Policy and Plan

In May 2012, the Authority adopted a Limited English Proficiency policy and plan. The policy states:

- It is the policy of the California High-Speed Rail Authority (Authority) to communicate effectively and provide meaningful access to limited English proficient (LEP) individuals to all the Authority's programs, services, and activities. The Authority will provide free language assistance services to LEP individuals encountered or whenever an LEP individual requests language assistance services.
- The Authority will treat LEP individuals with dignity and respect. Language assistance will be provided through a variety of methods, including staff interpreters, translation and interpreter service contracts, and formal arrangements with local organizations providing interpretation or translation services or telephonic interpreter services.

The LEP Policy and Plan supplements the Title VI Plan. (Limited English Proficiency Plan (Authority 2012b); Resolution 12-15 (Authority 2012b).)

3.12.2.3 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 2012a). In general, these 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 envision 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. Secondly, 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, the City of Corcoran, and the communities of Laton, Armona, and Grangeville. 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 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

3.12.3.1 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 2012a) and the *Fresno to Bakersfield Section: Draft Relocation Impacts Report* (Authority and FRA 2012b).

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. (For a description of the number and type of facilities that would be affected by each project alternative, refer to the Relocation of Local Residents or Businesses subsection of the Environmental Consequences section.) 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. (Refer to Section 3.2, Transportation; Section 3.4, Noise and Vibration; and Section 3.16, Aesthetics and Visual Resources for a full discussion of such impacts in the urban and rural communities located along the alternative alignments.)

Community baseline information is presented in the Affected Environment section, below, from north to south along the project corridor. Information pertaining to the study area's urban cities is presented below. Available information for each of the urban cities may vary as a result of the relative size of the city, which influences the amount of data collected. For example, 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 only the 2006–2008 average estimates are available. The American Community Survey currently has no recent estimates available for the city of Shafter, which has a population of less than 20,000. Despite these differing data sources, the data collected allow for an accurate examination of community factors and comparison and contrast of communities within the study area.

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 web sites, 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).

Because “community” implies a certain concentration of homes, often with associated businesses and services, the focus of the community impact analysis is urban neighborhoods and rural residential developments. As the proposed project is in the San Joaquin Valley, one of the wealthiest agricultural areas in the nation, an attempt has been made to also consider project impacts on the broader “agricultural community” that exists throughout much of the region. This consideration seems appropriate given NEPA’s directive to examine potential effects with sensitivity to local context.

Relocation of Local Residents and Businesses

Full and partial acquisitions 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 was also examined. The analysis was conducted in July 2010. Therefore, the real estate numbers represent the vacancies at that time. However, the recovery from the recession of 2008–2009 has been very slow in the region, and the economic conditions have remained essentially constant (Central Valley Business Times 2011; University of the Pacific 2012). Therefore, market conditions in 2012 are considered generally comparable to those evaluated in 2010. A potential full parcel acquisition was identified if the project would displace existing structures or acquire enough of a property to affect the property’s intended 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 finding 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 continued 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 temporarily affected—for example, 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. See Appendix 3.12-A, which provides a summary of the rights and benefits of displacees under the Uniform Relocation Assistance program.

Economic Effects

Overall, the proposed project would provide economic benefits and facilitate broader economic expansion for the entire four-county region, which serves as the study area for assessment of economic effects. 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, the potential for some short-term negative effects is present. The methodologies for examining these effects are provided below.

Property and Sales Tax Revenue Changes

Overall, property and sales tax revenues are expected to increase as a result of the project. Short-term reductions in property tax revenues caused by private property being acquired for a public transportation purpose, and related sales tax revenue reductions associated with relocating businesses will cause a tax revenue reduction. These revenue losses, however, are expected to be more than offset by both short-term increases in sales tax revenues from construction spending and long-term increases in the regional property and sales tax bases resulting from increased property values and new economic development through 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 assessed values of agricultural lands took into consideration the taxed values as set under Williamson Act contract. The resulting estimated tax-revenue reductions were then compared with the entire county tax base to assess the intensity and context of this change.

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

The project is anticipated to 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 whether project-related job creation could be expected to be filled by the region's existing labor force or whether the new jobs 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 2010). The long-term increase in employment would occur as new businesses are attracted to California and businesses already in the state expand. Regionally, the spatial reallocation of

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.

employment would be based on changes in business location by firms benefiting from the increased statewide mobility that the HST project provides.

Changes in School District Funding

The assessment of the potential financial impacts on school districts was based on possible changes in school district funding due to shifts in student populations in communities with substantial numbers of residential displacements. The examination of property tax revenue changes, as described above, provides an understanding of the potential effects to school district funding resulting from property acquisition. In addition, 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. The total number of housing units that may be displaced in a school district was compared with the number of vacant housing units in the nearby vicinity to determine if a substantial number of families with enrolled students may be forced to relocate outside of their current school district. School funding impacts may occur in an area where a large number of displaced residents would need to relocate to homes in a new school district.

Economic Effects on Agriculture

The project would acquire agricultural land and convert it to HST use; therefore, some agricultural production would be lost. Compensation for any lost production would be incorporated into the property acquisition compensation paid to owners. However, some production would probably not be easily relocated, and the production that is relocated would take time to become re-established. Therefore, some short-term reduction in agricultural production could occur.

A dollar-value estimate of reduced agricultural production was calculated and state and county data on jobs generated per dollar of revenue were used to estimate the corresponding potential direct agricultural job loss for these revenue reductions. These losses would be a result of both direct land acquisition for project right-of-way and indirect land acquisition near the project to provide new access roads along the edge of fields. 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 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 four-county region (Fresno, Kings, Tulare, and Kern) is the reference community for the EJ analysis, and information will be used to compare impacts and effects occurring within the study area with conditions in this reference community as a whole.

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 all proposed alternative alignments as well as all proposed station and heavy maintenance facility (HMF) 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 2012a, 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, demographics may have changed within the study area over the decade since the 2000 census data were obtained. Therefore, to confirm the findings in the analysis and ensure that these data are accurate for use in this EJ analysis, additional intensive quantitative and qualitative methods were undertaken. Quantitative analysis included examining newer data sources that would indicate the current 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. See the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a) for these maps of identified communities of concern.

To determine whether impacts would be disproportionately high and adverse on the identified communities of concern, the analysis included a review of significant impacts determined 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 significant impact.
2. Communities of concern would suffer the significant impact, and this impact would be considerably more severe or greater in magnitude than the impact suffered by the general population.

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

3.12.3.2 Methods for Evaluating Effects under NEPA

Under 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; and other considerations. An important factor in identifying an effect is its duration. While duration alone does not determine the intensity of an effect, duration is presented, where applicable, to provide a context as to the expected length of time the identified effect will occur. Beneficial effects (e.g., improved connectivity from the project and opportunities for development around station locations), are identified and described. When there is no measurable effect, the effect is found not to occur. Intensity of adverse effects is the degree or magnitude of a potential adverse effect, described as negligible, moderate, or substantial. Context and intensity are considered together when determining whether an adverse effect is significant. Therefore when considering the context, it is possible that a significant adverse effect may still exist when the intensity of the effect is negligible or an effect may not be significant despite substantial intensity.

For socioeconomics, communities, and environmental justice, the terms are defined as follows:

- Effects with *negligible* intensity are defined as social or economic impacts, including those related to the other environmental elements (i.e., air quality, noise, and transportation), which would be measurable but not perceptible to residents in the community.
- Effects with *moderate* intensity are defined as those effects, for example, that would not divide neighborhoods, result in physical deterioration, or negatively affect the overall quality of life in a community. However, effects with moderate intensity would result in some noticeable localized and/or short-term social or economic disruption within a community.
- Effects with *substantial* intensity result in potential large-scale and/or long-term effects, for example, when there is a physical division of an established neighborhood; physical deterioration; relocation of key community businesses and industries; relocation of a large number of residences; or where the project would negatively affect the overall quality of life in a community, thus changing community character.

3.12.3.3 CEQA Significance Criteria

Under 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).

3.12.3.4 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 all proposed alignment alternatives, as well as the 0.5-mile radius around all proposed station locations or access points, around the HMF sites, and around other support facilities. Impacts and effects on communities are expected to occur within this 0.5-mile radius study area, inasmuch as this area represents where key resource effects on property relocation; transportation; noise and vibration; safety and security; aesthetics; parks, recreation, and open space; and cultural resources would occur. The study area for economic effects is the four-county region. This study area was chosen because the economic effects to fiscal revenues, job creation, and business disruption would have economic implications for this whole region, not only the area located within the 0.5-mile radius.

The region examined for the affected environment consists of the four counties of Fresno, Kings, Tulare, and Kern. This region is presented to provide context and allow for comparison and contrast between communities within the study area and the surrounding communities. The 0.5-mile-radius study area includes portions of six cities (Fresno, Hanford, Corcoran, Wasco, Shafter, and Bakersfield), three communities (Laton, Grangeville, and Armona), and several smaller communities. These smaller 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 in site visits to identify existing conditions. Site visits to all communities were conducted in March and May of 2010 and November 2011.

The cities and communities of Hanford, Corcoran, Wasco, Shafter, Laton, Grangeville, and Armona were each examined as a whole, given their limited geographic area and somewhat more homogeneous populations than the larger cities of Fresno and Bakersfield. The cities of Fresno and Bakersfield were determined to be 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.² 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 Northeast Bakersfield District 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 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.

² Note that the following district names are used for the purposes of this document only. They do not necessarily reflect the popular names for portions of these cities.

3.12.3.5 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, and so the analyses and conclusions in this EIR/EIS accurately reflect the setting and potential impacts of the project in those communities. 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 all public outreach meetings are provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a). The process is summarized as follows:

- Identify and engage 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, west Hanford, 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 the following:

- Noise from the trains.
- Visual impacts from elevated structures.
- Structures being targets for graffiti.
- Division of communities and transportation access.

- Potential impacts on 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 HST.
- Emergency response and general safety issues.
- Local funding for the added security.
- Pollution from the proposed HMF.
- Central Valley (local) benefits.
- Impacts on local churches.
- Housing displacement of low-income or unemployed community members.
- Impacts on public schools and school-related commute times.
- Potential impacts on local landmarks or facilities important to minority or low-income communities.

To help the public, including environmental justice communities, access and better understand the contents of the Draft EIR/EIS published in August 2011, a series of four educational workshops were held in Fresno, Corcoran, Wasco, and Bakersfield. The Authority also held three public hearings to solicit feedback about the Draft EIR/EIS in Fresno, Hanford, and Bakersfield. During these public hearings, citizens completed comment forms and/or had their comments transcribed by a court reporter. The Authority also held an outreach meeting on October 5, 2011, to inform the west Hanford area residents of the potential Hanford West Bypass 1 and 2 alternatives and the plans to prepare the Fresno to Bakersfield Section Revised Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (Revised Draft EIR / Supplemental Draft EIS). Spanish-language materials were provided at all of these public meetings; a Spanish translator also was present at all meetings to provide information to Spanish-speaking residents and facilitate the public comment process.

Further environmental justice outreach efforts during the public comment period for the Draft EIR/EIS included providing meeting notices to environmental justice interest groups, listing advertisements in Spanish-language newspapers, and posting meeting notices (in English and Spanish) at community facilities that serve low-income and minority populations.

The Authority also provided the following supporting materials for the Draft EIR/EIS in Spanish at the meetings and on the web site:

- Notice of availability (web site).
- Highlights of the EIR/EIS (meetings and web site).
- Executive summary (meetings and web site).
- Project brochure (meetings and web site).
- Fact sheet on the public comment period changes (meetings and web site).

Throughout the project, a telephone hotline with Spanish-language interpreter services has been available to provide assistance on the public involvement process and also answer questions on the Draft Project EIR/EIS. The city of Fresno has a large Hmong population. Discussions with City Councilmember Blong Xiong determined that the areas affected by the project did not include a Hmong population center. City staff verified this determination. Additional public hearings will be held in the next comment period after the release of the Revised Draft EIR/Supplemental Draft EIS. Anticipated environmental justice outreach for the Revised Draft EIR/Supplemental Draft EIS will be the same as if not more extensive than the previous outreach, with targeted noticing, availability of Spanish-language materials and interpretation, and numerous opportunities to provide public comment. 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. Also, a detailed discussion of all outreach to environmental

justice communities is provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a).

3.12.4 Affected Environment

This Affected Environment section presents a summary of county and community demographics, housing, economic conditions, community characteristics, and environmental justice populations in the four-county region. The section focuses on differences among the communities located along the project alternatives. This allows for comparison and contrast of communities to highlight specific issues that are important in evaluating the context in which potential impacts may occur. For additional information on any particular community, a complete presentation of data can be found in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a).

3.12.4.1 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. Information regarding race and income is presented to identify communities of concern. (See the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* [Authority and FRA 2012a] 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.

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 (CDOF) 2010.
^b CDOF 2007.

Age distributions across the four counties in the region are similar, and middle-aged 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 and CDOF 2010).

In 2000, the 606,395 households in the region had an average household size of 3.11³ persons. In 2010, the number of households increased to 720,766, and the average household size increased to 3.21 persons (CDOF 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).⁴ 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. 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).

Disabled populations, particularly the elderly, tend to rely more heavily on community services as a result of issues with mobility and accessibility. The census data show that disabilities increase significantly in the populations who are 65 and older. 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 may double count 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 by 289,916 people. Persons of Hispanic ethnicity now represent approximately half the population of the region.

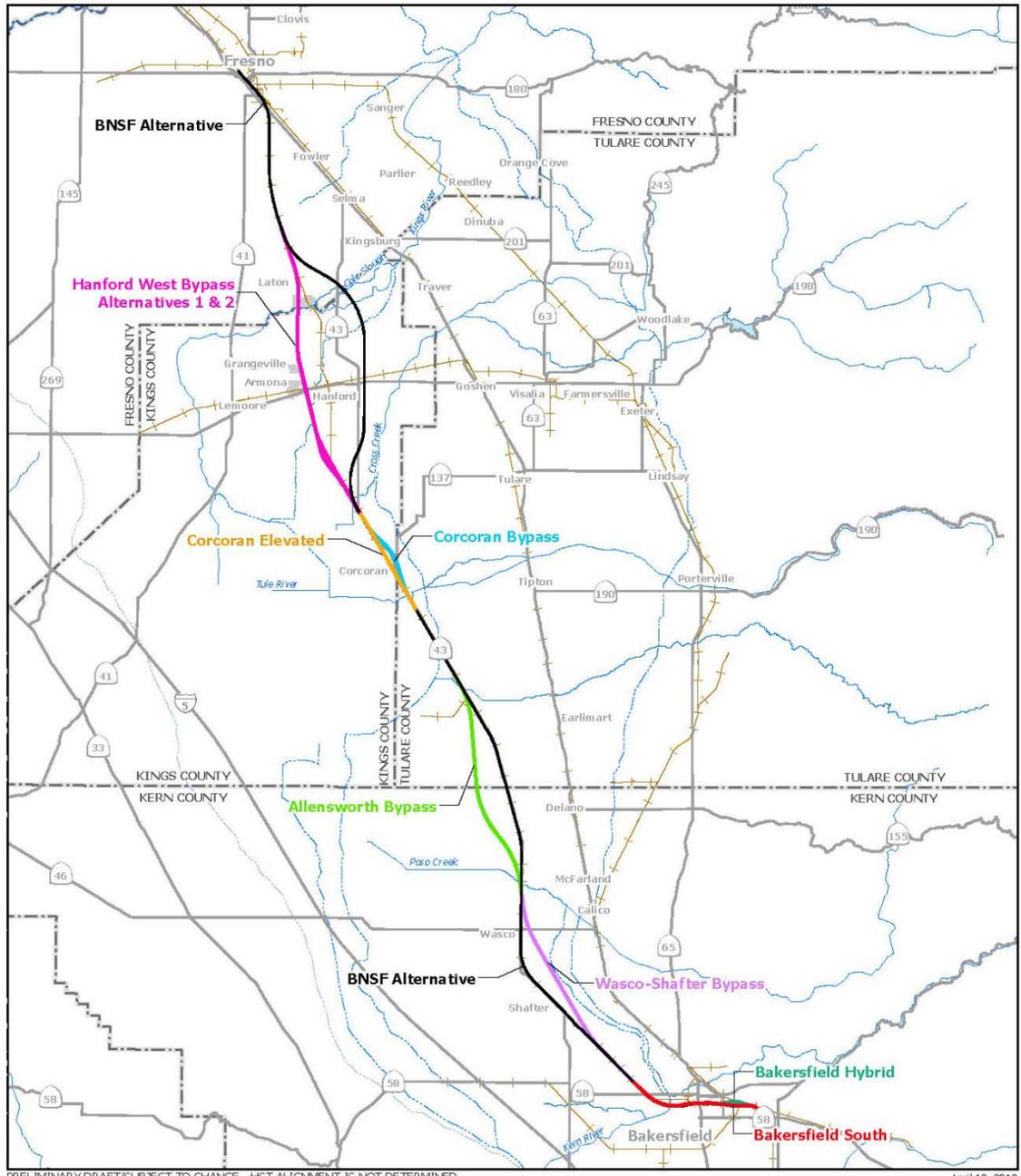
In 2008, countywide median annual household income was highest in Kings County, at \$50,962, and lowest in Fresno County, at \$43,737. By comparison, the median annual household income for California was \$61,062 in the same year (U.S. Census Bureau 2008d).

HST Study Area Population Characteristics

The study area population data are presented from north to south along the project corridor. Figure 3.12-1 provides a map of the project and communities in the study area. Data are

³ Persons who are institutionalized are not counted as being in the total household population. They are however included in the total population.

⁴ 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."



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Data source: URS, 2012 April 18, 2012



Figure 3.12-1
 Fresno to Bakersfield HST alignments

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.⁵

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 1.7%. This is lower than the growth rates of Fresno County (1.9%) and the region (2.2%) during the same period (CDOF 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.⁶ All the districts have very high proportions of minority populations. Fresno, as a whole, has a minority population of 60.3%, and each district has 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 (CDOF 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 (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, 2008a).

City of Fresno to Community of Laton

Five 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.

Community of Laton

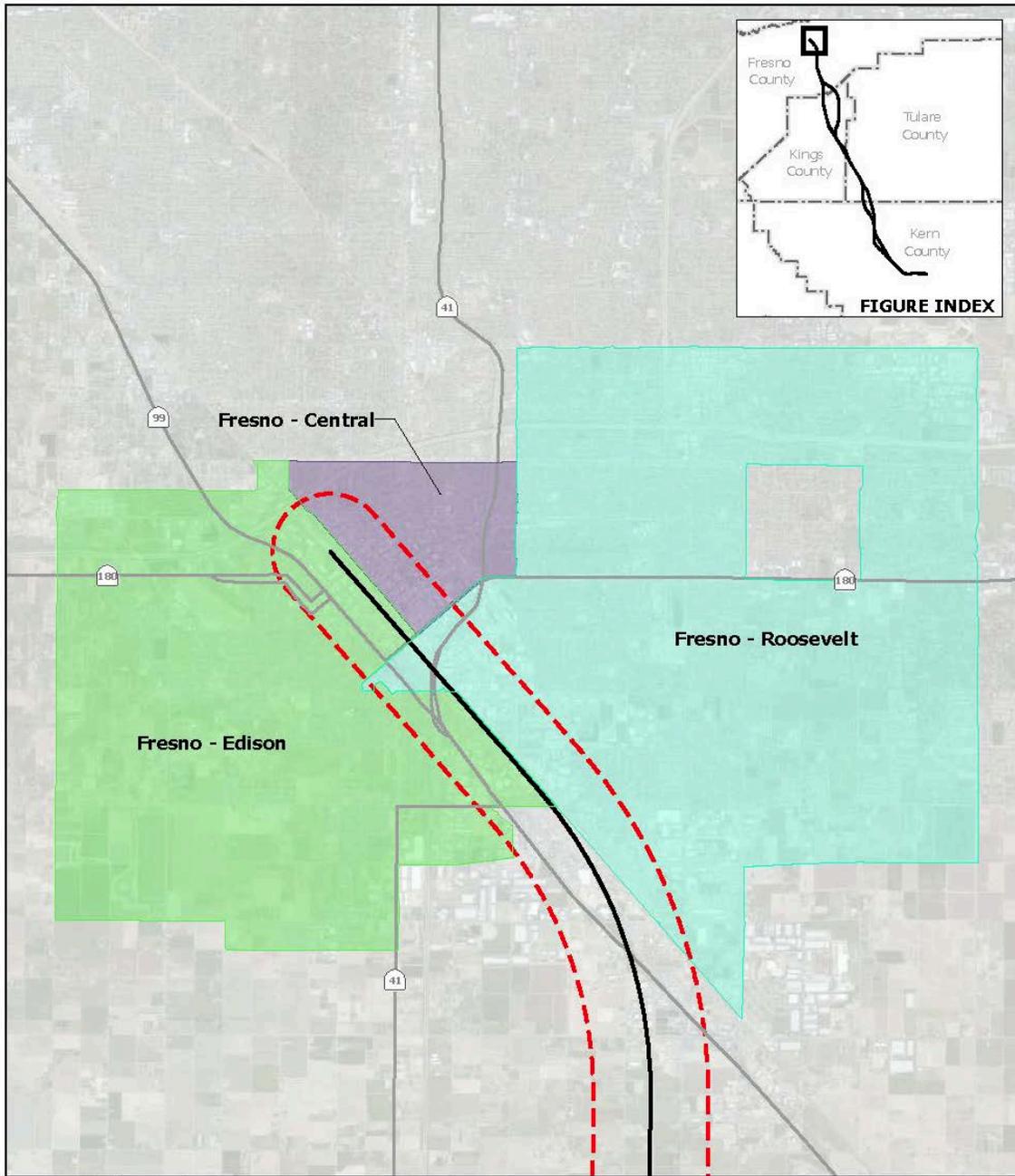
Laton's population was 1,236 residents in 2000, with a total number of households and average household size of 331 and 3.72, respectively (U.S. Census Bureau 2000d); of these households, approximately 74% were family households (U.S. Census Bureau 2000a). Linguistic isolation averaged 2% in 2000, and the minority population was approximately 68.9% of all residents in 2000 (see Table 3.12-2).

Community of Laton to City of Hanford and Communities of Grangeville and Armona

Two small communities lie just to the east of Hanford along the alignment. The population of the community of Ponderosa is estimated to be approximately 150 persons, and the population of Hamblin is estimated to be approximately 200. The larger communities of Grangeville and Armona, just to the west of Hanford, are described below.

⁵ Each section of unincorporated areas along the project corridor was evaluated to identify population centers. 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).

⁶ 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
 Sources: URS, 2012 April 17, 2012

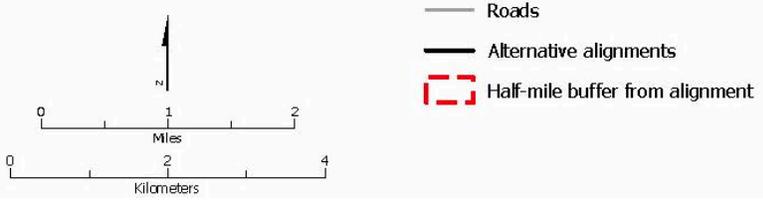


Figure 3.12-2
 Districts within the city of Fresno

Table 3.12-2
 Minority Group Representation in the Region

Location	% of Population ^{a,b}											
	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
<i>Fresno Central District</i>	64.3	—	0.8	—	9.9	—	9.0	—	3.5	—	87.5	—
<i>Fresno Edison District</i>	47.3	—	0.4	—	11.1	—	36.4	—	1.8	—	97.0	—
<i>Fresno Roosevelt District</i>	58.7	—	0.8	—	15.5	—	6.7	—	2.8	—	84.4	—
Community of Laton**	68.9	—	0.6	—	0.6	—	0.4	—	1.5	—	72.0	—
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
Community of Grangeville**	18.7	—	0.3	—	2.8	—	0.2	—	4.9	—	26.9	—
Community of Armona**	48.6	—	1.2	—	1.3	—	4.0	—	3.2	—	58.3	—
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	—

Table 3.12-2
 Minority Group Representation in the Region

Location	% of Population ^{a,b}											
	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
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
<i>Bakersfield Central District</i>	32.7	—	1.0	—	2.5	—	12.2	—	3.2	—	51.5	—
<i>Bakersfield Northeast District</i>	46.7	—	1.0	—	1.4	—	4.5	—	2.1	—	55.7	—
<i>Bakersfield Northwest District</i>	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 2008a).

**City of Shafter and communities of Laton, Grangeville, and Armona data for ACS 2008 or ACS 2006-2008 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 include 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 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% (CDOF 2010). The number of households and the size of the average household were 17,070 and 3.07, respectively, in 2010 (CDOF 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).

Community of Grangeville

The population of Grangeville was 638 residents in 2000, with an average household size of 2.8 persons and a total of 227 households (U.S. Census Bureau 2000d). Approximately 87.7% of the households were family households in the 2000 estimates (U.S. Census Bureau 2000a), with 4% of these households being linguistically isolated. The minority population of Grangeville was approximately 26.8% of all residents in 2000 (see Table 3.12-2).

Community of Armona

Armona's population was 3,239 residents in 2000, with an average household size of 3.37 persons, and a total of 961 households (U.S. Census Bureau 2000d). Approximately 81.7% of the households were family households in the 2000 estimates (U.S. Census Bureau 2000a), with 9% of these households being linguistically isolated. The minority population of Armona was approximately 58.3% of all residents in 2000 (see Table 3.12-2).

City of Hanford and Communities of Grangeville and Armona to City of Corcoran

The study area between the cities of Hanford and Corcoran is in Kings County. El Rancho is the one community identified in this segment. El Rancho lies south of Lacey Boulevard, 1 mile east of Hanford, and has an estimated population of 400 residents. According to a county official, this community is quickly being surrounded by the development of the city of Hanford, and it is expected that it will eventually become incorporated into the city (Kinney 2010, personal communication).

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% (CDOF 2010). Corcoran had markedly higher percentages of the population in the middle-aged 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 (CDOF 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 were linguistically isolated. More recent data are not available from the U.S. 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 exist along the alignment between Corcoran and Wasco. The communities of Blanco and Allensworth are located in Tulare County, while Kernell and Pond are in Kern County. The population estimates for these communities range from fewer 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% (CDOF 2010). When compared to the other cities in the region, Wasco had markedly higher percentages of the population in the middle-aged 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 (CDOF 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 U.S. 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).

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% (CDOF 2010). The number of households and the average household size were 4,052 and 3.83, respectively, in 2010 (CDOF 2010). Linguistic isolation was 17.1% in 2000 (U.S. Census Bureau 2000a). More-recent information is not available from the U.S. 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% (CDOF 2010).

Communities within Bakersfield are examined as three districts (see Figure 3.12-3 for the city of Bakersfield district map).

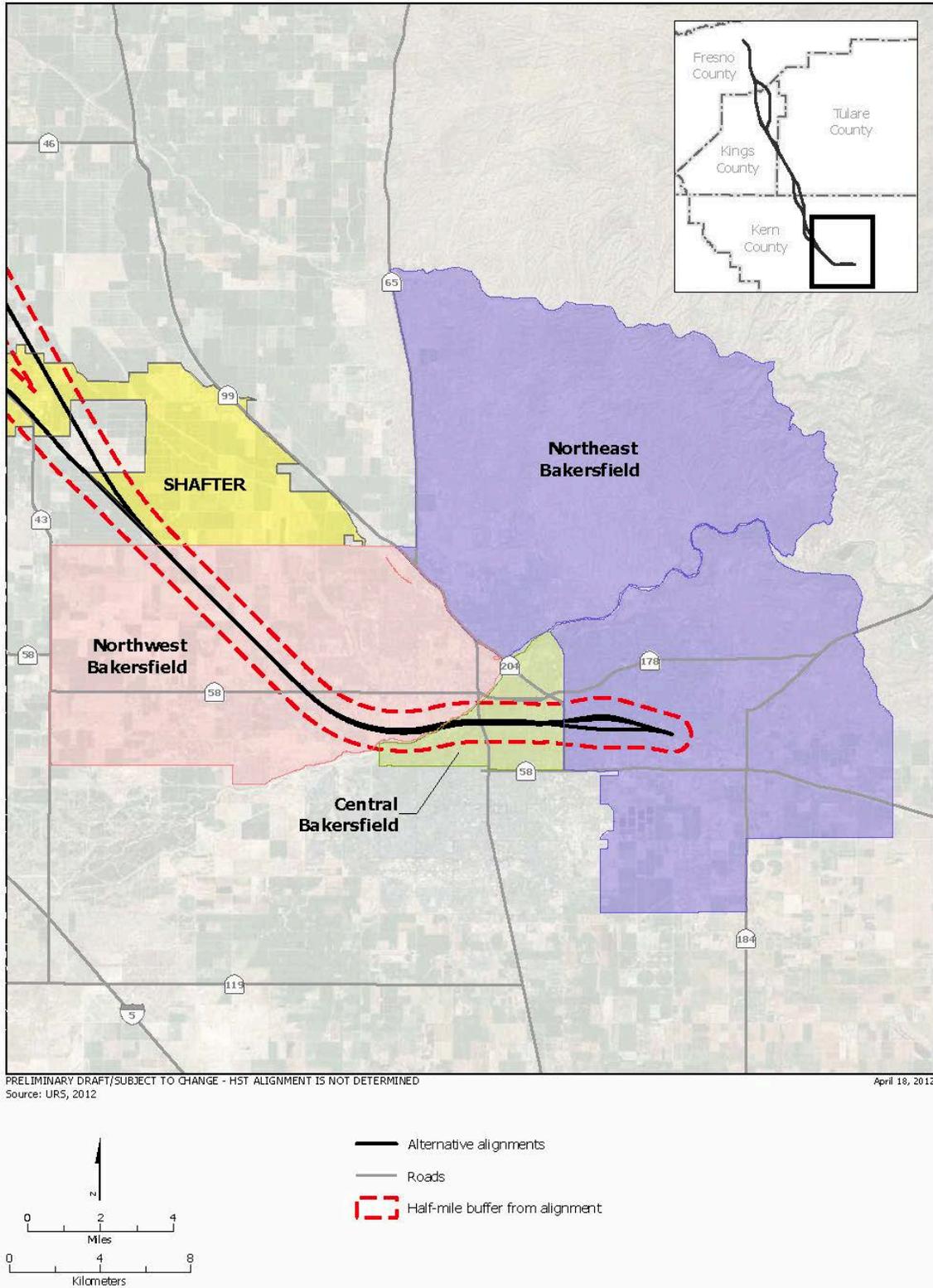


Figure 3.12-3
 Districts within the city of Bakersfield

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.⁷ 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 (18.8%) of minorities (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 (CDOF 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 of 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%).

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).

3.12.4.2 Housing Setting

This section provides details on housing. Specifically, it covers housing structure types, community tenure, and vacancy rates, which 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 region, 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 Avenal, 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 2012a).

⁷ 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).

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
<i>Fresno Central District^a</i>	1,277	248	986	2,244	8	4,165	12.6
<i>Fresno Edison District</i>	4,593	354	1,138	603	49	6,231	7.5
<i>Fresno Roosevelt District^a</i>	16,768	1,058	3,561	6,944	572	26,807	7.3
Community of Laton ^a	350	7	4	0	12	363	2.7
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
Community of Grangeville ^a	172	13	18	12	27	242	4.2
Community of Armona ^a	878	41	59	36	28	1,042	4.9
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
<i>Bakersfield Central District^a</i>	7,848	775	2,944	3,651	451	14,447	7.8
<i>Bakersfield Northeast District^a</i>	32,352	1,999	5,426	5,262	3,099	44,351	7.9
<i>Bakersfield Northwest District^a</i>	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: CDOF 2010; U.S. Census Bureau 2000e.							
Notes:							
^a Housing data not available at the district level in Fresno and Bakersfield or in smaller communities 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 in 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 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 (78% compared to 35% for the city as a whole). The Edison District had a higher percentage of single-family homes (80% compared to 67% for the city as a whole).

The rate of home ownership 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 Community of Laton

Along the Fresno to Laton 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; CDOF 2010). The remaining communities had between 20 and 50 identified residences (Gorman 2010, personal communication).

Community of Laton

Laton is a small rural community between Fresno and Hanford that had 373 housing units in 2000. Of these housing units, 350 units (93.8%) are detached single-family houses and 363 units were occupied, for a vacancy rate of 2.7%. In 2000, the community of Laton had a much higher percentage of single-family homes than the nearby community of Hanford, the county, and the region as a whole.

Community of Laton to City of Hanford and Communities of Grangeville and Armona

Hamblin and Ponderosa, two communities in Kings County, both have between 20 and 50 residences. Both communities have experienced growth over the past several years, and this growth is expected to continue (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).

Community of Grangeville

Grangeville is a small community between Fresno and Hanford in a predominantly rural area in Kings County. At the time of the census of 2000, Grangeville had a total of 237 housing units and a vacancy rate of 4.2%. A total of 71.1% of the units were single-family detached houses (172 units), which is a similar percentage of single family housing to that of nearby Hanford.

Community of Armona

The housing stock of Armona consisted of 1,042 housing units in 2000. Of these housing units, 84.3% were single-family detached houses (878 units), and 991 units were occupied, for a vacancy rate of 4.9%. The percentage of single-family homes in Armona is higher than that of the county, and is also higher than the percentage of single family housing in nearby Hanford.

City of Hanford and Communities of Grangeville and Armona to City of Corcoran

The study area between the cities of Hanford and Corcoran is entirely in Kings County. El Rancho is the only community identified in this segment of the project. El Rancho 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%). (CDOF 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 that in the county (67%) and in the 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 between 2000 and 2010 was in single-family detached homes, 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 have 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 (CDOF 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 1980.⁸ 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).

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.

City of Bakersfield

The housing stock in Bakersfield grew by 32.2% between 2000 and 2010, which was 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. The housing vacancy rate in the city was 5.5% in 2000, and according to California Department of Finance estimates, remained stable into 2010 (CDOF 2010).⁹ 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 occupied housing units in Bakersfield in 2008 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).

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. However, 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.

⁸ 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.

⁹ California Department of Finance vacancy data likely underestimate current vacancy rates given it uses 2000 Census as a basis to estimate values.

The Northeast District 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 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 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.

3.12.4.3 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, which accounts for 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 (CDFA 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 due to the nationwide economic recession. 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% (CEDD 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 2012a) 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 workforce 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 but is similar to the county and region (14.6% in the city of Fresno, 15.5% in the county, and around 16% in the region). 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%).

Community of Laton

Laton has a high concentration of employment in the agricultural sector. As a result of the more-cyclical nature of the agricultural industry, unemployment rates in the community were 21.2% in 2000 and rose over the next several years to reach 29.8% in 2009; these rates are some of the highest in the study area and are much higher than those seen in the county or the region.

City of Hanford

Public administration is the largest occupation group within the Hanford city limits. The occupational profile of the city is similar to that of the county and region, with 15.4% of the workforce employed in agriculture-related jobs. During 2009, unemployment rates in Hanford reached 12.8%, somewhat lower than the county's rate of 14.6%.

Community of Grangeville

Grangeville had a very diverse employment base in 2000. Unlike many other small rural communities in the Central Valley, it is not dominated by a single industry. The employment base is spread among agriculture, manufacturing, retail trade, and education. All these industries employed approximately the same percentage of the workforce. Unemployment was at 7.4% in 2000, which is similar to the rate in Kings County and that of nearby Hanford.

Community of Armona

No single industry dominated the occupational profile of Armona in 2000. Several industries, including agriculture, manufacturing, retail trade, and education, employed a large portion of the workforce. In 2000, unemployment was at 13.6%, and the rate had increased to 19.1% by 2009. These unemployment rates are higher than those seen in the county or in Hanford during the same period.

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 workforce 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

Agriculture has been the historical mainstay of Wasco's economy, but a state prison is now the city's biggest employer. Public administration and agriculture are the two largest occupational sectors, and account for approximately 70% of Wasco's occupational profile. 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 workforce 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 13.¹⁰ 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 though these conditions are likely indicative of short-term circumstances, current conditions are not a good marker by which to measure the long-term horizon of project impacts. As an example of the role that property and sales tax play in local government revenues, Table 3.12-4 presents fiscal characteristics for the counties and cities for fiscal year 2008–2009.

¹⁰ Proposition 13 decreased property taxes in California by assessing property values at their 1975 value and restricted annual increases of the assessed value of real property to an inflation factor, not to exceed 2% per year. It also prohibited reassessment of a new base year value except for (a) change in ownership or (b) completion of new construction.

Table 3.12-4
County and City Fiscal Conditions for Fiscal Year 2008–2009

Location	Annual Budget	Property Tax as a % of Budget	Sales Tax as a % of Budget
Fresno County	\$1,501,239,097	6.45	9.49
City of Fresno	\$726,713,800	10.6	9.9
Community of Laton	N/A	N/A	N/A
Kings County	\$182,447,882	22.4	1.0
City of Hanford	\$55,735,830	19.5	10.7
Community of Grangeville	N/A	N/A	N/A
Community of Armona	N/A	N/A	N/A
City of Corcoran ^a	\$14,870,654	8.0	1.5
Tulare County	\$734,248,355	14.6	0.8
Kern County	\$1,645,347,432	14.2	2.6
City of Wasco	\$24,840,132	2.8	4.6
City of Shafter	\$42,000,000	1.4	10.5
City of Bakersfield	\$181,174,000	34.4	36.5
Sources: Fresno County 2008; City of Fresno 2009; County of Kings 2009; City of Hanford 2010; City of Corcoran 2009a; Tulare County 2009b; Kern County 2009; City of Wasco 2008a; City of Bakersfield 2009.			
^a City of Corcoran data presented for fiscal year 2007–2008, because more-recent data are not available at the time of analysis			
N/A = Specific location budget not available.			

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 (CDFA 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 (CEDD 2009). As a result, the types of agricultural operations in the region are arguably the current model of large-scale, industrial agriculture for 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). Since the academic year 2007-2008, funding per pupil for California K-12 public schools has declined by roughly 5 percent, from \$8,235 per pupil to \$7,693 in 2010-2011. Public schools across California are facing difficult budget issues, and in the years going forward, K through 12 funding is anticipated to be vulnerable to significant future cuts. As such, school districts are struggling to hold on to funds they currently receive (EdSource 2011).

3.12.4.4 Communities and Neighborhoods

Regional Community Setting

Specifics for each of the communities are presented below. In addition, the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a) provides complete information on demographics, housing, and the economy for all 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 few concentrations of residences, businesses or services, and community facilities. The historical dominance of agriculture in the rural economy and the continued agricultural productivity of the region, however, yield a sense of a strong agricultural community throughout the region, even though that community is dispersed throughout the rural agricultural areas.

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 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 number of non-motorized facilities in the study area is in Fresno and Bakersfield, the largest cities in the region.

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 and communities of Fresno, Armona, Corcoran, Wasco, Shafter, and Bakersfield. Issues associated with main roads, public transportation, pedestrian walkways, 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. The communities are examined from north to south along the project. Table 3.12-5 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. (Note that community-use facilities are discussed below for each community where such facilities exist.)

Table 3.12-5
Cities and Communities Affected by Alignment, Station, and HMF Alternatives

Alternative	Cities/Communities
BNSF Alternative	Fresno (Central, Roosevelt, and Edison districts), Hanford, Corcoran, Wasco, Shafter, Bakersfield (Northwest, Central, and Northeast districts), Blanco, Allensworth, Kernell, Pond, Ponderosa, Hamblin, El Rancharo, Malaga, and Bowles
Hanford West Bypass 1 Alternative (both at-grade and below-grade)	Laton, Hanford, Grangeville, and Armona
Hanford West Bypass 2 Alternative (both at-grade and below-grade)	Laton, Hanford, Grangeville, and Armona
Corcoran Elevated Alternative	Corcoran
Corcoran Bypass Alternative	Unincorporated Kings and Tulare counties
Allensworth Bypass Alternative	Unincorporated Tulare and Kern counties
Wasco-Shafter Bypass Alternative	Unincorporated Kern County
Bakersfield South Alternative	Bakersfield (Northwest, Central, and Northeast districts)
Bakersfield Hybrid Alternative	Bakersfield (Northwest, Central, and Northeast districts)
Fresno Station–Mariposa Alternative Fresno Station–Kern Alternative	Fresno (Central District)
Kings/Tulare Regional Station–East Alternative	Hanford
Kings/Tulare Regional Station–West Alternative	Hanford and Armona
Bakersfield Station–North Alternative, Bakersfield Station–South Alternative Bakersfield Station–Hybrid Alternative	Bakersfield (Central District)
Fresno Works–Fresno HMF Site	Fresno
Kings County–Hanford HMF Site	Hanford
Kern Council of Governments–Wasco HMF Site	Wasco
Kern Council of Governments–Shafter East HMF Site Kern Council of Governments–Shafter West HMF Site	Shafter
HMF = heavy maintenance facility	

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 District, touching the northeastern edge of the Edison District, and traversing the southern section of the Roosevelt District. Residents of the area adjacent to the alignment generally represent 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, including the Fresno Rescue Mission, that provide services (meals, shelter, rehabilitation, and counseling) to this population.

City of Fresno to Community of Laton

The five small communities that are interspersed along this section of the BNSF Alternative are Malaga, Oleander, Bowles, Monmouth, and Conejo. Malaga community facilities in the study area include a school, a park, and a water district office, which serves as the administrative center of the community. The key community facilities identified in the study area in 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. No key study area community facilities were identified in Oleander or Conejo.

Community of Laton

Laton is a small rural town in the south-central portion of Fresno County, just north of the Kings River. The local economy is based on agriculture, and the community is surrounded by dairy farms, cornfields, and fruit and nut orchards. The community had a major growth spurt in 1986, when 96 new homes were built.

Community of Laton to City of Hanford and Communities of Grangeville and Armona

Hamblin and the Ponderosa Road community—also called the Ponderosa—are rural residential areas along this part of the alignment. These communities are on the outskirts of Hanford and do not have many services or facilities, but residents place a high value on living a rural lifestyle in proximity to city services. The one key community facility identified in the study area in the Ponderosa Road vicinity is the Kit Carson Elementary School.

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.

Community of Grangeville

Grangeville is a small rural town in Kings County, 1.9 miles north of the community of Armona and approximately 4.5 miles east of Downtown Hanford. The local economy is based solely on agriculture, and the community is surrounded by fruit and nut orchards. Grangeville falls under Kings County public services and the city of Hanford ZIP code. Buildings within the study area include a church and the Pioneer Union Elementary School.

Community of Armona

With a community motto, "Small but Proud," Armona is west of the city of Hanford on the Highway 198 corridor. The local economy is based on agriculture, and the community is surrounded by fruit and nut orchards. One fire station is present in the community of Armona, with approximately 14 on-call volunteer firefighters. Police services are provided by the county sheriff. No medical services are present in the community, and residents must travel to nearby cities to access these services. Three public schools in the community enroll approximately 700 students. All are managed by the Armona Union Elementary School District. The community also has eight places of worship and one community park.

City of Hanford and Communities of Grangeville and Armona 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 to serve the needs of the community. One building houses the city administrative offices 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. Corcoran has one fire station and two medical facilities. The fire station and 1 of the medical facilities, the Corcoran District Hospital, are also in the study area, as are 10 religious facilities, 5 parks, and 3 of the city's 6 schools that are part of the Corcoran Unified School District.

The Corcoran Bypass Alternative would diverge from the BNSF line to pass around the developed areas of Corcoran on the eastern side. The alternative would pass through a rural agricultural area with no concentrations of residences, businesses, or community facilities and 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 Allensworth Elementary School, a church, and a community center. The Allensworth Bypass Alternative would diverge from the BNSF Alternative to bypass the community of Allensworth on the western side.

City of Wasco

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 in the study area. There are nine public and private schools in the community, five of which are in the study area. Wasco has many places of worship. There is a large Agricultural Workers Camp on the eastern side of the city.

The Wasco-Shafter Bypass Alternative would diverge from the BNSF Alternative, to bypass the communities of Wasco and Shafter on the eastern side. This is a rural agricultural area with no concentrations of residences, businesses, and 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 and can 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 five 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 three museums. City hall and two 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 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 includes the Central, Northeast, and Northwest districts of 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 manages 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, part of the Kern Union High School District, 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 high importance for the many local alumni who are proud of the school's longevity and achievements and continue to support the campus and its events. The BHS campus is in a built-out urban area, so alterations or expansion are a challenge. Other school districts in the area— the Bakersfield City Elementary School District, the Fruitvale Elementary School District, and the Rosedale Union Elementary School District—would be affected by the project.

Bethel Christian School is in the study area and serves the greater Bakersfield area. Approximately 50 students in grades K–12 attend the school. Bethel Christian School is coed and is Baptist in orientation.

Sixty-one religious facilities representing a wide range of faiths are located within the study area throughout 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 Bakersfield Central, Northeast, and Northwest districts.

The Bakersfield Hybrid Alternative follows portions of both the BNSF and Bakersfield South alternatives. The Bakersfield Hybrid Alternative follows the Bakersfield South Alternative as it parallels the BNSF Alternative at varying distances to the north. At approximately A Street, the Bakersfield Hybrid Alternative diverges from the Bakersfield South Alternative, crosses over Chester Avenue and the BNSF right-of-way in a southeasterly direction, and then curves back to the northeast to parallel the BNSF Railway tracks towards Kern Junction. After crossing Truxtun Avenue, the alignment curves to the southeast to parallel the UPRR tracks to its terminus at Oswell Street.

3.12.4.5 Environmental Justice

The communities of concern within the region (the reference community for the EJ analysis) are identified and presented below. Table 3.12-6 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 2012a) provides more details on the locations of EJ populations in the EJ study area, including community maps showing the locations of communities of concern along the project.

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, these percentages are even higher in some locations, with minority and low-income individuals totaling 68.7% and 28.2% of the EJ

Table 3.12-6
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	18,610	81.4	40.5	Hispanic
City of Fresno	427,652	62.7	24.7	12,680	86.2	48.4	Hispanic
<i>Fresno Central District</i>	16,896	87.5	57.7	6,243	78.1	60.5	Hispanic
<i>Fresno Edison District</i>	27,992	91.1	44.7	4,605	96.0	45.8	Hispanic
<i>Fresno Roosevelt District</i>	102,643	84.0	38.0	1,832	89.1	43.2	Hispanic
Community of Laton	1,236	71.9	17.4	685	81.9	18.7	Hispanic
Kings County	129,461	58.4	19.5	14,302	64.8	18.3	Hispanic
City of Hanford	41,686	50.1	17.3	1,135	64.7	13.9	Hispanic
Community of Grangeville	638	26.8	14.0	330	23.3	14.1	Hispanic
Community of Armona	3,239	58.3	26.6	185	42.7	30.1	Hispanic
City of Corcoran ^c	14,458	75.9	29.4	10,240	73.4	24.2	Hispanic
Tulare County	368,021	58.2	23.9	619	83.0	35.3	Hispanic
Kern County	661,645	50.5	20.7	81,699	66.4	26.7	Hispanic
City of Wasco	21,263	78.4	27.6	7,868	91.3	31.9	Hispanic
City of Shafter	12,736	71.0	28.9	8,849	63.8	29.9	Hispanic
City of Bakersfield	247,057	48.9	19.2	31,719	61.8	25.7	Hispanic
<i>Bakersfield Central District</i>	27,466	58.7	30.2	9,860	61.4	29.5	Hispanic
<i>Bakersfield Northeast District</i>	137,928	55.7	27.1	37,145	83.0	37.0	Hispanic
<i>Bakersfield Northwest District</i>	52,650	18.7	5.7	12,659	19.9	5.5	Hispanic
Regional Total	1,958,534	56.5	22.2	115,230	68.7	28.2	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.

Notes: 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. Bakersfield districts cross city limit boundaries and therefore contain population that is outside what the Census defines as the city of Bakersfield. This table examines the communities for which aggregate level data were available. The smaller communities identified in the baseline above and where aggregate level data are not available are included in this analysis within the unincorporated county areas.

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 Bureau 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). Figures 3.12-4 through 3.12-7 show the locations of these communities of concern by county.

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 are 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 with only 9.5 square miles (or 8%) of the EJ study area blocks encompassing more urbanized populations (U.S. Census Bureau 2000d).

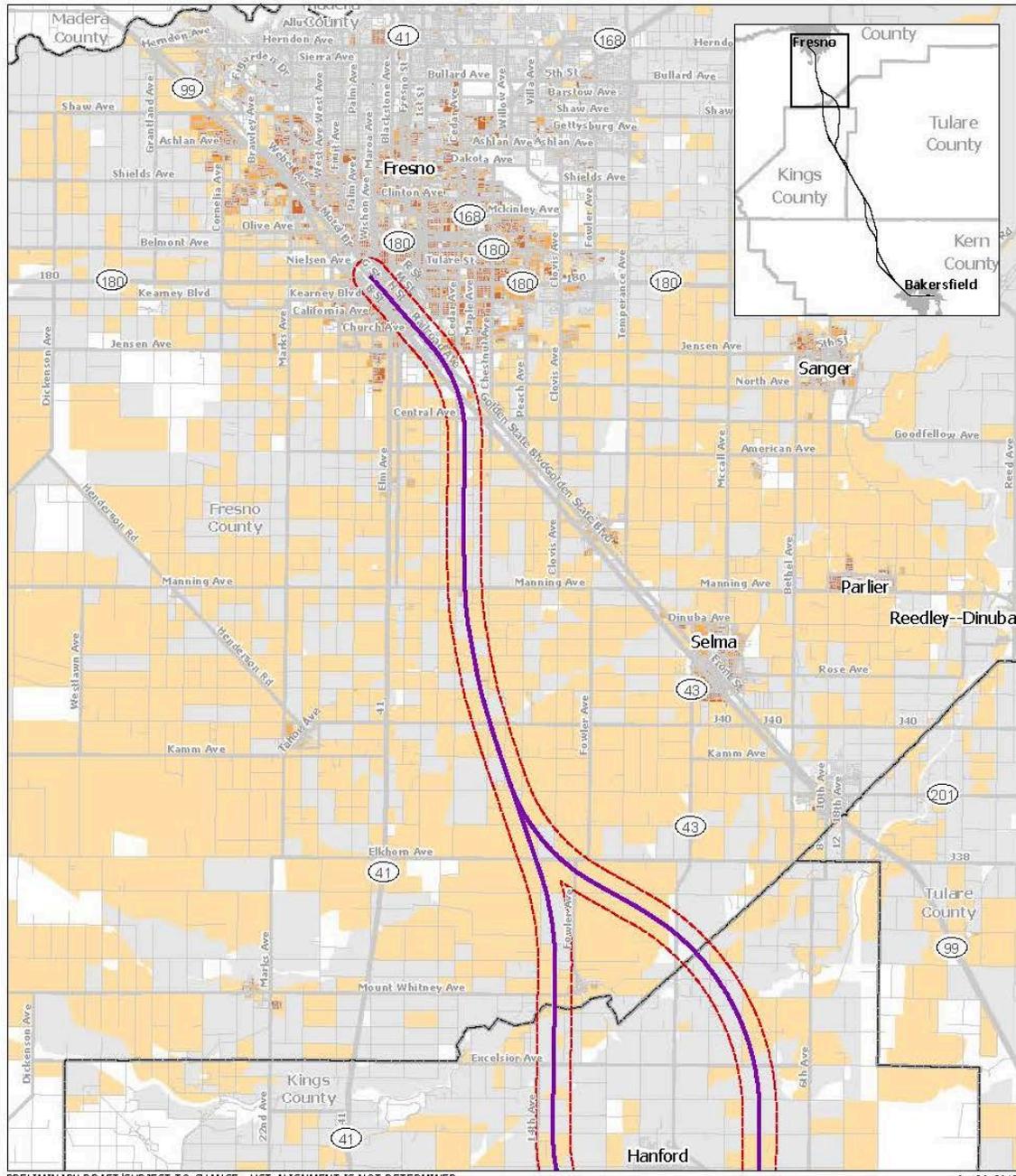
The region's urban cities of Fresno, Hanford, Corcoran, Wasco, Shafter, and Bakersfield have many communities of concern as defined by high proportions of minority and low-income populations.

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, and other facilities that serve this population with meal programs, medical and dental care, showers and laundry services, clothing, overnight shelter, drug and alcohol rehabilitation programs, and other services. 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 Hanford West Bypass 1 and 2 alternatives includes Laton, Hanford, Grangeville, and Armona. EJ populations along this section are relatively smaller than for the project as a whole and differ from other parts of the EJ study area across the region, where an EJ minority population typically corresponds with an EJ low-income population. Within the study area for the Hanford West Bypass 1 and 2 alternatives (e.g., in Laton and Hanford and in Kings County as a whole), EJ minority populations are not necessarily correlated with low-income populations. There is neither a minority EJ community nor a low-income EJ community within the study area in Grangeville. The EJ population in the study area in Armona is a low-income EJ community but not a minority EJ community.

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).



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: Environmental justice analysis - URS, 2012

Jun 26, 2012

 	Alternative alignments	EJ population density High
	Road	Medium
County boundary	Low	Not EJ
Half-mile buffer from alignment		

Figure 3.12-4
 Communities of Concern Fresno County

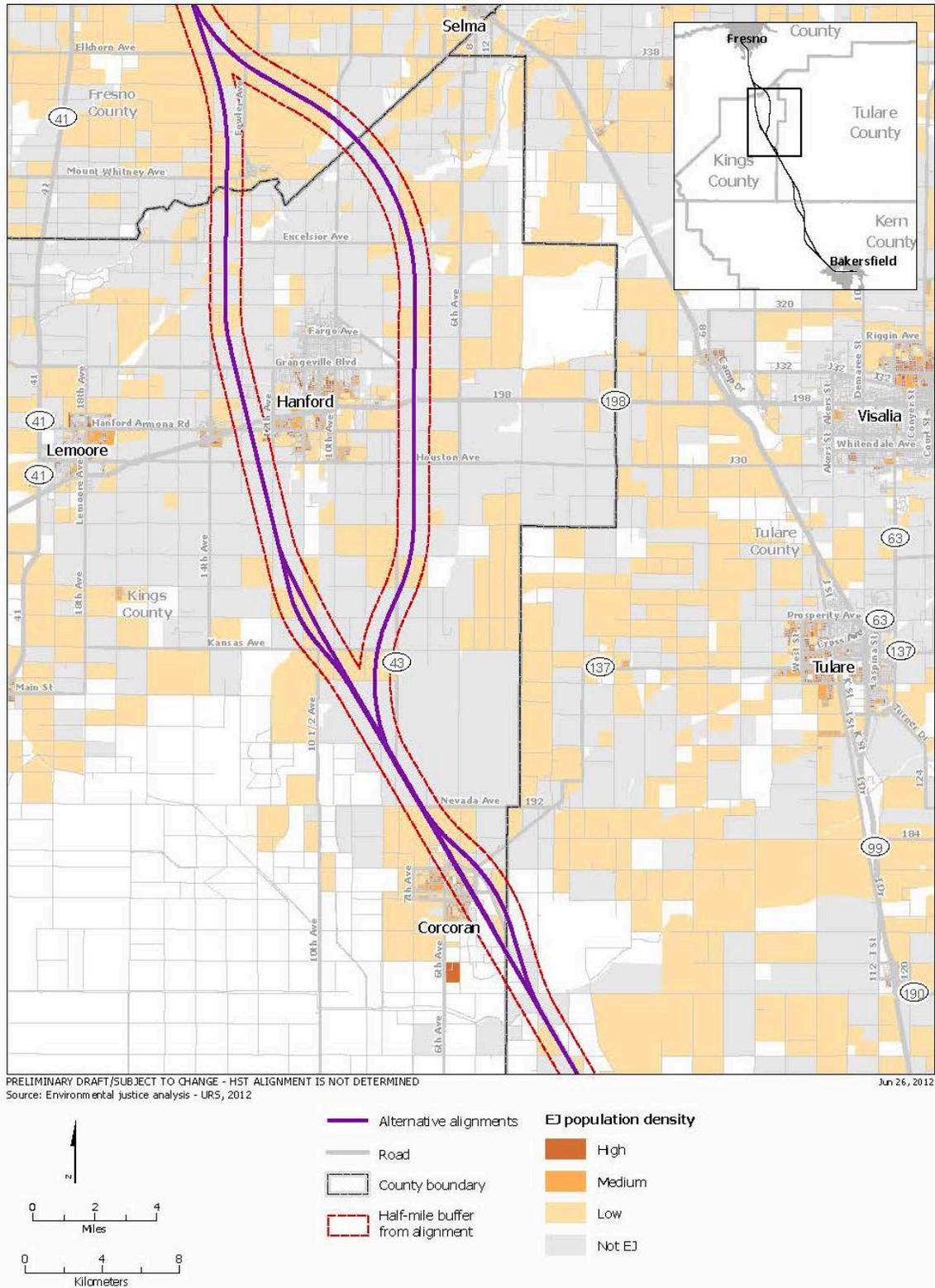


Figure 3.12-5
 Communities of Concern Kings County

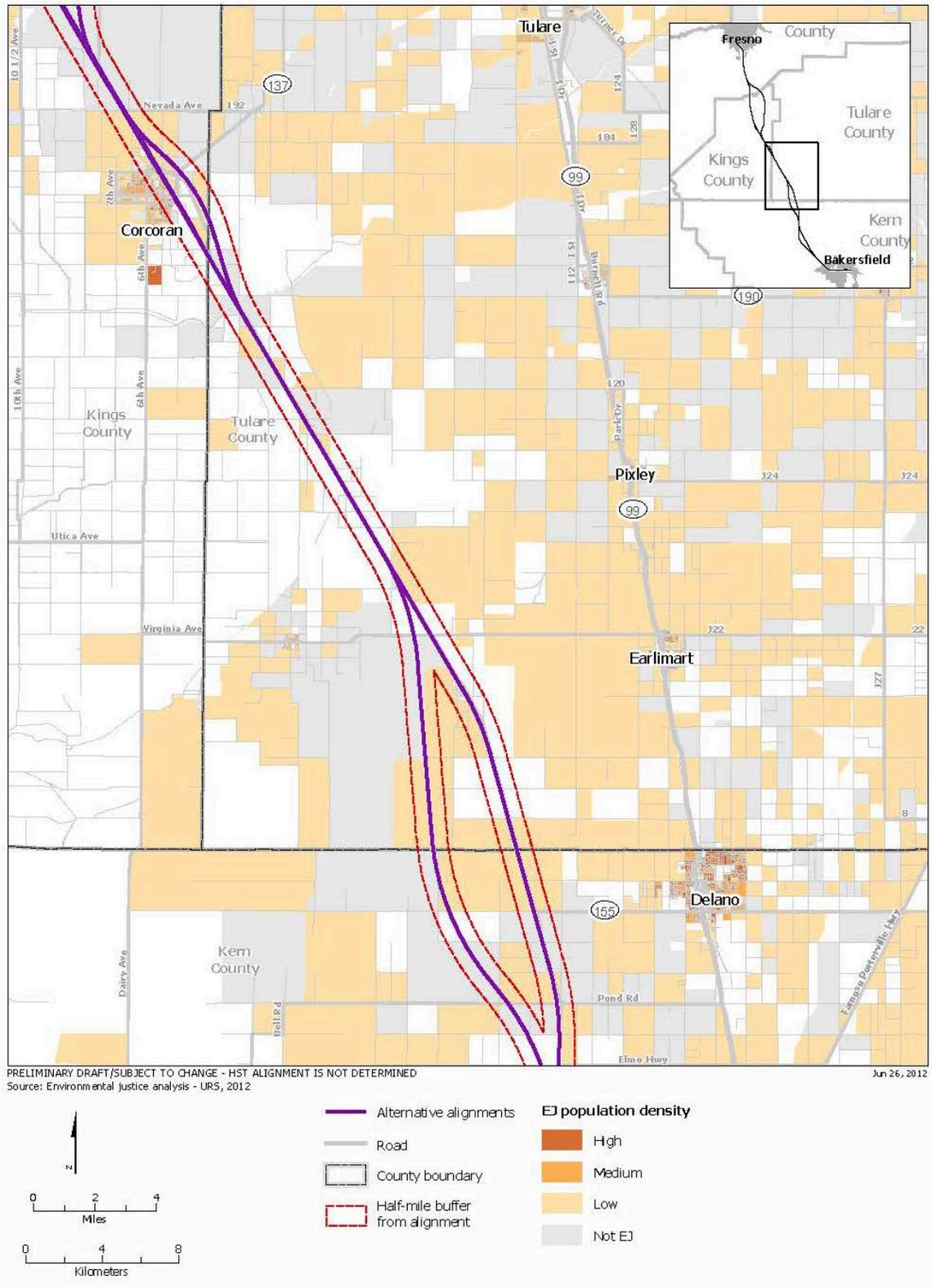


Figure 3.12-6
 Communities of Concern Tulare County

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, 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 Bakersfield Northwest District. Central Bakersfield contains a number of communities of concern, particularly south of Truxtun Avenue. The EJ study area in the Bakersfield Northeast District 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 socioeconomic, 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 socioeconomic, 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, though many displacements would occur in Bakersfield. However, the project would cause disruption to the agricultural community in one of the nation's most productive agricultural regions. Agricultural parcels would be split by the new linear feature, and numerous farmsteads would be displaced as a result of constructing new roadway overcrossings. Overall, the project alternatives would result in increased employment opportunities, improved economic diversity, and regional economic benefits that would not occur under the No Project Alternative.

During construction, all the alternatives would have air quality impacts that with mitigation would be reduced to less than significant. Standard implementation of a construction safety and health plan during construction would reduce risks to human health during construction. A traffic control plan would establish procedures for temporary road closures and ensure that construction of road crossings would be staggered; when a road is temporarily closed for construction, the next adjacent road to the north and south would remain open to accommodate detoured traffic, thus minimizing effects on bus transportation. Therefore, there is a negligible effect to children's health and safety during construction. During operation, the project alternatives would have beneficial effects on air quality because reduced traffic congestion would lower emissions when

compared to the No Project Alternative. The proposed alignment alternatives would affect schools in the region, but resulting potential safety impacts are determined to be less than significant. The project will be designed to prevent conflicts with other vehicles, pedestrians, and bicyclists, thus providing a safety benefit for children in the study area. The construction of new overpasses in communities would allow for access over the project and also over the existing railway corridor that is currently crossed at-grade. These overpasses would again improve safety for children in the area over the No Project Alternative. Therefore, there is a negligible effect to children's health and safety during operation.

Substantial adverse effects associated with the BNSF, Bakersfield South, and Bakersfield Hybrid alternative alignments would result from residential displacements in the Bakersfield Northeast and Northwest districts and in Corcoran. Commercial displacements would result in substantial effects in the Bakersfield Central and Northeast districts associated with the BNSF, Bakersfield South, and Bakersfield Hybrid 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. All of the HST alternatives require residential property acquisitions, but these acquisitions are not expected to have any negative effects on school districts because there are adequate numbers of vacant replacement properties available in each school district and there would be negligible long-term effects related to property tax collection.

Generally, most portions of the study area are home to communities of concern, the exception being some areas within Kings County. High population-density centers, such as Fresno and Bakersfield as well as the communities of Corcoran, Wasco, and Shafter, are home to the majority of these communities. Within these communities of concern, disproportionately high and adverse effects 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 historical architectural impacts on buildings that hold 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 the residential, commercial, industrial, and agricultural property displacements. Construction and project impacts and effects occurring disproportionately on minority and low-income populations would be concentrated in urban areas along the BNSF Alternative, particularly in the cities of Fresno and Bakersfield where project benefits would also be concentrated.

3.12.5.1 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. Nor would it entail the community impacts identified for the project alternatives. 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.

The planned projects would have temporary impacts on children's health and safety, primarily associated with air quality from construction activities, but the projects are not as large in scale as the HST project, and any impacts would likely be smaller in scale. In addition, any expansion of SR 99 would likely result in additional air quality effects in the long-term, so the No Project Alternative would not have the same benefits on air quality as the HST project.

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 property and sales tax revenue and in employment losses as a result of relocations. These transportation projects would likely require acquisition of commercial, industrial, and agricultural land that would result in temporary business disruptions associated with construction that, in turn, would lead to decreased sales and revenues. Typically, these types of transportation projects do not have a long-term substantial effect on local revenues collected. 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.

Economic Effects on Agriculture

The No Project Alternative would result in farmland conversion to accommodate anticipated growth in the region that would occur without the proposed project, and these losses result in negative impacts on agriculture employment and the agricultural economy. In comparison, the HST alternatives would convert farmland for construction of the project and reduce property tax revenues, but would also provide opportunities for focusing more-compact future development on land that is already urbanized within the station areas. This could reduce the amount of farmland converted to urban uses to accommodate future growth beyond current local general plans. The HST is also expected to create additional employment opportunities beyond the No Project Alternative that could be filled by those affected by the loss of agriculture lands.

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.

3.12.5.2 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 over the long term. Although property acquisition of agriculture lands would occur prior to construction, any loss of agriculture production and employment is considered a potential long-term effect and is discussed under Project Operation Impacts.

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 of the HST System. It is expected that 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 under temporary construction impacts).

Impact SO #1 – Disruption to Community Cohesion or Division of Existing Communities from Project Construction

This section examines the potential for construction 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.

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, although some areas outside the right-of-way would be used for staging.

For all project alternatives as well as all proposed station and HMF locations, construction impacts would include temporary increases in noise and dust, visual changes, and traffic congestion related to temporary road closures or detours. (Refer to Section 3.3, Air Quality and Global Climate Change; Section 3.4, Noise and Vibration; and Section 3.16, Aesthetics and Visual Resources, for full discussion of these construction impacts). Air quality emissions from construction would be reduced by best management practices and the Voluntary Emissions Reduction Agreement described in Section 3.3. 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.

Construction activities could be particularly disruptive to nearby community facilities and institutions such as schools, clinics, and government offices because construction would occur primarily during normal hours of operation when noise, traffic, and other conflicts would be most problematic. For example, construction activities, materials deliveries, etc. (especially with the BNSF Alternative) would conflict with pedestrian and vehicle access to Bakersfield High School via Campus Way and 14th Street when school is in session. Detailed construction access plans would be developed before the start of construction, and the affected cities would review these plans before construction implementation. Potential conflicts with special events (e.g., fairs, athletic events, major conventions) would be addressed through a special mitigation measure described in the section titled "Construction during Special Events" in Section 3.2, Transportation. This measure provides mechanisms to prevent roadway construction activities from reducing roadway capacity during major athletic events or other special events that attract a substantial number of visitors. Mechanisms include the presence of police officers directing traffic, special-event parking, use of within-the-curb parking, or shoulder lanes for through-traffic, traffic cones, and so on. Through such mechanisms, roadway capacity would be maintained. With the mitigation measures proposed for transportation and noise and vibration (see Section 3.4), intensity is expected to be reduced to moderate under NEPA, and impacts are expected to be less than significant under CEQA. Further discussion of construction activities can be found in the Chapter 2 alternatives description.

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, businesses, or community facilities 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, such as the Fresno Rescue Mission, Bakersfield High School, Mercy Medical Plaza building, the Mercado Latino Tianguis, and religious facilities in Bakersfield 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 expected to have little effect related to temporary population increases and the potential increased demand for housing and community services (see Section 3.18, Regional Growth). 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 Impact SO #5 – Temporary Construction Employment for more details).

BNSF Alternative

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 isolate established communities, but would exacerbate divisions associated with historic linear facilities (e.g., roadways or railway tracks) that divide existing communities. Mitigation Measure #1 in Section 3.2, Transportation, would maintain access for owners to property within the construction area. If a proposed road closure restricts current access to a property, this mitigation measure would provide alternative access via connections to existing roadways. If adjacent road access is not available, new road connections would be prepared, if feasible. If alternative road access is not feasible, the property will be considered for acquisition.

However, construction could change the existing community character and potentially affect community cohesion—especially in urban areas with many displacements or 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 from the BNSF Alternative related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Hanford West Bypass 1 and Bypass 2 Alternatives

The Hanford West Bypass 1 and Bypass 2 alternatives differ from the BNSF by passing along the western side of the communities of Laton and Hanford and also by affecting Grangeville and Armona. Construction impacts associated with these alternatives would be similar to the effects and impact identified for the BNSF Alternative, above. Therefore, construction effects and impacts from the Hanford West 1 and 2 Bypass alternatives related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Corcoran Bypass Alternative

The Corcoran Bypass Alternative differs from the BNSF by passing east of Corcoran through rural residential and agricultural land. Construction impacts associated with this alternative would be similar to the effects and impact identified for the BNSF Alternative, above. Therefore, construction effects and impacts from the Corcoran Bypass Alternative related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Allensworth Bypass Alternative

The Allensworth Bypass Alternative differs from the BNSF by passing west of the community of Allensworth through rural residential and agricultural land. Construction impacts associated with this alternative would be similar to the effects and impact identified for the BNSF Alternative, above. Therefore, construction effects and impacts from the Allensworth Bypass Alternative related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Wasco-Shafter Bypass Alternative

The Wasco-Shafter Bypass Alternative differs from the BNSF by passing east of the communities of Wasco and Shafter through rural residential and agricultural land. Construction impacts associated with this alternative would be similar to the effects and impact identified for the BNSF Alternative, above. Therefore, construction effects and impacts from the Wasco-Shafter Bypass Alternative related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Bakersfield South Alternative

The Bakersfield South Alternative differs from the BNSF through the Bakersfield Northwest, Central and Northeast Districts but affects the same communities in similar ways. Construction impacts associated with this alternative would be similar to the effects and impact identified for the BNSF Alternative, above. Therefore, construction effects and impacts from the Bakersfield South Alternative related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Bakersfield Hybrid Alternative

The Bakersfield Hybrid Alternative differs from the BNSF through the Bakersfield Northwest, Central, and Northeast districts but affects the same communities in similar ways. Construction impacts associated with this alternative would be similar to the effects and impact identified for the BNSF Alternative, above. Therefore, construction effects and impacts from the Bakersfield Hybrid Alternative related to disruption or severance of community interactions or division of established communities would be of moderate intensity under NEPA, and less than significant under CEQA.

Proposed Station and HMF Locations

Construction impacts associated with the proposed station locations would be similar to the impacts identified for the BNSF Alternative, above, but the construction duration would likely be longer in the station area because of the infrastructure requirements.

For the potential HMF alternative locations, construction impacts at the Fresno and Wasco HMF site alternatives would be similar to the BNSF Alternative, above, because of the comparatively

higher concentrations of population near those locations. This is also true for the smaller rural community adjacent to the Shafter East and Shafter West HMF sites. As with the stations above, construction duration would likely be longer in the station areas because of the infrastructure requirements. Only the Hanford HMF site, which is about 2 miles east of the Home Garden community and southwest of the main urbanized area of Hanford, is surrounded by predominately rural agricultural land. Therefore, community impacts would be of moderate intensity under NEPA, and less than significant under CEQA at all HMF sites except Hanford, where there would be no community impacts. Discussion of impacts on public school district funding and bus transportation routes can be found in Appendix 3.12-B, Effects on School District Funding and Transportation Bus Routes.

Impact SO #2 – Construction Effects on Children’s Health and Safety

Refer to Appendix 3.12-C, Children’s Health and Safety Risk Assessment, for complete information on construction impacts for the proposed alignment alternatives, stations, and HMF sites, including a listing of all school facilities within 0.5 mile of the study area.

During construction, all of the alternatives would have impacts related to air quality that, with mitigation, would be reduced to less than significant. The project would involve the construction of road overcrossings that could affect school bus transportation routes. (See Section 3.2, Transportation, for information on construction planning and mitigations that will ensure that detours associated with this construction are minimized to maintain circulation in the region.)

Standard construction procedures related to traffic management would be used to maintain traffic flow during peak travel periods, including identification of when and where temporary closures and detours would occur. For example, in those areas where a new crossing is required, detours would be built first and traffic diverted. After construction is completed, traffic would be diverted back to the new overcrossing. The construction of any of the project alternatives would involve transporting, using, and disposing of construction-related hazardous materials and wastes (See Section 3.10, Hazardous Materials and Wastes, for information on regulatory requirements and project mitigations that would reduce the potential for impacts from these materials.) Potentially, such construction could result in accidental spills or releases of hazardous materials and wastes, and could result in temporary hazards to schools. Mitigation measures will be implemented to ensure that the use of extremely hazardous substances or a mixture thereof in a quantity equal to or greater than the state threshold quantity will not occur within 0.25 mile of a school. Construction of any of the proposed stations and HMF alternatives is not anticipated to result in any substantial effects during construction on children’s health and safety.

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 2012a).

Impact SO #3 – Construction-Related Property Tax Revenue Reductions

Short-term property tax revenues could possibly be reduced as a result of perceived lower property values caused by nearby construction activities. Sales prices of properties that change 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. Although this effect cannot be quantified, it would likely affect only areas adjacent to project construction activities and is considered to have a moderate intensity under NEPA. (Note that property tax revenues

due to project land acquisition is addressed in Impact SO #13 – Operation-Related Property and Sales Tax Revenue Effects.)

Construction of any of the HST alternatives is not anticipated to result in any negative effects on school district funding as a result of reduced property taxes. Although property acquisitions would occur prior to construction, this is considered a long-term impact and is addressed under Project Operation Impacts, below. As described under Impact SO #5 – Temporary Construction Employment, many of the construction jobs could be filled by residents in the region.

Impact SO #4 – 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 would be 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. See the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* for details on this methodology and the findings (Authority and FRA 2012a).

The BNSF Alternative has been estimated to generate about \$10 million in sales tax revenues for the region over the construction period. Estimated increases in tax revenues for each of the counties are \$4.9 million for Fresno, \$460,000 for Kings, \$2.0 million for Tulare, and \$2.5 million for Kern. Local project construction expenditures and sales tax revenues differ slightly for all alignment alternatives and station alternatives. The sales tax revenue generated from construction activities would increase local government revenues during the construction period, and would be a beneficial effect under NEPA. 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.

Impact SO #5 – Temporary Construction Employment

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 because the number expected is small. 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 22,000 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 7,300 one-year, full-time job equivalents—while annual indirect and induced jobs created in the region comprise approximately 67% of this total. This job creation would peak during the years of heaviest project construction (2014–2018), and during those years would represent a need for around 3,300 workers annually (with approximately 1,100 direct jobs in the construction sector and 2,200 indirect and induced jobs in other sectors).¹¹

¹¹ A 1-year full-time job equivalent is one person fully employed for 1 year. It is likely that many of the 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 to better identify the peak number of job openings created and the number of additional workers who will be needed in the region.

In terms of workers to fill these jobs, the annual average unemployment across the four-county region was 14.9% in 2009, with 159,300 persons out of work (CEDD 2010b). In addition, a 2009 CEDD 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, the existing regional labor force is anticipated to 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 construction workers with special skills 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 show that the intensity would be negligible, 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. Because no new government or community 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.

Short-term job creation estimates would be similar under all alternative alignments. Proposed station locations would result in an additional 225 to 425 one-year, full-time job equivalents per station over the entire construction period. The HMF, if located within the Fresno to Bakersfield Section of the HST System, would yield an additional 1,900 one-year, full-time job equivalents over the entire construction period. Like the BNSF Alternative, the adverse effect would be of moderate intensity under NEPA because of the large surplus of currently unemployed construction workers already located in the study area, and the impact would be less than significant under CEQA.

Impact SO #6 – Environmental Justice Effects of Project Construction

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, Hanford West Bypass 1 and Hanford West Bypass 2, Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, Bakersfield South, and Bakersfield Hybrid), the seven alternative station locations, and the five alternative HMF sites. Disproportionately high and adverse effects on communities of concern were determined by reviewing the construction impacts associated with the environmental elements addressed in the other sections of Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures, in the Project EIR/EIS. (For more discussion, see the Fresno to Bakersfield Section: Community Impact Assessment Technical Report [Authority and FRA 2012a].) Impacts from construction occurring in all relevant resource areas were compared with the locations of communities of concern discussed in Section 3.12.4, Affected Environment. 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 3.12-7. The other alternative alignments (Hanford West Bypass 1 [at-grade and below-grade options], Hanford West Bypass 2

[at-grade and below-grade options], Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, Bakersfield South, and Bakersfield Hybrid); the station alternatives (Fresno Station–Mariposa, Fresno Station–Kern, Kings/Tulare Regional Station–East, Kings/Tulare Regional Station–West, Bakersfield Station–North, Bakersfield Station–South, and Bakersfield Station–Hybrid); and the HMF site alternatives (Fresno Works–Fresno, Kings County–Hanford, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter East, and Kern Council of Governments–Shafter West) are discussed in the text after the table.

Table 3.12-7
Environmental Justice Construction Impacts for the BNSF Alternative

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 communities concentrated in urban areas, such as Central Fresno and Bakersfield, 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. With mitigation, this impact would be decrease to a less than significant level.	Air quality impacts would be distributed along the entire alignment and would not affect any one area or population more than another. Because impacts would be mitigated to a less-than-significant level, there would be no disproportionately high and adverse effects on minority and low-income populations.
Noise and Vibration	Noise and vibration from construction activities would temporarily exceed standards, but mitigation would decrease impacts to a less-than-significant level.	These impacts would be distributed along the entire alignment, with construction lasting longer and possibly being more intense around the station areas. There would be no significant impacts with mitigation, and therefore would not result in disproportionately high and adverse effects on minority and low-income populations.
EMF and EMI	There would be no significant EMF/EMI construction impacts on communities.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Public Utilities and Energy	Construction could result in impacts on 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 the proposed mitigation.	Impacts would be distributed along the entire alignment, but concentrated in the urban areas where there are higher concentrations of people. Impacts would be reduced to a less-than-significant level with mitigation, so these impacts would not result in disproportionately high and adverse effects on minority and low-income populations.

Table 3.12-7
Environmental Justice Construction Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Biological Resources and Wetlands	Construction activities would temporarily create impacts to special status plants and wildlife and habitats of concern, but mitigation would decrease impacts to a less-than-significant level.	These impacts would be distributed along the entire alignment, but concentrated in non-urban areas where biological resources are more abundant and EJ communities are few. There would be no significant impacts with mitigation, and therefore impacts would not result in disproportionately high and adverse effects on minority and low-income populations.
Hydrology and Water Resources	There are no significant Hydrology and Water Resource construction impacts.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Geology, Soils, and Seismicity	There are no significant Geology, Soils, and Seismicity construction impacts.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Hazardous Materials and Wastes	Construction could result in accidental releases of hazardous materials and wastes, including ACM and lead-based paint; these releases could impact 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 the proposed mitigation.	Impacts would be distributed along the entire alignment but concentrated in the urban areas where there are higher concentrations of people. Impacts would be reduced to a less-than-significant level with mitigation. Because impacts are less than significant, they would not result in disproportionately high and adverse effects on minority and low-income populations.
Safety and Security	There are no significant safety and security construction impacts.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.

Table 3.12-7
Environmental Justice Construction Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Socioeconomics, Communities, and Environmental Justice	There are no significant socioeconomic or community construction impacts.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Station Planning, Land Use, and Development	There are significant construction impacts that temporarily disrupt access to some properties, temporarily inconvenience nearby residents, and temporarily change the intensity of agricultural operations on some lands. Impacts would be reduced to a less-than-significant level with the proposed mitigation.	With impacts reduced to a less-than-significant level, they would not have disproportionately high and adverse effects on minority and low-income populations.
Agricultural Lands	There are no significant construction impacts on agricultural lands.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Parks, Recreation, and Open Space	Construction activities would require temporary closures of some park facilities, including bike and equestrian facilities, and would result in noise increases in some areas. Impacts would be reduced to a less-than-significant level with the proposed mitigation.	With impacts reduced to a less-than-significant level, they would not have 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. Nighttime construction lighting and construction of elevated track would result in adverse impacts. Impacts would be reduced to a less-than-significant level with the proposed mitigation.	Because impacts are reduced to a less-than-significant level in the urban areas of Fresno, Corcoran, Wasco, Shafter, and Bakersfield, 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 archaeological, built environment, and paleontological resources. Impacts on archaeological and paleontological resources can be reduced to a less-than-significant level with mitigation. Impacts on the built environment would remain significant even with mitigation.	Built-environment impacts that cannot be mitigated to a less-than-significant level are concentrated in urban areas. The EJ communities affected are Fresno and the Central and Northeast districts of Bakersfield. Therefore, the impacts would result in disproportionately high and adverse effects on minority and low-income populations.

Table 3.12-7
Environmental Justice Construction Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Cumulative Impacts	Significant cumulative impacts would result from multiple construction projects occurring at the same time as the HST construction period, especially in the urbanized areas. These impacts would be significant and unavoidable.	The impacts are significant and unavoidable, and would mostly occur in urbanized areas. These impacts would most likely affect EJ communities in Fresno and Bakersfield, given the presence of station construction in these areas. Therefore, disproportionately high and adverse effects on minority and low-income populations would result for some environmental resources.
Acronyms and Abbreviations: ACM = asbestos-containing material EJ = environmental justice EMF/EMI = electromagnetic fields / electromagnetic interference HST high-speed train		

Hanford West Bypass 1 Alternative

The EJ findings associated with the Hanford West Bypass 1 Alternative would be similar to those of the corresponding portion of the BNSF Alternative where impacts were found not to result in disproportionately high and adverse effects on minority and low-income populations. The impacts would not occur in an EJ community, so the impacts would not result in disproportionately high and adverse effects on minority and low-income populations.

Hanford West Bypass 2 Alternative

The EJ findings associated with the Hanford West Bypass 2 Alternative would be similar to those of the corresponding portion of the BNSF Alternative where impacts were found not to result in disproportionately high and adverse effects on minority and low-income populations. The impacts would not occur in an EJ community, so the impacts would not result in disproportionately high and adverse effects on minority and low-income populations.

Corcoran Elevated Alternative

The EJ findings for the Corcoran Elevated Alternative would be similar to those of the corresponding portion of the BNSF Alternative where impacts were found not to result in disproportionately high and adverse effects on minority and low-income populations. The impacts associated with this alternative would not result in disproportionately high and adverse effects on minority and low-income populations.

Corcoran Bypass Alternative

The EJ findings associated with the Corcoran Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative where impacts were found not to result in disproportionately high and adverse effects on minority and low-income populations. The impacts would not occur in an EJ community, so the impacts would not result in disproportionately high and adverse effects on minority and low-income populations.

Allensworth Bypass Alternative

The EJ findings associated with the Allensworth Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative where impacts were found not to result in disproportionately high and adverse effects on 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

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

Bakersfield South Alternative

The EJ findings associated with the Bakersfield South Alternative would be similar to those of the corresponding portion of the BNSF Alternative where impacts were found to result in disproportionately high and adverse effects on minority and low-income populations. Similar numbers of homes, businesses, and community facilities affected under the BNSF Alternative would be affected under the Bakersfield South Alternative (some would be different). (For more detailed information about displaced facilities, see Impacts SO #9 and SO #10, below.) As under the BNSF Alternative, the built-environment impacts would be significant and unavoidable under the Bakersfield South Alternative in the Bakersfield Central and Northeast districts. The Bakersfield South Alternative would result in disproportionately high and adverse effects on minority and low-income populations in the Bakersfield Central and Northeast districts.

Bakersfield Hybrid Alternative

The EJ findings associated with the Bakersfield Hybrid Alternative would be similar to those of the corresponding portions of the BNSF and Bakersfield South alternatives where impacts were found to result in disproportionately high and adverse effects on minority and low-income populations in the Bakersfield Central and Northeast districts.

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 Revised Draft EIR / Supplemental Draft EIS considers alternative station sites (i.e., the Fresno Station–Mariposa, Fresno Station–Kern, Kings/Tulare Regional Station–East, Kings/Tulare Regional Station–West [with at-grade and below-grade options], Bakersfield Station–North, Bakersfield Station–South, and Bakersfield Station–Hybrid alternatives), these alternatives represent two or three reconfigurations of station facilities at each of three similar locations with similar footprints. For this reason, the EJ findings at the stations in Fresno and Bakersfield would not vary from one of the station alternatives at a given location to another. It was found that construction of the stations would create air quality impacts greater than those of the construction of the alignment due to the longer construction period (See Impact AQ #7 in the Air Quality and Global Climate Change section). Thus, if a station is constructed in an EJ area, there would be disproportionate and adverse effects. A comparison of the Kings/Tulare Regional Station–East Alternative with the Kings/Tulare Regional Station–West Alternative (both options) indicates that all of these station alternatives are not in EJ communities and therefore would not have disproportionately high and adverse effects on minority and low-income populations. Given that communities of concern are concentrated in the urban areas of Fresno and Bakersfield where station construction would occur, all station

alternatives in both Fresno and Bakersfield would have disproportionately high and adverse effects on minority and low-income populations.

Heavy Maintenance Facility Site Alternatives

Four of the alternative HMF sites (the Fresno Works–Fresno, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter East, a Kern Council of Governments–Shafter West) would be near EJ communities, and the construction of the HMF would result in air quality, noise, and aesthetics and visual resource impacts that would be significant and unavoidable. For this reason, the Fresno Works–Fresno, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter East, and Kern Council of Governments–Shafter West HMF sites would result in disproportionately high and adverse effects on minority and low-income populations. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF sites. This maintenance-of-way facility would have the same potential effects as those identified for the HMF site alternatives 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 (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 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.

Adverse impacts that would result from the project would include the disruption and division of communities; displacement and relocation of residences, businesses, and agricultural facilities; and economic effects. Although property acquisitions would occur before construction, the impacts would be permanent and are discussed in this section.

Impact SO #7 – Disruption to Community Cohesion or Division of Existing Communities from Project Operation

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, 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. Community impacts are typically considered to be less than significant under CEQA unless they would divide an existing community. Under NEPA, impacts on a community are evaluated in terms of intensity and context and effects are determined to be significant or not significant. Thus, under NEPA, a

community impact could be considered significant, even if it does not result in the physical division of a community.

Table 3.12-8 summarizes the findings from the analyses conducted for Transportation, Aesthetics and Visual Resources, Noise and Vibration, Air Quality, and Safety and Security, because impacts on these resources have the potential to affect community character and community cohesion.

Table 3.12-8
Resource Impacts from Project Operation Potentially Affecting Community Character and Cohesion — Impacts Common to All Alternatives

Resource	Potential Impact
Transportation	<p>There would be no new barriers to access in urban areas where the alignment would be elevated, and road networks would be maintained. The project would grade-separate many existing at-grade crossings of the BNSF Railway between Fresno and Bakersfield, benefiting traffic safety and circulation. Project operation would increase traffic congestion at numerous intersections around the Fresno, potential Kings/Tulare Regional, and Bakersfield stations. Prior to mitigation, effects would have substantial intensity under NEPA, and impacts would be significant under CEQA. Mitigation measures for operational impacts include a wide variety of roadway improvements, including restriping, installation of signals, modification of signal timing, and roadway widening. Following mitigation, the traffic effects at all intersections would have an impact of negligible intensity under NEPA, and the impact would be less than significant under CEQA.</p> <p>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 or parking impacts. After mitigation, transportation impacts would have negligible intensity under NEPA, and the impact would be less than significant under CEQA. Refer to Section 3.2, Transportation, for complete information.</p>
Air Quality and Global Climate Change	<p>Construction impacts would be of substantial intensity under NEPA, and impacts would be significant under CEQA; however, with mitigation these impacts would be reduced to negligible under NEPA and less than significant under CEQA. 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. Refer to Section 3.3, Air Quality and Global Climate Change, for complete information.</p>

Table 3.12-8
Resource Impacts from Project Operation Potentially Affecting Community Character and Cohesion — Impacts Common to All Alternatives

Resource	Potential Impact
Noise and Vibration	All HST alternatives would create substantial noise impacts during construction. Because the Authority will mitigate these temporary impacts, the effects of construction noise would have negligible intensity under NEPA, and the impacts would be less than significant under CEQA. The number and severity of operation 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 could cause secondary impacts, 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. Refer to Section 3.4, Noise and Vibration, for complete information.
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 least 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. All HST alternatives could increase demand for local emergency responders around the stations due to station activity and associated redevelopment and economic activity. After mitigation, this impact would be negligible under NEPA and less than significant under CEQA. Refer to Section 3.11, Safety and Security, for complete information.
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 denser residential areas, especially Fresno, Corcoran, Wasco, Shafter, and Bakersfield. The reduced visual quality would be of substantial intensity under NEPA and a significant impact under CEQA. Refer to Section 3.15, Aesthetics and Visual Resources, for complete information.
Parks, Recreation, and Open Space	Project construction would include noise impacts on nearby community parks and recreation facilities. Significant impacts can be reduced to less than significant except at Bakersfield High School. Project operation would impact some community parks and playgrounds, especially Colonel Allensworth State Historic Park and the Amtrak playground in Bakersfield (the former due to indirect environmental impacts, the latter through increased usage). Mitigation would reduce impacts to negligible intensity under NEPA and less than significant under CEQA except at Colonel Allensworth State Park.

Table 3.12-8
Resource Impacts from Project Operation Potentially Affecting Community Character and Cohesion — Impacts Common to All Alternatives

Resource	Potential Impact
Cultural and Paleontological Resources	All HST alternatives have the potential to result in impacts on historic properties and historic resources. Such impacts would be mitigated through a resource treatment plan developed in coordination with the California State Historic Preservation Officer, but intensity of effects on some historic properties would remain substantial under NEPA and effects would be significant under CEQA even after mitigation.
Acronyms and Abbreviations: HMF = heavy maintenance facility HST = high-speed train	

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. However, some rural residential developments or small, unincorporated communities are present along the alignment. Also, because of the predominance of agricultural activities in the region, the BNSF Alternative passes through substantial areas where there is a dispersed agricultural community consisting of individual or clustered farmsteads on actively farmed land along the proposed alignment, especially in Fresno and Kings counties.

The portions of the BNSF Alternative along existing transportation corridors would not divide existing communities, because the project would not introduce a new barrier, but it could affect social relationships by widening an existing community division by the BNSF rail tracks, displacing homes and businesses, and by introducing a substantial new source of periodic noise and an incongruous new visual element into the community. The BNSF Alternative could also affect perceptions of quality of life by introducing a permanent new urban feature into the community that would be especially visible in areas where the guideway would be elevated. 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. Consideration is also given to the overall impacts of the project on the broader agricultural community in the Central Valley.

The BNSF Alternative would extend through approximately 24 miles of Fresno County, from the 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 displace five homes in the Edison and Roosevelt neighborhoods, but would displace 36 businesses (34 in the Edison District and 1 each in the Central and Roosevelt districts), including a café, several automotive businesses, a commercial bakery, and a mix of light-industrial and warehousing uses. The affected area has a high number of commercial vacancies, thus potentially offering opportunities for nearby relocation and avoiding disruption of the business community. (The project would displace an additional 15 commercial-industrial businesses with Fresno addresses outside the city limits.) The majority of the affected businesses

do not serve the neighborhood, and few residences would be directly affected; therefore, community cohesion in Fresno 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).¹² 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. It complements services provided to the homeless population by nearby Poverello House. 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 intensity would be substantial under NEPA, and the impact would be significant under CEQA. With mitigation, this impact would be reduced to less than significant.¹³

South of the city of Fresno, the BNSF Alternative 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 0.75 mile to the west of Malaga—far enough away that community impacts would be limited 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 make access to homes and businesses along East Adams Avenue and to Oleander's only market inconvenient (through temporary access constraints, detours, or traffic delays), but it is likely there would be no permanent residential or business displacements.

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

¹² 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).

¹³ 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. If this occurs, the relocation of the Fresno Rescue Mission onto land the Mission already owns needs to be evaluated for secondary impacts caused by the HST project.

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) intensity 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.

The BNSF Alternative would travel approximately 28 miles through Kings County, traversing primarily rural agricultural areas. It would bypass the city of Hanford but would pass east of the unincorporated area referred to as the community of Hamblin in the USGS Geographic Name Information System, and through a rural residential development with 25 homes in the vicinity of East Lacey Boulevard and Ponderosa Road. The HST tracks in the Hamblin 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 in Hamblin would be of negligible intensity under NEPA, and none would exist under CEQA because of the distance between the community and the HST facilities.

In the Ponderosa Road community (containing 25 residential units), there are 7 units within the project footprint that would be relocated. However, given access considerations for other residences in the community, potentially up to half of the existing ranch homes could be displaced by the project.¹⁴ Remaining homes would be close (less than 200 feet) to the new HST guideway, which would be elevated 40 feet above ground level. The Kings/Tulare Regional Station-East Alternative would be built on the elevated guideway in the immediate vicinity of this community, just north of the existing freight-rail tracks. Given these impacts, the project would affect community character, social interactions, and community cohesion by displacing potentially half of the households, and by exposing the remaining rural residential homes to increased noise, visual, and traffic impacts. This would be of substantial intensity under NEPA and a significant impact under CEQA.

To the south, the BNSF Alternative 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 48 homes, including a substantial portion of a mobile home/RV park near the downtown area. It would also displace up to 16 commercial-industrial businesses in Corcoran, including the Amtrak station building that houses the city's Chamber of Commerce offices, a community market, and several automotive businesses. 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 the perceived quality of life in Corcoran. This effect would be of

¹⁴ Final determination on the need to relocate residences as a result of access considerations would be made during the right-of-way phase of the project. For this community analysis, it was assumed that these additional residences would need to be relocated.

moderate to substantial intensity under NEPA, but a less-than-significant impact under CEQA, because of the presence of an existing transportation corridor dividing the community and availability of relocation resources in the community.

The BNSF Alternative crosses approximately 22 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, the Allensworth Elementary 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 of moderate intensity under NEPA, and the impact would be less than significant under CEQA.

The BNSF Alternative in Kern County is approximately 44 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. Operation would result in intrusive visual and noise impacts on community facilities, including city offices and downtown parks, which could impact community character or perceived quality of life. HST facilities would result in the displacement of two homes and 13 businesses in Wasco. Most of these businesses provide automotive or agricultural services or storage. The Amtrak passenger platform may also be displaced. The project would also 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 to be of moderate to substantial intensity under NEPA, and the impact would be 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 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 to be of moderate intensity 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 existing homes. The effects on these communities would be considered to be of substantial intensity under NEPA, and the impacts would be 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 two homes and six businesses in Shafter, including a hardware or general store and a gas station/minimart. Because of the displacements and the introduction of intrusive new noise and visual impacts, these effects would be considered to be of substantial intensity under NEPA, and the impacts would be less than significant under CEQA.

Between Shafter and Bakersfield, the BNSF Alternative would pass the small, unincorporated community of Crome,¹⁵ a cluster of about 25 to 30 homes about 5 miles northwest of Bakersfield. The HST project would relocate Santa Fe Way to the west through Crome to accommodate the HST tracks. This activity would displace approximately one-third (8 to 10) of the homes in Crome and the only non-residential use in the community—a church building that houses both the 7th Standard Pentecostal Church of God and the India Pentecostal Assembly. Because of the magnitude of the displacements (the high proportion of community facilities affected) and the noise and visual impacts that would occur as a result of the HST project, these effects would be considered to be of substantial intensity under NEPA, and the impacts would be 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 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 145 homes and 19 non-residential properties, including a gas station/minimart, 2 health centers, and 2 churches (Chinmaya Mission and Korean Presbyterian Church). The proposed route would also eliminate the only functional access that rural residential homes along Palm Avenue and Torrey Drive have used to bring horse trailers and supplies to the rear portions of their ¾-acre to 1-acre parcels; however, this practice appears to be via the BNSF railroad maintenance road, which is not a public right-of-way or a private easement. This alignment would alter community social interactions and community cohesion, change the physical character of the community, and potentially create problems for rural residential property owners to continue using their properties for certain activities (e.g., horse trailer ingress/egress). These effects would be of substantial intensity under NEPA, and the impacts would be significant under CEQA.

In the Central District, the BNSF Alternative would displace only one home and no churches, but it would displace an estimated 109 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. **Removal of the Industrial Arts Building**

¹⁵ This community is just outside the Shafter city limits, in the northwestern quadrant of the intersection of 7th Standard Road and the Central Valley Highway. While it is not referred to by any name in county planning documents, it is labeled "Crome" in the USGS Geographic Name Information System.

would be a substantial physical change to the campus as a whole. Depending on where and how it is replaced, this physical change could result in a social impact (as those alumni and community members who are emotionally attached to the high school's history and role in the community perceive a substantial void in the long-intact campus). In addition, there are inherent challenges in finding a suitable replacement location in the surrounding built-out urban environment. The displacement of this facility—and numerous businesses—in the Central District is considered of substantial intensity under NEPA and would be a significant impact under CEQA.

In the Northeast District, 119 homes and 174 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. Existing parking lots, including parking at the Bakersfield Convention Center overflow lot, would be directly affected by the project. Also, a small portion of the parking lot at Owens Intermediate School in Bakersfield would be used for a temporary construction easement, affecting 6 to 10 parking spaces. 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.¹⁶ 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 Bakersfield Northeast District would be of substantial intensity under NEPA and a significant impact under CEQA.

Hanford West Bypass 1 Alternative

The two Hanford West Bypass alternatives would bypass the city of Hanford on its west side rather than the east side, as does the BNSF Alternative. As a result, these two alternatives would avoid impacts to the Ponderosa residential community associated with the BNSF Alternative. The Hanford West Bypass 1 Alternative would depart from the BNSF Alternative just south of East Elkhorn Avenue in Fresno County, then travel south through predominately agricultural land to the west of the community of Laton and to the east of Grangeville. This alternative would then pass between Hanford and Armona just west of the College of the Sequoias Hanford campus and through an area with a mix of agricultural land, commercial-industrial businesses, and a small cluster of suburban homes. From there, the Hanford West Bypass 1 Alternative would travel south through predominately agricultural land and would rejoin the BNSF Alternative just south of Lansing Avenue.

The main community impact associated with this alternative would be felt in the vicinity of 13th Avenue and the Hanford-Armona Road, where three homes and five businesses would be displaced by the at-grade option, mainly as a result of ancillary road work rather than track construction. Similarly, the below-grade option would displace three homes and five businesses. Although the loss of homes would be a hardship for the affected households, the loss of homes would not divide or disrupt the communities of Hanford or Armona as a whole. Moreover, as discussed below in the section concerning the displacement and relocation of residents (see discussion under Impact SO #10 Residential Displacements), these households would be

¹⁶ 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.

expected to have the opportunity to relocate in the area. The displaced businesses are regional in nature, and provide services beyond the immediate community. They include towing services, a collision center, and agriculture supply and service businesses. Because this alternative would not result in the division of an existing community but would result in localized, short-term social and economic disruption within the community, the intensity would be moderate under NEPA and the impact would be less than significant under CEQA.

Hanford West Bypass 2 Alternative

The Hanford West Bypass 2 Alternative is similar to the Hanford West Bypass 1 Alternative, except between Grangeville Boulevard and Houston Avenue. The Hanford West Bypass 2 Alternative would rejoin the BNSF alignment 0.5 mile north of Kansas Avenue. The portions of this alternative alignment that differ from the Hanford West Bypass 1 Alternative are in rural agricultural areas with no concentrations of homes, community services, or businesses. Therefore, community impacts associated with this alternative would be identical to those identified for the Hanford West Bypass 1 Alternative, occurring primarily in the vicinity of 13th Avenue and the Hanford-Armona Road. Therefore, the intensity would be moderate under NEPA and the impact would be less than significant under CEQA.

Corcoran Elevated Alternative

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. Only one home and one small 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 hinder outdoor interactions, degrade the quality of downtown gathering places, and result in perceptions of reduced quality of life in the community over the long term, and therefore would be considered of substantial intensity on the community under NEPA and as a less-than-significant impact under CEQA.

Corcoran Bypass Alternative

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 overall 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 the substantial community 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 substantially fewer displacements in Corcoran than would the BNSF Alternative, the displacements be of substantial intensity on these small, rural residential communities under NEPA and the impact would be significant under CEQA.

Although the Corcoran Bypass Alternative would displace around 50 fewer homes in Corcoran than the BNSF Alternative, it would displace 30 more homes in the unincorporated area of Kings County, increasing the total residential displacements in the unincorporated area of the county from 40 to 70. However, most of this increase in the number of displacements in unincorporated areas would occur in the rural residential developments in the unincorporated area just outside the Corcoran city limits described above. Therefore, because most of the additional displacements would occur in suburban neighborhoods, rather than rural areas, the impacts to the agricultural community would be similar to those described for the BNSF Alternative.

Allensworth Bypass Alternative

The Allensworth Bypass Alternative 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. Because the Allensworth Bypass Alternative would not result in the division of an existing community or changes in community character, the intensity would be negligible under NEPA, and there would be no impact under CEQA.

Wasco-Shafter Bypass Alternative

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, intensity would be negligible under NEPA and no impact under CEQA.

Bakersfield South Alternative

The Bakersfield South Alternative, like the BNSF Alternative, would pass through Bakersfield's Northwest, Central, and Northeast districts, affecting similar but somewhat different community facilities. Impacts in the Bakersfield Northwest District 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 (126, compared with 145 for the BNSF Alternative) and 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. No homes would be displaced in Central Bakersfield, but this alternative would displace 57 commercial-industrial businesses (compared with the 109 businesses that the BNSF Alternative would displace), 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 and the Bakersfield Convention Center overflow 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 study area 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. Under this alternative, 146 homes and 57 businesses would be displaced (compared with 119 homes and 174 businesses under the BNSF Alternative). 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). This alternative would also relocate the Bethel Christian School, which is associated with the First Free Will Baptist Church. 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. In addition, some parking associated with the Kern County Human Health and Services building would be removed to accommodate supports for the elevated guideway.

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

Bakersfield Hybrid Alternative

The Bakersfield Hybrid Alternative, like the BNSF and Bakersfield South alternatives, would pass through Bakersfield's Northwest, Central, and Northeast districts, affecting similar but somewhat different community facilities. Impacts in the Northwest District would be very similar to those identified for the BNSF Alternative, displacing many homes and businesses, as well as several churches. Like the BNSF and Bakersfield South alternatives, the Bakersfield Hybrid Alternative would divide this existing community and result in a considerable number of residential property acquisitions in this neighborhood (128, compared with 145 and 126 for the BNSF and Bakersfield South alternatives, respectively) and would similarly disrupt two churches (the Korean Presbyterian Church would be fully displaced and parts of Chinmaya Mission property would be displaced). In addition, 20 business units would be displaced by the Bakersfield Hybrid Alternative in the Northwest District, and these business impacts would be similar to those of the BNSF Alternative.

In the Central District, the Bakersfield Hybrid 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. It would displace 1 home, as well as 78 mixed commercial-industrial businesses in the Central District (compared with the 109 businesses and 57 businesses that the BNSF and Bakersfield South alternatives would displace, respectively). It would also displace two community facilities, the city Public Works office and portions of the city's corporation yard, as well as a Kern County Mental Health office. Similar to the BNSF and Bakersfield South alternatives, the elevated guideway would span portions of existing downtown parking lots in Central Bakersfield, permanently removing a small portion of the parking spaces when the supports are constructed.

In the Northeast District, the Bakersfield Hybrid Alternative would cause less disruption than the other two alternatives to the existing residential neighborhood located southeast of the downtown area, roughly between East Truxtun and East California avenues, and from Union

Avenue to the project terminus at Oswell Street. The Bakersfield Hybrid Alternative would travel along the northern edge of this neighborhood, avoiding many of the residential and church displacements associated with the other alternatives, but (like the BNSF Alternative) it would displace many of the automotive and other businesses located on the south side of the Edison Highway, and it would cause additional business displacements in the area north of East Truxtun Avenue and south of the rail yards. The Bakersfield Hybrid Alternative would displace 57 homes in the Northeast District—still a substantial number, but considerably fewer than the 119 homes that would be displaced under the BNSF Alternative or the 146 homes that would be displaced under Bakersfield South. Under the Bakersfield Hybrid Alternative, 182 businesses in the Northeast District would be displaced, compared with 174 businesses under the BNSF Alternative and 57 businesses under Bakersfield South. The high number of business displacements under both the BNSF and Bakersfield Hybrid alternatives includes the estimated 118 micro-businesses sheltered under the roof of the Mercado Latino on Edison Highway.

Also displaced in this area would be the Bakersfield Homeless Shelter. This privately run shelter has 174 beds to provide crisis housing for women and children and homeless families. It serves 500 to 700 meals daily, and provides an array of counseling, health, education, and job placement services (Gill 2012).

Because portions of the Bakersfield Hybrid Alternative would not be within an existing rail corridor, it is a new linear element dividing an established community. It would divide the existing community in the Bakersfield Northeast District. It would cause fewer residential displacements in the Northeast District than the other two alternative alignments through Bakersfield, but it would displace more businesses as well as a key facility providing important community services to Bakersfield's homeless population. This alternative would still require relocation of many commercial-industrial businesses, as well as a Kern County Mental Health office and the Bakersfield Homeless Shelter. The intensity of these community impacts would be substantial under NEPA, and the impact would be significant under CEQA.

Station Alternatives

Fresno Station–Mariposa Alternative (preferred 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 intensity 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. The impacts on existing community resources would have similarly negligible intensity under NEPA and less-than-significant impacts under CEQA.

Kings/Tulare Regional Station–East Alternative [at-grade and below-grade options] (potential). The Kings/Tulare Regional Station–East Alternative 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 intensities would be moderate under NEPA and impacts would be less than significant under CEQA.

Kings/Tulare Regional Station–West Alternative [at-grade and below-grade options] (potential). The Kings/Tulare Regional Station–West Alternative would be located in a rural agricultural area where there is at present no concentration of homes, businesses, or community facilities, and no

facilities would be displaced. Therefore, the effects on existing communities would be negligible under NEPA, and impacts on these communities under CEQA would be less than significant.

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 16 residential households and 18 businesses, as well as school, playground, and meeting facilities associated with St. George Greek Orthodox Church. These community effects would be of substantial intensity under NEPA, and the impacts would be significant under CEQA.

Bakersfield Station–South Alternative. The Bakersfield Station–South Alternative would relocate five 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 of moderate intensity under NEPA, and community impacts would be less than significant under CEQA.

Bakersfield Station–Hybrid Alternative. The Bakersfield Station–Hybrid Alternative would be in the same general vicinity as the other two station alternatives in Bakersfield’s Central District, but with a somewhat different footprint, encompassing portions of the footprints of each of the other two alternatives between Truxtun and California avenues, but with a portion of the station facilities reaching farther to the east, across Union Avenue. This station alternative would displace 12 homes and 22 businesses in the Central District. The businesses are a mix of small automobile servicing businesses, professional services (legal, insurance), and one fast-food restaurant. Like the Bakersfield Station North Alternative, the Bakersfield Hybrid Alternative would also disrupt auxiliary facilities associated with the St. George Greek Orthodox Church, but would not take the church itself. These effects would be of moderate to substantial intensity under NEPA, and community impacts would be less than significant under CEQA.

Heavy Maintenance Facility Site Alternatives

The operation of the heavy maintenance facility could result in changes in transportation, air quality, noise and vibration, safety and security, and aesthetics and visual resources that could potentially affect an adjacent community. Table 3.12-9 summarizes the impacts of changes to those resources that could occur at the HMF sites. Two of the alternative HMF sites (the Fresno Works–Fresno and the Kern Council of Governments–Wasco) are in areas near high concentrations of minority and low-income populations. The Fresno Works–Fresno HMF site is in a transitional area between the city and rural areas, with a mix of industrial and agricultural uses. Part of the HMF would lie less than 0.25 mile east of the rural residential community of Malaga. The Kern Council of Governments–Wasco HMF site is adjacent to the Wasco Agricultural Workers Camp, and the Kern Council of Governments–Shafter East and Kern Council of Governments–Shafter West HMF sites lie adjacent to a small rural residential community that also appears to house an EJ population. The long-term air-quality effects at these HMF sites would be reduced to negligible under NEPA and to less than significant under CEQA with mitigation. Unavoidable noise impacts would have greater impacts at the Fresno and Wasco HMF sites because of the comparatively higher concentrations of population near those locations, but they would also affect the adjacent smaller rural community adjacent to the Shafter East and Shafter West HMF sites. Only the Hanford HMF site, which is about 2 miles east of the Home Garden community and southwest of the main urbanized area of Hanford, is surrounded by predominately rural agricultural land.

Table 3.12-9
 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 HMF site near Hanford would result in adverse 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. Refer to Section 3.2, Transportation, for complete information.
Air Quality and Global Climate Change	As a result of HMF operation, impacts on nearby sensitive receptors from emissions and odors would be substantial; however, these impacts would be reduced after mitigation. Refer to Section 3.3, Air Quality and Global Climate Change, for complete information.
Noise and Vibration	Adverse 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. Refer to Section 3.4, Noise and Vibration, for complete information.
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. Refer to Section 3.11, Safety and Security, for complete information.
Aesthetics and Visual Resources	The HMF alternatives could 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 more residences, such as the Fresno and Wasco sites. Refer to Section 3.15, Aesthetics and Visual Resources, for complete information.
Acronyms and Abbreviations: HMF = heavy maintenance facility	

Four of the five proposed HMF site alternatives would displace small numbers of residences and businesses, although the effects range from negligible to significant depending on the context. The exception is the Fresno Works–Fresno HMF site that would relocate 31 rural households and 8 businesses but would not divide an existing community, so intensity would be negligible under NEPA and impacts would be less than significant under CEQA. The Kings County–Hanford HMF site is in a rural agricultural area. Because selection of this location would displace a single home and would not divide an existing community, the intensity of community effects would be negligible under NEPA and the impact less than significant under CEQA. The Kern Council of Governments–Wasco HMF site would displace one home and one business and would be immediately adjacent to the Wasco Agricultural Workers Camp. Although the HMF facility would not divide the labor camp, indirect noise, visual, and traffic impacts could adversely affect community character and quality of life, a substantial intensity under NEPA and a less-than-significant impact under CEQA. The Kern Council of Governments–Shafter West and Shafter East HMF sites are surrounded by predominately agricultural land, but the southern end of both sites lies adjacent to the community of Crome. This community would be adversely affected by the BNSF Alternative, and construction of the HMF facility nearby would add to the cumulative impact on the character of and living conditions in this community. A maintenance-of-way facility constructed in association with any of the HMF sites would have similar potential effects as those identified for these sites.

Impact SO #8 Effects to the Regional Agricultural Community

Under the BNSF Alternative, residential displacements include a total of 129 displaced homes in the unincorporated areas of the region—56 in Fresno County, 40 in Kings County, 8 in Tulare County, and 25 in Kern County. Although many of these displacements would occur in areas just outside of city limits, a substantial number of them would be farmsteads that would be displaced by construction of roadway overcrossings. The largest number would occur in Fresno County, where farm homesteads and rural residences would have to be displaced at intervals of approximately every mile or so along the alignment to accommodate new roadway overcrossings. These displacements would cause considerable disruption to the agricultural community south of Malaga in the agricultural areas surrounding Bowles, Monmouth, and similar small farm towns stretching from Kings County to the vicinity of Corcoran.

The displacement of numerous farm homesteads in a region that takes pride in its agricultural heritage and where agriculture is a dominant economic activity would cause disruption not only to the individual property owners but also to the wider agricultural community. Rural neighbors often rely on each other for assistance (e.g., for responding to an emergency, lending resources in the event of unexpected equipment failure, finding extra hands at harvest). This interdependence can build community cohesion, even in areas with low population density, especially where the same families may have been neighbors for many years. Displacement of rural homes can cause substantial disruption to families faced with having to move or replace their established home, along with outbuildings, gardens, irrigation and fencing systems, mature landscaping, and other improvements that have been carefully built over decades or several generations. The broader farming community can also suffer disruption from the displacement of multiple neighbors—who may or may not decide to continue farming in proximity to a new high-speed train line—and through having other farming operations in the area divided by a new linear feature. This disruption to the agricultural community in the rural areas of Fresno and Kings counties would be considered of substantial intensity under NEPA and a significant impact under CEQA in areas where the alignment departs from the existing BNSF corridor and introduces a new linear facility that would divide an existing community.

Impact SO #9 – Effects of Project Operations on Children's Health and Safety

Overall, none of the proposed alignment alternatives, stations, and HMF sites is anticipated to result in effects of substantial intensity on children's health and safety over the operational period of the project. Much of the area adjacent to the proposed alignment alternatives is associated with agriculture, industrial, and commercial uses, which are typically not areas where children congregate. All of the alternatives would result in improvements to air quality over the No Project Alternative. (Refer to Section 3.3, Air Quality and Global Climate Change, for complete information.)

The project will be designed to prevent conflicts with other vehicles, pedestrians, and bicyclists, thus providing a safety benefit for children in the study area. (Refer to Section 3.11, Safety and Security, for complete information on safety plans and procedures.) The alternatives also include construction of overpasses in communities allowing for access over the project and current existing railway corridor. These overpasses would again improve safety for children in the area over the No Project Alternative.

The project would affect schools along the proposed alignment alternatives. California Code of Regulations (CCR) Title 5, Section 14010, provides siting standards for new schools and these standards provide an indication of when safety impacts may occur to school employees and students. Specifically relevant to this project, these regulations call for consideration of proximity of schools to transmission lines and the implementation of a safety study for schools near railroad track easements.

CCR 14010(c) calls for a separation between schools and power transmission lines of 100 feet for 50-133 kV lines, 150 feet for 220-230 kV lines, and 350 feet for 500-550 kV lines. The HST project would be powered by a 25 kV system; therefore, the electrification of the trains would not be a safety hazard to schools. The Fresno to Bakersfield Section would not require the construction of new power transmission lines in the vicinity of existing or future planned schools. For these reasons, the electrification of the HST project would have no safety effect on school employees and students.

CCR 14010(d) requires a safety study for school sites within 1,500 feet of a railroad track easement. The BNSF Alternative would encroach on the campus of Bakersfield High School and would be close to other schools. The Bakersfield South Alternative would encroach on the campus of Bethel Christian School. The Hanford West Bypass alternatives would be adjacent to Sierra Pacific High School and College of the Sequoias–Hanford Center. Derailment of a train during a seismic event or other natural disaster could be a substantial safety hazard to these schools if the train left the HST right-of-way and collided with other structures or people on adjacent properties. This hazard is associated with the physical mass and speed of the train. Because the HST would only carry passengers and be electric-powered, there would be no safety hazard associated with HST cargo or fuel.

Physical impact of an HST leaving the right-of-way could only occur within roughly 100 feet of the right-of-way. Therefore, only Bakersfield High School on the BNSF Alternative would be subject to this safety risk.¹⁷ As discussed above, a basic design feature of an HST System is to contain train sets within the operational corridor. Thus, if a derailment were to occur next to a school, the train would remain within the HST right-of-way. Because the train would be contained in the HST right-of-way and would not contain cargo or fuel that would result in a fire or explosion, the proposed project would not substantially increase hazards to nearby schools.

Overall, the effect of project operation is considered to have negligible intensity on children's health and safety. (Refer to Appendix 3.12-C, Children's Health and Safety Risk Assessment, for complete information.)

Displacement and Relocation of Local Residences and Businesses

The Fresno to Bakersfield Section of the HST System is approximately 118 miles long; the section crosses both urban and rural lands. To comply with the project objective to use existing transportation corridors when feasible, the Fresno to Bakersfield Section would primarily be 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 near urbanized areas.¹⁸ 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. This guidance differs depending on whether the affected party is a farmer, business owner, homeowner, or mobile home owner. (See Appendix 3.12-A for all relocation assistance programs.)

As outlined in Section 3.12.2, the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended (Uniform Relocation Act), ensures that persons displaced as a result of

¹⁷ Note that if the Bakersfield South Alternative is chosen, the Bethel Christian School would be relocated away from the project so would not remain within 100 feet of the project right-of-way.

¹⁸ 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.

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. Persons who would be displaced would personally work with a Relocation Agent from the Authority. If the HST project would require a considerable number of people to be relocated, the Authority will establish a temporary relocation field office on or near the project. Project relocation offices will be open during convenient hours and evening hours, if necessary. In addition to these services, the Authority is required to coordinate its relocation activities with other agencies causing displacements to ensure that all displaced persons receive fair and consistent relocation benefits.

Impact SO #10 – Residential Displacements

BNSF Alternative

In total, an estimated 451 residential units and a corresponding 1,430 residents would be displaced and relocated along the entire BNSF Alternative (see Table 3.12-10). The majority of the 451 displacements are in the Bakersfield area, where 265 households would be relocated. These 265 units are divided between the Bakersfield Central District (1 unit and 3 residents), Northeast District (119 units and 364 residents), and Northwest District (145 units and 444 residents).

Table 3.12-10
Residential Displacement under the BNSF Alternative

Location	Residential Units Displaced	Estimated Residents to be Relocated
Urban Areas		
Fresno Central	0	0
Fresno Edison	3	11
Fresno Roosevelt	2	7
Hanford	0	0
Corcoran	48	172
Wasco	2	8
Shafter	2	8
Bakersfield Northwest	145	444
Bakersfield Central	1	3
Bakersfield Northeast	119	364
Rural Areas		
Unincorporated Fresno County	56	176
Unincorporated Kings County	40	132
Unincorporated Tulare County	8	27
Unincorporated Kern County	25	78
Regional Total	451	1,430
Source: Authority and FRA 2012a.		

The remaining displacements along the BNSF Alternative are primarily in Corcoran (48 units and 172 residents) and unincorporated areas of Fresno (56 units and 176 residents), Kings (40 units and 132 residents), and Kern (25 units and 78 residents) counties. The other cities have a small

number of residential displacements, with 5 housing units and 18 residents displaced in the city of Fresno, and 2 units with 8 residents in both Wasco and Shafter. The city of 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, Kings and Kern counties, as well as in Corcoran and the Bakersfield districts—where over 95% of the total residential displacements would occur—have vacant residences in excess of the estimated number of displacements.

For example, 945 single-family homes were available for sale in July 2010 in the Bakersfield Northeast District. With only a total of 119 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 145 units that would be displaced by the proposed project. Total vacancies are again large in Corcoran, where there are 75 vacant residences for the 48 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 verified that residential vacancies would be sufficient to accommodate relocated residents. Approximately 1 out of every 18 residences in the Bakersfield Central and Northeast districts 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 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 these locations.

Vacant residential properties identified in zip codes along the project alignment in unincorporated Fresno, Kings, and Kern counties numbered 342, 589, and 2,044, respectively. These vacancies are more than sufficient for the respective 56, 40, and 25 potential displacements in these locations, and do not include consideration of existing adjacent vacant land where the current units could be moved.

Under the Uniform Relocation Assistance and Real Property Acquisition Policies Act, comparable replacement housing should provide space and physical characteristics similar to those of the displacement dwelling. Therefore, it is important that 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. The fact that the values are comparable is particularly important in Bakersfield, given the 265 residential displacements across a wide range of prices in this community. Displaced residential units in the Northeast District have an average value of around \$70,000. More specifically, there were 3 units with a value greater than \$200,000, 15 units with a value between \$100,000 and \$200,000, and 101 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 29 units valued at more than \$200,000, 88 units with a value between \$100,000 and \$200,000, and 28 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).

Multifamily displacements in the heavily affected Bakersfield districts would be 52 units displaced in the Northeast District and 21 multifamily units displaced in the Northwest District.¹⁹ 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 relocated renters. 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 allow sufficient lead time to identify suitable rental properties and to provide housing of last resort, including rehabilitation of existing housing or relocation of the disrupted residential areas to newly constructed housing elsewhere in the vicinity, where necessary, for low-income renters in the Northeast District.

One manufactured housing or mobile home park community is affected by the BNSF Alternative 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 are concentrated in the Bakersfield Northeast and Northwest districts (a total of 264 residences and 808 residents) and in the city of Corcoran (48 residences and 172 residents). Although sufficient replacement housing is available in these communities, these displacements are a considerable number for these communities and represent over two-thirds of all residential displacements along the entire alignment. Given this high number of displacements, the effect of displacements in these communities would be of substantial intensity 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. As a result, the project would not necessitate the construction of substantial numbers of replacement housing units and therefore the impact would be less than significant under CEQA.

Although residential displacements in unincorporated Fresno, Kings, and Kern counties are smaller in number and less concentrated in a single community, they are still considerable and represent about 12%, 9%, and 6%, respectively, of all residential displacements along the alignment. Because the majority of displacements in unincorporated counties are typically single-family residential homes on working agricultural lands, it may be difficult to find comparable replacements at any price, and relocating existing housing to nearby land may take time. This may be especially difficult for rural residential subdivisions (e.g., Ponderosa Road, east of Hanford; the Newark Avenue area, northeast of Corcoran; and Crome). Given the potential difficulties in finding agricultural residential properties, as outlined in Impact SO #8— Impacts Effects to the Regional Agricultural Community, the intensity of the displacements associated with the BNSF Alternative in unincorporated Fresno, Kings, and Kern counties would be moderate under NEPA. Residential displacements in the other communities along the BNSF Alternative are few and would have a negligible intensity under NEPA. In all of these cases, the project would not necessitate the construction of substantial numbers of replacement housing units, and therefore the impact would be less than significant under CEQA.

One rural residential subdivision in unincorporated Kings County—in the vicinity of Ponderosa Road and Edna Way east of Hanford (which is affected by the BNSF Alternative)—is an exception

¹⁹ Manufactured housing is examined separately below.

to this finding of a sufficient number of current vacant residences. In this location, residents enjoy a unique blend of amenities (spacious lots, city services, and a country setting close to town). Very few comparable, vacant, developed rural residential homes may be available as replacement properties. If so, it may be necessary to consider constructing housing of last resort, including rehabilitation of existing housing or relocation of disrupted residential areas to newly constructed housing elsewhere in the vicinity. Similarly, the rural residential community of Crome in unincorporated Kern County is surrounded by agricultural uses, so it may be difficult to find comparable replacement housing nearby for displaced households. Even if replacement housing were to be constructed to meet these needs, these replacements would not represent a substantial number of new homes, and therefore the impact would be less than significant under CEQA.

Based on known demographics of the region, residential displacements associated with the BNSF Alternative could result in the relocation of sensitive populations, including the 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 Impact SO #17 – Environmental Justice Effects. 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 of negligible intensity under NEPA because the project is not expected to disproportionately relocate sensitive populations.

The BNSF Alternative would relocate the Fresno Rescue Mission's headquarters building in the Roosevelt District in Fresno, resulting in the displacement of an estimated 250 beds. Because this facility provides meals and services, including an overnight shelter to the city's homeless community, 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). However, if it is determined that a new building should be constructed, it would be a single structure and 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 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 intensity under NEPA would be moderate, and relocation plans and resources provided would address these needs.

Table 3.12-11 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 corresponding portion of the BNSF Alternative.

Table 3.12-11
Change in Residential Displacement Relative to the BNSF Alternative

Alternative	Total Units Displaced	Total Residents Displaced
BNSF Alternative	451	1,430
Change Relative to the BNSF Alternative		
Hanford West 1 Bypass*	-10	-30
Hanford West 2 Bypass*	-12	-37
Corcoran Elevated	-49	-175
Corcoran Bypass	-21	-83
Allensworth Bypass	-9	-29
Wasco-Shafter Bypass	-5	-17
Bakersfield South	+7	+22
Bakersfield Hybrid	-79	-242

* Results for the at-grade and below-grade options for the Hanford West Bypass 1 and 2 alternatives are similar and therefore only the larger difference is presented in this table. Specific counts for each of the options are provided in the text below.

Hanford West Bypass 1 Alternative

The Hanford West Bypass 1 Alternative consists of an at-grade option and a below-grade option. Very little difference exists in the number of residential displacements between these two options. The at-grade option would displace 53 residences (1 in Laton, 2 in Hanford, 7 in unincorporated Fresno County, 40 in unincorporated Kings County, and 3 in Armona). The below-grade option would displace 52 residences (1 in Laton, 1 in Hanford, 7 in unincorporated Fresno County, 40 in unincorporated Kings County, and 3 in Armona). Because 62 residential displacements would occur along the corresponding portion of the BNSF Alternative, the displacements for the at-grade option and the below-grade option would result in a decrease of 9 and 10 units, respectively, compared to the BNSF Alternative. The estimated total number of residents relocated by this alternative would be about 171, or about 30 fewer than under the BNSF Alternative.

An examination of suitable replacement housing for the displaced residents in this area shows a sufficient number of alternative homes are currently available. Real estate listings for homes for sale show that Laton, unincorporated Fresno and Kings counties (within zip codes 93242 and 93230), and the community of Armona (zip code 93202) had vacancies of 22, 506, and 37, respectively, all in excess of the residential displacements that would result in these locations from either of the two options for this alternative. Also, examination of HUD-aggregated USPS administrative data on address vacancies in the heavily affected area of Armona further verified that residential vacancies would be sufficient to accommodate relocated residents, because 107 units were identified as vacant. The Hanford West Bypass 1 Alternative would therefore not necessitate the construction of replacement housing elsewhere. Overall, the effect of residential displacements would be of moderate intensity under NEPA, and the impacts associated with the Hanford West Bypass 1 Alternative would be less than significant under CEQA. The anticipated residential displacements resulting from the Hanford West Bypass 1 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 of negligible intensity under NEPA.

Hanford West Bypass 2 Alternative

The Hanford West Bypass 2 Alternative consists of an at-grade option and a below-grade option. Very little difference exists in the number of residential displacements between these two options. The at-grade option would displace 51 residences: 1 in Laton, 2 in Hanford, 7 in unincorporated Fresno County, 38 in unincorporated Kings County, and 3 in Armona. The below-grade option would displace 50 residences: 1 in Laton, 1 in Hanford, 7 in unincorporated Fresno County, 38 in unincorporated Kings County, and 3 in Armona. Because 62 residential displacements would occur along the corresponding portion of the BNSF Alternative, the displacements for the at-grade option and the below-grade option would be a decrease of 11 and 12 units, respectively, if this alternative were selected instead of the BNSF Alternative. The estimated total number of residents relocated by this alternative would be about 164, or about 37 fewer than under the BNSF Alternative.

An examination of suitable housing alternatives for the displaced residents in this area is the same as that outlined for the Hanford West Bypass 1 Alternative. Therefore, the Hanford West Bypass 2 Alternative would not necessitate the construction of replacement housing elsewhere. Overall, the effect of residential displacements would be of moderate intensity under NEPA, and the impacts of residential displacements would be less than significant under CEQA. The anticipated residential displacements resulting from the Hanford West Bypass 2 Alternative are not expected to disproportionately relocate sensitive populations. However, relocation plans and resources would take these possibilities into account.

Corcoran Elevated Alternative

The Corcoran Elevated Alternative would displace 3 residences: 1 in Corcoran and 2 in unincorporated Tulare County. Because 52 residential displacements would occur along the corresponding portion of the BNSF Alternative, these displacements would be a decrease of 49 units if this alternative were selected instead of the BNSF Alternative. Given the small number of residential displacements associated with this alternative, the effects would be of negligible intensity under NEPA, and the impacts would be less than significant under CEQA.

Corcoran Bypass Alternative

The Corcoran Bypass Alternative would displace 31 residences: 30 in unincorporated Kings County and 1 in unincorporated Tulare County. Because 52 residential displacements would occur along the corresponding portion of the BNSF Alternative, these displacements would be a decrease of 21 units if this alternative were selected instead of the BNSF Alternative. The estimated total number of residents relocated would be 102, or about 83 fewer than under the BNSF Alternative. One rural residential subdivision in unincorporated Kings County, in the Newark Avenue area northeast of Corcoran, is an exception to the finding of a sufficient number of current vacant residences. In this location, residents enjoy a unique blend of amenities (spacious lots, city services, and a country setting close to town). Few comparable, vacant, developed rural residential homes may be available as replacement properties; therefore, it may be necessary to consider constructing housing of last resort, including rehabilitation of existing housing or relocation of disrupted residential areas to newly constructed housing elsewhere in the vicinity.

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 31 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 of moderate intensity 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 of negligible intensity under NEPA.

Allensworth Bypass Alternative

The Allensworth Bypass Alternative would not displace any residences, compared to the nine residential displacements that would occur along the corresponding portion of the BNSF Alternative. Therefore, there would be no effect on residential displacements under NEPA, and there would be no impact under CEQA. Because there are no residential displacements under the Allensworth Bypass Alternative, there would be no effect under NEPA.

Wasco-Shafter Bypass Alternative

The Wasco-Shafter Bypass Alternative would displace 18 residences: 16 in unincorporated Kern County and 2 in Shafter. The corresponding portion of the BNSF Alternative would displace 23 residences. There would be 58 residents displaced by the Wasco-Shafter Bypass, 17 fewer than the corresponding portion of the BNSF Alternative.

Unincorporated Kern County and the city of Shafter have 2,044 and 66 vacant homes available, respectively, to meet the housing needs of these displaced residents. 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 of negligible intensity 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 of negligible intensity under NEPA.

Bakersfield South Alternative

The Bakersfield South Alternative would displace 272 residences in the city of Bakersfield. The corresponding portion of the BNSF Alternative would displace 265 residences. Displacements resulting from the Bakersfield South Alternative would affect 832 residents, compared with the 810 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 146 units and 447 residents in the Northeast District and 126 units and 386 residents in the Northwest District. The Bakersfield South Alternative would displace slightly more residential units (7) and people (22) than the BNSF Alternative.

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 of substantial intensity 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, 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, rehabilitation of existing housing, or relocation of disrupted residential areas to newly constructed

housing elsewhere in the vicinity. 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 special needs into account.

Bakersfield Hybrid Alternative

The Bakersfield Hybrid Alternative would displace 186 residences in Bakersfield. The corresponding portion of the BNSF Alternative would displace 265 residences. Displacements resulting from the Bakersfield Hybrid Alternative would affect 569 residents, compared with the 810 residents that would be relocated by the corresponding portion of the BNSF Alternative.

The displacements related to the Bakersfield Hybrid Alternative within the Bakersfield districts are divided between the Northeast and Northwest districts. This alternative would displace 57 units and 174 residents in the Northeast District, 128 units and 392 residents in the Northwest District and 1 unit with an estimated 3 residents in the Central District. The Bakersfield Hybrid Alternative would displace fewer residential units (79) and people (242) than the BNSF Alternative.

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 of substantial intensity 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, although replacement rental units may be scarce, 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, including rehabilitation of existing housing or relocation of disrupted residential areas to newly constructed housing elsewhere in the vicinity. 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 for the Bakersfield Hybrid Alternative. 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 special needs into account.

Station Alternatives

Five station alternatives (Fresno Station–Mariposa, Fresno Station–Kern, Kings/Tulare Regional Station–East [at-grade and below-grade options] (potential), Kings/Tulare Regional Station–West [at-grade and below-grade options] (potential), Bakersfield Station–South) would not displace any residential units and would not require the construction of replacement housing. The Bakersfield Station–North Alternative would displace 16 residential units in the Bakersfield Central District. The Bakersfield Station–Hybrid Alternative would displace 12 residential units in the Bakersfield Central District. As discussed for the BNSF Alternative above, there is sufficient vacant replacement housing in this area. Therefore, because the Bakersfield Station–North and –Hybrid alternatives 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 of negligible intensity under NEPA, and any impacts associated with the Bakersfield Station–North and –Hybrid alternatives would be less than significant under CEQA.

Heavy Maintenance Facility Site Alternatives

The residential displacements associated with the HMF site alternatives are as follows:

- Fresno Works–Fresno: 31 units.
- Kings County–Hanford: 1 unit.
- Kern Council of Governments–Wasco: 1 unit.
- Kern Council of Governments Shafter–East: 0 units.
- Kern Council of Governments 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 of negligible intensity under NEPA, and the impacts would be less than significant under CEQA.

If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Shafter East or Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Impact SO#11 – Commercial and Industrial Business Relocations

BNSF Alternative. An estimated 395 commercial and industrial businesses would be displaced and relocated along the entire BNSF Alternative. These relocations would correspond to an estimated 2,458 relocated employees. Bakersfield businesses account for 302 of the 395 total businesses that would likely be relocated. The Bakersfield business relocations are divided between the Central District (109 businesses and an estimated 635 employees), the Northeast District (174 businesses and 477 employees), and the Northwest District (19 businesses and 410 employees).

The remaining commercial and industrial relocations along the BNSF Alternative are primarily in the city of Fresno (36 businesses and 579 employees), unincorporated Fresno County (15 businesses and 151 employees), and Corcoran (16 businesses and 51 employees). The cities of Wasco (13 businesses and 31 employees) and Shafter (6 businesses and 21 employees), unincorporated Kern County (4 businesses and 53 employees), and unincorporated Kings County (3 businesses and 51 employees) also have relocations. The city of Hanford and unincorporated Tulare County would not have any business relocations. Table 3.12-12 shows a breakdown of these totals.

Bakersfield's Northeast District is home to the Mercado Latino Tianguis, an important community facility that would be displaced along with all its associated businesses. This facility is examined in Impact SO #7 – Disruption to Community Cohesion or Division of Existing Communities from Project Operation, 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 an estimated 230 employees.

Table 3.12-12
Commercial and Industrial Relocations under the BNSF Alternative

Location	Businesses Relocated	Estimated Employees Relocated
Urban Areas		
Fresno Central	1	5
Fresno Edison	34	534
Fresno Roosevelt	1	40
Hanford	0	0
Corcoran	16	51
Wasco	13	31
Shafter	6	21
Bakersfield Northwest	19	409
Bakersfield Central	109	635
Bakersfield Northeast	174	477
Rural Areas		
Unincorporated Fresno County	15	151
Unincorporated Kings County	3	51
Unincorporated Tulare County	0	0
Unincorporated Kern County	4	53
Regional Total	395	2,458
Source: Authority and FRA 2012a.		

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 321 displaced business sites in Bakersfield, Wasco, and Shafter consist primarily of retail, commercial, office, and miscellaneous businesses (comprising 225 units of the total). Examination of current commercial real estate for sale and lease in these locations identified 430 potential replacement properties available in July 2010.²⁰ Also important in these areas are displacements of industrial (25 businesses) and transportation/warehousing (23 businesses) properties. Property vacancies in these areas total 46 and 111 units, respectively, again showing sufficient availability of suitable properties.

²⁰ The Mercado Latino Tianguis 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.

Within the city of Fresno and unincorporated Fresno County, the commercial, retail, and office space vacancies total 174 properties; this level of vacancies would be more than sufficient to meet the needs of the 27 displaced businesses in this sector. Vacant industrial and transportation/warehousing vacancies total 64 and 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 16 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 would 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 Bakersfield Central and Northeast districts 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 both Fresno and Kern counties as well as in the city of Corcoran. Because of the nature of the services performed, these businesses usually require specialized facilities. Examination of potential replacement automotive-specific properties identified a shortage of existing replacement resources. In Fresno County, 8 automotive businesses would be relocated, and only 5 properties are vacant. In Kern County, there are 46 automotive businesses that 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 Bakersfield's Central and Northeast districts total 283 units employing an estimated 1,111 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 of substantial intensity 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 of substantial intensity under NEPA.

Commercial and industrial business displacements in Fresno's Edison District and in unincorporated Fresno County are smaller in number, but remain considerable and represent about 8% and 5%, respectively, of all business displacements along the alignment. The effect on business operations within these communities would be of moderate intensity under NEPA.

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

Table 3.12-13 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 3.12-13
Change in Commercial and Industrial Business Relocation Relative to the BNSF Alternative

Alternative	Total Businesses Displaced	Total Employees Displaced
BNSF Alternative	395	2,458
Change Relative to the BNSF Alternative		
Hanford West 1 Bypass*	+4	-7
Hanford West 2 Bypass*	+4	-7
Corcoran Elevated	-15	-48
Corcoran Bypass	-16	-51
Allensworth Bypass	0	0
Wasco-Shafter Bypass	-19	-92
Bakersfield South	-167	-481
Bakersfield Hybrid	-22	-123

* Results for the at-grade and below-grade options for the Hanford West Bypass 1 and 2 alternatives are similar and therefore only the larger difference is presented in this table. Specific counts for each of the options are provided in the text below.

Hanford West Bypass 1 Alternative. Seven businesses with 44 employees would be relocated along the Hanford West Bypass 1 Alternative under both the at-grade option and the below-grade option. These relocations compare with the 3 businesses and 51 employees that would be relocated in the corresponding portion of the BNSF Alternative. The Hanford West Bypass 1 Alternative would have a negligible intensity for commercial and industrial business operations under NEPA.

Hanford West Bypass 2 Alternative. Seven businesses with 44 employees would be relocated along the Hanford West Bypass 2 Alternative under both the at-grade option and the below-grade option. These relocations compare to the 3 businesses and 51 employees that would be relocated in the corresponding portion of the BNSF Alternative. The Hanford West Bypass 2 Alternative would have a negligible intensity for commercial and industrial business operations under NEPA.

Corcoran Elevated Alternative. One commercial or industrial business relocation with 3 employees would be displaced along the Corcoran Elevated Alternative compared with the 16 business and 51 employees in the corresponding portion of the BNSF Alternative. This alternative would have a negligible intensity for commercial and industrial business operations under NEPA.

Corcoran Bypass Alternative. No commercial or industrial business relocations would be required along the Corcoran Bypass Alternative compared with the 16 business and 51 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. No commercial or industrial business relocations would be required along the Allensworth Bypass Alternative. This correlates to the absence of any businesses or employees that would be relocated along the corresponding portion of the BNSF

Alternative. This alternative would have no effect on commercial and industrial business operations under NEPA.

Wasco-Shafter Bypass Alternative. Four businesses with approximately 13 employees would require relocation along the Wasco-Shafter Bypass Alternative. The corresponding portion of the BNSF Alternative would entail relocation of 23 businesses with an estimated 105 employees. This alternative would have a negligible intensity for commercial and industrial business operations under NEPA.

Bakersfield South Alternative. An estimated 135 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 1,041 employees. These relocations compare with the 302 businesses and 1,521 employees that would be relocated for the corresponding portion of the BNSF Alternative.

Bakersfield South Alternative relocations are divided between the city's districts, with the Central District experiencing relocations of 57 businesses and 357 employees, the Northeast District 57 businesses and 244 employees, and Northwest District 21 businesses and 440 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 Bakersfield Central and Northeast districts would be fewer under the Bakersfield South Alternative when compared with the BNSF Alternative, the totals would still be considerable. Given this high number and 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 of substantial intensity under NEPA.

Bakersfield Hybrid Alternative. An estimated 280 commercial and industrial businesses would be displaced and require relocation by the Bakersfield Hybrid Alternative. These relocations would correspond to the relocation of an estimated 1,399 employees. These relocations compare with the 302 businesses and 1,521 employees that would be relocated for the corresponding portion of the BNSF Alternative.

Bakersfield Hybrid Alternative relocations are divided among the city's districts, with the Central District experiencing relocations of 78 businesses and 365 employees, the Northeast District 182 businesses and 567 employees, and Northwest District 20 businesses and 467 employees. The Mercado Latino Tianguis, as discussed in the BNSF Alternative, above, would also be affected by the Bakersfield Hybrid Alternative.

A considerable number of businesses would be displaced and relocated by the Bakersfield Hybrid 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 Bakersfield districts would be fewer under the Bakersfield Hybrid Alternative when compared with the BNSF Alternative, the totals would still be considerable. Because of this high number and the fact that the Bakersfield Hybrid Alternative would result in significant impacts in dividing adjacent communities and would require relocation of important community facilities, the effect of these relocations would be of substantial intensity 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 four of these station alternatives (Fresno–Mariposa, Bakersfield–North, Bakersfield–South, and Bakersfield–Hybrid) would be of moderate intensity under NEPA. Intensity resulting from the Fresno–Kern and the Kings/Tulare Regional Station–West [at-grade and below-grade options] (potential) alternatives would be negligible, and the Kings/Tulare Regional Station–East Alternative [at-grade and below-grade options] (potential) would have no effect, because there would be no associated commercial or industrial relocations.

The Fresno Station–Mariposa Alternative would require relocation of four commercial and industrial businesses with an estimated 54 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 of moderate intensity under NEPA.

The Fresno Station–Kern Alternative would require relocation of one commercial and industrial business, with an estimated 8 employees. The effect on business operations would be of negligible intensity under NEPA.

The Kings/Tulare Regional Station–East Alternative [at-grade and below-grade options] (potential) would not require relocation of any commercial or industrial businesses, and therefore no effect would occur for this station alternative under NEPA.

The Kings/Tulare Regional Station–West Alternative [at-grade and below-grade options] (potential) would require relocation of one industrial business with an estimated three employees. The effect on business operations would be of negligible intensity under NEPA.

The Bakersfield Station–North Alternative would require relocation of an estimated 19 commercial and industrial businesses, with an estimated 229 employees in the Bakersfield Central District. Five of these businesses are associated with railroad spurs providing access to the BNSF railroad. Therefore, these businesses would require special relocation consideration to ensure continued access to the BNSF in their new locations. Given the number of businesses and employees displaced in this small area, the effect on business operations would be of moderate intensity under NEPA.

The Bakersfield Station–South Alternative would relocate an estimated 6 commercial and industrial businesses, with an estimated 174 employees in the Bakersfield Central District. Five of these businesses are associated with railroad spurs providing access to the BNSF railroad. Therefore, these businesses would require special relocation consideration to ensure continued access to the BNSF in their new locations. Given the number of businesses and employees displaced in this small area, the effect on business operations would be of moderate intensity under NEPA.

The Bakersfield Station–Hybrid Alternative would require relocation of an estimated 22 commercial and industrial businesses, with an estimated 194 employees in the Bakersfield Central District. Four of these businesses use railroad spurs for access to the BNSF railroad. Therefore,

these businesses would require special relocation consideration to ensure continued access to the BNSF in their new locations. Given the number of businesses and employees displaced in this small area, the effect on business operations would be of moderate intensity under NEPA.

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

The Fresno Works–Fresno HMF site would relocate eight commercial and industrial businesses, with an estimated 43 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 of moderate intensity under NEPA.

The Kings County–Hanford HMF 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 Kern Council of Governments–Wasco HMF site would require relocation of one commercial and industrial business, with an estimated eight 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 of negligible intensity under NEPA.

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

The Kern Council of Governments–Shafter West HMF site would require relocation of two commercial and industrial businesses, with an estimated two 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 of negligible intensity under NEPA.

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

Impact SO #12 – Project Effects on 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. This process would take some time and therefore short-term effects would be expected as this rearranging takes place. In these cases, there would also likely be added operational expenses to farm this land—new equipment, new infrastructure installation, and increased access costs incurred as additional labor hours and extra gasoline for tasks such as irrigation, pesticide application, harvesting, and other field management operations. In addition, any existing lease

agreements on affected lands would need to be examined as a result of parcel acquisitions. Compensation for these expenses would be determined on a case by case basis during the property acquisition phase of the project. Counting these split parcels provides insight into the relative 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 Section 3.14, Agricultural Lands.

When parcels are split, the potential exists for a loss of Williamson Act tax protection over the long term on remainder parcels that may end up smaller than the county minimum standard acreage. As a result, there could be tax-break loss implications to individual landowners whose land is removed from contract. Williamson Act lands affected by the project are examined in detail in Section 3.14, Agricultural Lands.

The number of agricultural facilities that would be displaced by the alternative alignments provides a measure of the potential disruption to agricultural business 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 will be on agricultural operations needing to relocate these structures.

BNSF Alternative

Along the entire BNSF Alternative, an estimated 112 agricultural parcels would be split, and 19 parcels containing agricultural facilities would be displaced (see Table 3.12-14). In Kings County, the BNSF Alternative would split 45 agricultural parcels. Split parcels would also result in unincorporated Fresno County (20 split parcels), Tulare County (18 split parcels), and Kern County (29 parcels). Displaced agricultural facilities would occur in Fresno County (9 parcels), Kings County (5 parcels), Tulare County (3 parcels), and Kern County (2 parcels).

Table 3.12-14
Agricultural Parcel Splits and Displaced Facilities under the BNSF Alternative

Location	Split Agricultural Parcels	Displaced Facilities (Parcels)
Fresno County	20	9
Kings County	45	5
Tulare County	18	3
Kern County	29	2
Regional Total	112	19

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. Should relocation be determined to be necessary, an examination of vacant and for-sale agricultural properties and operations revealed that a substantial supply of potential replacement properties is currently available (Loopnet 2010). In July 2010, there were 380 agricultural properties for sale in the region: 195 in Fresno

County, 23 in Kings County, 97 in Tulare County, and 65 in Kern County.²¹ 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 supporting the businesses, special consideration is required in the relocation plan for dairy operations, a unique rendering facility in Kings County, and a California Department of Food and Agriculture sampling station in Corcoran. 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. In addition, the sampling station in Corcoran inspects wheat, safflower, corn, and barley for moisture; from May until September each year, as many as 75 to 100 trucks per day pass through the facility. It would therefore be important that the rendering facility and the sampling station are relocated before the existing facilities are closed or that steps be taken to ensure that sufficient capacity is available at other facilities to avoid interruption in the services these facilities provide.

The overall effect of the BNSF Alternative on agricultural business operations would be of moderate intensity under NEPA in the short term as agricultural operation adjustments are made, and in the long term, these effects would be of negligible intensity under NEPA. Table 3.12-15 presents a summary of the agricultural parcel splits and displaced facilities associated with each of the alignment alternatives.

Table 3.12-15
Change in Agricultural Parcel Splits and Facilities Relative to the BNSF Alternative

Alternative	Split Parcels	Facilities Displaced
BNSF Alternative	112	19
Change Relative to the BNSF Alternative		
Hanford West 1 Bypass*	-8	-2
Hanford West 2 Bypass*	-7	-3
Corcoran Elevated	0	-2
Corcoran Bypass	+15	-3
Allensworth Bypass	+29	0
Wasco-Shafter Bypass	+5	0
Bakersfield South	0	-1
Bakersfield Hybrid	0	-1
* Results for the at-grade and below-grade options for the Hanford West Bypass 1 and 2 alternatives are similar and therefore only the larger difference is presented in this table. Specific counts for each of the options are provided in the text below.		

²¹ The analysis was conducted in July 2010. Therefore, the real estate numbers represent the properties for sale at that time. However, the recovery from the recession of 2008–2009 has been very slow in the region, and the economic conditions have remained essentially constant (Central Valley Business Times 2011; University of the Pacific 2012). Therefore, market conditions in 2012 are considered generally comparable to those evaluated in 2010.

Hanford West Bypass Alternatives

Hanford West Bypass 1 Alternative. The Hanford West Bypass 1 Alternative consists of an at-grade option and a below-grade option. The two options result in a different number of split parcels. The at-grade option splits 60 parcels and displaces four agricultural facilities, and the below-grade option splits 56 parcels and displaces four facilities. The difference between the numbers of split parcels in the two options is due to the differences in the right-of-way land acquisition required for each option. The corresponding portion of the BNSF Alternative splits 64 parcels and displaces six facilities. Similar to the BNSF Alternative, the effect of parcel splits and facility disruptions on agricultural business operations associated with the Hanford West Bypass 1 Alternative would be of moderate intensity under NEPA in the short term and of negligible intensity under NEPA in the long term.

Hanford West Bypass 2 Alternative. The Hanford West Bypass 2 Alternative consists of an at-grade option and a below-grade option. The two options result in a different number of split parcels. The at-grade option splits 62 parcels and displaces three agricultural facilities, and the below-grade option splits 57 parcels and displaces three facilities. The difference between the numbers of split parcels in the two options is due to the differences in the right-of-way land acquisition required for each option. The corresponding portion of the BNSF Alternative splits 64 parcels and displaces six facilities. Similar to the BNSF Alternative, the effect of parcel splits and facility disruptions on agricultural business operations associated with the Hanford West Bypass 2 Alternative would be of moderate intensity under NEPA in the short term and of negligible intensity under NEPA in the long term.

Corcoran Elevated Alternative

The Corcoran Elevated Alternative splits two parcels and displaces two facilities. The corresponding portion of the BNSF Alternative splits two parcels and displaces four facilities. Similar to the BNSF Alternative, the effect of parcel splits and facility disruptions on agricultural business operations associated with the Corcoran Elevated Alternative would be of moderate intensity under NEPA in the short term and of negligible intensity under NEPA in the long term.

Corcoran Bypass Alternative

Along the Corcoran Bypass Alternative, an estimated 17 agricultural parcels would be split and one agricultural facility would be displaced. A total of 14 of the 17 split parcels along the bypass are in Kings County, and 3 of the parcels are in Tulare County. The corresponding portion of the BNSF Alternative would split an estimated two parcels and would displace four agricultural facilities. The displaced agricultural facility is in Tulare 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 of moderate intensity under NEPA in the short term and of negligible intensity under NEPA in the long term.

Allensworth Bypass Alternative

An estimated 44 agricultural parcels would be split along the Allensworth Bypass Alternative. This number is much greater than the 15 parcels that would be split along the corresponding portion of the BNSF Alternative. The Allensworth Bypass Alternative does not displace any facilities and neither does the corresponding portion of the BNSF Alternative. The 44 split parcels along the Allensworth Bypass would be in Kern County (24 parcels) and Tulare County (20 parcels). Similar to the BNSF Alternative, the effect of split parcels and facility disruptions on agricultural business operations would be of moderate intensity under NEPA in the short term and of negligible intensity under NEPA in the long term.

Wasco-Shafter Bypass Alternative

Along the Wasco-Shafter Bypass Alternative, an estimated 28 agricultural parcels would be split and one agricultural facility would be displaced. The corresponding portion of the BNSF Alternative would split 23 agricultural parcels and displace one agricultural facility. Similar to the BNSF Alternative, the effect of split parcels and facility disruptions on agricultural business operations would be of moderate intensity under NEPA in the short term and of negligible intensity under NEPA in the long term.

Bakersfield South Alternative

No agricultural splits or facility disruptions would result along the Bakersfield South Alternative because this alternative is primarily within the city limits of Bakersfield. Only one agricultural facility would be displaced and no agricultural parcels would be split by the corresponding section of the BNSF Alternative. The effect on agricultural operations resulting from the Bakersfield South Alternative would therefore be of negligible intensity under NEPA.

Bakersfield Hybrid Alternative.

No agricultural splits or facility disruptions would result along the Bakersfield Hybrid Alternative because this alternative is primarily within the city limits of Bakersfield. Only one agricultural facility would be displaced and no agricultural parcels would be split by the corresponding section of the BNSF Alternative. The effect on agricultural operations resulting from the Bakersfield Hybrid Alternative would therefore be of negligible intensity under NEPA.

Station Alternatives.

All but two of the station alternatives are in urbanized downtown areas and therefore would not affect agricultural operations. The remaining station sites, the Kings/Tulare Regional Station–East [at-grade and below-grade options] and the Kings/Tulare Regional Station–West [at-grade and below-grade options] alternatives (potential), are in agricultural areas but would not split any parcels or displace any facilities. The effect of all station location alternatives would be of negligible intensity under NEPA.

Heavy Maintenance Facility Site Alternatives

The Kern Council of Governments–Shafter West Alternative would split one agricultural parcel. None of the other HMF alternatives would split a parcel. The Fresno Works–Fresno HMF Site Alternative would displace 10 agricultural facilities and the Kern Council of Governments–Wasco HMF Site Alternative would displace one facility. The other HMF alternatives would not displace any facilities. Therefore, the Fresno HMF Alternative would have a moderate intensity under NEPA in the short term, and all the other HMF alternatives would have a negligible intensity under NEPA.

If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMF site alternatives 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, reduced accidents) 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 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 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 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).

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, it is possible that these losses could be offset in the future by increased property tax and sales tax revenues indirectly generated by the project. For example, the construction and operation of an HMF would result in beneficial fiscal impacts from increases in sales tax revenue from additional operational spending. Also, indirect effects in the form of increased property values and the resulting increase in property tax revenues could occur around the HST stations. The stations would attract commercial and office development and high-density residential development associated with transit-oriented development into the surrounding downtown core. Section 3.13, Station Planning, Land Use, and Development, provides additional details about the potential effects of HST stations. The new development would likely result in higher property values than would occur under the No Project Alternative. The following sections provide more discussion on economic issues.

Impact SO #13 – Operation-Related Property and Sales Tax Revenue Effects

Property Tax Revenue Effects. 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 also be a 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 2012a).

A short-term reduction in property tax revenues may occur due to property acquisition, and thus removing parcels from county tax rolls.²² Along the BNSF Alternative, displacement of residences, businesses, and agricultural lands would result in estimated annual losses of approximately \$2.3 million in property tax revenue to the four counties in the region. The largest effect is in Kern County (a \$1.4 million reduction in revenues), with reductions of \$450,000 in Fresno, \$435,000 in Kings, and \$37,000 in Tulare. This estimated amount ranges from a low of 0.03% of the total fiscal year 2009-2010 property-tax revenue of Tulare County to a high of 0.2% in Kings County. Relative property-tax revenue net effects are similar in magnitude for all alternatives when compared with the BNSF Alternative. Therefore, the intensity is negligible for all alternatives, because the economic impact is measurable, but would not be perceptible to community residents.

The current context for this effect 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 economy in which other sectors contribute a larger share than in the past, helping the local economy to withstand some of the effects of agricultural price fluctuations. However, given current budget deficits for local county and city jurisdictions, the context is one of challenging funding constraints for the provision of government and public services.

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. Individual station sites and HMF facility sites under consideration are very similar in size to the other station and HMF facility sites, respectively. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Details on the effects to individual county and city property-tax revenues are provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a).

Sales Tax Revenue Effects. The project would generate an estimated \$1.5 million annually in direct new sales tax revenues for the region through project spending on operation and maintenance (Authority and FRA 2012a).

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,

²² Short-term in this case is meant to represent the time between when properties are removed from tax rolls and when project operation provides indirect benefits through increases to properties in the region.

temporary revenue losses would nevertheless occur. Along the BNSF Alternative, the total estimated potential short-term losses of sales tax revenue from business relocations in the four-county region would be around \$346,000. This amount ranges from a low of less than 0.01% of the total fiscal year 2009-2010 combined sales tax revenue collected in Kings, Tulare, and Kern counties to a high of 0.09% in Fresno County.

As presented above, the expected annual gain in sales tax revenue from project spending is greater than the expected loss from business relocation. 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 negligible given the small percentage of total regional sales tax revenue gained. However, given the context of potential fiscal conditions for local county and city jurisdictions in the region, any additional fiscal revenue, however small, could be of consequence.

For the alternative alignments and station and HMF location sites, the overall net effects on sales tax revenue of the project would be beneficial. Therefore, as noted above, the intensity is negligible but given the context, an additional fiscal benefit, however small, could be of consequence. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Details on the effects on individual county and city sales tax revenues are provided in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a).

Impact SO #14 – Employment Growth

Project operation would improve state and regional connectivity while creating job opportunities across many sectors of the regional economy (Cambridge Systematics 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 alternative alignments, 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 2010). Therefore, the region’s workforce would be expected to support much of the 3.2% job growth. 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 negligible given the size of the region’s labor force. 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. 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 and station and HMF location sites, estimates of the demand for employment and long-term job creation would be the same. Therefore, similar to the BNSF Alternative, the intensity of 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 negligible, and the impact would be less than significant under CEQA. However, given potential fiscal conditions for local county and city jurisdictions in the region, the context would add to budget deficits and could further challenge government and public service budgets. As a result, any additional fiscal burden in the short term, however small, could be of consequence. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations.

Impact SO #15 – Changes in School District Funding and School Access

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. The details of this analysis and complete results by school district can be found in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a). Further discussion on impacts on public school district funding and bus transportation routes can be found in Appendix 3.12-B, Effects on School District Funding and Transportation Bus Routes.

The BNSF Alternative, as noted in the Residential Displacements section above, would result in substantial residential relocations in Bakersfield and Corcoran. The school district analysis for Bakersfield examined impacts to both the elementary and secondary school districts in the area as a result of these relocations. The analysis determined potential relocations by student age. Therefore, the results presented for elementary school districts are only for students of elementary school age, and those for secondary school districts are for students of secondary school age.

The Bakersfield elementary school districts affected and the estimated numbers of potential students to be relocated in this area are as follows: the Bakersfield City Elementary School District has 62 potentially relocated students (out of 27,590 enrolled), the Fruitvale Elementary School District has 22 potentially relocated students (out of 3,259 enrolled), and the Rosedale Union Elementary School District has 73 potentially relocated students (out of 5,226 enrolled). The secondary school district affected is the Kern Union High School District; it has 85 potentially relocated students (out of 37,452 enrolled).²³ In Corcoran, the Corcoran Unified School District

²³ Current student enrollment data obtained from California Department of Education Educational Demographics Unit DataQuest Reports at <http://www.cde.ca.gov/re/sd/>.

was affected; it has 41 potentially relocated students (out of 3,381 enrolled). In all cases, analysis of vacancies in these areas suggests that relocated residents would have the opportunity to relocate within the same school districts. Therefore, the effect of the BNSF Alternative on school district funding would be of negligible intensity under NEPA. Relocations within the Kit Carson Elementary School District would result in the potential loss of an estimated 12 students (out of 448 enrolled). As discussed above, availability within the district of rural residences comparable to those acquired in the Ponderosa community would be limited. The number of students projected to be relocated in the district is low compared to total enrollment, and even if all of these students were to leave the district, the effect would be of negligible intensity under NEPA.

The other alternative alignments would result in a large number of residential displacements in Armona along the Hanford West Bypass 1 and 2 alternatives and in Bakersfield along the Bakersfield South and Bakersfield Hybrid alternatives. Relocations in the Armona Union Elementary School District would affect 23 potential students (out of 2,171 enrolled) and relocations in the Hanford Joint Union High School District would affect 19 students (out of 3,891 enrolled). School districts in Bakersfield would be affected in much the same way as under the BNSF Alternative. As discussed above for the BNSF Alternative, analysis of vacancies in these areas suggests that most relocated residents could relocate within the same school district; therefore, the effect of these alternatives on school district funding would be of negligible intensity under NEPA.

For the station alternatives, no large numbers of residential displacements would occur. Therefore, the effect on school district funding would be of negligible intensity 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 of negligible intensity under NEPA for any of these alternatives. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMFs in these locations. (Refer to Appendix 3.12-B, Effects on School District Funding and Transportation Bus Routes, for complete information on the residential displacements within the school districts.)

The examination of property tax revenue changes, as described above in the Property Tax Revenue Effects section, provides an understanding of the potential effects to school district funding resulting from property relocation. Displacement of residences, businesses, and agricultural lands would result in estimated annual losses of approximately \$2.3 million in property tax revenue to the four counties in the region. This estimated amount represents approximately 0.4% of the total fiscal year 2009-2010 combined property tax revenue of the counties and cities in the study area. As stated above, this intensity is negligible under NEPA but given the context of strained local budgets, the effect is moderate. Therefore potential effects on school district funding derived from property taxes are also moderate under NEPA.

As discussed in Section 3.11, Safety and Security, and Section 3.2, Transportation, road overcrossings installed along the HST track would also cross over the existing BNSF railroad, resulting in fewer at-grade railroad crossings in the study area. This reduced number of at-grade crossings would result in improved access times, as vehicles will not have to wait at train crossings. As discussed in Section 3.2, Transportation, existing roads would either remain

unchanged where elevated track would cross them or would be modified into overcrossings where at-grade track would conflict with them. Road segments that would be permanently closed are typically short (less than 1 mile) and road crossings in rural areas would occur approximately every 2 miles. Therefore, any changes to access to schools would be of negligible intensity under NEPA. There is therefore no potential for community division of school districts. A detailed analysis of potential impacts to community character and division is presented above in the Disruption or Division of Existing Communities section.

The potential loss of agricultural jobs as a result of project acquisition of agricultural lands is discussed in detail in the next section. Potential job loss in the agricultural sector is not expected to lead to large population reductions that would reduce school district attendance in the region. Therefore the loss of agricultural jobs on school district funding would be of negligible intensity under NEPA.

Impact SO #16 – 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 a large percentage of this production would relocate, some of it 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 related sectors such as agricultural services, food processing, and the transportation of goods.

The details of this analysis and the complete results by county and by agricultural production category can be found in the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a).

Agriculture Revenue and Employment Effects. The project would acquire agricultural land, and some agricultural production would therefore be lost. (See Section 3.14, Agricultural Lands, for details on the acres of agricultural land to be acquired.) 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 production that could not easily be relocated after compensation. Moreover, some relocated agricultural production would take time to re-establish itself and return to full production levels. Important examples of this type of production are relocated vine and tree crops that will take time to mature. In addition, the relocation of wastewater application lands, a waste treatment pond or onsite housing 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 animal operation, where the project is passing through the heart of associated 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.

BNSF Alternative

The estimated total reduction in agricultural production along the BNSF Alternative represents a small amount of the total annual revenue generated by agricultural production in each of the four counties. Specifically, the estimated total annual reduction in revenues is approximately \$27.5

million for the region as a whole, which represents less than 0.2% of the region's estimated \$16 billion annual agricultural production. The associated reduction in agricultural employment in the four-county region would be about 350 employees. The effects would be highest in Kern County (with \$10.2 million in reduced annual revenues and around 140 employees affected) and Kings County (\$9.7 million in reduced annual revenues and around 80 employees affected). The majority of the effect in Kings County (\$7.2 million) occurs in the dairy sector (see details below). The estimated annual revenue reductions for Fresno and Tulare counties are \$4.9 million and \$2.7 million, with about 90 and 40 employees affected, respectively.

Effects on dairy operations are a special consideration in Kings County. Overall, it is not expected that the construction of the BNSF Alternative would result in the need to entirely relocate any dairy operations. Along the BNSF Alternative in Kings County, there are four dairy facilities and one feedlot facility where portions of cattle-holding areas and retention basins as well as associated structures would be affected. However, it is expected that these structures and facilities could be relocated on the existing parcel and therefore construction of the BNSF Alternative would not preclude continued operation in the same location. This does not include relocation of croplands for nutrient distribution, which are examined separately, below. In these cases, the Authority's right-of-way agents would work with each affected operation 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 BNSF Alternative removes a portion of a dairy site or would otherwise be close 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 HST 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. Facilities on operations not located at least 100 feet from the project would experience moderate noise and vibration effects. (See Appendix B of Section 3.14, Agricultural Lands, for details on these effects to animal operations.)

The BNSF Alternative alignment would need to acquire 188 acres of cropland in Kings County that are associated with animal operations or that are neighboring parcels and used for nutrient distribution.²⁴ This land is important because animal operations face restrictions on the amount of manure that can be spread per acre of farmland. Some operations may have enough of their own land to manage all of their manure onsite, while others must sell manure off site to comply with regulations. Therefore, acquiring these acres could force operations to alter current manure management practices 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 animal operations would need to reduce their production in the short term until they found replacement lands for all of the 188 acres acquired by the project. As a result, this short-term effect on the Kings County dairy sector is estimated at around \$7.2 million, which represents approximately 1.5% of the total county revenue generated annually in the dairy sector.

²⁴ 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 value of reduced agricultural production for all counties is a very small percentage of total county production (less than 1% for each county). 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 and transportation companies, could also experience some short-term multiplier effects from reduced agricultural production. The Bureau of Economic Analysis estimates that this additional multiplier indirect and induced effect to related sectors would be about equal to the direct loss in revenue in agriculture, thus resulting in a total direct plus indirect and induced multiplier effect of approximately \$55 million annually across the four-county region (Bureau of Economic Analysis 2010).²⁵ Overall, the intensity of the effect of the BNSF Alternative on agricultural business operations would be moderate in the short term during the initial period when operations and manure management lands are adjusting, and would be negligible in intensity over the long term under NEPA.

Table 3.12-16 provides total economic effects on agriculture for the BNSF Alternative and the changes for all other alternative alignments relative to the BNSF Alternative.

Table 3.12-16
Effects of the Proposed Alignment Alternatives on Agricultural Revenues and Employment

Alternative	Revenue Reduction (\$ million)	Associated Employment (jobs)
BNSF Alternative	\$27.5	350
Change Relative to the BNSF Alternative		
Hanford West 1 Bypass*	-\$4.6	-40
Hanford West 2 Bypass*	-\$5.4	-43
Corcoran Elevated	-\$0.3	-5
Corcoran Bypass	-\$0.2	-6
Allensworth Bypass	-\$0.8	-14
Wasco-Shafter Bypass	+\$3.4	+114
Bakersfield South	NA	NA
Bakersfield Hybrid	NA	NA
* Results for the at-grade and below-grade options for the Hanford West Bypass 1 and 2 alternatives are similar.		
NA = not applicable as there is little agricultural production along the Bakersfield South and Bakersfield Hybrid Alternatives as these are primarily in the urban area of Bakersfield.		

²⁵ Indirect effects occur for existing firms in the area, such as equipment suppliers, packing companies, transportation firms, etc., which may supply goods and services to agricultural producers. Induced effects occur for businesses, such as retail stores, gas stations, banks, restaurants, and service companies, which may supply goods and services to these workers and their families.

Hanford West Bypass 1 Alternative

This alternative has both an at-grade option and a below-grade option. Little difference exists between the two options with regard to the estimated reduction in agricultural revenue and employment. For both options, the estimated reductions are \$7.0 million and around 70 employees for the two counties of Fresno and Kings. Kings County would experience the majority of this impact (\$5.9 million and 50 employees), with the remaining reductions in Fresno County (\$1.1 million and 20 employees). Overall, these estimated dollar value reductions for the Hanford West Bypass 1 Alternative represent 0.1% of total agricultural production in both counties. These reductions are less than the \$11.6 million in reductions associated with the corresponding portion of the BNSF Alternative. One dairy facility along the Hanford West Bypass 1 Alternative would be severely affected by the project. During the right-of-way acquisition process, engineering solutions may be identified that make it possible for continued operation. However, this is a speculative outcome, and at this time it is assumed that the severity of the effect likely precludes the dairy from continuing operation at this location. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Hanford West Bypass 1 Alternative would be of moderate intensity in the short term and negligible in the long term under NEPA.

Hanford West Bypass 2 Alternative

This alternative has both an at-grade option and a below-grade option. Little difference exists between the two options with regard to the estimated reduction in agricultural revenue and employment. For both options, the estimated reductions are \$6.2 million and about 70 employees for the two counties of Fresno and Kings. Kings County would experience the majority of this impact (\$5.1 million and 50 employees), with the remaining reductions in Fresno County (\$1.1 million and 20 employees). Overall, these estimated dollar value reductions for the Hanford West Bypass 2 Alternative represent 0.1% of total agricultural production in both counties. These reductions are less than the \$11.6 million in reductions associated with the corresponding portion of the BNSF Alternative. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Hanford West Bypass 2 Alternative would be of moderate intensity in the short term and negligible in the long term under NEPA.

Corcoran Elevated Alternative

The estimated reductions in agricultural production value and employment for this alternative would be \$1.2 million and around 16 employees for the two counties of Kings and Tulare. Tulare County would experience the majority of these impacts (\$929,000 and 12 employees), with the remaining reductions in Kings County (\$292,000 and 4 employees). Overall, these estimated dollar value reductions for the Corcoran Elevated Alternative represent around 0.02% of total agricultural production in both counties. These reductions are less than the \$1.5 million in reductions associated with the corresponding portion of the BNSF Alternative. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Corcoran Elevated Alternative would be of moderate intensity in the short term and negligible in the long term under NEPA.

Corcoran Bypass Alternative

The estimated reductions in agricultural production value and employment for this alternative would be \$1.3 million and 15 employees for the two counties of Kings and Tulare. Kings County would experience the majority of these impacts (\$775,000 and seven employees), with the remaining reductions in Tulare County (\$542,000 and eight employees). Overall, these estimated dollar value reductions for the Corcoran Bypass Alternative represent around 0.04% of the total agricultural production in both counties. These reductions are greater than the \$1.5 million in reductions associated with the corresponding portion of the BNSF Alternative. Similar to the BNSF

Alternative, the effect on agricultural business operations associated with the Corcoran Bypass Alternative would be of moderate intensity in the short term and negligible in the long term under NEPA.

Allensworth Bypass Alternative

The estimated reductions in agricultural production value and employment for this alternative would be \$1.6 million and 25 employees for the two counties of Kern and Tulare. Kern County would experience most of these impacts (\$1.1 million and 18 employees), with the remaining reductions in Tulare County (\$500,000 and 7 employees). Overall, these estimated dollar value reductions for the Allensworth Bypass Alternative represent 0.03% of total agricultural production in both counties. These reductions are less than the \$2.4 million in reductions associated with the corresponding portion of the BNSF Alternative. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Allensworth Bypass Alternative would be of moderate intensity in the short term and negligible in the long term under NEPA.

Wasco-Shafter Bypass Alternative

The estimated reductions in agricultural production and employment for this alternative would be \$11.7 million and 230 employees for Kern County. These reductions are the equivalent of about 0.2% of Kern County's estimated \$4 billion in total agricultural production. These reductions are greater than the \$8.3 million in reductions associated with the corresponding portion of the BNSF Alternative. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Wasco-Shafter Bypass Alternative would be of moderate intensity in the short term and negligible in the long term under NEPA.

For the Bakersfield South and Bakersfield Hybrid alternative alignments, 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 these alternatives.

Several potential alternative sites have been identified for the HMF, one of which is the Kings County–Hanford HMF Site. Acquisition of nutrient distribution lands for the Kings County HMF site represents a reduction in annual agricultural revenue of \$11.7 million, which is 1.1% of all dairy production in Kings County. Similar to the BNSF Alternative, the effect on agricultural business operations associated with the Kings County HMF site would be of moderate intensity in the short term under NEPA and negligible in the long term as new replacement lands are permitted for manure management purposes. The other potential HMF alternative sites would not affect Kings County nutrient distribution lands.

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 in delivering products to processing facilities and markets. It is beyond the scope of this effort to determine these potential impacts at the level of the individual operation (i.e., for each farm or ranch operation). The split parcels that result from the alternative alignments will affect access across fields for some individual operations more than others. This cost to individual producers and the impact of the split parcels on operation feasibility and value will be considered case by case during the property acquisition portion of the project. This analysis focuses on identifying any areas where significant stretches of the project are projected to result in road closures that would limit access from one side of the project to the other for the sector as a whole.

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 delivering products to processing operations and markets) is not expected to be restricted. Therefore, intensity 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 of negligible intensity 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 of negligible intensity 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 of negligible intensity under NEPA. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMF site alternatives in these locations.

Impact SO #17 – 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. For the BNSF Alternative, special consideration is required in Corcoran to ensure that affected businesses have the opportunity to relocate locally, and in Bakersfield Northeast District to ensure that businesses in the Mercado Latino Tianguis are able to continue to operate without considerable disruption while the market is either rebuilt or relocated. In the Fresno, Hanford, and Bakersfield areas, the new HST stations would provide community connectivity and be aesthetically compatible with their surroundings as a result of context-sensitive design, and the new activity would stimulate development (San Joaquin Valley Regional Policy Council 2010). Context sensitive design will be applied to the stations as part of the Authority's Urban Design Guidelines (California High-Speed Rail Authority 2010). 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 2012a).

Impact SO #18 – 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, Hanford West Bypass 1 and 2, Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, Bakersfield South, and Bakersfield Hybrid), the seven station alternatives, and the five HMF site alternatives. Disproportionately high and adverse effects on communities of concern were determined by reviewing the project operation impacts associated with the environmental elements addressed in the other sections of Chapter 3, Affected Environment, Environmental Consequences, and

Mitigation Measures, in the Project EIR/EIS. (For more discussion, see the *Fresno to Bakersfield Section: Community Impact Assessment Technical Report* [Authority and FRA 2012a].) 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 3.12-17. The other alternative alignments (Hanford West Bypass 1 and 2, Corcoran Elevated, Corcoran Bypass, Allensworth Bypass, Wasco-Shafter Bypass, Bakersfield South, and Bakersfield Hybrid), the station alternatives (Fresno Station–Mariposa, Fresno Station–Kern, Kings/Tulare Regional Station–East, Kings/Tulare Regional Station–West [at-grade and below-grade options], Bakersfield Station–South, Bakersfield Station–North, and Bakersfield Station-Hybrid), and the HMF site alternatives (Fresno Works–Fresno, Kings County–Hanford, Kern Council of Governments–Wasco, and Kern Council of Governments–Shafter North, and Kern Council of Governments–Shafter South) are discussed in the text after the table.

Table 3.12-17
Operation-Related Environmental Justice Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Transportation	<p>Operation of the BNSF Alternative and associated stations would generate additional traffic in the study area, predominately near the stations; but with mitigation these impacts would be less than significant.</p> <p>Road closures would occur mostly in the rural areas, but access would be maintained at least every 2 miles. Due to the low traffic volumes impacts are less than significant.</p> <p>The HST would generally improve regional transit by giving travelers another mode of transportation and decreasing the number of cars on the highways.</p>	<p>Impacts would be focused in urban areas that have EJ communities, but impacts would be reduced to a less-than-significant level with mitigation. Because impacts are reduced to less than significant there would be no disproportionately high and adverse effects on minority and low-income populations.</p>
Air Quality and Global Climate Change	<p>There are no significant operation-related impacts as the HST generally improves the air quality of the region.</p>	<p>Because there would be no significant operation-related impacts, there would be no disproportionately high and adverse effects on minority and low-income populations.</p>
Noise and Vibration	<p>Noise and vibration from the operation of the HST would increase ambient noise levels above noise standards for all jurisdictions and would affect sensitive receivers. These effects would constitute a significant impact, and would remain significant and unavoidable even with the proposed mitigation.</p>	<p>Impacts would remain significant in many places after mitigation. A majority of these places where mitigation measures would not reduce impacts to a less than significant level would be in urban areas with EJ communities, including Fresno, Corcoran, Wasco, Shafter, and Bakersfield Central and Northeast. As a result, HST operational noise and vibration impacts along the BNSF Alternative would have disproportionately high and adverse effects on minority and low-income populations.</p>

Table 3.12-17
Operation-Related Environmental Justice Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
EMF and EMI	There are no significant EMF/EMI operation impacts.	Because there would be no significant operation-related impacts, there would be 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, and conflict with an electrical substation. Impacts would be reduced to a less-than-significant level with mitigation.	Impacts would be distributed along the entire alignment but focused in the urban areas where demands for these services exist; however with impacts mitigated to a less-than-significant level, there would be no disproportionately high and adverse effects on minority and low-income populations.
Biological Resources and Wetlands	Operation of the HST would create impacts on biological resources and wetlands, and mitigation would decrease all impacts to a less-than-significant level except for impacts on wildlife movement corridors, which would remain significant and unavoidable.	These impacts would be distributed along the entire alignment, but impacts in urban areas would be less due to urban areas having a lower concentration of biological resource. Therefore with greater impacts outside of the urban areas where EJ communities exist there are no disproportionately high and adverse effects on minority and low-income populations.
Hydrology and Water Resources	There are no significant Hydrology and Water Resource operation impacts.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Geology, Soils, and Seismicity	There are no significant Geology, Soils, and Seismicity operation impacts.	Because there are no significant impacts, no disproportionately high and adverse effects on minority and low-income populations exist.
Hazardous Materials and Wastes	Operation could result in accidental releases of hazardous materials and wastes. With the proposed mitigation measures, impacts would be reduced to a less-than-significant level.	Impacts would be distributed along the entire alignment, but concentrated in the urban areas where there are higher concentrations of people. Impacts would be mitigated to a less-than-significant level. There would be no disproportionately high and adverse effects on minority and low-income populations.
Safety and Security	Increased demand for emergency services would be required at stations and HMFs. Impacts would be reduced to a less-than-significant level with proposed mitigation.	Because impacts would be reduced to a less-than-significant level with mitigation, there would be no disproportionately high and adverse effects on minority and low-income populations.

Table 3.12-17
Operation-Related Environmental Justice Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Socioeconomics, Communities, and Environmental Justice	The operation of the BNSF Alternative 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 Bakersfield Northwest and Northeast districts and a rural residential area east of Hanford. These impacts are significant and unavoidable.	Because the majority of home and business displacements along the project alignment would occur in the Bakersfield Central and Northeast districts—both EJ communities—there would be disproportionately high and adverse effects on minority and low-income populations. Also, the community facilities that would be displaced along the alignment serve the EJ communities; therefore, this disruption represents a disproportionately high and adverse effect on minority and low-income populations living in the Central and Northeast districts of Bakersfield.
Local Growth, Station Planning, and Land Use	The BNSF, Hanford West Bypass 1 and 2, Corcoran Bypass, Allensworth Bypass, and Wasco-Shafter Bypass alternatives would cause a significant change in intensity of land use incompatible with adjacent land uses. These impacts are significant and unavoidable.	Impacts are expected to be distributed across the entire alignment, and not focused in any one area. As the impacts would be distributed along the entire alignment there would be no disproportionately high and adverse effects on minority and low-income populations.
Agricultural Lands	The BNSF Alternative 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 distributed across rural areas where fewer EJ communities exist. Thus, agricultural land impacts would not have disproportionately high and adverse effects on minority and low-income populations.
Parks, Recreation, and Open Space	Two parks would be affected by the BNSF Alternative. The parks would be affected by the acquisition of some park land, changes in character due to the operation of the HST, and increased usage. Impacts from land acquisition and increased usage could be mitigated to a less-than-significant level, but impacts on character would remain significant with mitigation.	The Colonel Allensworth State Historic Park would experience significant and unavoidable impacts because it caters to a minority population and is intended to give the visitor the feeling of a certain period that the operation of the HST would interrupt. The impacts on Colonel Allensworth State Historic Park would result in disproportionately high and adverse effects on minority and low-income populations.
Aesthetics and Visual Resources	The operation of 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 that would block views. Impacts by the addition of a new source of light and glare cannot be mitigated to a less-than-significant level. Visual quality impacts can be reduced in Fresno, but not in rural areas and the remaining urban areas.	Impacts on aesthetics and visual resources would be distributed across the entire alignment, but concentrated in urban areas where EJ communities exist. Because impacts on visual quality cannot be fully mitigated, there would be disproportionately high and adverse effects on minority and low-income populations in the EJ communities of Corcoran, Wasco, Shafter, and the Central and Northeast districts of Bakersfield.

Table 3.12-17
 Operation-Related Environmental Justice Impacts for the BNSF Alternative

Environmental Element	Impacts Summary	Relevance to Environmental Justice
Cultural and Paleontological Resources	The BNSF Alternative would not cause significant impacts on Cultural and Paleontological Resources.	Because there would be no significant operation-related impacts, there would be no disproportionately high and adverse effects on minority and low-income populations.
Cumulative Impacts	There would be significant and unavoidable cumulative 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 those on agricultural land—would be spread throughout the alignment and/or would not be focused on the large urbanized communities of concern. Impacts on noise and vibration, aesthetics and visual resources, and cultural and paleontological resources would be focused in urban areas where there are high concentrations of minority and low-income populations. Therefore, there would be disproportionately high and adverse effects on minority and low-income populations in Fresno, Corcoran, Wasco, Shafter, and the Central and Northeast districts of Bakersfield.

Hanford West Bypass 1 Alternative

The EJ findings for the Hanford West Bypass 1 Alternative would be similar to those for the corresponding portion of the BNSF Alternative, which were found to not result in disproportionately high and adverse effects on minority and low-income populations. The Hanford West Bypass 1 would impact a slightly larger number or sensitive noise receivers and would displace fewer residential units and businesses. Since the area to the west of Hanford is not an EJ area, similar to the area to the east of Hanford, the Hanford West Bypass 1 would not result in disproportionately high and adverse effects on minority and low-income populations.

Hanford West Bypass 2 Alternative

The EJ finding for the Hanford West Bypass 2 would be the same as those of the Hanford West Bypass 1.

Corcoran Elevated Alternative

The EJ findings for the Corcoran Elevated Alternative would be similar to those of the corresponding portion of the BNSF Alternative, which were found to result in disproportionately high and adverse effects on minority and low-income populations. This alternative would affect an area directly adjacent to the BNSF Alternative, which passes through EJ communities in the city of Corcoran. Similar to the BNSF Alternative, noise and vibration and visual impacts would be significant and unavoidable along much of the Corcoran Elevated Alternative. Therefore, this alternative would result in disproportionately high and adverse effects on minority and low-income populations in Corcoran.

Corcoran Bypass Alternative

The EJ findings associated with the Corcoran Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative, which were found to result in disproportionately high and adverse effects on minority and low-income populations. Noise and vibration and visual impacts would be reduced because the bypass alternative traverses an area that has fewer sensitive receptors. However, these impacts would remain significant and unavoidable along much of the alignment. The area outside Corcoran where the alternative would run has a lower-density population and fewer identified EJ communities than the corresponding portion of the BNSF Alternative. Therefore, impacts from the HST System on EJ communities 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 Alternative would divide the small, unincorporated, rural residential EJ community that lies in the vicinity of Newark Avenue (approximately 83% Hispanic), would displace about 40% of the homes there, and leave some of the remaining homes very close to the HST train tracks (within 50 to 150 feet of the tracks). Therefore, the Corcoran Bypass Alternative would result in disproportionately high and adverse effects on minority and low-income populations.

Allensworth Bypass Alternative

The EJ findings associated with the Allensworth Bypass Alternative would be less than those of the corresponding portion of the BNSF Alternative, which were found to not result in disproportionately high and adverse effects on minority and low-income populations. The significant park and recreation impacts associated with Colonel Allensworth State Historic Park would be avoided under the Allensworth Bypass 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 EJ communities than 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

The EJ findings associated with the Wasco-Shafter Bypass Alternative would be similar to those of the corresponding portion of the BNSF Alternative, which were found to result in disproportionately high and adverse effects on minority and low-income populations. Although noise and vibration and visual impacts would remain significant and unavoidable along much of the alignment, the impacts would be somewhat reduced relative to the corresponding portion of the BNSF Alternative 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 impacts from the HST System on EJ communities would be slightly less when compared with 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

The EJ findings associated with the Bakersfield South Alternative would be similar to those of the corresponding portion of the BNSF Alternative, which were found to result in disproportionately high and adverse effects on minority and low-income populations. The same communities would be divided; however, different homes, businesses, and community facilities, such as churches, would be displaced under the two alternatives. The Bakersfield South Alternative would affect fewer residences and businesses, but more churches than the corresponding portion of the BNSF

Alternative. Also, 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 in the Bakersfield Central and Northeast districts.

Bakersfield Hybrid Alternative

The EJ findings associated with the Bakersfield Hybrid Alternative would be similar to those of the corresponding portion of the BNSF and Bakersfield South alternatives, which were found to result in disproportionately high and adverse effects on minority and low-income populations. The same communities that would be divided under those alternatives would be divided under the Bakersfield Hybrid Alternative. The Bakersfield Hybrid Alternative would have disproportionately high and adverse effects on minority and low-income populations in the Bakersfield Central and Northeast districts.

Station Alternatives

The effects associated with the operation of the station alternatives were analyzed as a part of the alternative alignments presented above. Although the Revised Draft EIR/Supplemental Draft EIS considers station alternatives (i.e., the Fresno Station–Mariposa, Fresno Station–Kern, Kings/Tulare Regional Station–East (potential), Kings/Tulare Regional Station–West (potential) [with at-grade and below-grade options], the Bakersfield Station–North, Bakersfield Station–South, and Bakersfield Station–Hybrid alternatives), these alternatives represent two or three reconfigurations of station facilities at each of three similar general locations with similar footprints. For this reason, the EJ findings would not vary from one of the station alternatives at a given location to the other. Four of the stations—the Fresno Station–Mariposa, Fresno Station–Kern, Kings/Tulare Regional Station–East, and Kings/Tulare Regional Station–West alternatives [with at-grade and below-grade options]—would not result in disproportionately high and adverse effects on minority and low-income populations. The alternative station locations in Bakersfield (Bakersfield Station–North, Bakersfield Station–South, and Bakersfield Station–Hybrid alternatives) 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 Site Alternatives

Four of the alternative HMF sites (the Fresno Works–Fresno, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter–East, and Kern Council of Governments–Shafter West) would be in areas near EJ communities, and the operation of the HMF would result in air quality, noise, and aesthetic station planning, land use and development, and visual impacts that would be significant and unavoidable. For this reason, the four HMF sites would result in disproportionately high and adverse effects on minority and low-income populations. If the HMF is not sited in the Fresno to Bakersfield Section of the HST System, then the colocated maintenance-of-way facility would be situated in either the Kern Council of Governments–Shafter East or Kern Council of Governments–Shafter West HMF site alternatives. This maintenance-of-way facility would have the same potential effects as those identified for the HMF site alternatives in these locations.

Environmental Justice Effects Conclusion

The region’s urban community areas of Fresno, Hanford, Corcoran, Wasco, Shafter, and Bakersfield have many communities of concern, as defined by high proportions of minority and low-income populations. Scattered areas of low-population-density communities of concern exist in the rural areas in between these communities. A full description of communities of concern within the region affected by the project is provided in the *Bakersfield to Fresno Section: Community Impact Assessment Technical Report* (Authority and FRA 2012a).

The BNSF, Corcoran Elevated, Bakersfield South, and Bakersfield Hybrid alternatives as well as the Bakersfield Station–North, Bakersfield Station–South, and Bakersfield Station-Hybrid station alternatives, and the Fresno Works–Fresno, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter-East, and Kern Council of Governments–Shafter West HMF sites would result in adverse impacts and in disproportionately high and adverse effects on communities of concern. Elements that have disproportionate effects include air quality and global climate change; noise and vibration; socioeconomics, communities, and environmental justice; station planning, land use and development; parks, recreation, and open space; aesthetics and visual resources; cultural and paleontological resources; and cumulative resources. As described in Table 3.12-18, the project includes mitigation measures that would minimize or avoid the impacts on the population, including communities of concern.

The Authority and FRA along with the EPA, U.S. Department of Housing and Urban Development, and the Federal Transit Administration (FTA) have also entered into an Interagency Partnership and established a “Memorandum of Understanding (MOU) for Achieving an Environmentally Sustainable High-Speed Train System in California,” which includes a common goal of integrating HST station access and amenities into the fabric of surrounding neighborhoods (Authority and FRA 2011b). The principles for this partnership are to help improve access to affordable housing, increase transportation options, lower transportation costs, and protect the environment in communities nationwide.

The implementation of the MOU would be beneficial to all populations, but could help intensify project benefits in the areas most affected by project impacts, especially communities of concern. One example is that the Authority would establish a temporary relocation field office to help facilitate relocation efforts in areas with substantial relocation needs. Project relocation field offices would be open during convenient hours and evening hours if necessary. In addition to these services, the Authority is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits to all affected persons, including persons within communities of concern.

The Authority would also continue the existing activities similar to the workshops that have been held in the city of Fresno to discuss the HST project and collect community input. At meetings in September 2011 and February 2012, the Authority provided overviews on the relocation process and distributed the brochure “Your Property, Your High-Speed Train Project” and other brochures on the Relocation Assistance Program. The Authority has also made information available on the right-of-way process (Appendix 3.12-A), with emphasis on property and business owners’ rights under federal and state laws and regulations. The overview consisted of a presentation followed by a question-and-answer period.

According to EO 12898, the offsetting benefits associated with the project should be considered as part of the environmental justice analysis. The project would provide benefits that would accrue to all populations, including communities of concern. These benefits would include improved mobility within the region, improved traffic conditions on freeways as modes divert to HST, improvements in air quality within the region, and new employment opportunities during construction and operation.

Jobs created by construction and operation of the project would likely be filled by workers in the region. The new jobs would not result in any benefits that would accrue to a greater degree to the communities of concern unless individuals have the necessary skills or receive training or some other type of program that would enable employment. However, to help offset any disproportionate effects, special recruitment, training, and job set-aside programs would be developed so that communities of concern are able to benefit from the jobs created by the HST project.

Note that it is not possible to determine the overall net-effect to communities of concern from countervailing adverse effects and project benefits. These effects and benefits will accrue differently to different households along the project depending on factors such as proximity to the project, access to station areas, and frequency of use of the HST System.

3.12.6 Project Design Features

The Authority will require that the design-build contractor 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. Construction Management Plans are standard for large infrastructure projects such as this one, and are considered effective in minimizing community impacts.

The Authority has considered avoidance and minimization measures that are consistent with the Statewide Program EIR/EIS (Authority and FRA 2005) and Bay Area to Central Valley Program EIR/EIS commitments (Authority and FRA [2008] 2010). The Authority must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended (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 him or her 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 Uniform 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 that would be negotiated on the date of valuation. The value must be agreed upon by a seller who is willing, not obliged to sell, but under no particular or urgent necessity and by 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).

The Authority has developed more detailed information about how it plans to comply with the Uniform Act and the California Relocation Assistance Act. The Authority has developed three detailed relocation assistance documents modeled after Caltrans versions. The documents are listed below and included in Appendix 3.12-A:

- Your Rights and Benefits as a Displacee under the Uniform Relocation Assistance Program (Residential).
- Your Rights and Benefits as a Displacee under the Uniform Relocation Assistance Program (Mobile Home).
- Your Rights and Benefits as a Displaced Business, Farm, or Nonprofit Organization under the Uniform Relocation Assistance Program.

Before any acquisitions occur, the Authority will develop a relocation mitigation plan, in consultation with affected cities and counties. In addition to establishing a program to minimize the economic disruption related to relocation, the relocation mitigation plan will be written in a style that also enables it to be used as a public-information document.

The plan will be designed to meet the following objectives:

- Provide affected property and business owners and tenants a high level of individualized assistance in situations when relocation is necessary.
- Coordinate relocation activities with other agencies causing displacements in the study area to ensure that all displaced persons receive fair and consistent relocation benefits
- Make a best effort to minimize the permanent closure of displaced businesses and non-profit agencies as a result of relocations.
- Within the limits established by law and regulation, minimize the economic disruption caused to tenants and residents by relocation.
- In individual situations, where warranted, consider the cost of obtaining the entitlement permits necessary to relocate to a suitable location and take those costs into account when establishing the fair market value of the property.
- Provide those business owners who require complex permitting (such as dairies) with regulatory compliance assistance.

The relocation mitigation plan will include the following components:

- A description of the appraisal, acquisition, and relocation process that describes the activities of the appraisal and relocation specialists, for the benefit of the reader.
- A means of assigning appraisal and relocation staff to affected property owners, tenants, or other residents on an individual basis.
- Individualized assistance to affected property owners, tenants, or other residents in applying for funding, including research to summarize loans, grants, and federal aid available, and research of demographically similar areas for relocation.
- Creation of an ombudsman's position to act as a single point of contact for property owners, residents, and tenants with questions about the relocation process. The ombudsman would also act to address concerns about the relocation process as it applies to the individual situations of property owners, tenants, and other residents.

Relocation Mitigation Plans are commonly used for large infrastructure projects that displace a large number of residences and businesses, such as this project, and are considered successful in minimizing the impact to individual property owners.

3.12.7 Mitigation Measures

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.

Mitigation Measure SO-1: Implement measures to reduce impacts associated with the division of existing rural residential communities in the unincorporated areas (east of Hanford, northeast of Corcoran, and between Shafter and Bakersfield). The Authority will minimize impacts associated with the BNSF Alternative in the rural residential areas around Ponderosa Road/Edna Way east of Hanford, the Newark Avenue vicinity northeast of Corcoran, and Crome by conducting special outreach to affected homeowners and residents 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 replacement 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 and replacement of services and utilities, as appropriate. The Authority will conduct community workshops to obtain input from those homeowners whose property would not be acquired, 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-2: Implement measures to reduce impacts associated with the division of existing communities in the Bakersfield Northeast District. The Authority will minimize impacts associated with the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid Alternative in the existing mixed-use community of the Bakersfield Northeast District through a program of additional outreach to homeowners, residents, business owners, and community organizations in affected neighborhoods.

As a part of this program, 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 and before the completion of final design, the Authority will also conduct 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 to 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, alternatives, such as sculpture gardens or managed landscaping, will be considered.

The Authority will be responsible for implementing the results of the community workshops through project design and through the long-term management of the area beneath the elevated rail guideway. This will involve documenting the desired design concepts, incorporating them into the final design, and facilitating ongoing maintenance. The Authority will identify potential uses that may be developed in the project right-of-way. These uses will 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 determined during consultations with the affected city, county, or parks district. Furthermore, the 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.

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.

Mitigation Measure SO-3: Implement measures to reduce impacts associated with the division of existing communities in the Bakersfield Northwest District. The Authority will minimize impacts associated with the BNSF Alternative, the Bakersfield South Alternative, and the Bakersfield Hybrid 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 conduct community workshops in the district before the completion of final design 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). The Authority will then work with all parties necessary to implement the determined uses identified in these workshops.

Mitigation Measure SO-4: 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 key community facilities: Bakersfield High School, Mercado Latino Tianguis, Fresno Rescue Mission, the Corcoran Amtrak station, Mercy Hospital medical complex facilities, Bakersfield Homeless Shelter, Kern County Mental Health office (1400 L Street), community churches, an important livestock rendering facility (Baker Commodities) in the Hanford area, the City of Bakersfield's corporation yard, and parking associated with Bakersfield's Convention Center and Owens Intermediate School.

The Authority will consult with these respective parties before land acquisition to assess potential opportunities to reconfigure land use and buildings and/or relocate affected facilities, as necessary, to minimize the disruption of facility activities and services, and also to ensure relocation that allows the community currently served to continue to access these services.

Because many of these community facilities are located in Hispanic communities, the Authority will continue to implement a comprehensive Spanish-language outreach program for these communities as land acquisition begins. This program will facilitate the identification of approaches 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 that all reconfiguring of land uses or buildings, or relocating of community facilities is completed before the demolition of any existing structures.

In regard to the Corcoran Amtrak Station, relocation of the facility would be completed prior to demolition of the existing structure and no disruption to Amtrak service would occur. The passenger platform in Wasco would also be relocated prior to demolition of the existing structure if necessary.

In regard to Bakersfield High School, if the BNSF Alternative is selected through Bakersfield, the Authority will consult with the Kern Union High school district on a replacement for the Industrial Arts building in accordance with California Department of Education policies, and a replacement structure will be in place before the existing Industrial Arts building is removed.

In regard to Bethel Christian School and the First Free Will Baptist Church, if the Bakersfield South Alternative is selected through Bakersfield, the Authority will consult with First Free Will Baptist Church and Bethel Christian School to identify suitable relocation alternatives for both facilities to minimize impacts of the disruption. Facilities will be relocated before any existing facility is removed.

Because the unique services provided by the rendering facility and the CDFA sampling station in Kings County are critical to agricultural operations in the region, relocation of these facilities will occur before the existing facilities are 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.

This mitigation measure will be effective in minimizing the impacts of the project by completing new facilities before necessary relocations, and by involving affected facilities in the process of identifying new locations for their operations.

Mitigation Measure SO-5: 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.) This mitigation measure will be effective because it will maintain access to farmlands for farmers whose property is bisected.

Mitigation Measure SO-6: Continue outreach to disproportionately and negatively impacted environmental justice communities of concern. The Authority will continue to conduct substantial environmental justice outreach activities in adversely affected neighborhoods to obtain resident feedback on potential impacts and suggestions for mitigation measures. Input from these communities will be used to refine the alternatives during ongoing design efforts. In addition, to offset any disproportionate effects, the Authority will develop special recruitment, training, and job set-aside programs so that minority and low-income populations are able to benefit from the jobs created by the project. This type of outreach is common for large infrastructure projects with long construction periods and has been found to be effective.

Mitigation Measure SO-7: Develop measures to minimize the potential for physical deterioration. The Authority will work with the communities on the design of these features consistent with Technical Memorandum 200.6, Aesthetic Guidelines for Non-Station Structures (Authority 2012b). Local communities will provide input on the use of the area underneath the elevated guideway, which could be used as a trail or for business parking for new and existing businesses, making the area underneath the guideway an attractive setting for economic development or recreational uses. Where the elevated guideway is adjacent to residential areas, the Authority will plant trees along the edges of the rights-of-way to help reduce the visual

contrast. The Authority will also plant vegetation within lands acquired for the project after construction is complete. This type of mitigation measure is commonly used for large infrastructure projects to minimize impacts from new structures.

3.12.8 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.

3.12.8.1 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 effects of moderate intensity on community interactions during construction. The context of these communities varies from urban settings, where construction can be a common occurrence, to rural settings, where such a construction project would be in stark contrast to existing conditions. Given this moderate intensity and context, the overall impact would be significant for the duration of 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. Despite the negligible intensity of the effect, there would be a significant impact on property and sales tax revenue and on 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 populations in Fresno and Bakersfield, would result from the BNSF Alternative, Bakersfield South Alternative, and Bakersfield Hybrid Alternative as well as from the Fresno and Bakersfield station locations; these effects would be concentrated in the Fresno and Bakersfield areas.

3.12.8.2 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, Bakersfield Hybrid Alternative, and Corcoran Bypass Alternative on specific community facilities, in areas where the project would divide communities, impacts would remain substantial and significant, even with measures to relocate homes and businesses and 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 easy station access would not enjoy the same level of mobility and access benefits and would potentially be exposed to adverse project-related effects.

Adverse effects include the potential to divide adjacent communities by physically removing homes, businesses, and community facilities and placing a new linear project through the community outside of and away from the existing railroad right-of-way. The intensity of this effect would be substantial for several small, unincorporated communities along the alternative alignments (Ponderosa Road east of Hanford, Newark Avenue northeast of Corcoran, and Crome between Shafter and Bakersfield), 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. The impact to these communities would be significant.

The displacement of many farm homes in a region that takes pride in its agricultural heritage and where agriculture is a dominant economic activity would cause disruption not only to the individual property owners but also to the wider agricultural community resulting in significant impacts.

Displacement and Relocation of Local Residents and Businesses

Residential relocation effects of substantial intensity associated with the BNSF, Bakersfield South, and Bakersfield Hybrid alternatives would result in significant impacts in the communities of the Bakersfield Northwest and Northeast districts. Significant impacts 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, Bakersfield South, and Bakersfield Hybrid alternatives would result in effects of substantial intensity. Given the context of the importance of these businesses to the local economy, these effects would result in significant impacts in the Bakersfield Central and Northeast districts. Significant impacts would also occur from commercial and industrial business displacements in Corcoran as a result of the BNSF Alternative. Effects of moderate intensity from residential displacements and the context of rural agricultural areas would result in significant impacts in unincorporated Fresno, Kings, and Kern counties from the BNSF Alternative and in Armona from the Hanford West Bypass 1 and Hanford West Bypass 2 alternatives. Commercial and industrial business relocations required under the BNSF Alternative and the Fresno HMF site would also result in effects of moderate intensity and therefore in significant impacts in Fresno's Edison District and in unincorporated Fresno County.

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. Employment in the region would increase as a result of new jobs created by the project. As described above, the intensity would be negligible, given the size of the region's labor force. 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, resulting in a significant impact on local revenues.

The intensity of effects 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. Given the context of how important agriculture is in the study area, this

would result in a significant impact in the short term and a not significant impact in the long term.

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 broadly benefit regional employment 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.

3.12.9 CEQA Significance Conclusions

Table 3.12-18 provides a summary of significant impacts limited to CEQA thresholds only, associated mitigation measures, and level of significance after mitigation.

Table 3.12-18
Summary of Significant Social Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
Project			
<p>SO-7: Division of existing community Ponderosa Road/Edna Way east of Hanford, the Newark Avenue vicinity northeast of Corcoran, and Crome.</p> <p>Impacts associated with the BNSF Alternative and the Corcoran Bypass Alternative would relocate and displace residents of small, rural residential communities.</p>	Significant	<p>SO-MM#1: Implement measures to reduce impacts associated with the division of existing communities in the unincorporated areas east of Hanford, northeast of Corcoran, and south of Shafter.</p>	Significant
<p>SO-7: Division of existing community in the Bakersfield Northeast District.</p> <p>Impacts associated with the BNSF, Bakersfield South, and Bakersfield Hybrid alternatives would relocate and displace residents, businesses, and community facilities.</p>	Significant	<p>SO-MM#2: Implement measures to reduce impacts associated with the division of existing communities in the Bakersfield Northeast District.</p>	Significant
<p>SO-7: Division of existing community in the Bakersfield Northwest District.</p> <p>The BNSF, Bakersfield South, and Bakersfield Hybrid alternatives 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.</p>	Significant	<p>SO-MM#3: Implement measures to reduce impacts associated with the division of existing communities in the Bakersfield Northwest District.</p>	Significant
<p>SO-7: Displacement of Bakersfield High School's Industrial Arts building.</p>	Significant	<p>SO-MM#4: Implement measures to reduce impacts associated with the displacement of Bakersfield High School facilities.</p>	Less than significant

Table 3.12-18
Summary of Significant Social Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
SO-7: Displacement of the Mercado Latino Tianguis.	Significant	SO-MM#4: Implement measures to reduce impacts associated with the displacement of the Mercado Latino Tianguis.	Less than significant
SO-7: Displacement of the Fresno Rescue Mission, Bakersfield Homeless Shelter and associated facilities and programs.	Significant	SO-MM#4: 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#4: Implement measures to reduce impacts associated with the displacement of Mercy Hospital medical complex facilities.	Less than significant
SO-7: Displacement of religious facilities.	Significant	SO-MM#4: Implement measures to reduce impacts associated with the displacement of religious facilities.	Less than significant
SO-7: Displacement of government facilities—Bakersfield public works office/corporation yard and Kern Mental Health office—as well as parking associated with the Bakersfield Convention Center and temporary construction use of Owens Intermediate School parking area.	Significant	SO-MM#4: Implement measures to reduce impacts associated with the displacement of facilities.	Less than significant