3.12 Socioeconomics and Communities

Since publication of the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS), the following substantive changes have been made to this section:

- The Local and Regional Plan Policy Consistency Analysis Summary (Table 3.12-1) was updated to include additional plans in response to public comments on the Draft EIR/EIS.
- The analysis of permanent agricultural access impacts and road closures was revised to remove the closure of Goodrick Drive.
- The discussion of impacts was updated based on the engineering and design refinements described in the Preface and Chapter 2, including the removal of Milling Street as a grade-separated crossing, the addition of Lancaster Boulevard as a grade-separated crossing, changes to business and residential displacements, changes in sales tax and property tax losses, and changes to employment generation. However, impact conclusions remain the same as in the Draft EIR/EIS.
- The number of business displacements and associated number of employees displaced at the Palmdale Station site were reduced due to the modification of the Palmdale Boulevard grade separation to be an undercrossing, rather than an overcrossing, in response to comments received on the Draft EIR/EIS.
- Changes were made to AQ-IAMF#2, Selection of Coatings, to reflect the relevant air quality district rules.

This section provides an analysis of the socioeconomic and community impacts for the Bakersfield to Palmdale Project Section (B-P) of the California High-Speed Rail (HSR) System (including the César E. Chávez National Monument Design Option [CCNM Design Option], the Refined César E. Chávez National Monument Design Option [Refined CCNM Design Option] and the portion of the Fresno to Bakersfield Locally Generated Alternative [F-B LGA] alignment from the intersection of 34th Street and L Street to Oswell Street). Refer to Chapter 2, Alternatives, for a detailed background and description of the B-P Build Alternatives, the CCNM Design Option, and the Refined CCNM Design Option.

Summary of Results

Socioeconomics and Communities

The communities adjacent to the corridor alignment would bear the majority of the benefits and burdens of the proposed project. Impacts on important community facilities and socioeconomics are evaluated in order to avoid impacts, if possible, and to disclose impacts when they cannot be avoided.

The construction and operation of the HSR project would have potential impacts on socioeconomics and communities related to community cohesion, displacement and relocation, agricultural businesses, access disruption, property tax revenue, and temporary physical deterioration, as well as children's health and safety. The intensity of these impacts would be minimized through implementation of the mitigation measures described in Section 3.12.7. In addition, the California High-Speed Rail Authority (Authority) would implement impact avoidance and minimization features (IAMF) during project design and construction, as relevant to the project section and for each B-P Build Alternative, in order to avoid or reduce impacts. Alternative 5 would impact the largest number of facilities, displacing 338 residential units, 285 businesses, and 4 community facilities. Alternative 3 would result in fewer displacements than Alternative 5, with 244 residential units, 231 businesses, and 4 community facilities displaced. Alternatives 1, 2, and the Preferred Alternative would result in the fewest displacements (243 residential units, 231 businesses, and 4 community facilities). The number of residential, business, and community facility displacements under Alternatives 1, 2, 3, 5, and the Preferred Alternative would be the same with or without the CCNM Design Option or the Refined CCNM Design Option.

After mitigation, all B-P Build Alternatives, including the Preferred Alternative (Alternative 2 with the Refined CCNM Design Option), would result in temporary and permanent impacts related to

> *What is community cohesion?*
>
> Community cohesion is the degree to which residents have a sense of belonging to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually as a result of continued association over time. Cohesion refers to the degree of interaction among the individuals, groups, and institutions that make up a community.

the disruption to community cohesion or division of existing communities from construction. The Preferred Alternative and Alternatives 1 and 3 could result in temporary effects (e.g. diminished air quality, increased traffic and noise) to 19 community facilities from construction. Alternative 5 could temporarily affect a greater number of community facilities (23) than the other B-P Build Alternatives. Unlike the other B-P Build Alternatives, the Preferred Alternative would not result in direct, temporary impacts on agricultural access in the area near Edison because it would not require the temporary closure of Edison Road, Malaga Road, Comanche Drive, and Tejon Highway. The property acquisitions related to the Preferred Alternative could result in the direct permanent loss of approximately $8 million in annual crop revenue in Kern County, which is lower than the approximately $8.6 million in annual crop revenue losses that could result from the other B-P Build Alternatives. All B-P Build Alternatives would result in the permanent closure of a number of smaller unpaved roads at their crossings with the HSR alignment. However, all B-P Build Alternatives would not indirectly convert Important Farmland to nonagricultural use from parcel severance caused by access disruptions or result in permanent agricultural access impacts. There is no discernable difference between the Preferred Alternative and the other B-P Build Alternatives in this respect.

The property acquisitions and relocations associated with the Preferred Alternative and Alternatives 1 and 3 could result in the direct, permanent loss of a combined total of approximately $1.3 million in revenue to the 13 school districts along the HSR alignment, approximately $760,000 in property tax revenue to the 2 counties and 3 cities along the HSR alignment, and approximately $530,000 in sales tax revenue to the county and 2 cities along the HSR alignment from which sales tax-generating business would be relocated. In comparison, the property acquisitions and relocations associated with Alternative 5 could result in the direct, permanent loss of a greater amount of revenue to the same school districts and county and city governments as the other B-P Build Alternatives. Alternative 5 could result in the loss of approximately $1.7 million in school district revenue, approximately $854,000 in property tax revenue losses, and approximately $639,000 in sales tax revenue losses to county and city governments. With the CCNM Design Option, all four HSR Build Alternatives would result in slightly reduced school district and property tax revenue losses ($44 and $34, respectively). With the Refined CCNM Design Option, all four HSR Build Alternatives would result in reduced school district tax revenue losses ($197) and increased property tax revenue losses ($94). All of the revenue losses under the HSR Build Alternatives (including the CCNM Design Option) would represent small percentages of the overall revenue collected by each affected district/jurisdiction.

Construction of all B-P Build Alternatives could result in similar indirect permanent impacts related to physical deterioration. All B-P Build Alternatives could also result in similar direct temporary impacts on children's health and safety related to air quality and hazardous materials and indirect permanent impacts on children's health and safety related to school district bus transportation changes, noise and vibration, and the routine transport and handling of hazardous or acutely hazardous materials.

Minimal impacts related to socioeconomics and communities are expected as a result of the No Project Alternative. Appendix 3.19-A, Cumulative Project List, provides a list of planned and approved projects and plans in each of the jurisdictions in the study area that would occur with or without the HSR project. The planned and approved projects in Appendix 3.19-A include residential, commercial, and industrial development projects; solar energy facilities; and transportation and telecommunication projects. Project-specific environmental analysis undertaken in support of the projects and plans included in Appendix 3.19-A is summarized in Section 3.19, Cumulative Impacts. Under the No Project Alternative, there would be no HSR rail stations or associated impacts from those stations in the HSR project study area. The No Project

Alternative would also not result in any of the economic benefits related to the HSR project, including the creation of temporary construction-related jobs or permanent operation-related jobs.

All impacts on socioeconomics and communities associated with the B-P Build Alternatives, including the Preferred Alternative, would be similar in that potential impacts would be the same pursuant to the California Environmental Quality Act (CEQA). Although most of the impacts analyzed under CEQA would be less than significant or no impact, all B-P Build Alternatives would result in significant and unavoidable impacts related to the permanent displacement and relocation of businesses from construction, permanent agricultural access impacts, and road closures from operation. Because there are sufficient residential replacement properties in the replacement area to accommodate displaced residents, all B-P Build Alternatives would result in less than significant impacts related to the permanent displacement and relocation of local residents from construction.

What is physical deterioration?

Physical deterioration (also known as urban decay) can occur when one or more of the following changes occur in a community:

- There is considerable residential migration out of a community that would be expected to change its physical character by causing buildings to be abandoned and poorly maintained.
- There are extensive changes to the business environment in a community that would be expected to result in closures of key "anchor" businesses that support the area and draw in consumers.
- There are large reductions in the fiscal (property and sales taxes) revenues collected that would be expected to reduce the local government's ability to provide necessary services that maintain the physical quality of the community.

All B-P Build Alternatives would also result in benefits related to socioeconomics and communities. The B-P Build Alternatives would generate temporary and permanent gains in sales tax revenues due to project spending during construction and operation of the HSR system. Of all B-P Build Alternatives, Alternative 3 is estimated to generate the highest temporary sales tax revenues and Alternative 2 is estimated to generate the lowest temporary sales tax revenues during construction. All B-P Build Alternatives would also reduce the likelihood of permanent physical deterioration along the alignment from operation. Employment growth from construction and operation of all B-P Build Alternatives would be a benefit for the region, as it would provide jobs in areas with unemployed workers. Of all B-P Build Alternatives, construction of Alternative 3 would provide the most jobs (80,200 direct jobs and 76,900 indirect and induced jobs) on a temporary basis over the HSR project's anticipated 8-year construction period, whereas Alternative 2 would provide the fewest temporary construction jobs (76,700 direct jobs and 73,400 indirect and induced jobs). Operation of the HSR project would permanently create an estimated 200 direct jobs and 300 indirect and induced jobs in the two-county RSA (Kern and Los Angeles Counties). All B-P Build Alternatives would induce population and employment growth, but not substantially beyond what is projected in city and county general plans.

3.12.1 Introduction

This section provides the regulatory setting and affected environment for socioeconomics and communities, and evaluates the impacts that would result from the Bakersfield to Palmdale Project Section of the California HSR System, and the mitigation measures that would reduce these impacts. Demographic analysis of socioeconomics and communities, including race, ethnicity, income, and housing characteristics, is provided in the *Bakersfield to Palmdale Project Section: Community Impact Assessment Technical Report* (Authority 2018a) and *Bakersfield to Palmdale Project Section: Community Impact Assessment Technical Report Supplement* (Authority 2020a). Additional information on property displacements and relocation impacts is provided in the *Bakersfield to Palmdale Project Section Draft Relocation Impact Report* (DRIR; Authority 2018b) and *Bakersfield to Palmdale Project Section: Draft Relocation Impact Report Technical Report Supplement* (Authority 2020b). The Fresno to Bakersfield Project Section covers the very northern extent of the Bakersfield to Palmdale Section, just south of the Bakersfield station. The *Fresno to Bakersfield Section Final EIR/EIS* (Authority 2014b), the *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority and Federal Railroad Administration [FRA] 2017) and Final Supplemental EIR (Authority 2018d), and technical reports

supporting the environmental effect evaluation are accessible upon request to the Authority. For information on how to access and review technical reports, please refer to the Authority's website at www.hsr.ca.gov.

The following appendices are provided in Volume 2 of this EIR/EIS in support of this Socioeconomics and Communities section:

- Appendix 2-E, Impact Avoidance and Minimization Features, describes all the IAMFs identified in this section.
- Appendix 2-H, Detailed Plan Consistency Analysis, includes a list of adopted regional and local plans and policies pertaining to socioeconomics and communities.
- Appendix 3.12-A, Socioeconomics and Community Impacts Figures and Tables, includes all applicable figures and tables referenced in this section.
- Appendix 3.12-B, Relocation Assistance Benefits, includes detailed information about how the Authority plans to comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) and the California Relocation Assistance Act.
- Appendix 3.12-C, Children's Health and Safety Risk Assessment, evaluates the potential for the construction and operation of the B-P Build Alternatives to result in effects on children's health and safety.

The following chapters and sections influence the discussion on socioeconomics and communities:

- Section 3.2, Transportation, discusses impacts of the B-P Build Alternatives on traffic and circulation, including bicycle and pedestrian facilities.
- Section 3.3, Air Quality and Global Climate Change, discusses impacts of the B-P Build Alternatives on attainment of National Ambient Air Quality Standards and California Ambient Air Quality Standards.
- Section 3.4, Noise and Vibration, describes the noise and vibration impacts of the B-P Build Alternatives on sensitive receptors and the feasibility of noise abatement.
- Section 3.14, Agricultural Farmland and Forest Land, discusses impacts of the B-P Build Alternatives on farmland as a result of conversion of agricultural land use and wind-induced effects on agricultural operations.
- Section 3.15, Parks, Recreation, and Open Space, describes the impacts of the B-P Build Alternatives on parks, recreation, and open space.
- Section 3.16, Aesthetics and Visual Quality, discusses impacts of the B-P Build Alternatives on the visual environment.
- Section 3.18, Regional Growth, discusses impacts of the B-P Build Alternatives on employment, population growth, and future urban development.
- Section 3.19, Cumulative Impacts, provides analysis of the cumulative impacts of implementing the B-P Build Alternatives in combination with other past, present, and reasonably foreseeable probable future actions or projects (cumulative projects) that contribute to those impacts.
- Chapter 5, Environmental Justice, discusses environmental justice populations near the B-P Build Alternatives and the potential effects of each alternative on these populations.

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, the California Department of Finance, the California Employment Development Department (CEDD), and various county and city agencies.

It should be noted that the B-P Build Alternatives analyzed in this chapter incorporate refinements based on community, agency, and stakeholder input that are designed to reduce impacts on

affected populations, particularly those in the vicinity of Edison and Lancaster. Section 3.12.6.3, B-P Build Alternatives, provides an impact analysis of the B-P Build Alternatives. Section 3.12.5.7, Areas of Concern, provides a summary of the issues discussed during the Bakersfield to Palmdale Project Section outreach process. As described in the 2016 *Bakersfield to Palmdale Project Section Supplemental Alternatives Analysis* report (Authority 2016), the B-P Build Alternative alignments through Edison were moved to the southwest compared to the previous 2012 and 2014 studies. Alternatives 1, 3, and 5 were moved 100 feet farther away from Edison Middle School than the 2012 alternatives. Under those Build Alternatives, State Route (SR) 58 would also be relocated to the southwest, resulting in the movement of freeway traffic farther from the school, which might result in improved air quality at the school. The Alternative 2 alignment was moved even farther southwest compared to Alternatives 1, 3, and 5, resulting in the HSR tracks being moved 240 feet farther away from Edison Middle School than the 2012 alternatives, which would reduce any potential HSR noise and vibration impacts to the school. The Alternative 5 alignment was designed to avoid the existing Union Pacific Railroad (UPRR) and Metrolink facilities and relocate Sierra Highway, with the primary goal of placing the HSR project as close as possible to the existing rail facilities while also avoiding as many businesses as possible. These refinements are considered part of the HSR project as they are incorporated into the design of the B-P Build Alternatives. Further detail of the B-P Build Alternatives is included in Chapter 2, Alternatives, of this EIR/EIS.

The *Final Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Proposed California High-Speed Train System* (Authority and FRA 2005) and the *Bay Area to Central Valley High-Speed Train (HST) Partially Revised Final Program Environmental Impact Report (EIR)* (Authority 2012a) identified mitigation strategies for socioeconomic and community-related impacts. Strategies incorporated into the Bakersfield to Palmdale Project Section to date include involving the community early in the project (including outreach to minority and low-income populations in compliance with U.S. Executive Order 12898), conducting station design workshops, and maintaining the connectivity of pedestrian, bicycle, and vehicular crossings of the rail corridor to sustain neighborhood and community integrity.

Also, this section summarizes the analyses of station planning, land use, and development impacts associated with the Bakersfield Station area. The Fresno to Bakersfield Project Section environmental documents provide analysis for the section between the potential Bakersfield Station sites and Oswell Street in Bakersfield. The Bakersfield Station to Oswell Street area analysis is drawn from the Bakersfield Station—F Street Locally Generated Alternative documents (Fresno to Bakersfield Section Draft Supplemental EIR/EIS [Authority and FRA 2017] and Final Supplemental EIR [Authority 2018d]), but is considered as part of this Bakersfield to Palmdale Project Section EIR/EIS. Further, each Tier 2 EIR/EIS includes a section of the HSR system that serves a useful transportation purpose on its own and that could function independently even if the adjacent sections were not completed.

3.12.1.1 Definition of Resources

The following are definitions of socioeconomic and community resources analyzed in this EIR/EIS. These definitions are the same as those used in the Merced to Fresno Final EIR/EIS (Authority and FRA 2012).

- **Communities**—"Communities" are groups of people living in the same city, town, or neighborhood who exhibit behavior patterns expressed through daily social interactions, the use of local facilities, participation in local organizations, and involvement in activities that satisfy the population's economic and social needs.
- **Displacements and Relocations**—The term "displacements" refers to the movement of people out of their residences, businesses, nonprofit organizations, or farms as a result of acquisition of private property for a transportation project. The term "relocations" refers to the placement of people into new homes, commercial properties, or farms with assistance and benefits in accordance with federal and California laws, as discussed in Section 3.12.2, Laws, Regulations, and Orders.

- **Economic Impacts**—"Economic impacts" are changes in employment, business productivity (including agricultural productivity), and public funding. Public funding can be affected by displacements and relocations of residences and businesses, which in turn can alter school district funding, and property and sales tax revenues.

3.12.2 Laws, Regulations and Orders

3.12.2.1 Federal

Federal Railroad Administration Procedures for Considering Environmental Impacts (64 Federal Register 28545)

FRA Procedures for Considering Environmental Impacts Section 14(n)(14) requires an EIS to assess the impacts of the alternatives on the transportation and general mobility of the elderly and handicapped.

Improving Access to Services for Persons with Limited English Proficiency (U.S. Executive Order 13166)

U.S. Executive Order 13166 requires each federal agency to ensure that recipients of federal financial assistance provide meaningful access to their programs and activities by limited English proficiency (LEP) applicants and beneficiaries.

Protection of Children from Environmental Health Risks and Safety Risks (U.S. Executive Order 13045)

U.S. Executive Order 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.

Americans with Disabilities Act (42 U.S. Code §§ 12101–12213)

The Americans with Disabilities Act prohibits discrimination against persons with disability and requires equal opportunity in employment, state and local government services, public accommodations, commercial facilities, and transportation.

Uniform Relocation Assistance and Real Property Acquisition Policies Act (42 U.S. Code § 61)

The Uniform Relocation Assistance and Real Property Program ensures that people 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 people will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

United States Environmental Protection Agency School Siting Guidelines

In December 2007, the Energy Independence and Security Act was enacted by Congress and included a requirement for the U.S. Environmental Protection Agency to develop guidelines[1] for the siting of school facilities with the following considerations:

1. Special vulnerabilities of children to hazardous substances or pollution exposures in any case in which the potential for contamination at a potential school site exists
2. Modes of transportation available to students and staff
3. Efficient use of energy
4. Potential use of a school at the site as an emergency shelter

These guidelines are intended to assist local school districts and community members with understanding environmental factors in making school siting decisions. Although state agencies,

[1] Currently available on the "Healthy School Environments" webpage of the U.S. Environmental Protection Agency (https://www.epa.gov/schools).

such as the Authority, are not subject to the local plans, regulations, and requirements, the Authority may choose to consider factors set in the U.S. Environmental Protection Agency guidelines when assessing the mitigation measures developed to minimize effects on existing or planned schools adjacent to the HSR project.

Farmland Protection Policy Act of 1981 (7 U.S. Code §§ 4201–4209 and 7 Code of Federal Regulations Part 658)

The Farmland Protection Policy Act (FPPA) (U.S. Code Title 7, § 4201 et seq.) is intended to protect farmland and requires federal agencies to coordinate with the U.S. Department of Agriculture, Natural Resource Conservation Service, if their activities may irreversibly convert farmland to nonagricultural use, either directly or indirectly. The stated purpose of the FPPA is to "minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." The FPPA requires federal agencies to examine potential direct and indirect effects to farmland of a proposed action and its alternatives before approving any activity that would convert farmland to a nonagricultural use. The U.S. Department of Agriculture issues regulations to implement the FPPA (Code of Federal Regulations [C.F.R.] Title 7, Part 658).

For the purpose of the FPPA, "Important Farmland" includes prime farmland, unique farmland, and farmland of statewide or local importance, as defined by Section 1540(c)(1) of the FPPA. Classification standards differ from state to state; each state may set its own criteria for classification in each category. Federal farmland classification criteria may differ from those developed by the California Department of Conservation, which are described in Section 3.12.2.2, State. Farmland subject to FPPA requirements includes forest land, pastureland, cropland, or other land but does not include water or urban, built-up land.

The FPPA exempts the following land types:

- Soil types not suitable for crops, such as rocky terrain or sand dunes
- Sites where the project's right-of-way is entirely within a delineated urban area and the project requires no prime or unique farmland, nor any farmland of statewide or local importance
- Farmland that has already been converted to industrial, residential, or commercial use or that is used for recreational activity

The FPPA applies to projects and programs sponsored or financed in whole or in part by the federal government. FPPA implementing regulations spell out requirements to ensure that federal programs, to the extent practicable, are consistent with state, local, and private programs and policies to protect farmland. The FPPA requires a rating of farmland conversion impacts based on land evaluation and site assessment criteria identified in 7 C.F.R. Part 658.5. These criteria are addressed through completion of a Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) form, which requires input from both the federal agency involved and from the Natural Resource Conservation Service.

3.12.2.2 State

California Relocation Act (California Government Code Section 7260 et seq.)

In parallel with the federal law, the act requires state and local governments to provide relocation assistance and benefits to displaced persons as a result of projects undertaken by state or local governments that do not involve federal funds. However, because the project will receive federal funding, the Uniform Act takes precedence.

California High-Speed Rail Authority Title VI Plan

In March 2012, the Authority adopted a policy and plan to ensure that the California HSR System complies with Title VI. The policy states:

- The Authority is committed to ensuring that no person in the State of California is excluded from participation in, or 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 FRA to conform to Title VI of the Civil Rights Act of 1964 and related statutes. The Authority's subrecipients and contractors are required to prevent discrimination and ensure nondiscrimination 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 nondiscrimination laws and regulations.

The Title VI Plan includes a commitment to inclusive public involvement of all persons affected by the HSR project (Authority 2012c).

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

In May 2012, the Authority adopted a policy and plan to ensure the California HSR Program complies with the requirements of U.S. Executive Order 13166. The policy states:

- It is the policy of the Authority to communicate effectively and provide meaningful access to 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 2012d]; Resolution 12-15 [Authority 2012d]).

California Land Conservation Act of 1965 (California Government Code Section 51200 et seq.)

The California Land Conservation Act of 1965, commonly known as the Williamson Act, provides a property tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses, and consistent uses defined in state law and local ordinances. Local government establishes an agricultural preserve defining the boundary within which a city or county will enter into contracts with landowners. Local governments calculate the property tax assessment based on the actual land use instead of the potential land value assuming full development, thereby providing a financial incentive to conserve agricultural or open space uses.

Williamson Act contracts are for 10 years and longer. The contract is renewed automatically each year, maintaining a constant, 10-year contract, unless the landowner or local government files to initiate nonrenewal. Should that occur, the Williamson Act would terminate 9 years after the filing of a notice of nonrenewal. Only a landowner can petition for a contract cancellation. Tentative contract cancellations can be approved only after a local government approves and the landowner pays a cancellation fee.

California has the following policies regarding public acquisition of and location of public improvements on lands in agricultural preserves and lands under Williamson Act contracts (California Government Code §§ 51290–51295):

- State policy is to avoid locating federal, state, or local public improvements and improvements of public utilities, and the acquisition of land, in agricultural preserves.
- State policy is to locate public improvements that are in agricultural preserves on land other than land under Williamson Act contract.
- State policy is that any agency or entity proposing to locate such an improvement, in considering the relative costs of parcels of land and the development of improvements, give

consideration of the value to the public of land, particularly prime agricultural land, in an agricultural preserve.

3.12.2.3 Regional and Local

This section addresses local and regional regulations pertaining to socioeconomics and communities in each of the two counties and the cities or communities relevant to the B-P Build Alternatives. Appendix 2-H in Volume 2 includes a list of adopted regional and local plans and policies pertaining to socioeconomics and communities. Consistency with these regional and local plans and laws is discussed further in Section 3.12.3 and Table 3.12-1.

Table 3.12-1 Local and Regional Plan Policy Consistency Analysis Summary

Plan	Segments	Alternatives	Consistency
Kern County General Plan (2007): Land Use, Open Space, and Conservation Element	Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Kern County General Plan (2007): Circulation Element	Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Kern County Economic Development Strategy Update (2010)	Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Kern County Bicycle Master Plan and Complete Streets Recommendations (2012)	Kern County	All B-P Build Alternatives	Consistent.
Kern Council of Governments 2017 Kern Region Active Transportation Plan	Kern County	All B-P Build Alternatives	Consistent.
Kern Council of Governments 2011 Kern County Grade Separation Prioritization Report	Kern County	All B-P Build Alternatives	Consistent.
Metropolitan Bakersfield General Plan (2007): Land Use Element	City of Bakersfield, Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Metropolitan Bakersfield General Plan (2007): Circulation Element	City of Bakersfield, Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Metropolitan Bakersfield General Plan (2008): Housing Element	City of Bakersfield, Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Metropolitan Bakersfield General Plan (2007): Conservation Element	City of Bakersfield, Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Metropolitan Bakersfield General Plan (2007): Open Space Element	City of Bakersfield, Unincorporated Kern County	All B-P Build Alternatives	Consistent.
Keene Ranch Specific Plan (1997): Land Use, Open Space, and Conservation Element	Keene Ranch	All B-P Build Alternatives	Consistent.
Keene Ranch Specific Plan (1997): Circulation Element	Keene Ranch	All B-P Build Alternatives	Consistent.
GTASCP (2010): Land Use Element	Unincorporated Kern County, Golden Hills	All B-P Build Alternatives	Consistent.
GTASCP (2010): Conservation and Open Space Element	Unincorporated Kern County, Golden Hills	All B-P Build Alternatives	Consistent.
GTASCP (2010): Circulation Element	Unincorporated Kern County, Golden Hills	All B-P Build Alternatives	Consistent.
GTASCP (2010): Safety Element	Unincorporated Kern County, Golden Hills	All B-P Build Alternatives	Consistent.
GTASCP (2010): Noise Element	Unincorporated Kern County, Golden Hills	All B-P Build Alternatives	Consistent.

Plan	Segments	Alternatives	Consistency
GTASCP (2010): Sustainability Element	Unincorporated Kern County, Golden Hills	All B-P Build Alternatives	Consistent.
Tehachapi General Plan 2035 (2012): Mobility Element	City of Tehachapi	All B-P Build Alternatives	Consistent.
Tehachapi General Plan 2035 (2012): Public Realm Element	City of Tehachapi	All B-P Build Alternatives	Consistent.
Tehachapi General Plan 2035 (2012): Natural Resources Element	City of Tehachapi	All B-P Build Alternatives	Consistent.
Tehachapi General Plan 2035 (2012): Community Safety Element	City of Tehachapi	All B-P Build Alternatives	Consistent.
Tehachapi Municipal Airport Master Plan Update (2004): Revenue-Supporting Objectives, Opportunities, and Constraints	Tehachapi Municipal Airport	All B-P Build Alternatives	Consistent.
Cameron Canyon Specific Plan (1986): Land Use, Open Space, and Conservation Element	Kern County	All B-P Build Alternatives	Consistent.
Willow Springs Specific Plan (2008): Circulation Element	Kern County	All B-P Build Alternatives	Consistent.
Rosamond Specific Plan (2010): Land Use Element	Community of Rosamond	All B-P Build Alternatives	Consistent.
Rosamond Specific Plan (2008): Circulation Element	Community of Rosamond	All B-P Build Alternatives	Consistent.
Rosamond Specific Plan (2008): Open Space/Conservation Element	Community of Rosamond	All B-P Build Alternatives	Consistent.
Rosamond Specific Plan (2008): Noise Element	Community of Rosamond	All B-P Build Alternatives	Consistent.
Los Angeles County General Plan (2015): Land Use Element	Unincorporated Los Angeles County	All B-P Build Alternatives	Consistent.
Los Angeles County General Plan (2015): Mobility Element	Unincorporated Los Angeles County	All B-P Build Alternatives	Consistent.
Los Angeles County General Plan (2015): Conservation and Natural Resources Element	Unincorporated Los Angeles County	All B-P Build Alternatives	Consistent.
Los Angeles County General Plan (2015): Noise Element	Unincorporated Los Angeles County	All B-P Build Alternatives	Consistent.
Los Angeles County General Plan (2015): Economic Development Element	Unincorporated Los Angeles County	All B-P Build Alternatives	Consistent.
Antelope Valley Area Plan, Town and Country (2015)	Unincorporated Los Angeles County	All B-P Build Alternatives	Consistent.
County of Los Angeles Bicycle Master Plan (2011)	Los Angeles County	All B-P Build Alternatives	Consistent.
Fox Field Industrial Corridor Specific Plan (1996)	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster General Plan 2030 (2009): Plan for the Natural Environment	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster General Plan 2030 (2009): Plan for Public Health and Safety	City of Lancaster	All B-P Build Alternatives	Consistent.

Plan	Segments	Alternatives	Consistency
City of Lancaster General Plan 2030 (2009): Plan for Active Living	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster General Plan 2030 (2009): Plan for Physical Mobility	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster General Plan 2030 (2009): Plan for Economic Development Vitality	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster General Plan 2030 (2013): Housing Element (2014–2021)	City of Lancaster	All B-P Build Alternatives	Inconsistent.
City of Lancaster Master Plan of Trails and Bikeways (2011)	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster Master Plan of Complete Streets (2017)	City of Lancaster	All B-P Build Alternatives	Consistent.
Lancaster Business Park Phase III Specific Plan (1991): Economic Objective	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Lancaster Parks, Recreation, Open Space & Cultural Master Plan (2007)	City of Lancaster	All B-P Build Alternatives	Consistent.
City of Palmdale General Plan (1993): Noise Element	City of Palmdale	All B-P Build Alternatives	Consistent.
City of Palmdale General Plan (1993): Land Use Element	City of Palmdale	All B-P Build Alternatives	Consistent.
City of Palmdale General Plan (1993): Environmental Resources Element	City of Palmdale	All B-P Build Alternatives	Consistent.
City of Palmdale General Plan (1993): Circulation Element	City of Palmdale	All B-P Build Alternatives	Consistent.
City of Palmdale General Plan (1993): Public Services Element	City of Palmdale	All B-P Build Alternatives	Consistent.
City of Palmdale General Plan (2011): Housing Element	City of Palmdale	All B-P Build Alternatives	Consistent
City of Palmdale General Plan (2003): Parks, Recreation, and Trails Element	City of Palmdale	All B-P Build Alternatives	Consistent.
City of Palmdale Energy Action Plan (2011)	City of Palmdale	All B-P Build Alternatives	Consistent.
Kern Council of Governments Regional Transportation Plan/Sustainable Communities Strategy (2014)	Kern County	All B-P Build Alternatives	Consistent.
2016–2040 SCAG RTP/SCS (2016)	Los Angeles County and five other counties in the SCAG Region	All B-P Build Alternatives	Consistent.

Source: California High-Speed Rail Authority, 2018a
B-P = Bakersfield to Palmdale Project Section
GTASCP = Greater Tehachapi Area Specific and Community Plan
RTP = Regional Transportation Plan
SCAG = Southern California Association of Governments
SCS = Sustainable Communities Strategy

3.12.3 Regional and Local Policy Analysis

Because the HSR project is an undertaking of the Authority in its capacity of state and federal lead agency,[2] the Authority is neither subject to the jurisdiction of local governments nor required to be consistent with local plans. Council on Environmental Quality and FRA regulations nonetheless call for the discussion of any inconsistency or conflict of a proposed action with regional or local plans and laws. Where inconsistencies or conflicts exist, the Council on Environmental Quality and FRA require a description of the extent of reconciliation and the reason for proceeding if full reconciliation is not feasible (40 C.F.R. 1506.2(d))[3], and Federal Register Volume 64, Page 28545, 14(n)(15)). The CEQA Guidelines also require that an EIR discuss the inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans (CEQA Guidelines, Section 15125(d)). It should be noted that any inconsistency with such plans is not considered an environmental impact. An analysis of regional and local policies is included to provide the local planning context. Appendix 2-H in Volume 2 lists local and regional policies, goals, and objectives related to socioeconomics and communities, describing the consistency of the project section with each local policy.

Alternatives 1, 2, 3, and 5 were evaluated for consistency with applicable regional and local policies. Table 3.12-1 provides a summary of the HSR project's consistency with applicable local and regional policies, goals, and objectives pertaining to socioeconomics and communities. As shown in Table 3.12-1, all B-P Build Alternatives result in the same inconsistency related to the loss of housing stock in the City of Lancaster. Residents displaced by the B-P Build Alternatives would be relocated to suitable replacement housing in the surrounding area. If sufficient housing is unavailable, the Authority would work collaboratively with the local jurisdictions to find the means to locate replacement housing. Nevertheless, the B-P Build Alternatives are anticipated to result in a net loss of housing in Lancaster, which would be inconsistent with a goal in the Housing Element of the Lancaster General Plan (City of Lancaster 2013) to preserve existing housing stock. However, despite this inconsistency, plans for the HSR project would proceed due to the overall benefits that are anticipated as a result of the project. For a detailed discussion on the cumulative impacts of the HSR project, refer to Section 3.19, Cumulative Impacts.

3.12.4 Methods for Evaluating Impacts

The evaluation of impacts on socioeconomics and community resources is a requirement of the National Environmental Policy Act (NEPA) and CEQA. The following sections summarize the resource study areas (RSA) and the methods used to analyze impacts on socioeconomics and community resources. The Community Impact Assessment and the Relocation Impact Report provide additional details on these methodologies. The methods used to analyze impacts on socioeconomics and community resources apply to both NEPA and CEQA unless otherwise indicated. Laws, regulations, and orders (Section 3.12.2) pertaining to socioeconomics and communities were also considered in the evaluation of impacts on communities, residents, businesses, agricultural operations, community facilities, and the local economy. Section 3.2, Transportation, describes the methods used to analyze transportation impacts. Section 3.3, Air Quality and Global Climate Change, describes the methods used to analyze air quality impacts.

[2] Pursuant to U.S. Code (U.S.C.) Title 23 Section 327, under the NEPA Assignment Memorandum of Understanding (MOU) between the FRA and the State of California, effective July 23, 2019, the Authority is the federal lead agency for environmental reviews and approvals for all California High-Speed Rail Authority (Authority) Phase 1 and Phase 2 California HSR System projects. In this role, the Authority is the project sponsor and the lead federal agency for compliance with NEPA and other federal laws for the California HSR System, including the Bakersfield to Palmdale Project Section. The FRA administers the High-Speed Intercity Passenger Rail Program and has awarded California $3.48 billion in grant funding for HSR system construction in the Central Valley. The FRA has primary responsibility for developing and enforcing rail line safety regulations in accordance with U.S.C. Title 49, Subtitle V, Part A (49 U.S.C. § 20101 et seq.) and for performing Clean Air Act Conformity determinations and other federal approvals retained by the FRA.

[3] The Council on Environmental Quality (CEQ) issued new regulations, effective September 14, 2020, updating the NEPA implementing procedures at 40 CFR 1500-1508. However, because this project initiated the NEPA process before September 14, 2020, it is not subject to the new regulations. The Authority is relying on the regulations as they existed prior to September 14, 2020. Therefore, all citations to CEQ regulations in this environmental document refer to the 1978 regulations, pursuant to 40 CFR 1506.13 (2020) and the preamble at 85 Fed Reg. 43340.

Section 3.4, Noise and Vibration, describes the methods used to analyze impacts related to noise and vibration. Section 3.14, Agricultural Farmland and Forest Land, describes the methods used to analyze impacts related to agricultural land. Section 3.15, Parks, Recreation, and Open Space, describes the methods used to analyze impacts related to parks, recreation, and open space. Section 3.16, Aesthetics and Visual Quality, describes the methods used to analyze aesthetics and visual quality impacts. Section 3.18, Regional Growth, describes the methods used to discuss growth-inducing impacts. Section 3.19, Cumulative Impacts, describes methods used to analyze cumulative impacts. Chapter 5, Environmental Justice, describes methods used to analyze environmental justice impacts.

3.12.4.1 Definition of Resource Study Area

RSAs are the geographic boundaries in which the environmental investigations specific to each resource topic were conducted. The RSAs for impacts on socioeconomics and communities include direct and indirect impacts RSAs for population and community impacts and an RSA for economic impacts. The direct impacts RSA for population and community impacts is defined as a 0.5-mile radius from the centerline of all B-P Build Alternatives and a 0.5-mile radius from all proposed station locations and access points, maintenance facility sites, affected public facilities, and other support facilities. The indirect impacts RSA for population and community impacts includes all parcels within the direct impacts RSA, as well as the entire boundary for parcels where only a portion falls within the direct impacts RSA. Figure 3.12-1 shows an overview of the direct and indirect impacts RSAs for population and community impacts. Figure 3.12-A-1 (provided in Appendix 3.12-A, Socioeconomics and Community Impacts Figures and Tables) shows the detailed locations of the direct and indirect impacts RSAs for population and community impacts, as well as the boundaries of the incorporated cities and unincorporated communities in those RSAs. The RSA for economic impacts is defined as the region in which the project would be located because the economic effects related to fiscal revenues, job creation, school district funding, and agricultural production could have regional economic implications. Therefore, the RSA for economic impacts is Kern and Los Angeles Counties. Figure 3.12-A-2 (provided in Appendix 3.12-A, Socioeconomics and Community Impacts Figures and Tables) shows the location of the RSA for economic impacts. Table 3.12-2 provides a general definition and boundary description for each RSA related to impacts on socioeconomics and communities within the Bakersfield to Palmdale Project Section.

Table 3.12-2 Definition of Resource Study Areas

General Definition	RSA Boundary
Population and Community Impacts—Direct Impacts	A 0.5-mile radius from the centerline of all B-P Build Alternatives and a 0.5-mile radius from all proposed station locations and access points, maintenance facility sites, affected public facilities, and other support facilities
Population and Community Impacts—Indirect Impacts	All parcels within the direct impacts RSA for population and community impacts, as well as the entire boundary for parcels where only a portion falls within the direct impacts RSA.
Economic	The region in which the project would be located because the economic effects related to fiscal revenues, job creation, school district funding, and agricultural production could have regional economic implications. Therefore, the RSA for economic impacts is Kern and Los Angeles Counties.

B-P = Bakersfield to Palmdale Project Section
RSA = resource study area

Figure 3.12-1 Bakersfield to Palmdale Project Subsections

3.12.4.2 Impact Avoidance and Minimization Features

The B-P Build Alternatives incorporate standardized HSR features to avoid and minimize impacts. These features are referred to as IAMFs. The Authority, in coordination with the property owners, will implement IAMFs during project design, construction, and operation. As such, the analysis of impacts of the B-P Build Alternatives in this section factors in all applicable IAMFs. The Authority will coordinate with the property owners to obtain a memorandum of agreement after the Record of Decision/Notice of Determination and prior to the start of construction to ensure the required IAMFs are implemented. Appendix 2-E, Impact Avoidance and Minimization Features, provides a detailed description of the IAMFs that are included as part of the B-P Build Alternative design. IAMFs applicable to socioeconomics and community resources include:

SOCIO-IAMF#1: Construction Management Plan

Prior to Construction, the Contractor shall prepare a CMP providing measures that minimize impacts on low-income households and minority populations. The plan shall be submitted to the Authority for review and approval. The plan would include actions pertaining to communications, visual protection, air quality, safety controls, noise controls, and traffic controls to minimize impacts on low-income households and minority populations. The plan would verify that property access is maintained for local businesses, residences, and emergency services. This plan would 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 would include efforts to consult with local transit providers to minimize impacts on local and regional bus routes in affected communities.

SOCIO-IAMF#2: Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act

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 fair and equitable treatment of all affected persons. Additionally, the Fifth Amendment of the U.S. 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.

The California Relocation Assistance Act essentially mirrors the Uniform Act and also provides for consistent and fair treatment of property owners. However, because the project would receive federal funding, the Uniform Act takes precedence. Owners of private property have federal and state constitutional guarantees that their property would 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).

More detailed information about how the Authority plans to comply with the Uniform Act and the California Relocation Assistance Act is provided in the following three detailed relocation assistance documents modeled after Caltrans versions:

- *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*

SOCIO-IAMF#3: Relocation Mitigation Plan

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

The relocation mitigation plan would be designed to meet the following objectives:

- Provide affected property and business owners and tenants a high level of individualized assistance in situations when acquisition is necessary and the property owner desires to relocate the existing land use.
- Coordinate relocation activities with other agencies acquiring property resulting in displacements in the study area to provide for all displaced persons and businesses to receive fair and consistent relocation benefits.
- Make a best effort to minimize the permanent closure of businesses and non-profit agencies as a result of property acquisition.
- Within the limits established by law and regulation, minimize the economic disruption caused to property owners 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 with regulatory compliance assistance.

The relocation mitigation plan would include the following components:

- A description of the appraisal, acquisition, and relocation process as well as a description of the activities of the appraisal and relocation specialists.
- 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 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.

AG-IAMF#1: Restoration of Important Farmland Used for Temporary Staging Areas

Prior to any ground-disturbing activities at the site of a temporary construction staging area located on Important Farmland, the Contractor shall prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation and

successful achievement of restoration for temporary impacts. Actions shall include removing and stockpiling the top 18 inches of soil for replacement on-site during restoration activities. Before beginning construction use of sites on Important Farmland, the Contractor shall submit the restoration plan to the Authority for review and obtain Authority (and if applicable, the landowner) approval. The restoration plan shall include time-stamped photo documentation of the pre-construction conditions of all temporary staging areas.

All construction access, mobilization, material laydown, and staging areas on Important Farmlands would be returned to a condition equal to the pre-construction staging condition. This requirement is included in the design-build construction contract requirements.

AG-IAMF#3: Farmland Consolidation Program

The Authority would establish and administer a farmland consolidation program to sell remnant parcels to neighboring landowners for consolidation with adjacent farmland properties. In addition, the program would assist the owners of remnant parcels in selling those remnants to adjacent landowners, upon request. The goal of the program is to provide for continued agricultural use on the maximum feasible amount of remnant parcels that otherwise may not be economic to farm. The program would focus on severed remainder parcels, including those that were under Williamson Act or Farmland Security Act contract at the time of right-of-way acquisition and have become too small to remain in the local Williamson Act or Farmland Security Act program. The program would assist landowners in obtaining lot line adjustments where appropriate to incorporate remnant parcels into a larger parcel that is consistent with size requirements under the local government regulations.

The program will operate for a minimum of 5 years after construction of the section is completed. The Authority shall document implementation of this measure through issuance of a compliance memorandum—after the minimum operation period of 5 years has elapsed. The document shall be filed with Environmental Mitigation Management and Assessment system (EMMA).

AG-IAMF#5: Temporary Livestock and Equipment Crossings

Prior to the start of any construction activity adjacent to any farmland, the Authority shall coordinate with agricultural property owners or leaseholders to provide temporary livestock and equipment crossings to minimize impacts to livestock movement, as well as routine operations and normal business activities, during project construction.

AG-IAMF#6: Equipment Crossings

During final design, and in coordination with the property owners of land in use for agricultural operations, the Authority shall finalize the realignments of any affected access roads to provide equipment crossings to minimize impediments to routine agricultural operations and normal business activities that may result from long-term project operation.

AQ-IAMF#1: Fugitive Dust Emissions

During construction, the Contractor shall employ the following measures to minimize and control fugitive dust emissions. The Contractor shall prepare a fugitive dust control plan for each distinct construction segment. At a minimum, the plan shall describe how each measure would be employed and identify an individual responsible for ensuring implementation. At a minimum, the plan shall address the following components unless alternative measures are approved by the applicable air quality management district.

- Cover all vehicle loads transported on public roads to limit visible dust emissions, and maintain at least 6 inches of freeboard space from the top of the container or truck bed.
- Clean all trucks and equipment before exiting the construction site using an appropriate cleaning station that does not allow runoff to leave the site or mud to be carried on tires off the site.
- Water exposed surfaces and unpaved roads at a minimum three times daily with adequate volume to result in wetting of the top 1 inch of soil but avoiding overland flow. Rain events

may result in adequate wetting of top 1 inch of soil thereby alleviating the need to manually apply water.

- Limit vehicle travel speed on unpaved roads to 15 miles per hour (mph).
- Suspend any dust-generating activities when average wind speed exceeds 25 mph.
- Stabilize all disturbed areas, including storage piles that are not being used on a daily basis for construction purposes, by using water, a chemical stabilizer/suppressant, hydro mulch or by covering with a tarp or other suitable cover or vegetative ground cover, to control fugitive dust emissions effectively. In areas adjacent to organic farms, the Authority would use non-chemical means of dust suppression.
- Stabilize all on-site unpaved roads and off-site unpaved access roads, using water or a chemical stabilizer/suppressant, to effectively control fugitive dust emissions. In areas adjacent to organic farms, the Authority would use non-chemical means of dust suppression.
- Carry out watering or presoaking for all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities.
- For buildings up to 6 stories in height, wet all exterior surfaces of buildings during demolition.
- Limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at a minimum of once daily, using a vacuum type sweeper.
- After the addition of materials to or the removal of materials from surface or outdoor storage piles, apply sufficient water or a chemical stabilizer/suppressant.

AQ-IAMF#2: Selection of Coatings

During construction, the Contractor shall use:

- Low-volatile organic compound (VOC) paint that contains less than 10 percent of VOC contents (VOC, 10%).
- Super-compliant or Clean Air paint that has a lower VOC content than that required by San Joaquin Valley Unified Air Pollution Control District Rule 4601, Eastern Kern Air Pollution Control District Rule 410, and Antelope Valley Air Quality Management District Rule 1113, when available. If not available, the Contractor shall document lack of availability, recommend alternative measure(s) to comply with Rule 4601, 410, and 1113, or disclose absence of measure(s) for full compliance and obtain concurrence from the Authority.

AQ-IAMF#6: Reduce the Potential Impact of Concrete Batch Plants

Prior to construction of any concrete batch plant, the contractor would provide the Authority with a technical memorandum documenting consistency with the Authority's concrete batch plant siting criteria and utilization of typical control measures. Concrete batch plants would be sited at least 1,000 feet from sensitive receptors, including places such as daycare centers, hospitals, senior care facilities, residences, parks, and other areas where people may congregate. The concrete batch plant would implement typical control measures to reduce fugitive dust such as water sprays, enclosures, hoods, curtains, shrouds, movable and telescoping chutes, central dust collection systems, and other suitable technology to reduce emissions to be equivalent to the USEPA AP-42 controlled emission factors for concrete batch plants. The contractor would provide to the Authority documentation that each batch plant meets this standard during operation.

AVQ-IAMF#1: Aesthetic Options

Prior to construction the Contractor shall document, through issue of a technical memorandum, how the Authority's aesthetic guidelines have been employed to minimize visual impacts. The Authority seeks to balance providing a consistent, project-wide aesthetic with the local context for the numerous high-speed rail non-station structures across the state. Examples of aesthetic

options would be provided to local jurisdictions that can be applied to non-standard structures in the high-speed rail system. Refer to Aesthetic Options for Non-Station Structures, 2017.

AVQ-IAMF#2: Aesthetic Review Process

Prior to construction, the Contractor shall document that the Authority's aesthetic review process has been followed to guide the development of non-station area structures. Documentation shall be through issuance of a technical memorandum to the Authority. The Authority would identify key non-station structures recommended for aesthetic treatment, consult with local jurisdictions on how best to involve the community in the process, solicit input from local jurisdictions on their aesthetic preferences, and evaluate aesthetic preferences for potential cost, schedule and operational impacts. The Authority would also evaluate compatibility with project-wide aesthetic goals, include recommended aesthetic approaches in the construction procurement documents, and work with the contractor and local jurisdictions to review designs and local aesthetic preferences and incorporate them into final design and construction. Refer to Aesthetic Options for Non-Station Structures, 2017.

HMW-IAMF#6: Spill Prevention, Control, and Countermeasure Plan

Prior to Construction (any ground-disturbing activities), the Contractor shall prepare a Construction Management Plan addressing spill prevention. A Spill Prevention, Control, and Countermeasure (SPCC) plan (or Soil Prevention and Response Plan if the total above-ground oil storage capacity is less than 1,320 gallons in storage containers greater than or equal to 55-gallons) shall prescribe BMPs to follow to prevent hazardous material releases and clean-up of any hazardous material releases that may occur. The plans would be prepared and submitted to the PCM on behalf of the Authority and shall be implemented during Construction.

NV-IAMF#1: Noise and Vibration

Prior to Construction, the Contractor shall prepare and submit to the Authority a noise and vibration technical memorandum documenting how the FTA and FRA guidelines for minimizing construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors. Typical construction practices contained in the FTA and FRA guidelines for minimizing construction noise and vibration impacts include the following:

- Construct noise barriers, such as temporary walls or piles on excavated material, between noisy activities and noise sensitive resources.
- Route truck traffic away from residential streets, when possible.
- Construct walled enclosures around especially noisy activities or around clusters or noise equipment.
- Combine noisy operations so that they occur in the same period.
- Phase demolition, earthmoving, and ground impacting operations so as not to occur in the same time period.
- Avoid impact pile driving where possible in vibration sensitive areas.

SS-IAMF#2: Safety and Security Management Plan

Sixty days after receiving from the Authority a construction notice-to-proceed, the Contractor shall provide the Authority with a technical memorandum documenting how the following requirements, plan, programs and guidelines were considered in design, construction and eventual operation to protect the safety and security of construction workers and users of the HSR. The Contractor shall be responsible for implementing all construction-related safety and security plans and the Authority shall be responsible for implementing all safety and security plans related to HSR operation.

- Workplace worker safety is generally governed by the Occupational Health and Safety Act of 1970, which established the OSHA. OSHA establishes standards and oversees compliance with workplace safety and reporting of injuries and illnesses of employed workers. In

California, OSHA enforcement of workplace requirements is performed by California Occupational Safety and Health Administration (Cal OSHA). Under Cal OSHA regulations, as of July 1, 1991, every employer must establish, implement, and maintain an injury and illness prevention program.

- The Authority has adopted a Safety and Security Management Plan to guide the safety and security activities, processes, and responsibilities during design, construction and implementation phases of the project to protect the safety and security of construction workers and the public. A Systems Safety Program Plan (SSPP) and a System Security Plan would be implemented prior to the start of revenue service to guide the safety and security of the operation of the high-speed rail system.
- Prior to Construction, the Contractor shall provide the Authority with a Safety and Security Management Plan documenting how they would implement the Authority's safety and security requirements within their project scope.
- Implement site-specific health and safety plans and site-specific security plans to establish minimum safety and security guidelines for contractors of, and visitors to, construction projects. Contractors would be required to develop and implement site-specific measures that address regulatory requirements to protect human health and property at construction sites.
- Preparation of a Valley Fever action plan that includes: A) information on causes, preventative measures, symptoms, and treatments for Valley Fever to individuals who could potentially be exposed through construction activities (i.e., construction workers, monitors, managers, and support personnel); B) continued outreach and coordination with California Department of Public Health; C) coordination with county departments of public health to ensure that the above referenced information concerning Valley Fever is readily available to nearby residents, schools, and businesses and to obtain area information about Valley Fever outbreaks and hotspots; and D) provide a qualified person dedicated to overseeing implementation of the Valley Fever prevention measures to encourage a culture of safety of the contractors and subcontractors. The Valley Fever Health and Safety (VFHS) designee shall coordinate with the county Public Health Officer and oversee and manage the implementation of Valley Fever control measures. The VFHS designee is responsible for ensuring the implementation of measures in coordination with the county Public Health Officer. Medical information would be maintained following applicable and appropriate confidentiality protections. The VFHS designee, in coordination with the county Public Health Officer, would determine what measures would be added to the requirements for the Safety and Security Management Plan regarding preventive measures to avoid Valley Fever exposure. Measures shall include, but are not limited to the following: A) train workers and supervisors on how to recognize symptoms of illness and ways to minimize exposure, such as washing hands at the end of shifts; B) provide washing facilities nearby for washing at the end of shifts; C) provide vehicles with enclosed, air conditioned cabs and make sure workers keep the windows closed; D) equip heavy equipment cabs with high efficiency particulate air (HEPA) filters; and E) make NIOSH approved respiratory protection with particulate filters as recommended by the CDPH available to workers who request them.
- System safety program plans incorporate FRA requirements and are implemented upon FRA approval. FRA's SSPPs requirements would be determined in FRA's new System Safety Regulation (49 CFR 270).
- Rail systems must comply with FRA requirements for tracks, equipment, railroad operating rules and practices, passenger safety, emergency response, and passenger equipment safety standards found in 49 CFR Parts 200-299.
- The HSR *Urban Design Guidelines* (Authority 2011a) require implementing the principles of crime prevention through environmental design. The contractor shall consider four basic principles of crime prevention through environmental design during station design and site planning: territoriality (design physical elements that express ownership of the station or site); natural surveillance (arrange physical features to maximize visibility); improved sightlines

(provide clear views of surrounding areas); and access control (provide physical guidance for people coming and going from a space). The HSR design includes emergency access to the rail right-of-way, and elevated HSR structure design includes emergency egress points.

- Implement fire/life safety and security programs that promote fire and life safety and security in system design, construction, and implementation. The fire and life safety program is coordinated with local emergency response organizations to provide them with an understanding of the rail system, facilities, and operations and to obtain their input for modifications to emergency response operations and facilities, such as evacuation routes. The Authority would establish fire/life safety and security committees throughout the HSR section.
- Implement system security plans that address design features intended to maintain security at the stations within the track right-of-way, at stations, and onboard trains. A dedicated police force would ensure that the security needs of the HSR system are met.
- The design standards and guidelines require emergency walkways on both sides of the tracks for both elevated and at-grade sections and the provision of appropriate space as defined by fire and safety codes along at-grade sections of the alignment to allow for emergency response access.

Implement standard operating procedures and emergency operating procedures, such as the FRA-mandated Roadway Worker Protection Program, to address the day-to-day operation and emergency situations that would maintain the safety of employees, passengers, and the public.

TR-IAMF#2: Construction Transportation Plan

The design-build contractor shall prepare a detailed Construction Transportation Plan (CTP) for the purpose of minimizing the impact of construction and construction traffic on adjoining and nearby roadways in close consultation with the local jurisdiction having authority over the site. The Authority must review and approve the CTP before the Contractor commences any construction activities. This plan would address, in detail, the activities to be carried out in each construction phase, with the requirement of maintaining traffic flow during peak travel periods. Such activities include, but are not limited to, the routing and scheduling of materials deliveries, materials staging and storage areas, construction employee arrival and departure schedules, employee parking locations, and temporary road closures, if any. The CTP would provide traffic controls pursuant to the *California Manual on Uniform Traffic Control Devices* sections on temporary traffic controls (Caltrans 2014) and would include a traffic control plan that includes, at a minimum, the following elements:

- Temporary signage to alert drivers and pedestrians to the construction zone.
- Flag persons or other methods of traffic control.
- Traffic speed limitations in the construction zone.
- Temporary road closures and provisions for alternative access during the closure.
- Detour provisions for temporary road closures—alternating one-way traffic would be considered as an alternative to temporary closures where practicable and where it would result in better traffic flow than would a detour.
- Identified routes for construction traffic.
- Provisions for safe pedestrian and bicycle passage or convenient detour.
- Provisions to minimize access disruption to residents, businesses, customers, delivery vehicles, and buses to the extent practicable—where road closures are required during construction, limit to the hours that are least disruptive to access for the adjacent land uses.
- Provisions for farm equipment access.
- Provisions for 24-hour access by emergency vehicles.

- Safe vehicular and pedestrian access to local businesses and residences during construction. The plan would provide for scheduled transit access where construction would otherwise impede such access. Where an existing bus stop is within the work zone, the design-builder would provide a temporary bus stop at a safe and convenient location away from where construction is occurring in close coordination with the transit operator. Adequate measures would be taken to separate students and parents walking to and from the temporary bus stop from the construction zone.
- Advance notification to the local school district of construction activities and rigorously maintained traffic control at all school bus loading zones to provide for the safety of schoolchildren. Review existing or planned Safe Routes to Schools with school districts and emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route and access needs during project construction and HSR operations.
- Identification and assessment of the potential safety risks of project construction to children, especially in areas where the project is located near homes, schools, day care centers, and parks.
- Promotion of child safety within and near the project area. For example, crossing guards could be provided in areas where construction activities are located near schools, day care centers, and parks.

CTPs would consider and account for the potential for overlapping construction projects.

These measures are described in Chapter 2 under Section 2.4.2.1, High-Speed Rail Project Impact Avoidance and Minimization Features.

3.12.4.3 Method for Determining Impacts under NEPA

For socioeconomics and communities, impacts would occur if the HSR project would result in social or economic change or physical changes that would affect the overall ability of the affected facilities to continue serving the communities in which they are located. Refer to the *Bakersfield to Palmdale Project Section Community Impact Assessment Technical Report* (Authority 2018a), the *Bakersfield to Palmdale Project Section Community Impact Assessment Technical Report Supplement* (Authority 2020a), the *Bakersfield to Palmdale Project Section Draft Relocation Impact Report* (Authority 2018b), and the *Bakersfield to Palmdale Project Section Draft Relocation Impact Report Technical Report Supplement* (Authority 2020b) for more information regarding the methods and data sources used in this analysis. NEPA does not define thresholds for evaluating socioeconomic and community impacts. Professional judgment must be used when considering the resource context, the intensity and duration of the potential effect and implementation of mitigation measures. For the purposes of HSR project EIR/EIS documents, the evaluation of NEPA impacts does not use intensity gradations. The Council on Environmental Quality NEPA regulations (40 C.F.R. Parts 1500-1508) provide the basis for evaluating project effects. As described in Section 1508.27 of these regulations, the criteria of context and intensity, and implementation of mitigation measures are considered together when determining an impact under NEPA. Context refers to the affected environment in which a proposed project occurs. Intensity refers to the severity of the impact, which is examined in terms of the type, quality, and sensitivity of the resource involved, location and extent of the effect, duration of the effect (short- or long-term), and other considerations set forth in the Council on Environmental Quality regulation.

3.12.4.4 Method for Determining Significance under CEQA

CEQA requires that an EIR identify the significant environmental impacts of a project (CEQA Guidelines § 15126). One of the primary differences between NEPA and CEQA is that CEQA requires a significance determination for each impact using a threshold-based analysis (see Section 3.1.3.3, Methods for Evaluating Impacts, for further information). By contrast, under NEPA, significance is used to determine whether an EIS would be required; NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." Accordingly, Section 3.12.9, CEQA Significance Conclusions, summarizes

the significance of the environmental impacts on socioeconomics and community resources for the B-P Build Alternatives. The Authority is using the following thresholds to determine if a significant impact on socioeconomics and community resources would occur as a result of the B-P Build Alternatives. A significant impact is one that would:

- Physically divide an established community
- Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing elsewhere
- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, including fire protection, police protection, schools, parks, other public facilities

3.12.5 Affected Environment

This section discusses the affected environment related to socioeconomics and communities.

As discussed in Section 3.12.5.1 and shown on Figure 3.12-A-1 in Appendix 3.12-A, the RSAs for population and community impacts includes four incorporated cities (Bakersfield, Tehachapi, Lancaster, and Palmdale) and four unincorporated communities (Edison, Keene, Golden Hills, and Rosamond). Figure 3.12-1 shows the locations of those cities and unincorporated communities, the direct impacts RSA for population and community impacts, and the six geographic subsections that have been established for the Bakersfield to Palmdale Project Section for the purposes of this analysis: the Bakersfield Station, San Joaquin Valley, Tehachapi Mountains, Rural Antelope Valley, Urban Antelope Valley, and Palmdale Station subsections. The subsections have been established to geographically organize the discussion of resources within the Bakersfield to Palmdale Project Section from north to south. The following sections provide background information regarding existing demographics, housing, economic conditions, public services and facilities, and circulation and access along the B-P Build Alternative alignments in each city and community. The cities and communities are discussed in geographical order from north to south.

3.12.5.1 Fresno to Bakersfield Locally Generated Alternative from the Intersection of 34th Street and L Street to Oswell Street Affected Environment

This section describes the study area for the socioeconomics and communities analysis of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street as described in the *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority and FRA 2017), Final Supplemental EIR (Authority 2018d) and Final Supplemental EIS (Authority 2019). The study area consists of portions of the City of Bakersfield as well as East Bakersfield in unincorporated Kern County, and is the area within a 0.5-mile buffer from the centerline of the alignment, as well as all properties or parcels that fully or partially overlie the F-B LGA footprint. As the F-B LGA continues east from the Bakersfield F Street Station, it would follow SR 204 and then the existing at-grade railroad corridor that traverses the city. The railroad corridor predates the incorporation of the City of Bakersfield, and the city has developed for more than a century on either side of the corridor. Likewise, SR 204 is an historic roadway. For demographic information about the City of Bakersfield and Kern County, as well as housing information, the economic setting, tax revenues, and communities and neighborhoods in the study area, refer to Section 3.12.3.3 through Section 3.12.3.7 of the *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority 2018c) *and Final Supplemental EIR* (Authority 2018d). Relevant information is also incorporated below.

3.12.5.2 Overview of the Region and the Resource Study Areas

The two-county region includes Kern and Los Angeles Counties in their entirety. Kern County and Los Angeles County combine for an approximately 12,200-square-mile region. According to the

California Department of Finance, Kern County had a total population of 880,664 and Los Angeles County had a total population of 10,150,617 in 2015.

Kern County encompasses approximately 8,100 square miles, is north of the large urban area of Southern California, and is the southernmost portion of the San Joaquin Valley. The county is characterized by its natural resources, open space, productive farmland, and available labor market. Population growth in the Central Valley has increased development pressures in both incorporated cities and unincorporated communities in Kern County. The Kern County General Plan emphasizes managing economic growth, continuing natural resource and energy development, conserving agricultural areas, discouraging unmanaged rural and urban development, ensuring adequate water supply for future urban growth, and addressing air quality issues as part of the land use planning process.

Los Angeles County encompasses approximately 4,100 square miles and includes coastal, desert, and mountain areas. The county includes 75 miles of coastline along the Pacific Ocean and two offshore islands, Santa Catalina Island and San Clemente Island. Los Angeles County is largely characterized by urban and suburban development but also includes rural areas. Major development constraints include natural hazards, environmental issues, lack of infrastructure, and limited water supply. Employment centers are distributed throughout the county. Increased population growth and the limited availability of affordable housing have contributed to the expansion of development into more rural areas of the county, which has contributed to increases in commute distances.

City of Bakersfield

The City of Bakersfield, at the southern end of the San Joaquin Valley in Kern County, is approximately 110 miles from Fresno to the north and 100 miles from Los Angeles to the south. The city covers approximately 115 square miles and serves as the county seat, the largest city, and the principal commercial center in Kern County.

In 2015, the city's population was 373,938 (California Department of Finance 2016). The city is named after Colonel Thomas Baker, who came to California during the Gold Rush and served in the California legislature. In 1863, Colonel Baker purchased 600 acres of land near the Kern River and began draining swamps and irrigating arid areas. He laid out a town site in 1869, and the area that had been known as Kern Island was renamed Baker's Field. Colonel Baker invited migrants to stop and rest and to feed their sheep or cattle on his land. After a town site was established, he donated land to people interested in opening businesses in Bakersfield.

The city incorporated in 1873 and replaced Havilah as the county seat. The discovery of oil in Kern County fueled a continuing population boom into the 20th century (City of Bakersfield 2010b; City of Bakersfield 2007). Kern County consistently ranks as one of the top oil-producing counties in the U.S. In 2013, Kern County ranked second in the nation in agricultural production, topped only by Tulare County, its San Joaquin Valley neighbor. Due to the large role that the oil and agricultural industries play in its regional economy, Kern County is vulnerable to large employment fluctuations as those industries expand and contract based on rising and falling oil and crop prices (Milken Institute 2015). Agricultural employment is also subject to seasonal fluctuations related to the seasonality of crop harvests. As the hub of regional commerce in Kern County, the health of Bakersfield's economy is strongly tied to agricultural and petroleum commodity prices.

From 2002 to 2005, when housing prices in the Los Angeles and San Diego metropolitan areas increased substantially, buyers recognized the relative affordability of inland cities such as Bakersfield, sparking a residential construction boom in that city. Although Bakersfield enjoyed a short-lived economic boom when oil prices were higher between 2010 and 2014, the ongoing slump in oil prices since then has resulted in a slowdown in the area's economic growth.

Figure 3.12-1 shows that the direct impacts RSA for population and community impacts starts at the F Street Station in Bakersfield, which is within the Bakersfield Station subsection.

For this analysis, information is presented for the city as a whole, as well as for one specific subarea district, Northeast Bakersfield, which encompasses the northeastern part of the city and adjacent unincorporated communities east of Bakersfield, as well as the entire community of Edison. This district was developed to aggregate demographic and community data in the portion of the Fresno to Bakersfield Project Section alignment between downtown Bakersfield and Oswell Street due to the fact that none of the unincorporated communities in that area are recognized census designated places (CDP). For consistency with the Fresno to Bakersfield Project Section, the Northeast Bakersfield district is also used in the Bakersfield to Palmdale Project Section. The approximate boundaries of the Northeast Bakersfield district are shown on Figure 3.12-A-3 in Appendix 3.12-A, along with the existing land population and community impacts RSAs.

Northeast Bakersfield

Figure 3.12-A-3 in Appendix 3.12-A shows the boundaries of Northeast Bakersfield in relation to the population and community impacts RSAs. As shown on Figure 3.12-A-3, Northeast Bakersfield is bounded by Poso Creek and Round Mountain Road to the north; Porterville Highway (SR 65), Golden State Highway (SR 99), Golden State Avenue (SR 204), Union Avenue, and Cottonwood Road to the west; Panama Lane and Muller Road to the south; and Comanche Drive to the east.

The various RSAs established for this analysis include a portion of the Northeast Bakersfield district, paralleling Edison Highway. This area on the outskirts of Bakersfield includes a mix of trailer parks, single-family subdivisions, mixed commercial and industrial uses, and cultivated agricultural lands. As shown on Figure 3.12-1, the direct impacts RSA for population and community impacts transitions from the Bakersfield Station subsection to the San Joaquin Valley subsection at Oswell Street in Northeast Bakersfield.

Community of Edison

The various RSAs established for this analysis include the southern part of Edison, an unincorporated community southeast of Bakersfield in Kern County. Edison is separated from Bakersfield's suburbs by less than 1 mile of cultivated agricultural land and is inside the City of Bakersfield's sphere of influence. According to the 2011–2015 American Community Survey (ACS), the community's population was 3,562. Additional information regarding ACS data can be found on the U.S. Census Bureau's American Factfinder website. Although Edison is not a CDP, it remains a distinct community with a unique ZIP code and a range of community services, including a post office, a fire station, a school, and two small stores, as well as several large agriculture-related businesses. Industrial uses are arranged along the railroad tracks north of Edison Highway, while most residences and public services are between Edison Highway and SR 58. Several suppliers of agricultural materials and food packing and processing centers are in the community.

What is a sphere of influence?

The California Office of Planning and Research defines a sphere of influence as a "probable physical boundary and service area of a local agency." Spheres of influence represent territory that a city or special district will likely annex in the future. The local government may build facilities and deliver services within the sphere of influence in the future if demand for additional services exists. For this reason, a sphere of influence is often bigger than a local government's current jurisdiction and the area included within it is considered in the agency's planning efforts.

Community of Edison to Community of Keene

The various RSAs established for this analysis include a rural agricultural area between Edison and the foothills of the Tehachapi Mountains. This area is in Kern County and a small part, immediately southeast of Edison, is in the City of Bakersfield's sphere of influence. Land in this extreme southeasterly portion of the San Joaquin Valley is cultivated with a variety of crops. Residences are few and far between. A new solar energy production facility (the Redwood Cluster Solar Farm) was under construction just south of SR 58 in the vicinity of the SR 58/ Towerline Road interchange during the preparation of the Draft EIR/EIS. Approximately 2.5 miles east of Towerline Road, the various RSAs established for this analysis enter the sparsely

populated foothills of the Tehachapi Mountains, which are primarily used for cattle grazing. As shown on Figure 3.12-1, the RSAs transition from the San Joaquin Valley subsection to the Tehachapi Mountains subsection just east of the SR 223/SR 58 interchange.

Community of Keene

The various RSAs established for this analysis pass near Keene, a relatively small unincorporated community in Kern County in the rolling foothills of the Tehachapi Mountains. Keene's main residential and service area lies north of Woodford-Tehachapi Road near the Keene exit from SR 58. The Keene CDP's population was estimated to be 351, according to the 2011–2015 ACS. Keene is home to Nuestra Señora Reina de la Paz/César E. Chávez National Monument (La Paz). Renowned labor organizer and civil rights activist César Chávez is buried at La Paz, which has a garden and visitor center as well as a museum and conference facilities.

Community of Keene to Community of Golden Hills

East of Keene, the various RSAs established for this analysis pass through open space areas in the Tehachapi Mountains within Kern County. The RSAs pass north of the historic Tehachapi Loop a few miles outside of Keene, but there are no other communities along this subsection until the RSAs reach the vicinity of Golden Hills and Tehachapi in the Tehachapi Valley.

Community of Golden Hills

The various RSAs established for this analysis pass just northeast of Golden Hills, an unincorporated community in Kern County on the west side of SR 58 and north-northwest of Tehachapi. According to the 2011–2015 ACS, the Golden Hills CDP had a population of 8,313. Golden Hills is an unincorporated development originally subdivided in the late 1960s and early 1970s as a recreational, second-home community. The community is characterized by large-lot, equestrian-oriented residential development with a small commercial area along SR 202 between Woodford-Tehachapi Road and Golden Hills Boulevard.

City of Tehachapi

The various RSAs established for this analysis pass through the City of Tehachapi, a relatively small but growing city at an elevation of approximately 4,000 feet in the foothills of the Tehachapi Mountains in Kern County. The city is known for its proximity to the Tehachapi Pass and nearby wind farms. Tehachapi's population was 12,856 in 2015 (California Department of Finance 2016). According to 2010 Census data, 41 percent of the city's population is institutionalized (presumably in the California Correctional Institution, also known as Tehachapi State Prison).

Considerable reconstruction was needed in Tehachapi in the second half of the 20th century, following a major earthquake in 1952 that caused extensive damage to rail lines and buildings in the community. Over the past few years, Tehachapi has completed a number of public space improvements as part of its downtown revitalization program, including old-fashioned street lamps and murals that celebrate the city's railroad town roots. The city has an active arts community, including a symphony orchestra, a pops orchestra, and a community theater (Greater Antelope Valley Economic Alliance 2011).

Most of Tehachapi's developed areas, services, and facilities are on the south side of SR 58, with the exception of a handful of commercial uses on Capital Hills Parkway, a recently constructed hospital, and a rural residential neighborhood with approximately 50 homes on 2- to 3-acre lots north of SR 58.

City of Tehachapi to Community of Rosamond

South of Tehachapi, the various RSAs established for this analysis pass through sparsely populated rural lands and open space in Kern County before reaching Rosamond. After crossing Oak Creek Canyon and the Tehachapi Mountains, which are the site of a large-scale wind farm that includes approximately 4,700 wind turbines (Center for Land Use Interpretation 2016), the RSAs include areas west of a cement plant. Just east of the southeast of the final ridgeline of the Tehachapi Mountains, the RSAs transition from the Tehachapi Mountains subsection to the Rural

Antelope Valley subsection. Figure 3.12-1 shows the boundary between the Tehachapi Mountains and the Rural Antelope Valley subsections.

Community of Rosamond

The various RSAs established for this analysis pass through the western part of Rosamond, an unincorporated community in Kern County that was originally established in 1877 as a town site owned by the Southern Pacific Railroad. This predominantly residential community contains several scattered areas of noncontiguous development in the vicinity of Rosamond Boulevard and SR 14, with sporadic rural residential development to the west of 45th Street W. According to the 2011–2015 ACS, the Rosamond CDP had a population of 19,540.

Rosamond is known for its proximity to Edwards Air Force Base. The Exotic Feline Breeding Compound's Feline Conservation Center and Willow Springs International Raceway are in the northwestern part of the community.

Community of Rosamond to City of Lancaster

South of Rosamond, the various RSAs established for this analysis enter Los Angeles County at Avenue A and pass through mostly undeveloped areas with scattered nearby residential land uses, including a mobile home park southeast of SR 14 and Avenue E, before reaching Lancaster.

City of Lancaster

The various RSAs established for this analysis pass through the City of Lancaster in Los Angeles County. As shown on Figure 3.12-1, the RSAs enter a developed urban area and transition from the Rural Antelope Valley subsection to the Urban Antelope Valley subsection south of Avenue H. The city incorporated in 1977, approximately 100 years after it was originally settled, when the Southern Pacific Railroad arrived in 1876 (County of Los Angeles Public Library 2011). Lancaster became a boomtown in 1908, when housing was built for the construction workers who built the 233-mile-long Los Angeles Aqueduct. Steady growth took place once Muroc Army Air Base (now Edwards Air Force Base) was developed in the 1930s.

According to the California Department of Finance (2016), the City of Lancaster had a population of 157,658 in 2015. The city completed a $10-million downtown revitalization project in 2010, upgrading Lancaster Boulevard's streetscape to stimulate economic activity and pedestrian use of the area. Historically, the aerospace industry has played a key role in the city's economy; this is reflected in the city's Aerospace Walk of Honor, which honors test pilots who contributed to aviation and space research and development.

City of Palmdale

The City of Palmdale is at the southern end of the RSAs in Los Angeles County. Palmdale is near the former Southern Pacific Railroad station and stagecoach stop on the line connecting San Francisco with New Orleans. During the first part of the 20th century, Palmdale became known as a producer of alfalfa, apples, and pears. After World War II, several important aerospace and defense industry facilities were constructed in the city. In 1962, Palmdale became the first city in the Antelope Valley to incorporate. In the latter part of the 20th century, it was one of the fastest-growing cities in the U.S. (County of Los Angeles Public Library 2011). Palmdale's population was estimated to be 158,590 in 2015 (California Department of Finance 2016).

The city has completed a substantial number of redevelopment projects over the past decade, resulting in a series of new community amenities, including the Palmdale Regional Medical Center, a new multimodal transportation center, and the Palmdale Amphitheater. Figure 3.12-1 shows the boundary between the Urban Antelope Valley and Palmdale Station subsections at Avenue O in Palmdale.

Population and Ethnicity

Region

Population in the Region

The population in the two-county region increased substantially between 2000 and 2015 and is forecast to continue to grow substantially over the next 25 years. As shown in Table 3.12-3, the total population in the region increased by 0.6 percent annually from 2000 to 2015. However, the annual growth rate was different for each county. Specifically, Kern County's population increased at an average annual rate of 2.2 percent over that time period, whereas Los Angeles County's population increased at a much lower average annual rate of 0.4 percent.

Table 3.12-3 Population Growth (2000–2040)

Location	2000 Total Population	2015 Total Population	% Average Annual Growth Rate, 2000–2015	2040 Forecasted Population	% Change, 2015–2040
Kern County	**661,645**	**880,664**	**2.2**	**1,413,000**	**60.5**
City of Bakersfield	247,057	373,938	3.4	719,500	92.4
Community of Edison[1]	1,228	3,562[3]	12.7[2]	4,013[3]	12.7[3]
Keene CDP	339	351[3]	0.2	372[3]	5.9[3]
Golden Hills CDP	7,434	8,313[3]	0.8	10,655[3]	28.2[3]
City of Tehachapi	10,957	12,856[3]	1.2	20,100	56.4
Rosamond CDP	14,349	19,540[3]	2.4	22,016[3]	12.7[3]
Los Angeles County	**9,519,338**	**10,150,617**	**0.4**	**11,514,000**	**13.4**
City of Lancaster	118,718	157,658	2.2	209,900	33.1
City of Palmdale	116,670	158,590	2.4	201,500	27.1
Total: Two-County Region	**10,180,983**	**11,031,281**	**0.6**	**12,927,000**	**17.2**

Sources: California Department of Finance, 2016; U.S. Census Bureau 2000, Table DP-1; U.S. Census Bureau 2011–2015 American Community Survey, DP-05; SCAG RTP/SCS, April 2016; Kern COG RTP, June 2014; Kern COG 2014 RTP, February 2014; SCAG Adopted 2016 RTP/SCS Demographics & Growth Forecast; Google Earth, 1995–2018.

[1] The community of Edison is defined as Block Groups 3 and 4 of Kern County Census Tract 10 for the purpose of this analysis.

[2] This population change is due primarily to a redrawing of the census block group boundaries within Census Tract 10 to encompass considerably more land area (including a new subdivision in an unincorporated area north of Edison). In reality, the population of Edison likely did not change much over the decade, and field observations did not note the presence of many new homes (U.S. Census Bureau 2000, Public Law 94-171, County Block Map Sheet 115, and 2010 Census Block Map Kern County, CA, Sheet 132).

[3] The California Department of Finance did not provide 2015 population estimates for Edison or the Keene, Golden Hills, and Rosamond CDPs. The Kern COG RTP did not provide 2040 growth forecasts for these communities either. Population estimates for these communities are from the U.S. Census Bureau, and population growth forecasts for these communities are estimated based on a review of recent development trends depending on their locations and development potential.

CDP = census designated place RTP = Regional Transportation Plan SCS = Sustainable Communities Strategy
COG = Council of Governments SCAG = Southern California Association of Governments

Table 3.12-3 also shows that the total population in the two-county region is projected to increase by approximately 17 percent between 2015 and 2040. The forecasted growth in population is different for each county. Specifically, Kern County's population is expected to increase by approximately 61 percent by 2040, while Los Angeles County's population is expected to increase by slightly more than 13 percent over the same period. As shown in Table 3.12-3, the total population in the two-county region is forecasted to be nearly 13 million residents by 2040.

Although the Kern Council of Governments Regional Transportation Plan does not provide 2040 population growth projections for the unincorporated communities in Kern County (including Edison, Keene, Golden Hills, and Rosamond), recent development trends were evaluated to estimate future population growth. As shown in Table 3.12-3, all four communities experienced annual growth rates of 0.2 to 12.7 percent between 2000 and 2015, a period of relatively robust housing growth in the Bakersfield metropolitan area and the Antelope Valley. Therefore, it is reasonable to anticipate that all of these communities could experience growth between 2015 and

2040. The individual growth rate for each community will depend on its location and development potential.

Given its location along a major highway near Bakersfield, which is forecast to nearly double in population between 2015 and 2040, Edison is likely to experience some growth over the next several decades. However, during the past several decades, most new housing development in the Bakersfield metropolitan area has taken place on the western and southern sides of Bakersfield. In comparison, new growth in eastern Bakersfield and Edison has been relatively minimal, consisting of a handful of new residential tracts. Regional transportation planning efforts in the Bakersfield area have acknowledged these growth trends and identified several major new highway projects in west Bakersfield, including the recently completed Westside Parkway project and the proposed Centennial Corridor Project. Absent any major changes in regional economic conditions that would attract new residents to the eastern side of metropolitan Bakersfield, it is expected that existing growth trends would continue into the foreseeable future. In light of these factors, it is reasonable to assume that the population of Edison would grow to approximately 4,013 residents by 2040, an increase of approximately 13 percent from its 2015 population (3,562).

Keene has very little commercial activity that would attract future population growth and is approximately 30 miles from downtown Bakersfield. Any future growth in this community is likely to consist of residential acreages for retirees or those seeking a more rural lifestyle. The community experienced modest growth between 2000 and 2015. Assuming a similar level of growth occurs between 2015 and 2040, the population of Keene would grow to approximately 372 residents by 2040, an increase of approximately 6 percent from its 2015 population (351).

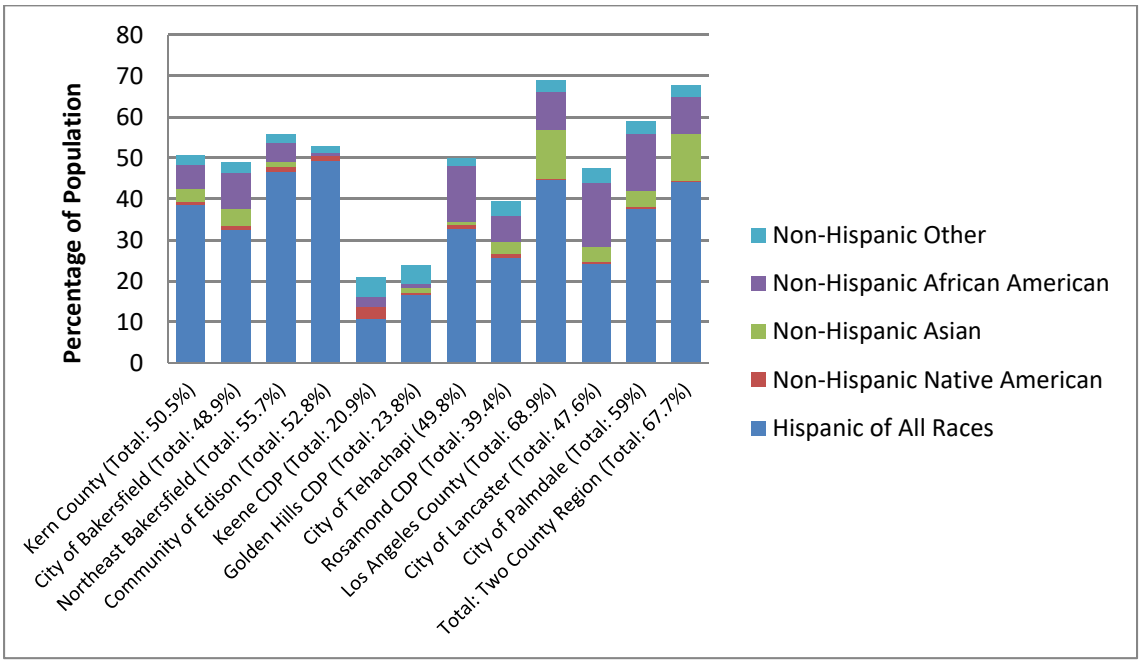
The community of Golden Hills grew by approximately 12 percent between 2000 and 2015. A review of development trends in the community over the past couple of decades reveals that most new housing growth has consisted of large lot development in existing residential areas. As shown in Table 3.12-3, Golden Hills grew at approximately 75 percent the rate of neighboring Tehachapi. Although Golden Hills has plenty of vacant land to accommodate future growth, this trend is expected to continue in the future. Assuming a growth rate approximately half that of Tehachapi (56.4 percent) between 2015 and 2040, the population of Golden Hills is estimated to grow to approximately 10,655 residents by 2040, an increase of approximately 28.2 percent from its 2015 population (8,313).

Similar to Lancaster and Palmdale, Rosamond serves an important role of providing affordable housing for commuters working in metropolitan Los Angeles. During the housing boom between 2000 and 2015, Rosamond experienced substantial growth (a 2.4 percent annual growth rate), largely based on its location along SR 14, a key commuter route that connects the Antelope Valley with the San Fernando Valley and the Los Angeles Basin. While Rosamond is likely to grow at a slightly slower rate between 2015 and 2040 than neighboring Lancaster and Palmdale, which are located closer to regional employment centers in Los Angeles, the community is expected to experience strong growth over the next several decades. It appears reasonable to assume that the population of Rosamond could grow to approximately 22,016 residents by 2040, an increase of approximately 25 percent from its 2015 population (19,540).

Ethnicity of the Regional Population

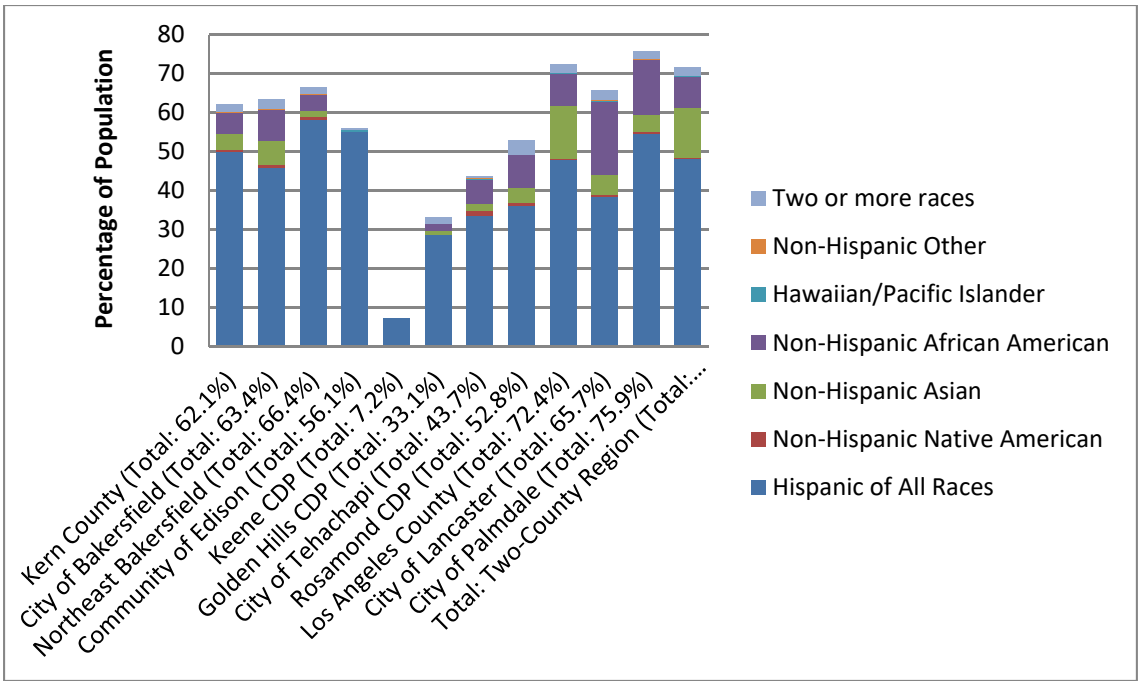
In this community impacts analysis, Non-Hispanic Whites are defined as individuals identified as “White only” in the U.S. Census, not including those who identify as Hispanic. Non-Hispanic Whites represented less than half of the populations in Kern County (49.5 percent in 2000 and 37.9 percent, respectively, in the 2009–2013 ACS estimate period), Los Angeles County (31.1 and 27.5 percent, respectively), and the two-county region overall (32.3 and 28.3 percent, respectively).

Minorities are defined as all individuals not identified as “White only” in the U.S. Census, including those who identify as Hispanic. As shown on Figure 3.12-2 and Figure 3.12-3, minority populations in the two-county region and the population and community impacts RSAs were identified as Hispanic of All Races, Non-Hispanic Native American, Non-Hispanic Asian, Hawaiian and Pacific Islander, Non-Hispanic African American, Non-Hispanic Other, and Two or More Races. Essentially, the minority population category includes all population groups except Non-Hispanic Whites. As shown on Figure 3.12-2 and Figure 3.12-3, those minority groups represented a substantial part of the populations in Kern County (50.5 percent in 2000 and 62.1 percent, respectively, in the 2009–2013 ACS estimate period), Los Angeles County (68.9 and 72.4 percent, respectively) and the two-county region overall (67.7 and 71.7 percent, respectively).



Source: U.S. Census Bureau 2000, Table DP-1
CDP = census designated place

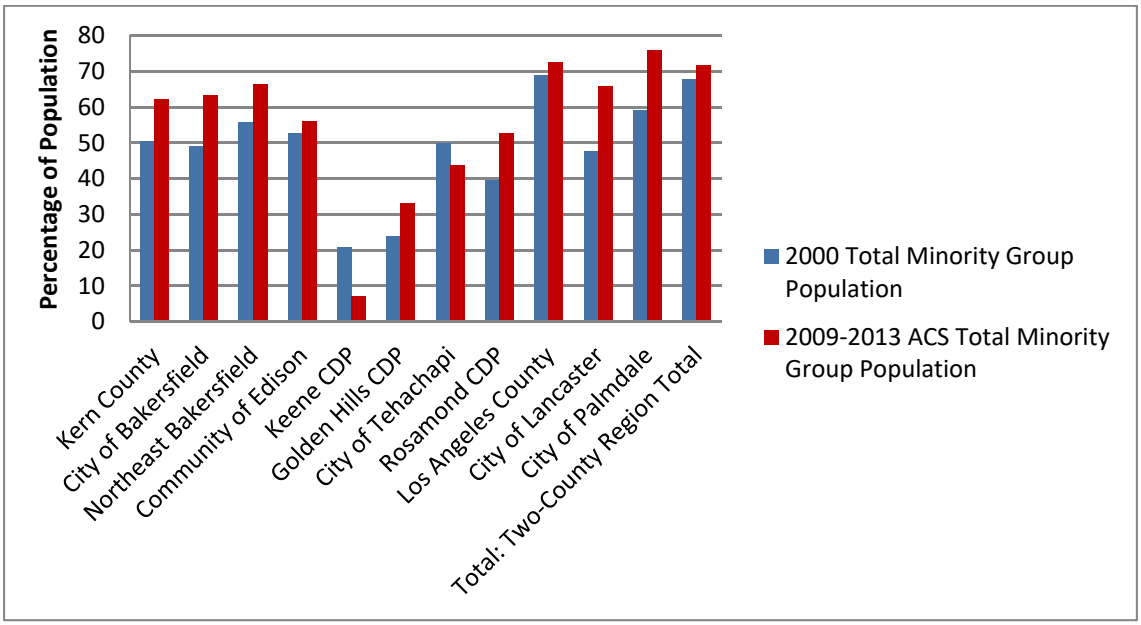
Figure 3.12-2 Minority Group Representation (2000)



Source: U.S. Census Bureau, 2009–2013 ACS, Table B03002
ACS = American Community Survey
CDP = census designated place

Figure 3.12-3 Minority Group Representation (2009–2013 American Community Survey)

Figure 3.12-4 shows the total percentages of those minority populations for 2000 and the 2009–2013 ACS estimate period. As shown, the total percentages of those minority populations in Kern County increased substantially between 2000 and the 2009–2013 ACS estimate period. The increases in Los Angeles County and the two-county region were lower over the same period.



Source: U.S. Census Bureau 2000 (Table DP-1) and 2009–2013 ACS, Table B03002
CDP = census designated place

Figure 3.12-4 Summary of Minority Group Representation (2000 Census and 2009–2013 American Community Survey)

As shown on Figure 3.12-2 and Figure 3.12-3, Hispanics of All Races are the largest minority represented in the two counties and each of the cities and unincorporated communities in the population and community impacts RSAs in both 2000 and the 2009–2013 ACS estimate period.

City of Bakersfield

As shown in Table 3.12-3, in 2000, Bakersfield had a population of 247,057, which increased to 347,483 by 2010, for an average annual growth rate of 4.1 percent. This growth rate is higher than the average annual growth rates of Kern County (2.7 percent) and the two-county region (0.5 percent) during the same period. As shown in Table 3.12-3, Bakersfield's population is projected to reach 719,500 by 2040. Non-Hispanic Whites represented approximately half of the population in Bakersfield in 2000 (approximately 51 percent), but decreased to approximately 37 percent in the 2009–2013 ACS estimate period. As shown on Figure 3.12-2, Bakersfield's minority population, which represented approximately half of the city's residents in 2000, increased to approximately 63 percent of the city's residents in the 2009–2013 ACS estimate period. This total percentage of minority population was similar to that of Kern County (62 percent) and less than the two-county region as a whole (72 percent) in the 2009–2013 ACS estimate period.

The population of the Northeast Bakersfield district was 140,082 in 2000, as shown in Table 3.12-3. As shown on Figure 3.12-2, the minority percentage of 55.7 percent in 2000 was slightly higher than that of Bakersfield as a whole. By 2010, Northeast Bakersfield's population had increased to 158,098, for an annual growth rate of 1.3 percent. According to the 2009–2013 ACS, the minority population accounted for approximately 66 percent of the total population, which is slightly above that of Kern County (62 percent) and below that of the region (72 percent).

Community of Edison

As shown in Table 3.12-2, the unincorporated community of Edison[4] had a population of 267 in 2000 and 1,469 in 2010, representing a growth rate substantially higher than that of Kern County and the two-county region for the same period. This population change, however, is due primarily to a redrawing of the census block group boundaries to encompass considerably more land area (including a new subdivision in unincorporated Kern County north of Edison). In reality, the population size of the small community of Edison likely did not change much over the decade, and a review of aerial photographs of the community did not note the presence of many new homes.[5]

As shown on Figure 3.12-2, the minority population percentage in Edison changed very little between 2000 and the 2009–2013 ACS estimate period, increasing by 3.7 percent from 52.8 percent to 56.1 percent. The minority percentage was similar to that of Kern County in 2000 (51 percent) but less than that of Kern County in the 2009–2013 ACS estimate period (62 percent). The percentage was much less than that of the two-county region in both 2000 (68 percent) and the 2009–2013 ACS estimate period (72 percent) for the same period.

Community of Edison to Community of Keene

While there are scattered residences along this section, there are no communities of substantial size (where multiple homes are concentrated in proximity to one another) between Edison and Keene in the direct impacts RSA for population and community impacts.

Community of Keene

As shown in Table 3.12-3, the unincorporated community of Keene had a population of 339 in 2000. Keene's population grew at an average annual rate of 2.7 percent, reaching a population of 431 in 2010. This growth rate is similar to that of Kern County (2.7 percent) and greater than that of the two-county region (0.5 percent) during the same period.

[4] U.S. Census Bureau. 2010, Census Block Groups 3 and 4 within Census Tract 10, Kern County, California.

[5] U.S. Census Bureau. 2000. Public Law 94-171, County Block Map Sheet 115, and 2010 Census Block Map, Kern County, CA, Sheet 132.

Non-Hispanic Whites represented a substantial majority of the population in Keene in 2000 (approximately 79 percent); however, this increased to approximately 93 percent in the 2009–2013 ACS estimate period. As shown on Figure 3.12-4, minorities represented approximately 21 percent of Keene's population in 2000, decreasing to approximately 7 percent in the 2009–2013 ACS estimate period. (Figure 3.12-2 and Figure 3.12-3 provide the community's minority populations in 2000 and in the 2009–2013 ACS estimate period, respectively.) Keene's minority population percentage is much lower than that of both Kern County (51 percent in 2000 and 62 percent in the 2009–2013 ACS estimate period) and the two-county region (68 percent in 2000 and 72 percent in the 2009–2013 ACS estimate period). In contrast to the county and region, Keene's minority population decreased from 2000 to the 2009–2013 ACS estimate period.

Community of Keene to Community of Golden Hills

While there are scattered residences along this section, there are no communities of substantial size (where multiple homes are concentrated in proximity to one another) between Keene and Golden Hills in the direct impacts RSA for population and community impacts.

Community of Golden Hills

As shown in Table 3.12-3, the unincorporated community of Golden Hills had a population of 7,434 in 2000, increasing to 8,656 in 2010, for an annual growth rate of 1.6 percent. This growth rate is lower than that of Kern County (2.7 percent) but higher than that of the region (0.5 percent) during the same period.

Non-Hispanic Whites represented a majority of the population in Golden Hills (76.2 percent in 2000 and 66.9 percent in the 2009–2013 ACS estimate period, respectively). As shown on Figure 3.12-2, the minority population in Golden Hills, which represented approximately 24 percent of the population in 2000, increased to approximately 33 percent in the 2009–2013 ACS estimate period. (Figure 3.12-2 and Figure 3.12-3 provide the community's minority populations in 2000 and in the 2009–2013 ACS estimate period, respectively.) The minority population percentage is much lower than that of both Kern County (51 percent in 2000 and 62 percent in the 2009–2013 ACS estimate period) and the region (68 percent in 2000 and 72 percent in the 2009–2013 ACS estimate period).

City of Tehachapi

As shown in Table 3.12-3, Tehachapi had a population of 10,957 in 2000, which increased to 14,414 in 2010, for an annual growth rate of 3.2 percent. This growth rate is slightly above Kern County's growth rate of 2.7 percent and well above the region's growth rate of 0.5 percent for the same period. As shown in Table 3.12-3, Tehachapi's population is projected to reach 20,100 by 2040.

Non-Hispanic Whites represented approximately half of the population in Tehachapi (50.2 percent in 2000 and 56.3 percent in the 2009–2013 ACS estimate period, respectively). As shown on Figure 3.12-4, Tehachapi's minority population, which represented approximately 50 percent of the population in 2000, decreased to approximately 44 percent of the population in the 2009–2013 ACS estimate period. This percentage of minority population was similar to Kern County's minority population in 2000 (51 percent) but was less than that of the county in the 2009–2013 ACS estimate period (62 percent). Tehachapi's minority population was less than the two-county region in both 2000 and the 2009–2013 ACS estimate period (68 percent in 2000 and 72 percent in the 2009–2013 ACS).

City of Tehachapi to Community of Rosamond

While there are scattered residences along this section, there are no communities of substantial size (where multiple homes are concentrated in proximity to one another) between Tehachapi and Rosamond within the direct impacts RSA for population and community impacts.

Community of Rosamond

As shown in Table 3.12-3, the unincorporated community of Rosamond had a population of 14,349 in 2000, which increased to 18,150 in 2010, for an annual growth rate of 2.6 percent. This growth rate is similar to that of Kern County (2.7 percent) but higher than that of the two-county region (0.5 percent) during the same period.

Non-Hispanic Whites represented over half of the population in Rosamond in 2000 (60.6 percent), but less than half of the population during the 2009–2013 ACS estimate period (47.3 percent). As shown on Figure 3.12-4, Rosamond's minority population, which represented approximately 39 percent of the community's population in 2000, increased to approximately 53 percent of the community's population in the 2009–2013 ACS estimate period. Minorities comprised a smaller proportion of the overall population in Rosamond than that of both Kern County (51 percent in 2000 and 62 percent in the 2009–2013 ACS estimate period) and the region (68 percent in 2000 and 72 percent in the 2009–2013 ACS estimate period), but the increase in the minority population was much greater than both for the same period.

Community of Rosamond to City of Lancaster

While there are scattered residential land uses along this section, including a mobile home park southeast of SR 14 and Avenue E, there are no communities of substantial size (where multiple homes are concentrated in proximity to one another) between Rosamond and Lancaster within the direct impacts RSA for population and community impacts.

City of Lancaster

As shown in Table 3.12-3, Lancaster had a population of 118,718 in 2000 that grew to 156,633 in 2010, for an annual average growth rate of 3.2 percent per year. This growth rate is well above both that of Los Angeles County (0.3 percent) and the two-county region (0.5 percent) for the same period. As shown in Table 3.12-3, Lancaster's population is projected to reach 209,900 by 2040.

Non-Hispanic Whites represented over half of the population in Lancaster in 2000 (52.4 percent) but less than half of the population during the 2009–2013 ACS estimate period (34.4 percent). As shown on Figure 3.12-4, Lancaster's minority population accounted for approximately 48 percent of the population in 2000 and increased substantially to approximately 66 percent of the population in the 2009–2013 ACS estimate period. Both the 2000 and the 2009–2013 ACS estimate period minority population percentages were below that of Los Angeles County (69 percent in 2000 and 72 percent in the 2009–2013 ACS estimate period) and the region (68 percent in 2000 and 72 percent in the 2009–2013 ACS estimate period), but the increase in the minority population was much greater than both for the same period.

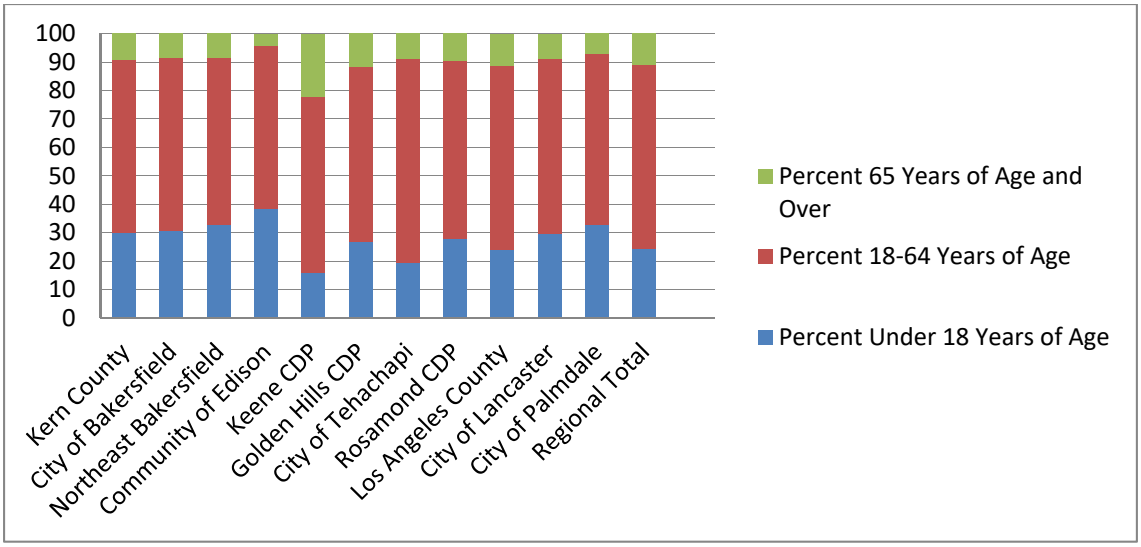
City of Palmdale

As shown in Table 3.12-3, Palmdale had a population of 116,670 in 2000 that increased to 152,750 in 2010, for an annual growth rate of 3.1 percent. This growth rate is much greater than that of both Los Angeles County (0.3 percent) and the region (0.5 percent). As shown in Table 3.12-3, Palmdale's population is projected to reach 201,500 by 2040.

Non-Hispanic Whites represented less than half of the population in Palmdale (41.0 percent in 2000 and 24.1 percent in the 2009–2013 ACS estimate period, respectively). As shown on Figure 3.12-4, Palmdale's minority population accounted for approximately 59 percent of the population in 2000 and approximately 76 percent of the population in the 2009–2013 ACS estimate period. The 2000 minority population percentage was below that of both Los Angeles County (69 percent) and of the region (68 percent), but in the 2009–2013 ACS estimate period the percentage of minority population of Palmdale exceeded that of both Los Angeles County (72 percent) and the region (72 percent) for the same period.

Age Distribution

The age distribution of the populations in the two-county region and the cities and communities in the population and community impacts RSAs is summarized on Figure 3.12-5. As shown, Kern County has a higher percentage of people under the age of 18 (30 percent) than Los Angeles County (24 percent). However, the cities and communities in Kern County have lower percentages of people under the age of 18 than the cities in Los Angeles County, with the exception of Bakersfield, which has a slightly higher percentage of people under the age of 18 (approximately 32 percent) than Kern County as a whole. Lancaster has a slightly lower population of residents under the age of 18 and a slightly higher population of residents over the age of 65 compared to Palmdale. The unincorporated communities of Keene and Golden Hills have the highest percentages of residents aged 65 and over (at 22 and 12 percent, respectively) of all the cities and communities in the population and community impacts RSAs.



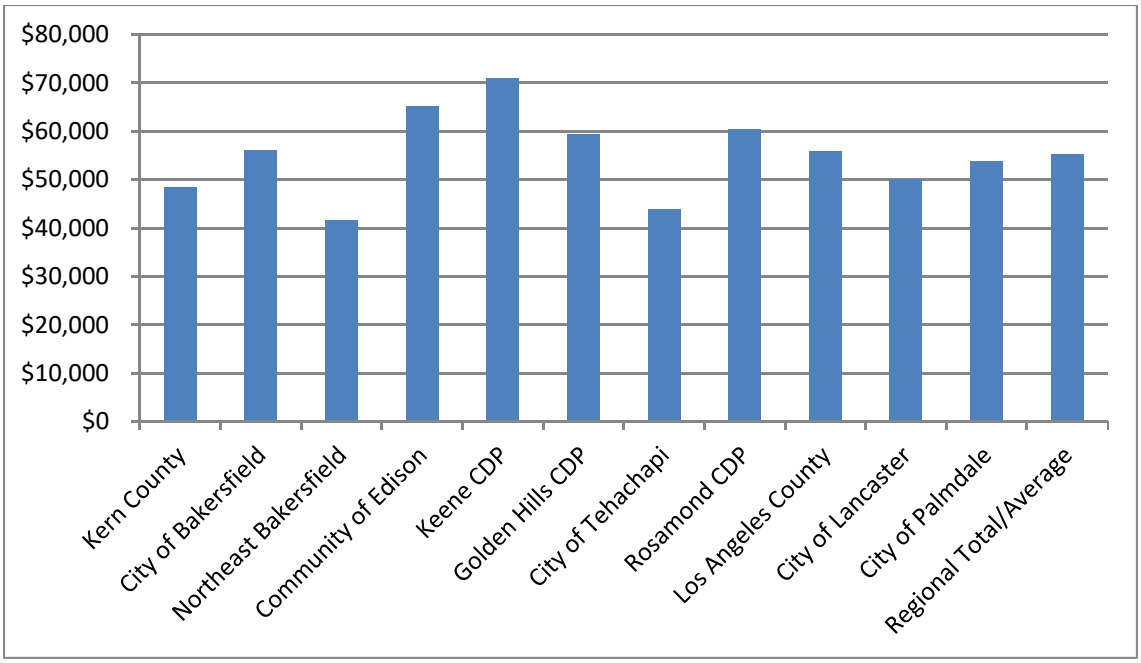
Source: U.S. Census Bureau 2009–2013 ACS, Table B01001
CDP = census designated place

Figure 3.12-5 Population Age Distribution (2009–2013 American Community Survey)

Income

Median annual household incomes in the two-county region and the cities and communities in the population and community impacts RSAs, as reported in the 2009–2013 ACS, are summarized on Figure 3.12-6. According to the 2009–2013 ACS and as shown on Figure 3.12-6, the median annual household income in Kern County was $48,552, compared to $55,909 in Los Angeles County.

Figure 3.12-6 also shows that the median household incomes for each of the cities and communities in the population and community impacts RSAs were higher than the median household income for Kern County, with the exception of Tehachapi, which had a median household income of $43,949 compared to $48,552 for Kern County. The 2009–2013 ACS also reports that both cities within Los Angeles County had a lower median household income than Los Angeles County overall.



Source: U.S. Census Bureau, 2009–2013 American Community Survey Tables B19013 and S1903
CDP = census designated place

Figure 3.12-6 Median Annual Household Income (2009–2013 American Community Survey)

Households

Region

Table 3.12-4 and Table 3.12-5 show the numbers of households and the average household sizes in the two-county region and in the cities and communities in the population and community impacts RSAs in 2000 and in the 2009–2013 ACS estimate period, respectively. As shown in Table 3.12-4, there were 3,342,426 households in the two-county region in 2000, with an average household size of 2.98 people. As indicated in Table 3.12-5, the number of households in the two-county region had grown to 3,495,654 (a 4.5 percent increase over 2000) and the average household size had increased slightly to 3.02 by the 2009–2013 ACS estimate period. In the 2009–2013 ACS estimate period, Kern County had a higher average household size (3.19 people per household) than Los Angeles County (3.01 people per household).

Table 3.12-6 provides a summary of the composition of households in the two-county region and the cities and communities in the population and community impacts RSAs in 2010. As shown in Table 3.12-6, approximately 68 percent of all households in the two-county region were family households in 2010, with married-couple family households representing approximately 46 percent of households in the region. In 2010, single-parent households headed by females represented a similar proportion of the total number of households in Kern and Los Angeles Counties. Kern County had a higher percentage of family households (approximately 75 percent) than Los Angeles County (approximately 68 percent) in 2010.

Table 3.12-4 Number of Households and Average Household Size (2000)

Location	Number of Households	Average Household Size
Kern County	**208,652**	**3.03**
City of Bakersfield	83,441	2.92
Northeast Bakersfield	44,989	3.10
Community of Edison	434	2.80
Keene CDP	136	2.49
Golden Hills CDP	2,841	2.92
City of Tehachapi	2,533	3.19
Rosamond CDP	4,988	2.88
Los Angeles County	**3,133,774**	**2.98**
City of Lancaster	38,224	2.92
City of Palmdale	34,285	3.40
Regional Total/Average	**3,342,426**	**2.98**

Source: U.S. Census Bureau 2000, Table DP-1
CDP = census designated place

Table 3.12-5 Number of Households and Average Household Size (2009–2013 American Community Survey)

Location	Number of Households	Average Household Size
Kern County	**255,271**	**3.19**
City of Bakersfield	109,932	3.18
Northeast Bakersfield	50,677	3.30
Community of Edison	641	3.92
Keene CDP	157	2.29
Golden Hills CDP	2,919	2.64
City of Tehachapi	3,305	2.68
Rosamond CDP	5,949	3.14
Los Angeles County	**3,230,383**	**3.01**
City of Lancaster	48,001	3.13
City of Palmdale	41,520	3.70
Regional Total/Average	**3,485,654**	**3.02**

Source: U.S. Census Bureau 2009–2013, Table S1101
CDP = census designated place

Table 3.12-6 Household Composition (2010)

Location	Total Households (%)					
	Family Household[1]	Married-Couple Family	Female Householder (No Husband Present)	Male Householder (No Wife Present)	Nonfamily Household	Householder Living Alone
Kern County	**75.3**	**52.1**	**15.7**	**7.4**	**24.7**	**19.3**
City of Bakersfield	74.8	51.5	16.2	7.0	25.2	19.6
Northeast Bakersfield	74.1	44.8	19.9	9.3	25.9	20.0
Community of Edison	76.1	61.4	9.4	5.4	23.9	18.9
Keene CDP	76.3	67.7	6.5	2.2	23.7	19.4
Golden Hills CDP	73.7	58.7	10.5	4.5	26.3	20.9
City of Tehachapi	67.4	48.2	13.4	5.8	32.6	28.2
Rosamond CDP	72.4	52.5	13.6	6.3	27.6	21.3
Los Angeles County	**67.7**	**45.7**	**15.3**	**6.7**	**32.3**	**24.2**
City of Lancaster	74.4	47.0	20.2	7.2	25.6	19.7
City of Palmdale	82.3	56.3	18.2	7.7	17.7	13.6
Regional Total	**68.2**	**46.2**	**15.4**	**6.7**	**31.8**	**23.9**

Source: U.S. Census Bureau 2010, Table DP-1.
CDP = census designated place
[1] Family household consists of the categories, Married-Couple Family, Female Householder (No Husband Present), and Male Householder (No Wife Present).

City of Bakersfield

As shown in Table 3.12-5, Bakersfield had 109,932 households, with an average household size of 3.18 people in the 2009–2013 ACS estimate period. Bakersfield's average household size in the 2009–2013 ACS estimate period was equal to that of Kern County (3.19) but larger than that of the two-county region (3.02). Between 2000 and the 2009–2013 ACS estimate period, the average household size in Bakersfield increased by approximately 6 percent and the number of households increased by approximately 33 percent.

As shown in Table 3.12-6, family households comprise approximately 75 percent of the city's households in 2010, with married-couple family households representing approximately 52 percent of the city's households and single-parent households headed by females representing approximately 16 percent.

According to the 2009–2013 ACS, the average household size in the Northeast Bakersfield district was slightly higher than that of Bakersfield, with an average household size of 3.3 and slightly lower than the percentage of family households at 74 percent. As shown in Table 3.12-4 and Table 3.12-5, the number of households in the Northeast Bakersfield district increased from 44,989 to 50,677 between 2000 and the 2009–2013 ACS estimate period.

Community of Edison

As shown in Table 3.12-5, the 2009–2013 ACS reports that Edison had 641 households, with an average household size of 3.92 people. Edison's average household size in the 2009–2013 ACS estimate period was higher than that of Kern County (3.19) and the two-county region (3.02). Between 2000 and the 2009–2013 ACS estimate period, the average household size in Edison increased by approximately 39 percent and the number of households increased by approximately 48 percent. This growth in the number of households is due primarily to a redrawing of the census block group boundaries within Census Tract 10 to encompass considerably more land area (including a new subdivision in an unincorporated area north of Edison). In reality, the number of households in Edison likely did not change much over the

decade, and field observations did not note the presence of many new homes (U.S. Census Bureau 2000c, Public Law 94-171, County Block Map Sheet 115 [2000b], and 2010 Census Block Map Kern County, CA, Sheet 132 [2010a]).

As shown in Table 3.12-6, approximately 76 percent of the households in Edison were family households in 2010, which is similar to the Kern County percentage of 75 percent. However, Edison had a higher percentage of married-couple family households and a substantially lower percentage of single-parent households headed by females in 2010 when compared to Kern County or the two-county region.

Community of Keene

As shown in Table 3.12-5, the community of Keene had 157 households in the 2009–2013 ACS estimate period, with an average household size of 2.29 people. The average household size for Keene in the 2009–2013 ACS estimate period was well below that of both Kern County and the two-county region. Between 2000 and the 2009–2013 ACS estimate period, the average household size in Keene decreased by approximately 7 percent and the number of households increased by approximately 15 percent.

As shown in Table 3.12-6, family households accounted for approximately 76 percent of the households in Keene in 2010. When compared to both Kern County and the two-county region, Keene had a higher percentage of married-couple family households and a substantially lower percentage of single-parent households headed by females in 2010.

Community of Golden Hills

As shown in Table 3.12-5, in the 2009–2013 ACS estimate period, the community of Golden Hills had 2,919 households, with an average household size of 2.64 people. The average household size in Golden Hills was below that of both Kern County and the two-county region in the 2009–2013 ACS estimate period. Between 2000 and the 2009–2013 ACS estimate period, the average household size in Golden Hills decreased by approximately 11 percent and the number of households increased by approximately 3 percent.

As shown in Table 3.12-6, approximately 74 percent of the households in Golden Hills were family households in 2010, which is similar to the Kern County percentage of 75 percent. Golden Hills had a higher percentage of married-couple family households and a slightly lower percentage of single-parent households headed by females in 2010 when compared to Kern County or the two-county region.

City of Tehachapi

As shown in Table 3.12-5, the City of Tehachapi had 3,305 households in the 2009–2013 ACS estimate period, with an average household size of 2.68 people. Tehachapi's average household size in the 2009–2013 ACS estimate period was well below that of both Kern County and the two-county region. Between 2000 and the 2009–2013 ACS estimate period, the average household size in Tehachapi decreased by approximately 15 percent and the number of households increased by approximately 30 percent.

As shown in Table 3.12-6, approximately 67 percent of the households in Tehachapi were family households in 2010, a percentage lower than that of Kern County (75 percent) but similar to that of the two-county region (68 percent). In addition, Tehachapi had a lower percentage of married-couple family households (48 percent) and a lower percentage of single-parent households headed by females (13 percent) in 2010 when compared to Kern County.

Community of Rosamond

As shown in Table 3.12-5, the community of Rosamond had a total of 5,949 households in the 2009–2013 ACS estimate period, with an average household size of 3.14 people. Rosamond's average household size in the 2009–2013 ACS estimate period was below those of both Kern County but above the two-county region. Between 2000 and the 2009–2013 ACS estimate period, the average household size in Rosamond increased by approximately 8 percent and the number of households increased by approximately 19 percent.

As shown in Table 3.12-6, the percentage of family households in Rosamond (72 percent) in 2010 was similar to that of Kern County (75 percent). Rosamond had a similar percentage of married-couple family households (53 percent) in 2010 as Kern County; however, Rosamond had a slightly lower percentage of single-parent households headed by females (14 percent) in 2010 when compared to Kern County.

City of Lancaster

As shown in Table 3.12-5, the City of Lancaster had 48,001 households in the 2009–2013 ACS estimate period, with an average household size of 3.13 people. Between 2000 and the 2009–2013 ACS estimate period, the average household size in Lancaster increased by approximately 3 percent and the number of households increased by approximately 26 percent.

As shown in Table 3.12-6, Lancaster had a higher percentage of family households (74 percent) in 2010 than both Los Angeles County (68 percent) and the two-county region (68 percent). Lancaster had a similar percentage of married-couple family households (47 percent) in 2010 as Los Angeles County; however, Lancaster had a substantially higher percentage of single-parent households headed by females (20 percent) than both Los Angeles County and the two-county region.

City of Palmdale

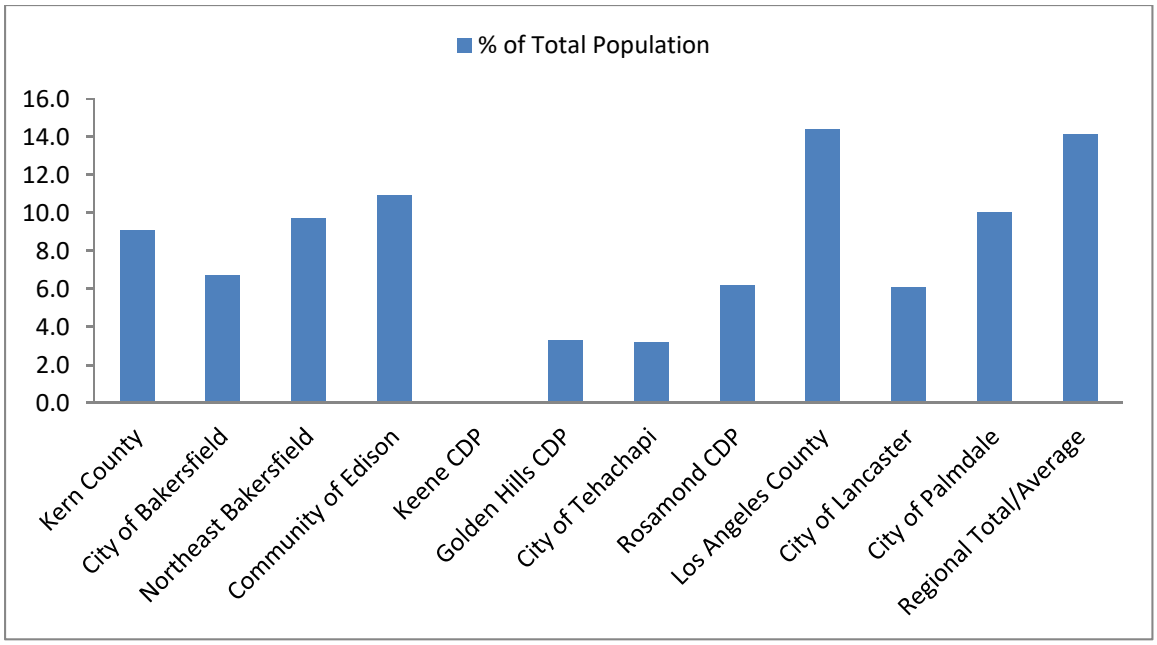
As shown in Table 3.12-5, according to the 2009–2013 ACS, the City of Palmdale had 41,520 households, with an average household size of 3.7 people. Palmdale's average household size in the 2009–2013 ACS estimate period was well above those of Los Angeles County and the two-county region. Between 2000 and the 2009–2013 ACS estimate period, the average household size in Palmdale increased by approximately 9 percent and the number of households increased by approximately 21 percent.

As shown in Table 3.12-6, Palmdale had the highest percentage of family households (82 percent) of all of the cities and communities in the population and community impacts RSAs. This was substantially higher than the family household percentages for both Los Angeles County (68 percent) and the two-county region (68 percent). Palmdale also had higher percentages of married-couple family households (56 percent) and single-parent households headed by females (18 percent) than both Los Angeles County and the two-county region.

Linguistic Isolation

Linguistic isolation is defined as a household that does not include at least one person over the age of 14 with the ability to speak English very well. The percentages of the households in Kern and Los Angeles Counties, and the cities and communities in the population and community impacts RSAs, that are linguistically isolated, as reported in the 2009–2013 ACS, are provided on Figure 3.12-7. As shown on Figure 3.12-7, linguistic isolation among households in the two-county region was much higher than for the state overall.

However, Figure 3.12-7 also shows that the percentages of linguistically isolated households in the cities and communities in the population and community impacts RSAs were higher than Kern County (9 percent) and lower than Los Angeles County (15 percent). For example, in Kern County, the highest percentage of linguistically isolated households were in the Northeast Bakersfield district and Edison, at 10 percent and 11 percent, respectively. Palmdale had the highest percentage of linguistically isolated households (10 percent) among the cities and communities in the population and community impacts RSAs, while Keene had no linguistically isolated households.



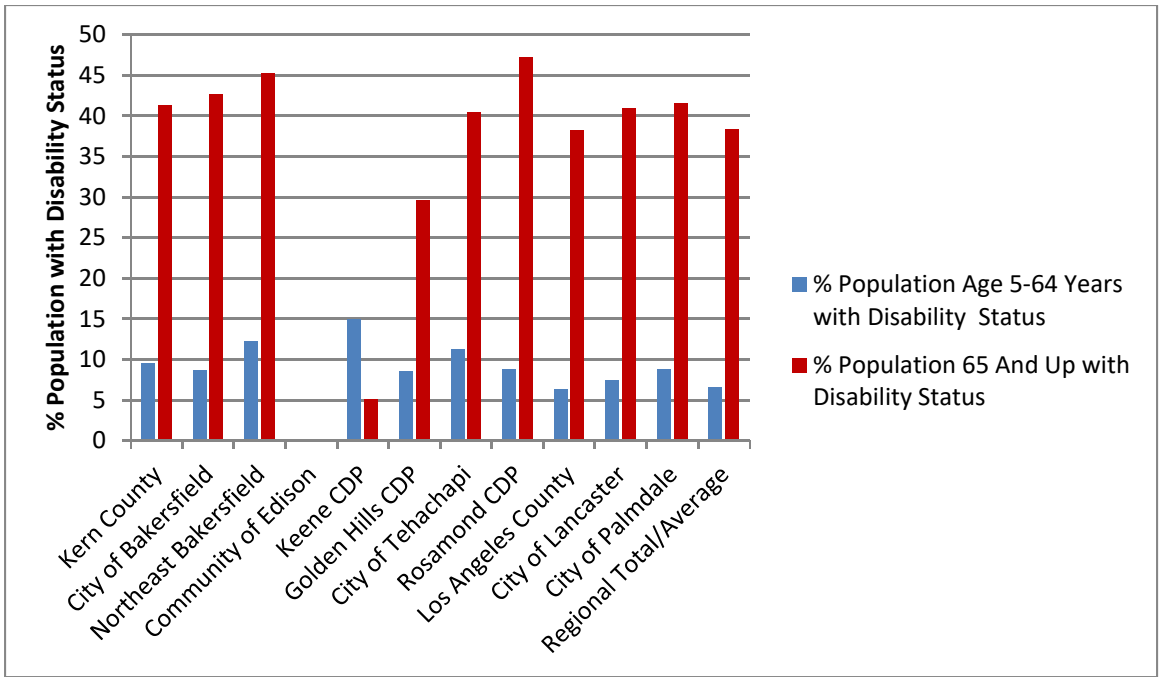
Source: U.S. Census Bureau, 2009–2013 ACS, Table B16002
Linguistically isolated residents account for 0 percent of the population in Keene.
ACS = American Community Survey
CDP = census designated place

Figure 3.12-7 Linguistic Isolation (2009–2013 American Community Survey)

Disabilities

Figure 3.12-8 shows the percentages of individuals reporting some sort of disability, self-care limitation, or low-mobility issue in the two-county region and for most of the cities and counties in the population and community impacts RSAs, as reported in the 2009–2013 ACS. Those data show that for most of those areas the percentages of populations with reported disabilities increase greatly in the population aged 65 and older. Among seniors in Kern County, 41 percent reported some type of disability. Of the cities and communities in the population and community impacts RSAs, the 2009–2013 ACS reports that Rosamond had the highest percentage of seniors reporting disabilities, at more than 47 percent of the population age 65 and over. Los Angeles County and the two-county region had slightly lower percentages of the senior population with disabilities when compared to Kern County. Both Lancaster and Palmdale had slightly higher percentages of their senior population with disabilities when compared to Los Angeles County.

As shown on Figure 3.12-8, the 2009–2013 ACS reports that Keene had the highest percentage of population aged 5 to 64 years with disability status (15 percent) among all the cities and communities in the population and community impacts RSAs, which is higher than both Kern County (10 percent) and the two-county region (7 percent). Los Angeles County had a lower percentage of population aged 5 to 64 years with disability status than Kern County. Both Palmdale and Lancaster had higher percentages within that population segment in comparison to Los Angeles County.



Source: U.S. Census Bureau, 2009–2013 ACS, Table B18101
U.S. Census block group data for the community of Edison was unavailable.
ACS = American Community Survey
CDP = census designated place

Figure 3.12-8 Disability Status (2009–2013 American Community Survey)

Community Cohesion

Community cohesion is the degree to which residents have a sense of belonging to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually as a result of continued association over time. Cohesion refers to the degree of interaction among the individuals, groups, and institutions that make up a community.

Demographic data compiled by the U.S. Census Bureau, including the 2009–2013 ACS, may be used to measure a community's level of cohesion. The following demographic indicators tend to correlate with a higher degree of community cohesion and are used in this analysis to determine the degree of community cohesion present within each city/community in the population and community impacts RSAs:

- **Age**—In general, communities with a high percentage of elderly residents (65 years or older) tend to demonstrate a greater social commitment to their community. This is because the elderly population, which includes retirees, often tends to be more active in the community because they have more time available for volunteering and participating in social organizations. Table B01001 of the 2009–2013 ACS provides data regarding the age of the population of Los Angeles and Kern Counties, as well as in each city and community in the population and community impacts RSAs.
- **Race and Ethnicity**—In general, homogeneity of the population contributes to higher levels of cohesion. Communities that are ethnically homogenous often speak the same language, hold similar beliefs, and share a common culture, and are therefore more likely to engage in social interaction on a routine basis. Table B03002 of the 2009–2013 ACS provides data regarding the race and ethnicity of the populations of Los Angeles and Kern Counties, as well as in each city and community in the population and community impacts RSAs.

- **Household Size**—In general, communities with a high percentage of families with children are more cohesive than communities composed largely of single people. This appears to be because children tend to establish friendships with other children in their community. The social networks of children often lead to the establishment of friendships and affiliations among parents in the community. Although the Census Bureau does not provide specific data regarding the number of children present in each household, Table S1101 of the 2009–2013 ACS provides data regarding the persons per household in Los Angeles and Kern Counties, as well as in each city and community in the population and community impacts RSAs, which can serve as a proxy for households with children.
- **Owner Occupancy**—Communities with a high percentage of owner-occupied residences are typically more cohesive because their populations tend to be less mobile. Because they have a financial stake in their community, homeowners often take a greater interest in what is happening in their community than renters do. This means they often have a stronger sense of belonging to their community. Table S1101 of the 2009–2013 ACS provides data regarding the percentage of housing units in Los Angeles and Kern Counties, as well as in each city and community in the population and community impacts RSAs that are owner-occupied.
- **Housing Tenure**—Communities with a high percentage of long-term residents are typically more cohesive because a greater proportion of the population has had time to establish social networks and develop an identity within the community. Table DP04 of the 2009–2013 ACS provides data regarding the year that each householder in Los Angeles and Kern Counties, as well as in each city and community in the population and community impacts RSAs, moved into their current housing unit. For the purposes of this analysis, those households that moved into their current residence in 1999 or earlier are considered long-term residents, because they have lived in their current residence for more than 15 years.
- **Transit-Dependent Population**—Communities with a high percentage of residents who are dependent on public transportation tend to be more cohesive than communities that are dependent on automobiles for transportation. This is because residents who tend to walk or use public transportation for travel tend to engage in social interaction with each other more frequently than residents who travel by automobile. Although the Census Bureau does not provide specific data regarding the percentage of the population that is dependent on public transportation for travel, the 2009–2013 ACS does provide a series of demographic data that can be used to serve as a proxy for the transit-dependent population. For the purposes of this analysis, the transit-dependent population was calculated by taking the number of residents aged 15 and over (as reported in Table B01001 of the 2009–2013 ACS), subtracting the number of people living in group quarters (as reported in Table B26001 of the 2009–2013 ACS), subtracting the number of vehicles available (as reported in Table B25046 of the 2009–2013 ACS), and then dividing the difference by the population aged 15 and over.

The community cohesion demographic indicators within the population and community impacts RSAs are summarized below.

As shown in Table 3.12-7 and described below, most of the cities and communities in the population and community impacts RSAs demonstrate at least three indicators of community cohesion. The City of Tehachapi exhibits two indicators of community cohesion: high owner-occupancy rates and Non-Hispanic White population. The City of Bakersfield, Keene, Rosamond, and the City of Lancaster exhibit three of the cohesion indicators discussed above. Edison, Golden Hills, and the City of Palmdale each exhibit four of the community cohesion indicators; however, the Northeast Bakersfield district exhibits five such indicators. Based on these factors, it appears that the various cities and communities in the population and community impacts RSAs exhibit moderate to high levels of community cohesion. The Northeast Bakersfield district appears to exhibit the highest degree of community cohesion in the population and community impacts RSAs.

Table 3.12-7 Community Cohesion Indicators

Location	Non-Hispanic White Population	Racial Minority Population[1]	Hispanic/ Latino Population[2]	Owner-Occupied Residences	Elderly Residents (>64 years old)	Average Household Size (persons)	Transit-Dependent Population[3]	Long-Term Residents (moved in 1999 or earlier)[4]
Kern County	37.9%	27.7%	49.8%	58.0%	9.2%	3.19	20.1%	24.6%
Bakersfield	36.7%	***34.5%****	46.0%	57.8%	8.6%	3.18	***20.8%****	20.1%
Northeast Bakersfield	33.5%	***32.6%****	***58.3%****	50.1%	8.5%	***3.25****	***28.7%****	***28.1%****
Edison	***43.9%****	13.6%	***55.0%****	57.1%	4.2%	***3.92****	***20.7%****	14.4%
Golden Hills	***66.8%****	12.2%	28.5%	***66.0%****	***11.2%****	2.64	0.1%	**26.9%***
Keene	***92.8%****	7.2%	7.2%	***100.0%****	***21.9%****	2.29	0.0%	22.3%
Tehachapi	***56.3%****	14.3%	33.5%	***58.0%****	8.9%	2.68	9.7%	23.8%
Rosamond	***47.3%****	***31.9%****	36.0%	***64.2%****	***9.5%****	3.14	17.8%	23.2%
Los Angeles County	27.5%	46.7%	47.9%	46.9%	11.2%	3.01	26.7%	33.4%
Lancaster	***34.4%****	36.8%	38.4%	***60.1%****	8.8%	***3.13****	20.2%	22.4%
Palmdale	24.1%	***57.3%****	***54.7%****	***64.3%****	7.1%	***3.7****	25.1%	22.5%

Source: U.S. Census Bureau, 2009–2013 ACS, Tables B01001, B03002, S1101, DP04, B26001, and B25046
Italicized numbers with an asterisk in ***bold*** indicate the values are higher than the county average.
[1] Includes individuals who identify themselves as Black/African American, Asian, Native Hawaiian/Pacific Islander, Native American/Native Alaskan, Some Other Race, or two or more races, regardless of their Hispanic/Latino identification.
[2] People of Hispanic/Latino origin may be of any race.
[3] The transit-dependent population was calculated by taking the number of residents aged 15 and over (as reported in Table B01001 of the 2009–2013 ACS), subtracting the number of persons living in group quarters (as reported in Table B26001 of the 2009–2013 ACS), subtracting the number of vehicles available (as reported in Table B25046 of the 2009–2013 ACS), and then dividing the difference by the population aged 15 and over.
[4] Includes those residents who moved into their current residence in 1999 or earlier, as reported in Table DP04 of the 2009–2013 ACS.
ACS = American Community Survey

Race and Ethnicity

Table 3.12-7 shows the racial and ethnic composition of Kern and Los Angeles Counties and of the cities and communities in the population and community impacts RSAs based on 2009–2013 ACS data. Racial minorities comprise a slightly larger share of the City of Bakersfield's population (34.5 percent) than the population of Kern County overall (27.7 percent). Non-Hispanic Whites comprise a larger share of the population in Edison (43.9 percent), Keene (92.8 percent), Golden Hills (66.8 percent), Tehachapi (56.3 percent), and Rosamond (47.3 percent) when compared with the population of Kern County overall (37.9 percent). The City of Palmdale also has a large percentage of racial minorities in its population (57.3 percent), slightly greater than the percentage of racial minorities in Los Angeles County overall (46.7 percent). Non-Hispanic Whites comprise a larger share of the population in the City of Lancaster (34.4 percent) when compared with the population of Los Angeles County overall (27.5 percent).

The City of Palmdale also has a greater percentage of Hispanic or Latino residents (55 percent) than Los Angeles County overall (48 percent). The Hispanic or Latino population makes up a greater percentage of the Northeast Bakersfield district (58.3 percent) and the community of Edison (55 percent) than in Kern County as a whole (50 percent).

Owner Occupancy

Table 3.12-7 provides the percentage of owner-occupied residences in Kern and Los Angeles Counties and in each of the cities and communities in the population and community impacts RSAs based on 2009–2013 ACS data. As shown in Table 3.12-7, Keene, Golden Hills,

Tehachapi, and Rosamond all have a percentage of owner-occupied units that exceeds that of Kern County. The Cities of Palmdale and Lancaster each have a percentage of owner-occupied units (64 and 60 percent, respectively) that exceeds that of Los Angeles County (47 percent).

Elderly Residents

Table 3.12-7 shows the percentage of the population that is elderly (65 years old or older) in Kern and Los Angeles Counties and in each of the cities and communities in the population and community impacts RSAs based on 2009–2013 ACS data. As reported in Table 3.12-7, Golden Hills has a percentage of residents over 65 that is slightly higher than the countywide percentage, while Keene has a percentage of residents over 65 that is greater than twice the countywide percentage. Section 5.2.2 includes a more detailed analysis of smaller concentrations of elderly residents.

Household Size

Table 3.12-7 shows the average household size in Kern and Los Angeles Counties and in each of the cities and communities in the population and community impacts RSAs based on 2009–2013 ACS data. As addressed in Section 5.2.4 and shown in Table 3.12-7, Kern County has a higher average household size (3.19) than Los Angeles County (3.01). The Northeast Bakersfield district and Edison have an average household size that is slightly larger than that of Kern County overall, and both Lancaster and Palmdale have average household sizes that slightly exceed their countywide averages.

Transit Dependency

Table 3.12-7 shows the percentage of the population that is transit-dependent in Kern and Los Angeles Counties and in each of the cities and communities in the population and community impacts RSAs based on 2009–2013 ACS data. As shown in Table 3.12-7, Bakersfield and Edison have slightly higher percentages of transit-dependent residents (21 percent) than Kern County overall (20 percent), and Northeast Bakersfield has a much higher percentage of transit-dependent residents (29 percent) than Kern County.

Housing Tenure

Table 3.12-7 also shows the percentages of the populations in Kern and Los Angeles Counties and in each of the cities and communities in the population and community impacts RSAs who have lived in their current residence for more than 15 years and therefore can be considered long-term residents based on 2009–2013 ACS data. As shown in Table 3.12-7, Northeast Bakersfield and Golden Hills have a percentage of long-term residents (28 and 27 percent, respectively) that exceeds the Kern County average (25 percent).

3.12.5.3 Housing and Businesses Setting

Region

Table 3.12-8 provides 2009–2013 ACS data regarding the various types of housing stock, the housing vacancy rate, and the percentage of owner-occupied housing units in the two-county region and the cities and counties in the population and community impacts RSAs. As shown in Table 3.12-8, the 2009–2013 ACS reports that the predominant housing type in both Kern and Los Angeles Counties is single-family homes, which account for approximately 58 percent of existing units in the two-county region. Multifamily units and mobile homes account for approximately 40 percent and 2 percent of the housing stock, respectively, in the two-county region. As shown in Table 3.12-8, the 2009–2013 ACS reports that the vacancy rate for the two-county region as a whole was approximately 7 percent, and the percentage of owner-occupied housing units in the two-county region was approximately 48 percent in the 2009–2013 ACS estimate period.

Table 3.12-8 Housing Characteristics (2009–2013 American Community Survey)

Location	Single-Family Housing Units		Multifamily Housing Units		Mobile Homes	Occupied	Vacant	% of Units Occupied by Owners
	Detached	Attached	2 to 4	5-Plus				
Kern County	**203,973 (71.3%)**	**7,195 (2.5%)**	**27,678 (9.7%)**	**25,292 (8.9%)**	**21,278 (7.4%)**	**255,271 (89.3%)**	**30,624 (10.7%)**	**59.0**
City of Bakersfield	84,171 (71.0%)	2,888 (2.4%)	13,203 (11.2%)	15,600 (13.2%)	2,584 (2.2%)	109,932 (92.8%)	8,543 (7.2%)	59.2
Northeast Bakersfield	38,505 (69.0%)	1,564 (2.8%)	7,407 (13.3%)	5,495 (9.9%)	2,637 (4.7%)	50,677 (90.9%)	5,088 (9.1%)	50.1
Keene CDP	183 (88.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	23 (11.2%)	157 (76.2%)	49 (23.8%)	70.7
Golden Hills CDP	2,805 (79.3%)	10 (0.3%)	508 (14.4%)	131 (3.7%)	82 (2.3%)	2,919 (82.6%)	617 (17.4%)	69.2
City of Tehachapi	2,476 (66.9%)	136 (3.7%)	553 (14.9%)	215 (5.9%)	319 (8.6%)	3,305 (89.3%)	394 (10.7%)	61.5
Rosamond CDP	4,634 (67.2%)	99 (1.4%)	474 (6.9%)	348 (5.1%)	1,338 (19.4%)	5,949 (86.3%)	944 (13.7%)	67.7
Los Angeles County	**1,716,738 (49.7%)**	**225,422 (6.5%)**	**278,371 (8.0%)**	**1,177,389 (34.2%)**	**52,952 (1.5%)**	**3,230,383 (93.6%)**	**222,518 (6.4%)**	**46.9**
City of Lancaster	37,733 (71.4%)	1,156 (2.2%)	2,833 (5.3%)	7,596 (14.4%)	3,440 (6.5%)	48,001 (90.8%)	4,865 (9.2%)	60.0
City of Palmdale	36,621 (80.2%)	526 (1.2%)	1,370 (3.0%)	5,405 (11.8%)	1,702 (3.7%)	41,520 (91.0%)	4,125 (9.0%)	69.0
Regional Total	**51.4%**	**6.2%**	**8.2%**	**32.2%**	**2.0%**	**93.2%**	**6.8%**	**47.8**

Source: U.S. Census Bureau, 2009–2013 American Community Survey, Table DP04
Information about housing units is not available at the census block group level. Therefore, this information was not available for Edison.
ACS = American Community Survey
CDP = census designated place

The type of housing stock in Kern County is very different from that in Los Angeles County and the two-county region overall. In the 2009–2013 ACS estimate period, Kern County had a much higher percentage of single-family housing units, with approximately 74 percent of the housing units being single-family, compared to 56 percent in Los Angeles County.

As shown in Table 3.12-8, single-family housing units comprise the majority of the housing stock in all the cities and communities in the population and community impacts RSAs. Keene had the highest percentage of single-family detached housing units (89 percent), which is substantially higher than that of Kern County (71 percent) and the two-county region (51 percent). Multifamily housing units were distinguished according to the number of units in the development. Golden Hills and the City of Tehachapi had the highest percentages of two- to four-unit developments of all of the cities and communities in the population and community impacts RSAs, with approximately 14 percent and 15 percent of the housing units in those areas containing two to four units, respectively. Lancaster's percentage of multifamily housing units with five or more units (14 percent) was the highest among the cities and communities in the population and community impacts RSAs; however, the percentage in Lancaster did not exceed the Los Angeles County or two-county region totals.

As shown in Table 3.12-8, Kern County had a higher housing vacancy rate (11 percent) in the 2009–2013 ACS estimate period than both Los Angeles County (6 percent) and the two-county

region (7 percent). Keene had the highest housing vacancy rate of the cities and communities in the population and community impacts RSAs (24 percent), which was more than double the Kern County total. The City of Bakersfield had the lowest vacancy rate (7 percent), which was lower than the Kern County rate and similar to the overall vacancy rate in the two-county region. Palmdale and Lancaster had similar vacancy rates that were higher than the rates in both Los Angeles County and the two-county region.

As shown in Table 3.12-8, Los Angeles County had a similar percentage of owner-occupied residences (47 percent) as the two-county region overall (48 percent) in the 2009–2013 ACS estimate period. Kern County had a slightly higher rate of owner occupancy (59 percent) in 2013. All of the cities and communities in the population and community impacts RSAs had higher rates of owner occupancy than their respective counties. The community of Keene exhibited the highest rate of owner occupancy, at 71 percent of its residences.

Table 3.12-9 summarizes the housing unit tenures in the two-county region, and the cities and communities in the population and community impacts RSAs. According to 2009–2013 ACS data, approximately 66 percent of the householders in the two-county region moved into their housing units after 2000. In contrast, approximately 3 percent of householders moved into their housing units prior to 1969. The regional tenure is similar to the state and Los Angeles County rates. The 2009–2013 ACS reports that Kern County and Los Angeles County both had slightly higher percentages of householders who moved in after 2000 (76 percent and 75 percent, respectively) than the two-county region overall (66 percent). The community of Keene had the lowest percentage of householders who moved into their housing units prior to 1979 (0 percent).

Table 3.12-9 Housing Unit Tenure (2009–2013 American Community Survey)

	California	Two-County Region	Kern County	Bakersfield	Northeast Bakersfield	Keene CDP	Golden Hills CDP	Tehachapi	Rosamond CDP	Los Angeles County	Lancaster	Palmdale
Moved in 2010 or later	19.0%	17.8%	22.2%	23.8%	24.4%	0.0%	23.3%	18.9%	21.6%	17.5%	17.6%	21.5%
Moved in 2000–2009	50.1%	48.2%	53.9%	57.3%	47.4%	58.9%	47.6%	57.8%	53.3%	47.7%	61.1%	57.1%
Moved in 1990–1999	17.4%	19.2%	14.8%	12.7%	13.3%	33.9%	18.7%	14.3%	19.8%	19.6%	14.6%	15.8%
Moved in 1980–1989	7.2%	7.6%	5.1%	3.6%	6.9%	7.2%	7.9%	3.9%	3.0%	7.8%	4.2%	4.1%
Moved in 1970–1979	4.0%	4.4%	2.5%	1.5%	4.1%	0.0%	2.6%	3.4%	1.4%	4.5%	1.2%	0.9%
Moved in 1969 or earlier	2.3%	2.8%	1.5%	1.2%	3.9%	0.0%	0.0%	1.7%	1.0%	2.9%	1.3%	0.7%

Source: U.S. Census Bureau, 2009–2013 American Community Survey, Table B25038
Information about housing tenure is not available at the census block group level. Therefore, this information was not available for Edison.
CDP = census designated place

Table 3.12-10 provides recent foreclosure data for Kern and Los Angeles Counties and for the cities and communities in the population and community impacts RSAs. As of April 2018, the foreclosure rate in Kern County was 1 in every 905 housing units, which was nearly three times the foreclosure rate in Los Angeles County (1 in every 2,526 housing units) and more than twice that of the state (1 in every 2,154 housing units).

Table 3.12-10 Foreclosure Rate (April 2018)

Location	Foreclosure Rate (%)	Foreclosure Rate (per housing unit)
California	0.05	1 in every 2,154
Kern County	**0.11**	**1 in every 905**
City of Bakersfield	0.11	1 in every 914
Northeast Bakersfield[1]	0.09	1 in every 1,060
Community of Edison[2]	0.08	1 in every 1,301
Keene CDP[3]	N/A	N/A
Golden Hills CDP[4]	0.10	1 in every 1,018
City of Tehachapi	0.10	1 in every 1,018
Rosamond CDP[5]	0.12	1 in every 807
Los Angeles County	**0.04**	**1 in every 2,526**
City of Lancaster	0.09	1 in every 1,084
City of Palmdale	0.10	1 in every 995

Source: RealtyTrac, www.realtytrac.com/statsandtrends/foreclosuretrends/ (accessed May 28, 2018)
[1] Reflects a weighted average for data from the four primary ZIP codes in the Northeast Bakersfield district (93305, 93306, 93307, and 93308)
[2] Reflects data for the 93307 ZIP code
[3] Reflects data for the 93531 ZIP code
[4] Reflects data for the 93561 ZIP code
[5] Reflects data for the 93560 ZIP code
CDP = census designated place
N/A = Limited sales data is available; therefore, a foreclosure rate could not be calculated.

City of Bakersfield

According to the 2009–2013 ACS, the composition of Bakersfield's housing stock was similar to that of Kern County except for the larger percentage of multifamily housing units and the smaller percentage of mobile homes. The housing vacancy rate in the city was 7 percent, which is lower than the rate of Kern County (11 percent) and comparable to the rate of the two-county region (7 percent).

As shown in Table 3.12-8, the 2009–2013 ACS reports that approximately 59 percent of the housing units in Bakersfield were owner-occupied.

As shown in Table 3.12-9, according to the 2009–2013 ACS, approximately 81 percent of Bakersfield householders moved into their homes after 2000, while approximately 6 percent of the householders had lived in the same residences since at least 1990. Based on the 2009–2013 ACS, the rate of recent turnover is higher and the percentage of more established residents is lower in Bakersfield than in Kern County (76 percent and 9 percent) and the two-county region (66 percent and 15 percent). This may suggest a newer population and a potentially less stable community base.

As shown in Table 3.12-10, the foreclosure rate in the City of Bakersfield (1 in every 914 housing units) is similar to the foreclosure rate in Kern County (1 in every 905 housing units). Bakersfield's foreclosure rate is more than double that of the state.

There are no businesses in the population and community impacts RSAs in the City of Bakersfield.

Northeast Bakersfield

According to the 2009–2013 ACS, the composition of the Northeast Bakersfield district's housing stock was similar to that of Kern County except for the larger percentage of multifamily housing units and the smaller percentage of mobile homes. The housing vacancy rate in the district was 9 percent, which is lower than the rate of Kern County (11 percent) and slightly higher than the rate of the two-county region (7 percent).

As shown in Table 3.12-8, the 2009–2013 ACS reports that approximately 50 percent of the housing units in the Northeast Bakersfield district were owner-occupied.

As shown in Table 3.12-9, according to the 2009–2013 ACS, approximately 72 percent of Northeast Bakersfield district householders moved into their homes after 2000, while approximately 15 percent of householders had lived in the same residences since at least 1990. Based on the 2009–2013 ACS, the rate of recent turnover is lower and the percentage of more established residents is higher in the Northeast Bakersfield district than in Kern County (76 percent and 9 percent) and the two-county region (66 percent and 15 percent).

As shown in Table 3.12-10, the foreclosure rate in the Northeast Bakersfield district (1 in every 1,060 housing units) is similar to the foreclosure rate in Kern County (1 in every 905 housing units). The Northeast Bakersfield district's foreclosure rate is nearly double that of the state.

Approximately 55 businesses are within the population and community impacts RSAs in the Northeast Bakersfield district. All of these businesses are located in the unincorporated area of the Northeast Bakersfield district. These businesses include a mix of sales- and service-oriented businesses, including auto sales, scrapyards, and auto repair and machine shops. The majority of the businesses are south of Edison Highway. This area is characterized by warehouses and industrial uses, with several restaurants intermixed. The area north of Edison Highway is primarily residential and contains only a few sales-based businesses.

Community of Edison

The 2009–2013 ACS did not provide data regarding housing characteristics in Edison, including the housing stock, vacancy rate, percentage of housing units occupied by the owner, and housing tenure. As shown in Table 3.12-10, the foreclosure rate in the community of Edison (1 in every 1,301 housing units) is slightly lower than the foreclosure rate in Kern County (1 in every 905 housing units). Edison's foreclosure rate is higher than that of the state.

Approximately 35 businesses are within the population and community impacts RSAs in the community of Edison. The majority of the businesses in the Edison area appear to be involved in some type of agricultural activity. Businesses near the existing railroad line include large agricultural warehouses, packing operations, and shipping facilities that likely rely heavily on the transportation of products. Those few businesses farther from the existing railroad line are primarily restaurants and delis.

Community of Keene

As shown in Table 3.12-8, there are few similarities between Keene's housing stock and that of either Kern County or the two-county region, as Keene has only single-family detached housing units and mobile homes. According to the 2009–2013 ACS, more than 89 percent of the housing units in Keene were single-family residences. The percentages of single-family detached housing units and mobile homes are both higher than the respective Kern County percentages.

As shown in Table 3.12-8, the 2009–2013 ACS reports that approximately 71 percent of the housing units in Keene were owner-occupied, which is much higher than the percentage of owner-occupied housing units in either Kern County (59 percent) or the two-county region (48 percent). According to the 2009–2013 ACS and as shown in Table 3.12-9, approximately 59 percent of the householders in Keene moved into their homes since 2000, a lower percentage than both Kern County (76 percent) and the two-county region (66 percent). Table 3.12-9 also shows that the percentage of householders in Keene who had been living in their homes since before 1990 is slightly lower than in Kern County (9 percent) and the two-county region (15 percent).

As shown in Table 3.12-10, the foreclosure rate in the community of Keene was not available due to a lack of sales data.

One business (a restaurant) is within the population and community impacts RSAs in the community of Keene. The restaurant appears to rely on the surrounding community as well as traffic on nearby SR 58 to sustain its business.

Community of Golden Hills

According to the 2009–2013 ACS and as shown in Table 3.12-8, the percentage of single-family detached homes in Golden Hills (79 percent) was higher than that of either Kern County (71 percent) or the two-county region (51 percent).

As shown in Table 3.12-8, the 2009–2013 ACS reports that approximately 69 percent of the housing units in Golden Hills were owner-occupied, which is much higher than the percentage of owner-occupied housing units in either Kern County (59 percent) or the two-county region (48 percent).

Table 3.12-9 shows that approximately 71 percent of householders in Golden Hills had moved into their homes since 2000, whereas only approximately 11 percent of the householders had been living in their homes since before 1990. This home turnover rate is similar to that of Kern County (76 percent and 9 percent) but higher than that of the two-county region (66 percent and 15 percent).

As shown in Table 3.12-10, the foreclosure rate in the community of Golden Hills (1 in every 1,018 housing units) is slightly lower than the foreclosure rate in Kern County (1 in every 905 housing units).

No businesses are within the population and community impacts RSAs in the community of Golden Hills.

City of Tehachapi

The 2009–2013 ACS indicates that the percentage of single-family detached homes in the City of Tehachapi (67 percent) was lower than that of Kern County (71 percent) but higher than that of the two-county region (51 percent), as shown in Table 3.12-8.

As shown in Table 3.12-8, the 2009–2013 ACS also reports that approximately 62 percent of the housing units in the City of Tehachapi were owner-occupied, which is slightly higher than the percentage of owner-occupied housing units in Kern County (59 percent).

Table 3.12-9 shows that approximately 77 percent of the householders had moved into their residences since 2000 and 9 percent of the householders had been living in their homes since before 1990. This home turnover rate is similar to that of Kern County (76 percent and 9 percent) but greater than that of the two-county region (66 percent and 15 percent).

As shown in Table 3.12-10, the foreclosure rate in the City of Tehachapi (1 in every 1,018 housing units) is slightly lower than that of Kern County (1 in every 905 housing units).

Approximately 13 businesses are within the population and community impacts RSAs in the City of Tehachapi. These businesses include a mix of sales- and service-oriented businesses, including scrap yards, industrial uses, storage facilities, gas stations, and a motel in the southeastern portion of the city. Southeast of the City of Tehachapi, the population and community impacts RSAs include a large cement plant and an adjacent quarry. The cement production facility produces vital materials used in the construction industry.

Community of Rosamond

As shown in Table 3.12-8, mobile homes represent a relatively large percentage of the housing stock (20 percent) in the community of Rosamond, as reported in the 2009–2013 ACS. This percentage is much higher than that of either Kern County (7 percent) or the two-county region (2 percent).

Approximately 68 percent of the community's housing units were owner-occupied, a much higher percentage than that of either Kern County (59 percent) or the two-county region (48 percent), as shown in Table 3.12-8. According to the 2009–2013 ACS, approximately 75 percent of the householders in Rosamond had moved into their homes since 2000, while 5 percent of the population had been living in their homes since before 1990, as shown in Table 3.12-9. The percentage of householders who moved into their residences since 2000 is similar to that of Kern County but higher than that of the two-county region; however, the percentage of people who

have lived in their homes since before 1990 is lower than that of both Kern County and the two-county region. This data suggests that Rosamond's population is not as stable as those of other cities or communities in the population and community impacts RSAs.

As shown in Table 3.12-10, the foreclosure rate in the community of Rosamond (1 in every 807 housing units) is slightly higher that of Kern County (1 in every 905 housing units).

One business (Willow Springs International Raceway) is within the population and community impacts RSAs in the community of Rosamond. Given the size of the facility and the highly specialized nature of the racing industry, the raceway likely draws patrons from across Southern California. No other businesses were identified in the population and community impacts RSAs in the community of Rosamond.

City of Lancaster

According to the 2009–2013 ACS, and as shown in Table 3.12-8, the percentage of single-family detached homes in the City of Lancaster (78 percent) was substantially higher than that of either Los Angeles County (50 percent) or the two-county region (51 percent). Additionally, the city has a higher percentage of mobile homes (7 percent) compared to Los Angeles County (2 percent) and the two-county region (2 percent).

As shown in Table 3.12-8, the 2009–2013 ACS reports that approximately 60 percent of the housing units in Lancaster were owner-occupied, a much higher percentage than that of Los Angeles County (47 percent) or the two-county region (48 percent).

The 2009–2013 ACS also indicates that approximately 79 percent of the householders in Lancaster moved into their homes after 2000, a slightly higher percentage than that of Los Angeles County (65 percent) and the two-county region (66 percent), as shown in Table 3.12-9. Only 7 percent of Lancaster householders moved into their residence before 1990, a lower percentage than both Los Angeles County (15 percent) and the two-county region (15 percent). The very high percentage of householders who had moved since 2000 is likely tied to the large increase in homes in the city since 2000 and is partially the result of the spillover in housing demand from the Los Angeles Basin in the early 2000s.

As shown in Table 3.12-10, the foreclosure rate in the City of Lancaster (1 in every 1,084 housing units) is more than two times higher than the foreclosure rate in Los Angeles County (1 in every 2,526 housing units).

Approximately 150 businesses are within the population and community impacts RSAs in the City of Lancaster. Businesses on the west side of Sierra Highway include a variety of service- and sales-based industries and are characterized by restaurants, hotels, retail businesses, and auto shops. These businesses are typically smaller in size; however, some larger facilities and warehouses are near larger intersections within the city. The businesses on the east side of Sierra Highway and the existing UPRR right-of-way generally include a mix of light and heavy industrial uses related to automobiles, manufacturing, and warehousing and distribution. Specific uses include recycling centers, repair shops, upholstery facilities, and appliance stores. In addition to the industrial facilities, several business parks are on the east side of Sierra Highway and the existing UPRR right-of-way.

City of Palmdale

The 2009–2013 ACS reflects that single-family detached housing units made up approximately 80 percent of the City of Palmdale housing stock, a substantially greater percentage than that of both Los Angeles County (50 percent) and the two-county region (51 percent), as shown in Table 3.12-8. Comparison of the housing stock in Palmdale to that of Los Angeles County and the broader region shows that the City of Palmdale is much more centered on single-family housing units than Los Angeles County or the two-county region overall. Similar to Lancaster, Palmdale has a higher percentage of owner-occupied housing units (69 percent) than Los Angeles County (47 percent) or the two-county region (48 percent).

According to the 2009–2013 ACS, approximately 79 percent of Palmdale householders moved into their residences since 2000, and only 6 percent of the householders had lived in their residences since before 1990, as shown in Table 3.12-9. Similar to Lancaster, this very high percentage of householders who had moved since 2000 is likely tied to the relatively high levels of new home construction in the city over the past decade.

As shown in Table 3.12-10, the foreclosure rate in the City of Palmdale (1 in every 995 housing units) is approximately 2.5 times higher than the foreclosure rate in Los Angeles County (1 in every 2,526 housing units).

Approximately 30 businesses are within the population and community impacts RSAs in the City of Palmdale. Those businesses include both sales- and service-based businesses. Most of the businesses in the population and community impacts RSAs in Palmdale appear to be engaged in professional, scientific, and technical services. These businesses are in large office and business parks west of Sierra Highway and a large warehouse complex east of Sierra Highway at U.S. Air Force Plant 42, which is associated with the aerospace industry (Lockheed Martin). One gas station is at the southwest corner of Columbia Way/Sierra Highway.

3.12.5.4 Economic Setting

Employment

Region

The Bakersfield to Palmdale Project Section passes through two distinct employment regions: the southern San Joaquin Valley and the Antelope Valley. Discussing these regions together does not provide an accurate picture of the industries that dominate the economies of the economic impacts RSA. The southern San Joaquin Valley is an area driven by its agricultural industries, whereas the Antelope Valley is driven by its aerospace industry.

Levels of employment and income in the southern San Joaquin Valley have historically lagged behind those in other parts of the state. 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. Although this area has led the state in agricultural revenues, the economy has also been diversifying in recent decades to become more oriented toward services. Additional shifts in employment sectors came as a result of the real estate boom several years ago, which generated many jobs in construction, fueled retail sales, and generated increased property sales and tax revenues (Cowan 2005).

Although the agricultural industry provides the southern San Joaquin Valley with a great deal of employment, the region continues to be one of the most economically depressed areas in the nation because many of these jobs are seasonal and low-paying (Cowan 2005). The region was largely untouched by the bursting of the ".com" bubble and the loss of tourism following the 9/11 tragedy. However, the real estate boom and the construction jobs that were created, along with increased retail sales and tax revenues, only made the effects of the Great Recession, which lasted from 2007 to 2009, worse, exacerbating the economic situation and leaving the region as one of the hardest-hit areas in the U.S. The implications of the industry's collapse and the associated nationwide recession included substantial increases in unemployment, foreclosure rates, and poverty, as well as sharp declines in housing prices (Bertaut and Pounder 2009). Unemployment rates increased sharply in Kern County as a result of the Great Recession. Production of agricultural goods has continued to increase, and although the percentage of the labor force employed in agriculture and resource extraction has declined somewhat since 2000, this sector still employs the largest percentage of the labor force.

Similar to the southern San Joaquin Valley, the Antelope Valley is an area built around a single major industry—in this case, the aeronautical industry. Levels of employment can fluctuate drastically, as much of the funding is tied to government spending. Unlike the southern San Joaquin Valley, the Antelope Valley is attached to Los Angeles by a public transportation system (Metrolink). This makes it possible for approximately 71,000 residents of the Antelope Valley to work in the Los Angeles area (Greater Antelope Valley Economic Alliance 2011). The Antelope

Valley is also one of the nation's leaders in renewable energy production, with a very large wind farm and several new solar facilities.

Table 3.12-11 provides information regarding the civilian labor force in the two-county region and the cities and communities in the population and community impacts RSAs. Table 3.12-11 presents the number of employed and unemployed persons and the unemployment rate, according to preliminary data issued by the CEDD for April 2016.

Table 3.12-11 Unemployment (April 2016)

Location	No. of Employed	No. of Unemployed	Unemployment Rate (%)
Kern County	**351,100**	**41,800**	**10.6**
City of Bakersfield	179,700	17,100	9.5
Keene CDP	100	0	15.4
Golden Hills CDP	3,600	400	9.2
City of Tehachapi	3,700	300	8.1
Rosamond CDP	8,400	800	8.9
Los Angeles County	**4,777,900**	**233,600**	**4.7**
City of Lancaster	60,300	3,300	5.2
City of Palmdale	59,800	4,000	6.3
California	**18,027,700**	**987,400**	**5.2**

Source: California Employment Development Department, 2016a, 2016b
Data may appear to not add up correctly due to rounding. The unemployment rate is calculated using unrounded data.
The California Employment Development Department does not provide labor force data for unincorporated communities that are not CDPs. Therefore, no data are available for the Northeast Bakersfield district and Edison.
CDP = census designated place

Table 3.12-12 summarizes employment by industry in the two-county region and the cities and communities in the population and community impacts RSAs.

City of Bakersfield

As reported in Table 3.12-11, the City of Bakersfield's unemployment rate in April 2016 (9.5 percent) was lower than that of Kern County (10.6 percent) but higher than that of the state (5.2 percent).

As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the city's largest industry sector in terms of employment, comprising 22.8 percent of the total employed population, followed by Retail Trade (11.5 percent). Educational Services, and Health Care and Social Assistance is also the largest industry sector in Kern County (19.6 percent) followed by Agriculture, Forestry, Fishing and Hunting, and Mining (15.9 percent).

As described in Section 3.12.5.2, there are no businesses in the City of Bakersfield within the population and community impacts RSAs.

Northeast Bakersfield

The Northeast Bakersfield district is not defined as a CDP by the U.S. Census Bureau. Because the CEDD only provides labor force data for cities, counties, and unincorporated communities that are recognized CDPs, no state-compiled labor force data are available for the Northeast Bakersfield district.

Table 3.12-12 City Employment by Industry (2009–2013 American Community Survey)[1]

Industry	Kern County	Bakersfield	Northeast Bakersfield	Keene CDP	Golden Hills CDP	Tehachapi	Rosamond CDP	Los Angeles County	Lancaster	Palmdale
Agriculture, Forestry, Fishing and Hunting, and Mining	50,488 (15.9%)	14,929 (10.3%)	8,147 (13.9%)	0 (0.0%)	54 (1.6%)	53 (1.5%)	38 (0.5%)	22,433 (0.5%)	521 (0.9%)	368 (0.7%)
Construction	19,232 (6.1%)	8,381 (5.8%)	3,845 (6.5%)	0 (0.0%)	211 (6.4%)	328 (9.0%)	865 (11.4%)	255,359 (5.7%)	3,391 (6.0%)	4,344 (7.8%)
Manufacturing	18,133 (5.7%)	7,854 (5.4%)	3,342 (5.7%)	0 (0.0%)	276 (8.4%)	436 (11.9%)	764 (10.0%)	483,592 (10.8%)	6,443 (11.4%)	6,974 (12.5%)
Wholesale Trade	9,550 (3.0%)	4,856 (3.4%)	2,002 (3.4%)	0 (0.0%)	17 (0.5%)	104 (2.8%)	205 (2.7%)	162,995 (3.6%)	1,189 (2.1%)	1,162 (2.1%)
Retail Trade	34,479 (10.9%)	16,650 (11.5%)	6,848 (11.7%)	0 (0.0%)	354 (10.8%)	273 (7.5%)	720 (9.5%)	478,076 (10.6%)	7,103 (12.5%)	7,459 (13.3%)
Transportation and Warehousing, and Utilities	16,459 (5.2%)	7,642 (5.3%)	3,215 (5.5%)	0 (0.0%)	67 (2.0%)	151 (4.1%)	346 (4.5%)	235,944 (5.3%)	2,812 (5.0%)	3,365 (6.0%)
Information	3,483 (1.1%)	2,104 (1.5%)	408 (0.7%)	0 (0.0%)	62 (1.9%)	16 (0.4%)	62 (0.8%)	195,741 (4.4%)	1,028 (1.8%)	1,439 (2.6%)
Finance and Insurance, and Real Estate and Leasing	13,335 (4.2%)	7,859 (5.4%)	2,189 (3.7%)	3 (2.3%)	112 (3.4%)	84 (2.3%)	264 (3.5%)	286,163 (6.4%)	2,959 (5.2%)	3,099 (5.5%)
Professional, Scientific, and Management, and Administrative and Waste Management Services	24,651 (7.8%)	11,726 (8.1%)	5,149 (8.8%)	4 (3.1%)	386 (11.7%)	185 (5.1%)	742 (9.7%)	551,858 (12.3%)	4,492 (7.9%)	4,452 (8.0%)
Educational Services, and Health Care and Social Assistance	62,026 (19.6%)	33,019 (22.8%)	11,709 (19.9%)	78 (60.5%)	692 (21.0%)	718 (19.7%)	1,321 (17.3%)	930,098 (20.7%)	14,341 (25.3%)	11,746 (21.0%)
Arts, Entertainment, and Recreation, and Accommodation and Food Services	26,371 (8.3%)	12,850 (8.9%)	5,303 (9.0%)	18 (14.0%)	240 (7.3%)	501 (13.7%)	778 (10.2%)	457,287 (10.2%)	4,045 (7.1%)	4,860 (8.7%)

Industry	Kern County	Bakersfield	Northeast Bakersfield	Keene CDP	Golden Hills CDP	Tehachapi	Rosamond CDP	Los Angeles County	Lancaster	Palmdale
Other Services, Except Public Administration	14,803 (4.7%)	7,172 (4.9%)	3,415 (5.8%)	14 (10.9%)	228 (6.9%)	197 (5.4%)	258 (3.4%)	278,039 (6.2%)	3,147 (5.6%)	3,475 (6.2%)
Public Administration	24,037 (7.6%)	9,859 (6.8%)	3,164 (5.4%)	12 (9.3%)	594 (18.0%)	607 (16.6%)	1,253 (16.5%)	152,389 (3.4%)	5,155 (9.1%)	3,147 (5.6%)
Total	**317,047**	**144,901**	**58,736**	**129**	**3,293**	**3,653**	**7,616**	**4,489,974**	**56,626**	**55,890**

Source: U.S. Census Bureau, 2009–2013 ACS, Table DP03
[1]Information about housing tenure is not available at the census block group level. Therefore, this information was not available for Edison.
ACS = American Community Survey
CDP = census designated place

As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the Northeast Bakersfield district's largest industry sector in terms of employment, comprising 19.9 percent of the total employed population, followed by Agriculture, Forestry, Fishing and Hunting, and Mining (13.9 percent). Educational Services, Health Care, and Social Assistance is also the largest industry sector in Kern County (19.6 percent), followed by Agriculture, Forestry, Fishing and Hunting, and Mining (15.9 percent).

Refer to Section 3.12.5.2 for a brief description of the number and types of businesses in the Northeast Bakersfield district that are in the population and community impacts RSAs.

Community of Edison

Similar to the Northeast Bakersfield district, Edison is not defined as a CDP by the U.S. Census Bureau. Therefore, no state-compiled labor force data are available for Edison. Census data for Edison is derived from the census block groups that best represent the community's geography (Kern County Census Tract 10, Block Groups 3 and 4). Because employment by industry sector data are not released at the census block group level, statistics specific to the community of Edison are not available. Refer to Section 3.12.5.2 for a brief description of the number and types of businesses in Edison that are in the population and community impacts RSAs. As described in Section 3.12.5.2, approximately 35 businesses in Edison are within the population and community impacts RSAs. Most of these are related to the agricultural industry. Based on Edison's close proximity to local agricultural operations, it is assumed that a large share of the community's residents work in the Agriculture, Forestry, Fishing and Hunting, and Mining sector. Employment data for the cities, counties, and other communities in the population and communities RSAs suggests that a large percentage of Edison's residents are employed in the Educational Services, and Health Care and Social Assistance sector.

Community of Keene

As shown in Table 3.12-11, the community of Keene's unemployment rate in April 2016 (15.4 percent) was higher than that of Kern County (10.6 percent) and the state (5.2 percent).

As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the community's largest industry sector in terms of employment, comprising 60.5 percent of the total employed population, followed by Arts, Entertainment, and Recreation, and Accommodation and Food Services (14 percent).

As described in Section 3.12.5.2, there is one business in Keene (a restaurant) within the population and community impacts RSAs.

Community of Golden Hills

As shown in Table 3.12-11, the community of Golden Hills' unemployment rate in April 2016 (9.2 percent) was higher than that of Kern County (10.6 percent) and the state (5.2 percent).

Table 3.12-12 shows that Educational Services, and Health Care and Social Assistance is the community's largest industry sector in terms of employment, comprising 21 percent of the total employed population, followed by Public Administration (18 percent). Golden Hills has a much higher percentage of workforce employed in the Public Administration sector than Kern County (7.6 percent) and a much lower percentage of its workforce employed in the Agriculture, Forestry, Fishing and Hunting, and Mining sector (1.6 percent) compared to Kern County (15.9 percent).

As described in Section 3.12.5.2, no businesses in Golden Hills are within the population and community impacts RSAs.

City of Tehachapi

As shown in Table 3.12-11, the City of Tehachapi's unemployment rate in April 2016 (8.1 percent) was lower than that of Kern County (10.6 percent) but higher than that of the state (5.2 percent).

The City of Tehachapi's occupational profile is comparable to that of the Golden Hills CDP. As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the city's largest industry sector in terms of employment, comprising 19.7 percent of the total

employed population, followed by Public Administration (16.6 percent). Much like Golden Hills, Tehachapi also boasts a much higher percentage of the workforce in the Public Administration sector compared to Kern County (7.6 percent) and a much lower percentage of the workforce in the Agriculture, Forestry, Fishing and Hunting, and Mining sector (1.5 percent) compared to Kern County (15.9 percent).

Refer to Section 3.12.5.3 for a brief description of the number and types of businesses in Tehachapi that are in the population and community impacts RSAs.

Community of Rosamond

As shown in Table 3.12-11, the community of Rosamond's unemployment rate in April 2016 (8.9 percent) was lower than that of Kern County (10.6 percent), but higher than that of the state (5.2 percent).

As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the community's largest industry sector in terms of employment, comprising 17.3 percent of the total employed population, followed by Public Administration (16.5 percent) and Construction (11.4 percent). The community of Rosamond has a higher percentage of employment in the Construction sector in comparison to Kern County (6.1 percent) and a much lower percentage of the workforce in the Agriculture, Forestry, Fishing and Hunting, and Mining sector (0.5 percent) than the county (15.9 percent).

Refer to Section 3.12.5.3 for a brief description of the number and types of businesses in Rosamond that are in the population and community impacts RSAs.

City of Lancaster

As shown in Table 3.12-11, the City of Lancaster's unemployment rate in April 2016 (5.2 percent) was slightly higher than that of Los Angeles County (4.7 percent) but similar to that of the state (5.2 percent).

As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the city's largest industry sector in terms of employment, comprising approximately 25.3 percent of the total employed population, followed by Retail Trade (12.5 percent). Educational Services, and Health Care and Social Assistance is also the largest industry sector in Los Angeles County (20.7 percent), followed by Manufacturing (10.8 percent).

Refer to Section 3.12.5.3 for a brief description of the number and types of businesses in Lancaster that are in the population and community impacts RSAs.

City of Palmdale

As shown in Table 3.12-11, the City of Palmdale's unemployment rate in April 2016 (6.3 percent was higher than that of Los Angeles County (4.7 percent) and the state (5.2 percent).

As shown in Table 3.12-12, Educational Services, and Health Care and Social Assistance is the city's largest industry sector in terms of employment, comprising 21 percent of the total employed population, followed by Retail Trade (13.3 percent). Retail Trade employment in Palmdale is higher than in Los Angeles County (10.6 percent).

Refer to Section 3.12.5.3 for a brief description of the number and types of businesses in Palmdale that are in the population and community impacts RSAs.

Municipal Revenues

Local governments were hit hard by declines in tax revenues associated in part with the Great Recession; however, property and sales tax revenues have rebounded in recent years due to the continuing economic recovery. Table 3.12-13 presents the total revenues collected by each of the cities and counties in the indirect impacts RSA for population and community impacts in Fiscal Year (FY) 2013–2014, including a breakout of the property and sales tax revenues collected by those cities and counties.

Table 3.12-13 Local Government Revenues in the Indirect Impacts Resource Study Area for Population and Community Impacts

Jurisdiction	Property Tax Revenue	Sales Tax Revenue	Total Revenue
Kern County			
Kern County[1]	$270,406,000	$52,240,000	$1,429,054,000
City of Bakersfield[2]	$66,439,853	$72,442,178	$179,731,797
City of Tehachapi[3]	$1,187,822	$1,986,771	$14,644,388
Los Angeles County			
Los Angeles County[4]	$5,235,798,000	$93,184,000	$20,947,787,000
City of Lancaster[5]	$14,371,000	$18,044,000	$142,702,000
City of Palmdale[6]	$15,478,125	$16,396,713	$55,923,802

[1] *Kern County, Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2014*
[2] *City of Bakersfield, Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2014*
[3] *City of Tehachapi, Annual Financial Report, Year Ended June 30, 2014*
[4] *Los Angeles County, Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2014*
[5] *City of Lancaster, Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2014*
[6] *City of Palmdale, Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2014*
All information is for Fiscal Year 2013–2014. Total Revenue includes revenue from all sources.

Agricultural Economics

The agricultural industry provides the southern San Joaquin Valley with a great deal of employment; however, the region continues to be one of the most economically depressed areas in the nation because many of these jobs are seasonal and low paying (Cowan 2005). Production of agricultural goods has continued to increase, and although the percentage of the labor force employed in agriculture and resource extraction has declined somewhat since 2000, this sector still employs the largest percentage of the labor force.

Crop types grown in the Edison area include both field crops and fruit and nut trees, and the farming, processing, and distribution of these products are the major industries in the community.

There are very few major agricultural industries within the population and community impacts RSAs to the south of the San Joaquin Valley subsection. The economy of the Antelope Valley is built around the aeronautical industry and does not have high levels of agricultural employment or revenues.

School District Funding

Funding for California's K–12 public schools comes primarily from the state budget (60 percent), with local property taxes (23 percent) and the federal government (10 percent) as the other significant contributors. Each school district has its own particular combination of federal, state, and local sources. The amount depends on the average number of students attending district schools during the year (typically referred to as the average daily attendance [ADA]), the general-purpose money the district receives for each student, and the support for specific programs for which it qualifies (typically referred to as categorical aid) (EdSource 2009). While it typically represents a smaller share of school district funding in comparison to other funding sources, property tax revenue plays an important role in the school district funding picture.

The RSAs for population and community impacts include portions of 14 school districts that provide school services from kindergarten through high school. Table 3.12-14 lists the school districts that are partially or entirely within the indirect impacts RSA for populations and communities, the types of those districts (e.g., elementary, high school, or unified), the cities and communities served by those school districts, the ADA during the 2013–2014 school year, and the total revenue received by each school district during FY 2013–2014, with a breakout of the revenues derived from property tax and ADA funding sources. Figure 3.12-A-4 in Appendix 3.12-A shows the boundaries of these school districts in relation to the RSAs for population and community impacts.

Table 3.12-14 School Districts in the Indirect Impacts Resource Study Area for Population and Community Impacts

School District	Type of School District	Cities and Communities Within School District	ADA	Property Tax Revenue[1]	ADA-Based Revenue[2]	Total Revenue[3]
School Districts in Kern County						
Bakersfield City School District	E	Bakersfield, Unincorporated Kern County	28,099	$16,662,996	$149,091,607	$258,371,309
Kern Union High School District	H	Bakersfield, Edison, Unincorporated Kern County	34,225	$86,722,681	$142,269,909	$347,587,570
Fairfax Elementary School District	E	Bakersfield, Unincorporated Kern County	2,284	$1,430,282	$11,349,390	$20,458,957
Lamont Elementary School District	E	Unincorporated Kern County	2,814	$939,621	$15,209,114	$27,127,924
Edison Elementary School District	E	Bakersfield, Edison, Unincorporated Kern County	1,066	$1,008,003	$5,248,963	$9,404,215
Di Giorgio School District	E	Bakersfield, Unincorporated Kern County	183	$261,831	$932,601	$1,837,081
Caliente Union School District	E	Keene, Unincorporated Kern County	49	$192,264	$369,240	$796,811
Tehachapi Unified School District	U	Keene, Golden Hills, and Tehachapi, Unincorporated Kern County	3,981	$7,082,058	$14,640,726	$33,319,585
Mojave Unified School District	U	Unincorporated Kern County	2,456	$13,229,388	$4,236,549	$24,167,926
Southern Kern Unified School District	U	Rosamond, Unincorporated Kern County	2,880	$6,749,367	$9,546,386	$24,728,826
School Districts in Los Angeles County						
Antelope Valley Union High School District	H	Lancaster and Palmdale, Unincorporated Los Angeles County	20,305	$14,688,796	$113,152,563	$196,005,490
Westside Union School District	E	Lancaster and Palmdale, Unincorporated Los Angeles County	8,616	$4,928,272	$35,640,472	$62,480,183

School District	Type of School District	Cities and Communities Within School District	ADA	Property Tax Revenue[1]	ADA-Based Revenue[2]	Total Revenue[3]
Lancaster School District	E	Lancaster, Unincorporated Los Angeles County	13,433	$5,376,523	$65,316,971	$111,410,125
Palmdale School District	E	Palmdale, Unincorporated Los Angeles County	18,500	$5,674,996	$94,145,192	$167,908,337

Source: California Department of Education, www.ed-data.org/ (accessed January 11, 2016)
All information is for Fiscal Year 2013–2014.
[1] Includes revenues derived from local property taxes.
[2] Includes revenues allocated to local school districts from the state based on ADA, per Education Code Section 42238.
[3] Total revenues include revenues derived from Local Control Funding Formula sources, federal, other state, and other local revenues.
ADA = average daily attendance H = high school district
E = elementary school district U = unified school district

3.12.5.5 Public Services and Facilities

Region

Of primary concern for the socioeconomics and communities analysis are the locations of public buildings; public safety, fire, and police stations; medical services; schools; places of worship; and parks. In addition to the amenities that give the various communities in the region their unique sense of place, some amenities may be viewed as more regional in nature. For example, the California State University campus and other university campuses in Bakersfield draw students throughout the two-county region and beyond. Both the southern San Joaquin Valley and the Antelope Valley have abundant recreational resources, including Isabella Lake, Tomo-Kahni State Historic Park, Los Padres National Forest, Angeles National Forest, and the Tehachapi Pass, as well as numerous other state-run historical parks, recreation areas, and game preserves. These resources are enjoyed by residents and visitors alike.

Bakersfield is the largest city in Kern County and offers a wide array of amenities compared with the smaller communities in the region. The city has a convention center, a symphony orchestra, a planetarium, an art museum, a natural history museum, the California Living Museum (Bakersfield Zoo), and the Kern County Museum, a historical museum with many Native American and frontier life artifacts. The city also has its own professional baseball, football, basketball, and hockey teams, as well as three public golf courses and numerous private country clubs. Bakersfield is home to the 40-acre Kern County Soccer Park with 24 playing fields, and maintains 53 local parks offering a variety of recreational resources, as well as miles of biking and hiking trails, including a portion of the Kern River Parkway. Other local points of interest include Old Town Bakersfield, which has a concentration of Basque restaurants, the Buck Owens Crystal Palace, the Majestic Fox Theater, and other theater and music venues.

Palmdale and Lancaster are the two largest cities in the Antelope Valley. Both cities are within a 1-hour drive to Los Angeles via SR 14. Each city has a Metrolink commuter rail station that is served by Metrolink's Antelope Valley line, which provides service to Union Station in downtown Los Angeles 7 days per week. The cities have several museums, sports complexes, performing arts centers, and a water park.

Resource Study Area Cities and Communities

Figure 3.12-A-1 identifies the locations of the community facilities within the direct and indirect impacts RSAs for population and community impacts. Table 3.12-A-1 in Appendix 3.12-A provides a list of the community facilities within the RSAs for population and community impacts (the numbers for each facility correspond with the labeling convention used on Figure 3.12-A-1).

City of Bakersfield
As the largest city in Kern County, Bakersfield offers a wide array of amenities, public services, and other facilities. Bakersfield includes five police stations and 14 fire stations spread throughout the city. Several Kern County Fire Department stations provide protection to urbanized unincorporated areas surrounding the city.

As shown on Figure 3.12-A-1 and in Table 3.12-A-1, 1 community facility, 4 hospitals/medical facilities, 3 libraries, 1 museum, 3 parks, 28 places of worship, 5 law enforcement facilities, 2 public facilities, and 11 schools in the City of Bakersfield are within the population and community impacts RSAs.

Northeast Bakersfield
Several community facilities are in the unincorporated portion of the Northeast Bakersfield district. As shown on Figure 3.12-A-1 and in Table 3.12-A-1, 2 hospitals/medical facilities, 2 parks, 9 schools, and 16 places of worship in the unincorporated portion of the Northeast Bakersfield district are within the population and community impacts RSAs.

Community of Edison
Due to its small size and close proximity to Bakersfield, many of the services used by Edison residents are in Bakersfield. As shown on Figure 3.12-A-1 and in Table 3.12-A-1, one school, one fire station, one place of worship, and one post office in Edison are within the population and community impacts RSAs.

Community of Keene
The small community of Keene has few services. Therefore, its residents must travel to Bakersfield or Tehachapi to access most public services and community amenities. As shown on Figure 3.12-A-1 and in Table 3.12-A-1, one school, one fire station, and La Paz are within the population and community impacts RSAs.

Community of Golden Hills
Golden Hills is an unincorporated community adjacent to Tehachapi. Few services are available within the community. As shown on Figure 3.12-A-1, there are no community facilities in Golden Hills within the population and community impacts RSAs, as the project alternatives pass to the north and east of the community.

City of Tehachapi
Tehachapi is the largest urban area between the San Joaquin Valley and Urban Antelope Valley subsections. Most services provided to people who live within 10 miles of the city are only provided in Tehachapi. Therefore, the services provided in the City of Tehachapi are critical to residents in the city and the surrounding communities.

The Tehachapi Unified School District serves the city as well as several of the surrounding communities, including Keene. Public safety and medical care are also centered in Tehachapi, with stations for both the Tehachapi Police Department and the Kern County Sheriff's Department located in the city. A new hospital constructed in the northern portion of Tehachapi opened in November 2018.

As shown on Figure 3.12-A-1 and in Table 3.12-A-1, one hospital, one airport, one place of worship, and one privately owned and operated park in the City of Tehachapi are within the population and community impacts RSAs.

Community of Rosamond
Rosamond is a small unincorporated community on the southern boundary of Kern County. It consists mostly of residential uses with a small downtown area. Rosamond serves primarily as a bedroom community for the larger cities of Lancaster and Palmdale to the south. The community has several services, including a sheriff's substation, a fire station, auto shops and restaurants, and several retirement communities.

As shown on Figure 3.12-A-1 and in Table 3.12-A-1, one community facility (Willow Springs International Raceway) in Rosamond is within the population and community impacts RSAs. Section 3.12.5.2 also describes Willow Springs International Raceway as a business. Willow

Springs International Raceway is a business and a community facility in that it is a local employer and gives the community a unique sense of place.

City of Lancaster
Lancaster and Palmdale share some common regional services due to their proximity and similar suburban development patterns. Police services in Lancaster are provided by the Los Angeles Sheriff's Department and are run out of a single facility. Similarly, the Los Angeles County Fire Department provides fire services through seven stations in the city.

As shown on Figure 3.12-A-1 and in Table 3.12-A-1, 3 parks, 15 places of worship, 9 schools, 5 public facilities, 5 post office, 2 fire stations, 1 sheriff's station, and 2 museums in the City of Lancaster are within the population and community impacts RSAs.

City of Palmdale
Palmdale is one of the two largest cities in the Antelope Valley, with many of the amenities that serve the entire valley, including Antelope Valley Mall and Palmdale Regional Medical Center. Other community amenities include the Palmdale Amphitheater, an outdoor entertainment facility in Marie Kerr Park, a cultural center with conference and banquet facilities, the Palmdale Playhouse, and a variety of sports and recreational venues, including a water park.

As shown on Figure 3.12-A-1 and in Table 3.12-A-1, one fire station, one hospital/medical facility, one library, two parks, three places of worship, one law enforcement facility, two public facilities, and one school in the City of Palmdale are within the population and community impacts RSA.

3.12.5.6 Circulation and Access

Circulation and access in a community are important to the community's character and social connectivity. Both nonmotorized and motorized travel modes are the focus of this discussion.

Bicycle Facilities

Table 3.12-A-2 in Appendix 3.12-A provides a list of the nonmotorized (pedestrian and bicycle) facilities in the cities and communities in the population and community impacts RSAs, including existing and proposed bikeways. Figure 3.12-A-5 in Appendix 3.12-A illustrates the locations of the existing and planned Class I, II, and III bicycle lanes in the population and community impacts RSAs. Critical pedestrian or bicycle paths are those where disruption could lead to a loss of community access, cohesion, or character. No critical pedestrian or bicycle paths were identified in the rural areas within the population and community impacts RSAs. As shown on Figure 3.12-A-5 and in Table 3.12-A-2, most nonmotorized facilities within the population and community impacts RSAs are in the largest cities in the region: Bakersfield, Lancaster, and Palmdale.

Planning documents for the cities and counties in the population and community impacts RSAs recognize the importance of the availability and accessibility of alternative modes of transportation, and plan for additional pedestrian- and bicycle-friendly features.

Freight Rail

Two major railroads provide freight service in the population and community impacts RSA: the BNSF Railway and the UPRR. The BNSF Railway operates a railyard in downtown Bakersfield between Truxtun and California Avenues. The UPRR operates a railyard in East Bakersfield between Kentucky and Sumner Streets (City of Bakersfield 2010c). Both railroads operate along the same rail line between Bakersfield and Mojave, which is adjacent to Edison Highway in East Bakersfield and Edison and roughly parallels SR 58 through the Tehachapi Mountains. Of these two railroads, only the UPRR operates between Mojave and Palmdale on a rail line that runs along Sierra Highway.

Transit Services

Region

Kern Transit
Kern Transit is a regional transit provider that operates passenger bus service throughout the rural communities of Kern County, including the population and community impacts RSAs.

It serves the cities and communities of Bakersfield, Keene, and Rosamond, as well as several other cities and unincorporated communities throughout Kern County. Kern Transit administers 17 fixed routes as well as a Dial-A-Ride service. Kern Transit Bus Line 100 services nearly the entirety of the population and community impacts RSAs, providing end-to-end service from the Bakersfield Amtrak station in the north to the Metrolink Sierra Highway Station in Lancaster in the south. It includes stops in Bakersfield, Keene, Tehachapi, Rosamond, and Lancaster.

Los Angeles County Metropolitan Transportation Authority
The Los Angeles County Metropolitan Transportation Authority (Metro) is the regional transit service provider for Los Angeles County, providing bus and light-rail service to an area of 1,433 square miles. Metro also serves as regional transportation planner and coordinator, designer, builder, and operator for the county. Metro does not currently provide bus service within Palmdale or Lancaster.

Los Angeles County Access Services
Access Services is the Los Angeles County consolidated transportation services agency that administers the Los Angeles County Coordinated Paratransit Plan under the name "Access Paratransit." Access Paratransit is a shared, low-cost (subsidized) ride service providing curb-to-curb complementary Americans with Disabilities Act paratransit services to certain people with disabilities as required by 42 U.S. Code 12143.

Amtrak
Amtrak, otherwise known as the National Railroad Passenger Corporation, is a passenger rail service providing medium- and long-distance intercity service in the continental U.S. Bakersfield's Amtrak station is at 601 Truxtun Avenue and serves as the southern end point for the Amtrak San Joaquin Line, connecting Sacramento and Oakland to Bakersfield, with bus service to points beyond.

Metrolink
Metrolink is a regional commuter rail agency created in 1992 that is governed by five Southern California county agencies, with a goal of reducing highway congestion and improving mobility throughout Southern California. Metrolink currently operates trains on seven routes in Southern California, reaching from Ventura to Oceanside and as far east as San Bernardino. Metrolink's Antelope Valley line has a terminus station in Lancaster, from which it travels generally south to Los Angeles Union Station, with a stop in Palmdale.

Greyhound
Founded in 1914, Greyhound Lines, Inc. is the largest provider of intercity bus transportation, serving more than 3,800 destinations across North America. It serves nearly 18 million passengers each year in the U.S. and Canada. Greyhound stations are present in the population and community impacts RSAs in Bakersfield (1820 18th Street) and Palmdale (Palmdale Transit Center, 39000 Clock Tower Plaza Drive E).

City of Bakersfield

The Golden Empire Transit District (GETbus) provides public transit services to the Bakersfield metropolitan area. GETbus was formed in 1973 and serves an area of 160 square miles and a population of more than 470,000. GETbus has a fleet of 88 buses and operates 7 days per week, serving 1,000 bus stops across 16 fixed bus routes. Its annual boardings number more than 7 million.

The Consolidated Transportation Services Agency provides a low-cost, door-to-door rideshare transportation service for seniors 60 years of age and older and qualifying individuals with a permanent disability. Transportation services are available Monday through Friday for essential trips.

Cities of Lancaster and Palmdale

The Antelope Valley Transit Authority provides bus service to a population of more than 450,000 residents in the cities of Lancaster and Palmdale, as well as the unincorporated portions of northern Los Angeles County. Its total service area covers 1,200 square miles and is bounded by

the Kern County line to the north, the San Bernardino County line to the east, the Angeles National Forest to the south, and Interstate 5 to the west. The fixed-route service area consists of approximately 100 square miles. The Antelope Valley Transit Authority operates a network of 12 local transit routes, 4 commuter routes, and 2 supplemental school routes during the week.

Highways and Arterials

City of Bakersfield

The Bakersfield metropolitan area is served by several highways and arterials generally laid out in an east-west, north-south grid pattern. These highways include SR 99, SR 65, SR 58, SR 178, SR 204, and SR 184. Larger, more heavily traveled arterials include California Avenue, Ming Avenue, Union Avenue, and Olive Drive.

Generally, the roadway/freeway system in the metropolitan Bakersfield area works smoothly, but as population growth and development continues, congestion could become more frequent and problematic.

Northeast Bakersfield

The Northeast Bakersfield district is served by several highways and arterials generally laid out in an east-west, north-south grid pattern. These highways include SR 58, SR 178, SR 204, and SR 184. Major arterials that run in an east-west direction include: Edison Highway, 7th Standard Road, China Grade Loop, Norris Road, Panorama Drive, Columbus Street, Niles Street, Truxtun Avenue, and California Avenue. Major arterials that run in a north-south direction include: Airport Drive, Chester Avenue, River Boulevard, Mount Vernon Avenue, Oswell Street, Fairfax Road, and Morning Drive/Weedpatch Highway.

Community of Edison

Surface transportation facilities that serve the community of Edison include SR 58, Edison Highway, Edison Road, and Malaga Road.

Community of Keene

The community of Keene is served mainly by SR 58. The main access point to and from SR 58 is Woodford-Tehachapi Road/Avenue E, which extends generally around the community to the north, and continues south and east of the community to connect with the Keene Post Office facility south of SR 58.

Community of Golden Hills

Woodford-Tehachapi Road continues in a southeasterly direction to serve the community of Golden Hills, where it is a main thoroughfare. It connects with SR 202/W Valley Boulevard southwest of SR 58. SR 58 traverses the north and east edges of Golden Hills.

City of Tehachapi

The City of Tehachapi, directly adjacent to Golden Hills, is served by SR 58 to the north, Tehachapi Boulevard (signed as SR 58 Business), SR 202 (signed as Tucker Road north of Valley Boulevard and Valley Boulevard west of Tucker Road), S Curry Street, Dennison Road, and Highline Road to the south.

Community of Rosamond

Rosamond is served by SR 14 and Sierra Highway to the east, W Avenue A to the south, and Rosamond Boulevard, which is centrally located within the community and acts as a main arterial.

City of Lancaster

The City of Lancaster is a larger city in terms of area and population and, therefore, is served by several arterials and thoroughfares. Lancaster is bisected by SR 14 and SR 138, and is also served by Avenues I (west of SR 14) and K (east of SR 14).

City of Palmdale

Similar to its sister city of Lancaster, Palmdale is also a larger city and is served by several arterials and thoroughfares. Palmdale is bisected by SR 14 and SR 138, and is additionally served by Pearblossom Highway to the south, as well as the more centrally located Palmdale Boulevard.

3.12.5.7 Areas of Concern

The following is a summary of the areas of concern that were discussed during the Bakersfield to Palmdale Project Section outreach. The summary is organized by community and includes discussions regarding community meetings, stakeholder workshops, and open houses.

Community of Edison

Comments and issues raised by Edison stakeholders and residents include the following:

- Mobility, economic development, and access to good jobs and educational opportunities ranked high at previous stakeholder working group (SWG) meetings.
- Improving air quality and providing more jobs and contracting opportunities to residents and businesses in areas with low-income and/or minority populations were also deemed critical to SWG participants.
- Agricultural interests in the area want to maintain access to and from their farms/businesses and local roadways during and after construction of the project. They also want to ensure the Authority is knowledgeable about their different harvest and delivery periods throughout the year.
- Minimizing effects to local wind and solar farms was deemed crucial to the region's economy.

Issues raised by open house attendees include:

- Concerns about the right-of-way process (including compensation), effects to wildlife and local streams, and privacy
- Concerns regarding potential effects to local properties

Community of Keene

Comments and issues raised by Keene stakeholders include the following:

- Concerns about effects on La Paz related to blocking views and effects from noise

City of Tehachapi

Comments and issues raised by Tehachapi stakeholders and residents include the following:

- Improving pedestrian and bicycle access is critical to the city's future development plans.
- Promoting economic development, increasing opportunities for jobs and quality education, and creating and improving public open spaces and parks were deemed critical by SWG participants.
- Concerns were raised by SWG participants about potential noise and visual effects, and the project's location in relation to the Garlock fault and other potential fault lines.

Issues raised by open house attendees include:

- Complaints about the alternatives selection process
- Concerns about effects on Willow Springs and dividing the community; blocking views; effects from noise, vibration, and dust; and security/derailment
- Multiple suggestions that the route should go through the Grapevine and/or follow SR 99 to the Interstate 5 corridor to SR 138 to Palmdale

- Concerns about effects from tunneling through the mountains on area water wells, the California condor and its habitat, recreation and walkability, increased potential of wildfires, and effects to local properties

Community of Rosamond

Comments and issues raised by Rosamond stakeholders and residents include the following:

- Improving pedestrian and bicycle access was deemed very important by SWG participants, and a suggestion was made to create bicycle and pedestrian lanes, as well as pave over some of the area's dirt roads.
- Drainage and flooding issues are prevalent across the area, especially at Caliente Creek.
- Several SWG participants raised concerns regarding potential effects to groundwater and wells, maintaining access to these wells, and ownership of water rights in the area once the HSR project is completed.
- Dust control management and Valley Fever are key issues that need to be addressed in relation to construction of the project.
- SWG participants also mentioned that arsenic levels are high in the Rosamond area, and that the area currently has no stormwater plan in place.
- Promoting economic development, requiring local hiring for this project, and improving the local economy by siting the Authority's heavy maintenance facility in Kern County were mentioned by several SWG participants.
- Concerns were raised by SWG participants that the project not block local streets and that traffic circulation be maintained in the area.

Issues raised by open house attendees include:

- Concerns about the right-of-way acquisition process and compensation, effects to wildlife and livestock transitions, equestrian access, loss of views, flood zones, use of water, effects to quality of life, noise pollution, aesthetics, seismic safety, Joshua trees, and effects to local businesses
- Concerns regarding sound walls, an overpass at 60th Street and Rosamond Boulevard, the closing of two water wells, electricity being taken from the Rosamond grid, Valley Fever from dust, and the project's proximity to a local school and the Exotic Feline Breeding Compound
- Concerns regarding the alternatives selection process; a possible decrease in property values; loss of key access roads and train crossings; noise, wind, and visual effects; crosswinds and gusts; and off-road users' access to mountain areas
- Concerns regarding the potential effects of train noise on animals located at the Exotic Feline Breeding Compound

City of Lancaster

Comments and issues raised by Lancaster stakeholders and residents include the following:

- Improving connectivity and accessibility, improving pedestrian and bicycle access, and enhancing mobility choices were deemed important by a large number of SWG participants.
- Economic development, job creation, and quality education were also highly ranked by SWG participants.
- For SWG participants representing local school districts in the area, rail safety was their top priority, including the use of fencing around HSR tracks.
- Traffic fatalities are an ongoing issue for the City of Lancaster, with representatives stating that accessibility and mobility are of key importance.

- Emergency vehicle access to rural areas needs to be maintained during and after construction.
- Noise, light, air quality, and dust issues are very important to rural communities in the area.

Issues raised by open house attendees include the following:

- Concerns about effects to the Bottomless Lake (Una Lake), creating a dead end on Sierra Highway, historical buildings in the area, seismic safety, aesthetics, train speed, noise and vibration, and effects to downtown Lancaster.
- Several attendees preferred the 2012 *Supplemental Alternatives Analysis Report* (Authority 2012b) alignment through Rosamond, as well as having the alignment go through solar/wind farms to protect residential properties.
- Making improvements to SR 138.
- Concerns about potential effects of train noise on senior centers and senior housing, protection of wild horses near Oak Creek, wildlife migrations, local access roads for residents, equestrian access, and the location of substations, radio towers, and new power lines.
- Concerns regarding potential motel property acquisitions along Sierra Highway.

City of Palmdale

Comments and issues raised by Palmdale stakeholders and residents include the following:

- Concerns about relocating impacted auto uses/service businesses.
- Suggestion that the Authority should consider assistance in developing affordable housing for displaced residents.
- Concerns about the displacement of Gabriel's House near the Palmdale Station.
- Suggestions for a day care center in the Palmdale Station.
- Interest in the Authority's apprenticeship program/work force training center in Selma.

Issues raised by open house attendees include:

- Concerns about station connectivity, right-of-way, business and job opportunities, operational noise and vibration effects, flooding, and height restrictions on Sierra Highway.
- Concerns about effects on Willow Springs and dividing the community; blocking views; effects from noise, vibration, and dust; and security/derailment

3.12.6 Environmental Consequences

3.12.6.1 Overview

This section evaluates how the No Project Alternative and the B-P Build Alternatives (including the CCNM Design Option and Refined CCNM Design Option) would affect socioeconomics and communities. The impacts of the B-P Build Alternatives are described and organized in Section 3.12.6.3, Bakersfield to Palmdale Project Section Build Alternatives, as follows:

Construction Impacts

- Impact SO #1: Temporary Disruption to Community Cohesion or Division of Existing Communities from Project Construction
- Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction
- Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities

- Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction
- Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction
- Impact SO #6: Permanent Effects on Agricultural Businesses from Construction
- Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction
- Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction
- Impact SO #9: Temporary Disruption to Community Facilities from Construction
- Impact SO #10: Permanent Changes in School District Funding from Construction
- Impact SO #11: Temporary Agricultural Access Impacts and Road Closures during Construction
- Impact SO #12: Permanent Economic Effects on Agriculture from Construction
- Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction
- Impact SO #14: Potential for Permanent Physical Deterioration from Construction
- Impact SO #15: Temporary Sales Tax Revenue Gains from Construction
- Impact SO #16: Temporary Effects on Children's Health and Safety from Construction

Operational Impacts

- Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation
- Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities
- Impact SO #19: Permanent Disruption to Community Facilities from Operation
- Impact SO #20: Permanent Changes in School District Funding from Operation
- Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation
- Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation
- Impact SO #23: Potential for Permanent Physical Deterioration from Operation
- Impact SO #24: Permanent Sales Tax Revenue Gains from Operations
- Impact SO #25: Permanent Effects on Children's Health and Safety from Operations

Section 3.12.7, Mitigation Measures, provides a list of mitigation measures intended to address the socioeconomic and community effects.

3.12.6.2 No Project Alternative

Disruption or Division of Existing Communities

The HSR project is expected to require the acquisition of land, which could result in the disruption or division of existing communities. Under the No Project Alternative, the HSR project would not be constructed; this would eliminate the project's potential to disrupt or divide adjacent communities. However, the No Project Alternative could result in other transportation improvement projects (such as road widening or construction of new roadways) that may be implemented in the future to meet growing regional transportation needs. These projects could result in disruption to existing communities, but the effects associated with such projects are

unknown at this time and would be addressed through separate environmental analyses conducted in the future.

Job Creation

The HSR project is expected to result in job creation as a result of construction and operation. Under the No Project Alternative, the HSR project would not be constructed. However, recent development trends are expected to continue, leading to some temporary construction-related or permanent operation-related job creation from future transportation improvements and development projects under the No Project Alternative.

Residential Displacements

The HSR project is expected to require acquisition of land and relocation of residents during the construction phase. Under the No Project Alternative, the HSR project would not be constructed; therefore, residential displacement caused by the HSR project would not occur. The No Project Alternative could still result in residential displacements associated with future transportation improvements.

Commercial and Industrial Business Relocations

The HSR project is expected to require acquisition of land and relocation of businesses during the construction phase. Under the No Project Alternative, the HSR project would not be constructed; therefore, commercial and industrial business relocation caused by the HSR project would not occur. The No Project Alternative could result in effects on commercial and industrial business relocations associated with future transportation projects.

Agricultural Displacements

The HSR project is expected to require acquisition of land and relocation of agricultural operations. Under the No Project Alternative, the HSR system would not be constructed; therefore, agricultural displacement caused by the HSR project would not occur. The No Project Alternative could still result in effects on agricultural displacements associated with future transportation improvements.

Sensitive Population Relocations

The HSR project is expected to require acquisition of land and relocation of sensitive populations during the construction phase. Under the No Project Alternative, the HSR project would not be constructed; therefore, sensitive population displacement caused by the project would not occur. The No Project Alternative could still result in effects on sensitive population displacements associated with future transportation improvements.

Community Facilities

The HSR project is expected to result in an impact on community facilities. Under the No Project Alternative, the HSR project would not be constructed; therefore, community facilities would not be impacted by the HSR project. The No Project Alternative would still result in effects on community facilities associated with future transportation improvements.

Changes in School District Funding

The HSR project is expected to require acquisition of land and relocation of residents during the construction phase, resulting in changes to property taxes and to school district funding. Under the No Project Alternative, the HSR project would not be constructed and therefore would not cause changes in school district funding. The No Project Alternative could still result in effects on school district funding associated with future transportation improvements.

Agricultural Access Effects and Road Closures

The HSR project is expected to restrict agricultural operations due to road closures. Under the No Project Alternative, the HSR project would not be constructed and therefore would have no effect on agricultural access and no effect relating to road closures. The No Project Alternative could

still result in effects on agricultural access and road closures associated with future transportation improvements.

County and City Property Tax Losses

The HSR project is expected to require acquisition of land during the construction phase, resulting in reduced property tax revenue as properties are removed from the property tax rolls. Under the No Project Alternative, the HSR system would not be constructed and therefore would have no effect relating to county and city property tax losses. The No Project Alternative could still result in city and county property tax losses associated with future transportation improvements.

Estimated Changes in Property Tax Revenue

The HSR project is expected to require acquisition of land for construction, resulting in reduced property tax revenue. Under the No Project Alternative, the HSR project would not be constructed and therefore would not cause a reduction in property tax revenue. The No Project Alternative could still result in effects relating to property tax revenue associated with future transportation improvements.

Permanent Effects on Property Values

The HSR project is expected to result in permanent benefits on property values for properties with adequate accessibility to HSR stations. Conversely, the HSR project is expected to result in permanent impacts to property values for properties with limited accessibility to HSR stations. These properties would be exposed to nuisance impacts associated with the HSR project (e.g., noise, vibration, visibility) without the benefit of accessibility. Under the No Project Alternative, the HSR project would not be constructed and the permanent effect on property values would be varied. The No Project Alternative would have potential benefits relating to property values for properties that would have had adequate HSR station accessibility, and would have a potential impact to property values for those properties that would have had limited HSR station accessibility.

County and City Sales Tax Effects

During the construction phase, the HSR project is expected to require relocation of sales tax-generating businesses within cities and unincorporated areas, resulting in reduced city and county sales tax revenue. Under the No Project Alternative, the HSR project would not be constructed and therefore would have no effect on city and county sales tax revenue. The No Project Alternative could still result in city and county property sales tax effects associated with future transportation improvements.

Construction- and Operation-Related Sales Tax Gains

The HSR project is expected to result in sales tax gains due to construction and operation of the HSR project. Under the No Project Alternative, the HSR system would not be constructed and therefore would not result in construction- and operation-related sales tax gains. The No Project Alternative would have no effect relating to construction- and operation-related sales taxes. The No Project Alternative could still result in construction and operation-related sales tax gains associated with future transportation improvements.

Children's Health and Safety

The No Project Alternative does not include construction of the HSR project, but it does include planned projects that will likely be implemented by 2040. Under the No Project Alternative, schools, parks, and community facilities either would not be affected or any resulting effects would not be an impact under NEPA, and any impacts would be mitigated to a less than significant level under CEQA. The No Project Alternative would likely not result in any significant impacts or effects on children's health and safety because of the regulations that would be required before construction of any foreseeable future projects.

3.12.6.3 Fresno to Bakersfield Locally Generated Alternative from the Intersection of 34th Street and L Street to Oswell Street

Since the approved 2014 Record of Decision, the Authority and the City of Bakersfield have agreed to consider an alternate station location at F Street and SR 204. This alternative was evaluated through a Supplemental EIR/EIS for the Fresno to Bakersfield Project Section. The *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* for the F-B LGA was released on November 9, 2017, for public review and comment. The official comment period began Thursday, November 9, 2017, and ended Tuesday, January 16, 2018. On May 10, 2016, the HSR Board of Directors adopted Resolution HSRA #16-13, which directed the identification of the F-B LGA as the preferred alternative in the Draft Supplemental EIR/EIS to be circulated for public review. The Board certified the Final Supplemental EIR on October 16, 2018, and approved the LGA from Poplar to the intersection of 34th Street and L Street.

The Fresno to Bakersfield Project Section environmental documents provide analysis of the alignment from the intersection of 34th Street and L Street to Oswell Street. That analysis is incorporated into this EIR/EIS by reference and is summarized below. The Fresno to Bakersfield Section Final EIR/EIS, Supplemental EIR/EIS, and technical reports supporting the environmental effect evaluation are available for review upon request to the Authority.

Construction

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

The construction of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would result in temporary impacts to communities. In general, construction would take place primarily outside (but in some areas adjacent to) established residential neighborhoods, in areas associated with agricultural, commercial, or industrial uses. Where this alternative is adjacent to existing transportation corridors, including SR 204 and existing at-grade rail corridors, construction would not bisect or isolate established communities or change the existing community character.

Construction for this portion of the F-B LGA would take place from the beginning of the first phase of construction through operational testing of the HSR system. It is expected that heavy construction activities (e.g., grading, excavation, construction of the HSR railbed, laying the trackway) would be accomplished within a 5-year period, especially due to the infrastructure requirements within the City of Bakersfield.

Construction impacts related to local roadway modifications and construction may temporarily disrupt community circulation patterns. Access to some neighborhoods would be disrupted and detoured for short periods during construction. Any roadways that would require realignment would be realigned before closure of the existing roadway. Construction would also require an increase in truck trips that could intensify congestion and adversely affect pedestrians, bicyclists, and transit due to detours, delays, or increased safety risks.

Construction would require a number of employees but is not expected to have any negative effects related to temporary population increases or the need for increased housing and services. Unemployment in the region remains relatively high, so project-related construction jobs are expected to be filled by current residents in the region who have the necessary skills (U.S. Census Bureau 2013). Levels of employment in the region have historically lagged behind those in other parts of the state, and this trend is anticipated to continue. Project-related construction jobs would benefit the economies of the communities within the region. Because most of the jobs would be filled by area residents, no additional housing or services would be required.

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 due to construction-related road closures, detours, and increased traffic congestion in some locations. Access to some community facilities could be modified temporarily during construction, with the potential to inconvenience patrons. However, access would not be eliminated (except in cases

where facilities would be relocated). Noise, dust, and glare could result in impacts related to the use of community facilities, including schools and parks. Although construction of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would result in temporary impacts to individuals and property owners, these impacts would be temporary and would not impact community cohesion.

CEQA Conclusion
Impacts from disruption or division of communities and neighborhoods would be minimal, because this portion of the F-B LGA is zoned for commercial, industrial, and residential, and has been historically divided by an existing at-grade railroad corridor. Therefore, construction of the F-B LGA would result in less than significant impacts under CEQA. Therefore, CEQA does not require any mitigation.

Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction

The *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority and FRA 2017), Final Supplemental EIR (Authority 2018d), and Final Supplemental EIS (Authority 2019) discussed displacements under the operation subsection, but displacements are discussed under construction impacts for consistency with this document. The construction of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would result in the permanent relocation of 36 residential units and 192 business displacements within the City of Bakersfield. These minimal relocations would result in minimal impacts to community cohesion from the construction phase.

CEQA Conclusion
These minimal relocations would result in minimal impacts to community cohesion from the construction phase. Therefore, construction of the F-B LGA would result in less than significant impacts under CEQA.

Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities

Similar to the B-P Build Alternatives, construction of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would generate direct, indirect, and induced jobs in the region; however, the Supplemental EIR/EIS only provides a job creation estimate for the entire F-B LGA. It does not provide a specific estimate for the number of jobs that would be created by this portion of the F-B LGA. The construction spending associated with the F-B LGA would directly create approximately 5,786 1-year, full-time-equivalent jobs over the full construction period, and would indirectly create approximately 5,242 1-year, full-time-equivalent jobs in the region, resulting in a total of approximately 11,028 1-year full-time job equivalents. During the peak construction years, 3,033 jobs would be created in the region, 1,591 of which would be direct. Given the high level of unemployment in the region and the large number of construction workers available for employment, the majority of these new construction jobs would be filled by residents of the region who possess the necessary construction skills. As a result, construction of additional community facilities would not be required to support this workforce.

CEQA Conclusion
Construction of additional community facilities would not be required to support the increase in the workforce in the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street. Therefore, construction of the F-B LGA would result in less than significant impacts under CEQA.

Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction

The displacement and relocation of local residents resulting from construction of the portion of the F-B LGA from the intersection of 34th Street and L Street and Oswell Street is not specifically discussed in the Supplemental EIR/EIS. The construction of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would result in the displacement of 36

residential units in the City of Bakersfield. Also, 99 single-family homes are available for sale and 92 rental units are available for occupancy, whereas 29 units would be displaced, representing a surplus of 70 and 63, respectively, within the City of Bakersfield. Therefore, the project would not displace substantial numbers of existing housing or people and would not require the construction of replacement housing elsewhere.

CEQA Conclusion
Permanent displacement and relocation of local residents from construction resulting from construction and operation of the F-B LGA would have significant impacts to socioeconomics and community facilities. Mitigation Measures SO-MM#1 and SO-MM#3 in the *Fresno to Bakersfield Section Supplemental EIR/EIS* would be implemented to ensure appropriate mitigation for displaced residences and impacts to community facilities. After implementation of these mitigation measures, the impacts would be less than significant under CEQA.

Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction

The displacement and relocation of local businesses associated with the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street is not specifically discussed in the Supplemental EIR/EIS. Within the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street, 192 business displacements are anticipated. Additionally, there are 277 vacant units in the City of Bakersfield that could accommodate displaced businesses, representing a surplus of available space. Because the displacements associated with the portion of the F-B LGA alignment that extends eastward to Oswell Street would occur entirely within the Bakersfield metropolitan area, there are numerous opportunities for businesses to relocate and for employees to find new jobs at other businesses in the area, and impacts would be limited.

CEQA Conclusion
Business displacements resulting from construction of the F-B LGA would have significant impacts to socioeconomics and community facilities. Mitigation Measure SO-MM#3 in Table 3.12-30 of the Fresno to Bakersfield Section Supplemental EIR/EIS would be implemented to ensure appropriate mitigation for displaced businesses and impacts to community facilities. After implementation of these mitigation measures, impacts would be less than significant under CEQA.

Impact SO #6: Permanent Effects on Agricultural Businesses from Construction

The portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would be in an urbanized area of the City of Bakersfield and therefore would not affect agricultural operations.

CEQA Conclusion
Permanent effects on agricultural businesses for the F-B LGA would be less than significant under CEQA.

Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction

No discussion appears in the *Fresno to Bakersfield Section Supplemental EIR/EIS* of community facilities requiring relocation specifically associated with the construction of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street. The construction of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell would result in the displacement of seven community facilities within the City of Bakersfield. These facilities are Golden Empire Gleaners, Iglesia de Dios Pentecostes La Hermosa, Mercado Latino, Bakersfield Homeless Center, Kern County Veteran Affairs, Kern County Parks and Recreation, and a city-owned storage facility. Access to some community facilities could be modified temporarily during construction, with the potential to inconvenience patrons. However, access would not be eliminated (except in cases where facilities would be relocated). Noise, dust, and glare could impact the use of community facilities, including schools and parks.

CEQA Conclusion
Impacts related to permanent displacement and relocation of community facilities resulting from construction and operation of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would have significant impacts to socioeconomics and community facilities. Mitigation Measure SO-MM#3, which includes measures to minimize impacts resulting from the displacement of key community facilities, in Table 3.12-30 of the *Fresno to Bakersfield Section Supplemental EIR/EIS* would also be implemented. With implementation of mitigation, impacts would be less than significant under CEQA.

Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction

No discussion regarding sensitive populations requiring relocation specifically associated with the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street appears in the Supplemental EIR/EIS. However, as described in the Supplemental EIR/EIS, the City of Bakersfield has a relatively low percentage of sensitive populations compared to other areas within the region. In addition, the number of residential displacements associated with construction of this portion of the F-B LGA would be limited. The F-B LGA would require the relocation of the Bakersfield Homeless Shelter, a facility that serves homeless populations in the area. The relocation of this facility could affect sensitive homeless populations if relocation efforts are not coordinated.

CEQA Conclusion
Impacts relating to the permanent displacement and relocation of sensitive populations from construction in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would have significant impacts under CEQA. Mitigation measure SO-MM#3, which includes measures to minimize impacts resulting from the disruption of key community facilities, in Table 3.12-30 of the *Fresno to Bakersfield Section Supplemental EIR/EIS* would also be implemented. Mitigation Measure SO-MM#3 also includes consultation with the appropriate parties prior to 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. Although not specifically described in mitigation measure SO-MM#3, the Authority may engage with the Kern County Homeless Collaborative, which consists of a network of nonprofit homeless service providers, victim service providers, faith-based organizations, governments, business, advocates, public housing agencies, school districts, social service providers, mental health agencies, hospitals, universities, affordable housing developers, law enforcement, homeless and formerly homeless (including veterans) who are working together to end homelessness in Kern County. The Kern County Homeless Collaborative may be able to provide resources and support for the affected homeless populations and provide valuable input regarding the relocation of the Bakersfield Homeless Shelter. With implementation of mitigation, impacts would be less than significant under CEQA

Impact SO #9: Temporary Disruption to Community Facilities from Construction

Access to some community facilities could be modified temporarily during construction of the portion of the F-B LGA alignment that extends eastward to Oswell Street, with the potential to inconvenience patrons. However, access would not be eliminated except in the event that community facilities would require relocation. Noise, dust, and glare could impact the use of community facilities, including schools and parks.

CEQA Conclusion
The temporary disruption of community facilities resulting from construction and operation of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would have significant impacts to socioeconomics and community facilities under CEQA. Mitigation measure SO-MM#3 in Table 3.12-30 of the Fresno to Bakersfield Section Supplemental EIR/EIS would also be implemented. With implementation of mitigation, all impacts would be less than significant under CEQA.

Impact SO #10: Permanent Changes in School District Funding from Construction

The potential impact of high numbers of residential unit displacements on school districts was considered based on potential reduction in school funding resulting from declines in student populations in communities with high numbers of relocations. School district funding depends on student attendance. The relocation of large populations of students outside existing school districts could therefore reduce funding for the affected school districts. Additionally, construction of the F-B LGA is not anticipated to result in effects on school district funding as a result of reduced property tax revenues. Although the F-B LGA would displace 36 residential units and would therefore displace 63 students within the City of Bakersfield, this minimal displacement would not result in an impact to school district funding.

CEQA Conclusion

The permanent changes in school district funding from construction in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would be less than significant under CEQA.

Impact SO #11: Temporary Agricultural Access Impacts and Road Closures during Construction

The portion of the F-B LGA alignment that extends eastward to Oswell Street would be in an urbanized area of the City of Bakersfield, and no major road closures are associated with this portion of the alignment. Any impacts due to road closures would be temporary and would not be expected to temporarily affect access to agricultural properties. Therefore, there would be no effect on agricultural access and road closures.

CEQA Conclusion

Temporary agricultural access impacts and road closures during construction in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would be less than significant under CEQA.

Impact SO #12: Permanent Economic Effects on Agriculture from Construction

The portion of the F-B LGA alignment that extends eastward to Oswell Street would be in an urbanized downtown area of the City of Bakersfield. Therefore, there would be no economic effects on agriculture.

CEQA Conclusion

Permanent economic effects from agriculture in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would be less than significant under CEQA.

Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction

Short-term reductions in property tax revenues could occur as a result of perceived lower property values caused by nearby construction activities associated with the F-B LGA. 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. (Note that the reduction in property tax revenues due to project land acquisition is addressed in Impact SO #20, Operation-Related Property and Sales Tax Revenue Effects.)

CEQA Conclusion

The permanent property and sale tax revenue losses in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would be less than significant under CEQA.

Impact SO #14: Potential for Permanent Physical Deterioration from Construction

The potential effects identified for construction of the portion of the F-B LGA from the intersection of 34th Street to Oswell Street would not lead to any foreseeable physical deterioration within the

City of Bakersfield. Context-sensitive design would be applied to this portion of the F-B LGA, as discussed in the Fresno to Bakersfield Section Final EIR/EIS.

CEQA Conclusion
There would be the potential for permanent physical deterioration from construction in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street. With Mitigation Measure SO-MM#5, described in Section 3.12.6.1 of the Fresno to Bakersfield Section Supplemental EIR/EIS, adverse effects associated with physical deterioration of community facilities would be mitigated by lessening the aesthetics impacts of the introduction of new structures associated with the F-B LGA. This would reduce impacts to a less than significant level under CEQA.

Impact SO #15: Temporary Sales Tax Revenue Gains from Construction

An increase in sales tax revenues is expected for the City of Bakersfield and Kern County as a result of the F-B LGA's 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. However, the Supplemental EIR/EIS does not specifically analyze the sales tax revenue gains from the portion of the F-B LGA alignment that extends eastward to Oswell Street.

CEQA Conclusion
The impacts resulting from temporary sales tax revenue gains from construction in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would be less than significant under CEQA.

Impact SO #16: Temporary Effects on Children's Health and Safety from Construction

Much of the area adjacent to the portion of the F-B LGA alignment from the intersection of 34th Street and L Street and Oswell Street is occupied by industrial and commercial uses, which are typically not areas where children congregate; therefore, the potential for construction of this portion of the F-B LGA alignment that extends eastward to Oswell Street to affect children's health and safety is minimal. Potential construction-related impacts that could affect children's health and safety (e.g., air emissions, traffic hazards, and use of hazardous materials in proximity to schools) are described further below.

Construction of this portion of the F-B LGA would have the potential to cause temporary and significant localized air quality impacts, including the exceedance of applicable *de minimis* thresholds for specific criteria pollutants. (See Section 3.3, Air Quality and Global Climate Change, of this EIR/EIS for information on construction emissions and mitigation measures to reduce fugitive dust and exhaust from construction and on-road vehicles, as well as offsets for certain criteria pollutants.) Construction emissions have the potential to cause elevated criteria pollutant concentrations. These elevated concentrations may cause or contribute to exceedances of the National Ambient Air Quality Standards and California Ambient Air Quality Standards, which are established guidelines that provide public health protection regarding concentrations of criteria pollutants. Sensitive receptors (e.g., schools, residences, and health-care facilities) are near the construction areas in Bakersfield. During construction, sensitive receptors would be exposed to increased concentrations of toxic air contaminants, such as diesel particulate matter, which may present cancer risks. However, the health risk assessment concludes that the incremental increase in cancer risk associated with the diesel particulate matter emissions from construction equipment exhaust would not exceed the applicable threshold of 10 in 1 million. Therefore, implementation of the F-B LGA would not cause or contribute to exceedances of the National Ambient Air Quality Standards and California Ambient Air Quality Standards. Further, the mitigation measures identified in Section 3.3 would be implemented to minimize potential air quality impacts during construction. Therefore, effects to children's health resulting from construction-related air emissions would be less than significant under CEQA.

Although implementation of the F-B LGA would involve the construction of road overcrossings that could affect school bus transportation routes and the safety of children bicycling or walking to school, pedestrian crossings and bicycle access for schoolchildren would be maintained to ensure safe passage during construction. Standard construction procedures related to traffic management would be used to maintain or minimize impacts on traffic flow, including school bus routes, 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 would be required, detours would be built, clear signage would be installed, and traffic would be diverted. After construction has been completed, traffic would be diverted to the new roadway alignment (e.g., overcrossing, undercrossing, or road realignment), and local school area circulation and pedestrian and bicycle access would be restored. Therefore, effects to children's health resulting from construction-related transportation effects would be less than significant under CEQA.

Construction of the F-B LGA would involve transporting, using, and disposing of construction-related hazardous materials and wastes, which could result in accidental spills or releases of such materials in proximity to schools. (See Section 3.10, Hazardous Materials and Wastes, of the Draft Supplemental EIR/EIS for information on regulatory requirements and project mitigation measures that would reduce the potential for impacts from these materials.) The best management practices described in the mitigation measures identified in Section 3.10 of the Draft Supplemental EIR/EIS would be implemented to ensure that the use of hazardous substances or mixtures, in a quantity equal to or greater than the state threshold quantity, would not occur within 0.25 mile of a school. Therefore, effects to children's health resulting from construction-related hazardous materials would be less than significant under CEQA.

CEQA Conclusion
The temporary effects on children's health and safety from construction in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would result in less than significant impacts under CEQA.

Operation

Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation

The Supplemental EIR/EIS discussed displacements under the operation subsection, but displacements are discussed under construction impacts for consistency with this document. Any relocations would be permanently relocated during the construction phase. Therefore, the portion of the F-B LGA alignment from the intersection of 34th Street and L Street and Oswell Street would not result in impacts to community cohesion during the operational phase.

CEQA Conclusion
There would be a less than significant impact related to permanent disruption to community cohesion or division of existing communities from project operations in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street under CEQA.

Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities

The discussion under Impact SO #18 for the B-P Build Alternatives includes the potential for the job creation related to operation and maintenance of the portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street to require the construction of new community facilities.

CEQA Conclusion
Impacts related to permanent employment resulting from the need for additional community facilities from project operations in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would be less than significant under CEQA.

Impact SO #19: Permanent Disruption to Community Facilities from Operation

Noise, dust, and glare could impact the use of community facilities, including schools and parks, in the operational phase of the F-B LGA.

CEQA Conclusion
Permanent disruption to community facilities from operation of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would have significant impacts to socioeconomics and community facilities under CEQA. Mitigation measures SO-MM#1 and SO-MM#3 in Table 3.12-30 of the Fresno to Bakersfield Section Supplemental EIR/EIS would also be implemented. With implementation of these mitigation measures, all impacts would be less than significant under CEQA.

Impact SO #20: Permanent Changes in School District Funding from Operation

The potential impact of high numbers of residential unit displacements on school districts was considered based on potential reduction in school funding resulting from declines in student populations in communities with high numbers of relocations. School district funding is dependent on student attendance, and the relocation of large populations of students outside existing school districts could therefore reduce funding for the affected school districts. As discussed in Impact SO #3, Displacement and Relocation of Local Residents during Construction, there would be minimal residential displacements associated with the F-B LGA. Therefore, changes in school district funding during operation would also be minimal.

CEQA Conclusion
Permanent changes in school district funding from operation of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would result in less than significant effects under CEQA.

Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation

The portion of the F-B LGA from the intersection of 34th Street and L Street to Oswell Street would be in an urbanized area of the City of Bakersfield, and no major road closures are associated with this portion of the alignment. Any impacts due to road closures would be temporary and would not affect agricultural access. No impacts are anticipated during the operation phase.

CEQA Conclusion
Permanent agricultural access and road closures from operations in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would result in less than significant impacts under CEQA.

Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation

Generally, property value increases can be expected to occur from project operation—as the project 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. However, there may also be a decrease in property values immediately adjacent to the project as a result of visual or noise disturbances.

Similarly, the potential for temporary sales tax loss would remain into the operational phase, either because businesses would temporarily close during relocations or because some might choose to close down rather than relocate. Although other businesses would eventually replace those that close, revenue losses would nevertheless occur as a result of operation of the F-B LGA.

CEQA Conclusion
Permanent property and sales tax revenue losses from operation in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would result in less than significant impacts under CEQA.

Impact SO #23: Potential for Permanent Physical Deterioration from Operation

As discussed in Impact SO #14, the potential effects identified for construction of the F-B LGA would not lead to any foreseeable physical deterioration to existing facilities and communities within the City of Bakersfield. Context-sensitive design would be applied to the F-B LGA, including the portion of the alignment between the intersection of 34th Street and L Street to Oswell Street, as discussed in the Fresno to Bakersfield Section Final EIR/EIS.

CEQA Conclusion
Physical deterioration from operation in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street is not expected to occur. Therefore, operation of the F-B LGA would result in less than significant impacts under CEQA.

Impact SO #24: Permanent Sales Tax Revenue Gains from Operation

Generally, the operation of the F Street Station would generate new sales tax revenues for the region through project spending on operation and maintenance of the station facility. The expected annual gain in sales tax revenue from project spending is greater than the expected loss from business relocations resulting from the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street. Therefore, the overall net effects on sales tax revenue of the project would be beneficial for the region during the operation of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street.

CEQA Conclusion
Permanent sales tax revenue gains from operation of the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street would result in less than significant impacts under CEQA.

Impact SO #25: Permanent Effects on Children's Health and Safety from Operations

Much of the area adjacent to the F-B LGA footprint has agricultural, industrial, and commercial uses, which are typically not areas where children congregate. Implementation of the F-B LGA would benefit children's health as a result of improvements in air quality over the No Project Alternative.

The F-B LGA would be designed to prevent conflicts with vehicles, pedestrians, and bicyclists, thus providing a safety benefit for children in the study area. The F-B LGA also includes construction of roadway overpasses in communities, allowing for access over the project and the existing railway corridor. These overpasses would improve safety for children by eliminating conflicts between the HSR vehicles, rail, and pedestrians/bicyclists.

California Code of Regulations (Cal. Code Regs.) Title 5, Section 14010 provides siting standards for new schools. These standards provide an indication of when impacts may occur to school employees and students. Specifically relevant to this project, these regulations call for the consideration of proximity of schools to transmission lines and the implementation of a safety study for schools near railroad track easements. Cal. Code Regs. Title 5, Section 14010(c) calls for a separation between schools and power transmission lines of 100 feet for 50- to 133-kilovolt (kV) lines, 150 feet for 220–230-kV lines, and 350 feet for 500- to 550-kV lines. The overall HSR project would be powered by a 25-kV system; therefore, per Cal. Code Regs. Title 5, Section 14010(c), a separation between schools and power transmission lines would not be required. The F-B LGA would not require the construction of new power transmission lines in the vicinity of existing or future planned schools. For these reasons, electrification of the F-B LGA would have no safety effect on school employees and students.

Cal. Code Regs. Title 5, Section 14010(d), requires a safety study for school sites within 1,500 feet of a railroad track easement. 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 HSR 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. No safety hazard would be associated with HSR cargo or fuel because the HSR system would only carry passengers and would be electric-powered. A basic design feature of an HSR system is to contain trainsets within the operational corridor (FRA 1993). Strategies to ensure containment include operational and maintenance plan

elements that would ensure high-quality tracks and vehicle maintenance to reduce the risk of derailment. Also, physical elements, such as containment parapets, check rails, guard rails, and derailment walls would be used in specific areas with a high risk of or high impact from derailment. Thus, if a derailment were to occur, the train would remain within the HSR right-of-way. Therefore, Valley Oaks Charter School, the only school adjacent to the F-B LGA footprint, would be subject to this safety risk due to its location along and partially within the HSR right-of-way. As discussed above, a basic design feature of an HSR system is to contain trainsets within the operational corridor. Thus, if a derailment were to occur next to a school, the train would remain within the HSR right-of-way. Implementation of the F-B LGA would not substantially increase hazards to nearby schools because the train would be contained in the HSR right-of-way and would not contain cargo or fuel that would result in a fire or explosion.

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

CEQA Conclusion
Permanent effects on children's health and safety in the portion of the F-B LGA alignment from the intersection of 34th Street and L Street to Oswell Street are expected to result in less than significant impacts under CEQA.

3.12.6.4 Palmdale Station Site

Construction

Impact SO #1: Temporary Disruption to Community Cohesion or Division of Existing Communities from Project Construction
The construction of the Palmdale Station site would result in many of the same impacts on community cohesion as Alternative 1. In the case of the station construction, the additional infrastructure requirements would require a longer construction period than a section of the B-P Build Alternatives. Although project construction would affect residents, businesses, and individual property owners, these effects would be temporary and would not impact community cohesion.

Heavy construction (e.g., grading, excavation, constructing the HSR railbed, and laying the trackway) at the Palmdale Station site would be accomplished over a 4-year period. Activities related to building the HSR project would include receiving and moving equipment and materials, clearing and exposing soils, introducing lights for nighttime work, storing construction materials, and generally visually changing the project landscape. As much as possible, construction would occur within the right-of-way acquired for the HSR project.

Construction effects would include temporary increases in noise and dust, visual changes, and traffic congestion related to road closures or detours. Potential noise effects during construction on residential properties would be greater during any required nighttime construction; overall construction noise effects on both residential and commercial properties are expected to be minor. Potential construction vibration effects are evaluated in Section 3.4, Noise and Vibration, and will be further evaluated during final design.

Construction impacts related to local roadway modifications and construction may temporarily disrupt community circulation patterns. While access to some neighborhoods would be disrupted and detoured for short periods during construction, the Palmdale Station site's temporary impacts related to community circulation would be minimized through compliance with SOCIO-IAMF#1 (Construction Management Plan) and TR-IAMF#2 (Construction Transportation Plan). These IAMFs would reduce potential temporary impacts related to community circulation from construction through the following mechanisms:

- **SOCIO-IAMF#1: Construction Management Plan**—By requiring the contractor to prepare a CMP that includes measures that minimize impacts on community residents and businesses, and maintain access. The plan would include actions pertaining to communications, visual resources protection, air quality, safety controls, noise controls, and traffic controls.

- **TR-IAMF#2: Construction Transportation Plan**—By providing information ensuring the safety of students and advising school districts of construction activities.

The CMP would maintain property access for local businesses, residences, and emergency services. In addition, the CMP would include efforts to consult with local transit providers to minimize temporary impacts on local and regional bus routes in affected communities. Any roadways that would need to be moved due to the HSR project right-of-way requirements would be realigned before the closure of the existing roadway to minimize impacts. Construction would also require an increase in truck trips that could increase congestion and affect pedestrians, bicyclists, and transit through detours, delays, or increased safety risks. Refer to Section 3.2, Transportation, for additional details.

Construction would require a large number of employees but is not expected to have any impacts related to temporary population increases and the need for increased housing and services. Unemployment in the region remains relatively high, so project-related construction jobs may be filled by current residents in the region who have the needed skills. This would benefit the economies of the communities within the region. Because many of the jobs would be filled by area residents, it is expected that the Palmdale Station site would result in no effect relating to the need for additional housing or services.

Law enforcement, fire, and emergency services could experience increased response times due to construction-related road closures, detours, and increased traffic congestion in some locations. Delays could be longer in rural areas, where temporary road closures could result in several miles of out-of-direction travel to cross the HSR alignment. As noted above, implementation of SOCIO-IAMF#1 would maintain emergency vehicle access for police and fire protection services at all times and minimize the Palmdale Station site's temporary impacts on emergency response times.

Access to some community facilities could be modified temporarily during construction, potentially inconveniencing patrons, but access would not be eliminated (except in cases where facilities would be relocated). Construction effects would include temporary increases in noise and dust, traffic congestion related to temporary road closures or detours, and visual changes. Refer to the discussion under Impact SO #8 for a more detailed discussion regarding the specific effects of construction on community facilities.

Potential noise effects during construction on residential properties would be greater during any required nighttime construction; overall construction noise effects on both residential and commercial properties are expected to be minor. Potential construction vibration effects are evaluated in Section 3.4, Noise and Vibration, and will be further evaluated during final design. Construction noise effects on residents would be greater at night because of the extra sensitivity of people when they are trying to sleep. Construction noise effects on both residential and commercial properties would vary at different locations along the alignments, depending on their 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 their normal hours of operation, when noise, traffic, and other conflicts would be most problematic.

The Palmdale Station site's temporary impacts related to noise and air quality would be minimized through compliance with NV-IAMF#1 (Noise and Vibration), AQ-IAMF#1 (Fugitive Dust Emissions), and AQ-IAMF#2 (Selection of Coatings). These IAMFs would reduce potential impacts related to noise and air quality from construction through the following mechanisms:

- **NV-IAMF#1: Noise and Vibration**—By requiring the contractor to document how federal guidelines for minimizing noise and vibration would be employed when construction is occurring near sensitive receptors (e.g., hospitals, residential neighborhoods, and schools).
- **AQ-IAMF#1: Fugitive Dust Emissions**—By requiring the preparation of a fugitive dust control plan. This plan identifies the minimum features that would be implemented during ground-disturbing activities.

- **AQ-IAMF#2: Selection of Coatings**—By limiting the type of paint to be used during construction to those with volatile organic compound content of less than 10 percent (low). Using paint that releases fewer organic compounds into the air after application is an air quality management measure effective in reducing construction emissions and achieving federal and state air quality standards.

Implementation of the IAMFs described above would minimize the potential for construction to temporarily disrupt community cohesion or divide existing communities; however, some temporary effects related to air quality and noise and access to park facilities would remain.

As described under Impacts SO #5 and SO #6, an adequate supply of replacement properties is available in the replacement area in which to relocate the displaced residents and most of the displaced businesses. In unincorporated Los Angeles County, there is inadequate available business space to relocate the businesses that could be displaced by the HSR project. If necessary, additional vacant land in the vicinity of the cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space.

CEQA Conclusion

As described above, construction of the Palmdale Station site could temporarily disrupt community circulation patterns. Although access to some neighborhoods would be disrupted and detoured for short periods during construction, a CMP would be prepared for the project (SOCIO-IAMF#1). The CMP would maintain property access for local businesses, residences, and emergency services. In addition, the CMP would include efforts to consult with local transit providers to minimize impacts on local and regional bus routes in affected communities. Any roadways that would need to be moved due to the HSR project right-of-way requirements would be realigned before the closure of the existing roadway to minimize effects. Construction would also require an increase in truck trips that could increase congestion and affect pedestrians, bicyclists, and transit through detours, delays, or increased safety risks. Refer to Section 3.2, Transportation, for additional details.

As noted above, implementation of SOCIO-IAMF#1 would maintain emergency vehicle access for police and fire protection services at all times. Law enforcement, fire, and emergency services could experience increased response times due to construction-related road closures, detours, and increased traffic congestion in some locations.

Access to some community facilities could be modified temporarily during construction, potentially inconveniencing patrons, but access would not be eliminated (except in cases where facilities would be relocated). Construction activities could be particularly disruptive to nearby community facilities and institutions (e.g., schools, clinics, and government offices) because construction would occur primarily during their normal hours of operation, when noise, traffic, and other conflicts would be most problematic. Implementation of SOCIO-IAMF#2 would minimize conflicts through noise controls and traffic controls.

In general, construction would take place primarily outside (but in some areas within or adjacent to) established neighborhoods in areas associated with commercial, industrial, and residential uses. Effects to pedestrian and vehicular circulation are not considered a barrier to interaction because the Palmdale Station site would be primarily adjacent to existing transportation corridors. HSR project construction would affect residents, businesses, and individual property owners by potentially disrupting convenient access to community facilities. This would constitute a potentially significant impact under CEQA.

Mitigation Measure SO-MM#3, which would apply to the Palmdale Station site, requires that the Authority consult with appropriate parties prior to land acquisition to assess potential opportunities to reconfigure buildings and/or relocate affected facilities, as necessary, to minimize any disruptions to activities and services at those facilities. Following implementation of Mitigation Measure SO-MM#3, the Palmdale Station site would result in less than significant impacts related to the physical division of an established community during construction.

Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction

Construction of the Palmdale Station site could potentially divide or disrupt communities adjacent to the alignment by displacing residents, businesses, and important community facilities (refer to the discussion under Impacts SO #5, SO #6, and SO #7 for a description of the residential, business, and community facility displacements associated with the Palmdale Station site, respectively).

As described under Impacts SO #5 and SO #6, an adequate supply of replacement properties is available in the replacement area in which to relocate the displaced residents and most of the displaced businesses. In the Palmdale Station area and unincorporated Los Angeles County, there is inadequate available business space to relocate the businesses that could be displaced by the HSR project. If necessary, additional vacant land in the vicinity of the cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space.

The HSR project's permanent impacts related to displacements and relocations would be minimized through compliance with SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan). These IAMFs would reduce potential impacts related to displacements and relocations from construction through the following mechanisms:

- **SOCIO-IAMF#2: Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act**—By providing relocation assistance for people displaced through right-of-way acquisition.
- **SOCIO-IAMF#3: Relocation Mitigation Plan**—By requiring the Authority to develop a relocation mitigation plan, specific to the issues of each project section, to minimize the economic disruption related to relocation.

Although all residents and businesses displaced by the HSR project would receive relocation assistance under the Uniform Act, some may not be relocated near their current locations.

Because the Palmdale Station site would be adjacent to existing transportation corridors, construction would not bisect or isolate established communities, nor would it change the existing community character. Effects to pedestrian and vehicular circulation are not considered a barrier to interaction, because the Palmdale Station site would be primarily adjacent to existing transportation corridors.

Some roads would be realigned or grade-separated from the HSR tracks to maintain north-south and east-west connections in the community, and others would be permanently closed on either side of the HSR tracks. Construction of the Palmdale Station site would replace each of the existing at-grade crossings in Palmdale with new grade-separated crossings. These new grade separations would enhance mobility in Palmdale by eliminating traffic delays for motorists who are currently forced to wait for passing trains and would improve community cohesion.

Any newly constructed or reconstructed roadways, including new grade separations, would provide Americans with Disabilities Act-compliant sidewalks. Where existing roads cross the proposed HSR alignment, the HSR project would replace all transportation improvements, including bike lanes, trails, sidewalks, and transportation facilities, to match the existing conditions. The new sidewalks and bikeways would enhance connectivity and improve community cohesion in the Palmdale area.

Implementation of the IAMFs described above would minimize the potential for construction to permanently disrupt community cohesion or divide existing communities; however, construction of the Palmdale Station site would relocate a substantial number of businesses in Palmdale. The Palmdale Station site would also enhance connectivity and improve community cohesion in Palmdale by constructing new grade separations in that community, which is currently divided by

an existing railroad line and would provide substantial regional mobility improvements by providing a high-speed transit connection to other major urban areas in California.

Although the construction of the Palmdale Station site would relocate a substantial number of businesses in Palmdale, those relocations would not relocate key businesses. The connectivity enhancements would be substantial.

CEQA Conclusion

The City of Palmdale has historically grown on either side of the existing UPRR tracks. Therefore, the HSR project's operation would not introduce new features that would divide the community. All three of the affected road crossings in the Palmdale Station area (Avenue P/Rancho Vista Boulevard, Sierra Highway, and Palmdale Boulevard) are currently at-grade with the existing UPRR tracks. Each of these at-grade crossings would be replaced with new grade-separated crossings. These new grade separations would enhance mobility in Palmdale by eliminating traffic delays for motorists who are currently forced to wait for passing trains.

Any newly constructed or reconstructed roadways, including new grade separations, would provide Americans with Disabilities Act-compliant sidewalks. Where existing roads cross the proposed HSR alignment, the HSR project would replace all transportation improvements, including bike lanes, trails, sidewalks, and transportation facilities, to match the existing conditions. The new sidewalks and bikeways would enhance connectivity and improve community cohesion in Palmdale. Therefore, the Palmdale Station site would result in no impacts related to the physical division of an established community during operation.

Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities

The potential for the job creation related to construction of the Palmdale Station site to require the construction of new community facilities is considered in the discussion above in Impact SO #3 under the B-P Build Alternatives. As discussed in that section, the temporary effects resulting from the construction of the HSR project, including the Palmdale Station site, would result in a noticeable economic change within the two-county region; however, they would not affect the overall quality of life in the region.

CEQA Conclusion

Construction of the B-P Build Alternatives, including the Palmdale Station site, would result in temporary increases in employment. However, the temporary employment generated by the HSR project would represent a small percentage of the two-county region's forecasted employment growth. This small percentage increase would not be substantial enough to greatly attract workers to the region. Therefore, the construction of the Palmdale Station site would not result in the need to construct new or expand existing community facilities to serve the expanded population and employment base. The Palmdale Station site would result in less than significant impacts related to the provision of new or physically altered community facilities. Therefore, CEQA does not require any mitigation.

Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction

Table 3.12-15 provides information regarding the residential displacements associated with the Palmdale Station site, including the estimated number of displaced residential units and the estimated number of residents who would be permanently displaced in that area. As shown in Table 3.12-15, the proposed Palmdale Station site would displace approximately 312 residential units, which correlates to approximately 1,108 displaced residents. Most of these units displaced would be multifamily units.

Table 3.12-15 Residential Displacements in the Palmdale Station Area

Location	Units Displaced		Total Residential Units Displaced	Estimated Residents Displaced
	Single-Family Residential Units	Multifamily Residential Units		
Los Angeles County				
City of Palmdale	38	274	312	1,108
Regional Total	**38**	**274**	**312**	**1,108**

Source: California High-Speed Rail Authority, 2020a, 2020b

Table 3.12-16 shows the gap analysis of residential properties available for relocation. The pool of available residential units was reduced to account for the residential relocations associated with Alternative 5, the Build Alternative that would result in the most residential displacements in the Lancaster-Palmdale area. As shown in Table 3.12-16, the existing supply of vacant residential units in the City of Palmdale, where residential displacements would occur, would be greater than necessary to house the relocated residents. Although the Palmdale Station site would displace considerable numbers of existing housing units and relocate people in Palmdale, adequate replacement housing appears to be available in the area.

Table 3.12-16 Gap Analysis of Residential Displacements in the Palmdale Station Area

Location	Residential Units Displaced	Residential Units Available	Surplus/(Deficit)
Los Angeles County			
City of Palmdale	312	595[1,2]	283
Regional Total	**312**	**595**	**283**

Source: California High-Speed Rail Authority, 2020a, 2020b

[1] Residential Units Available and Surplus/(Deficit) include residential units in the 93551 ZIP code, which are also included in the residential gap analysis for Lancaster under the Bakersfield to Palmdale Project Section Build Alternatives.

[2] Residential Units Available was reduced by 338 units to account for the 338 residential units in the Lancaster-Palmdale area relocated by Alternative 5, the Build Alternative that would result in the most residential displacements in that area.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply.

Similar to the B-P Build Alternatives, implementation of the IAMFs described above would minimize the potential need for residents to relocate outside their existing community due to the construction of the Palmdale Station site; however, construction of the Palmdale Station site would still displace a substantial number of residents in Palmdale.

CEQA Conclusion

Construction of the Palmdale Station site could displace existing housing units and residents. However, adequate replacement housing appears to be available in the area, provided that such housing can be made available at affordable prices. If sufficient affordable housing options are unavailable, the Authority would work collaboratively with the local jurisdictions to find the means to locate affordable housing. Therefore, the project would not displace substantial numbers of existing residents in the vicinity of the Palmdale Station site and thus would not require the construction of replacement housing elsewhere. The Palmdale Station site would result in less than significant impacts related to the displacement of substantial numbers of existing housing units and residents. Therefore, CEQA does not require any mitigation.

Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction
Table 3.12-17 provides information regarding the commercial and industrial business displacements associated with the Palmdale Station site, including the estimated number of displaced businesses and the estimated number of employees who would be displaced. As shown in Table 3.12-17, the Palmdale Station site would displace approximately 175 businesses, which correlates to approximately 1,886 displaced employees.

Table 3.12-17 Business Displacements in the Palmdale Station Area

Location	Businesses Displaced	Estimated Employees Displaced
City of Palmdale	175	1,886

Source: California High-Speed Rail Authority, 2020a, 2020b

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate local businesses during construction.

A general assessment was conducted to determine if suitable commercial and industrial business properties are available within the replacement area shown on Figure 3.12-A-6. Business displacements in the Palmdale Station area were determined using the same methods associated with the B-P Build Alternatives.

Business properties available were categorized into corresponding types/classes; however, the pool of available business spaces for each category was reduced to account for the business relocations associated with Alternatives 1, 2, and 3, the B-P Build Alternatives that would result in the most business displacements in the Lancaster-Palmdale area. Table 3.12-18 provides a comparison of the potential businesses displaced and the suitable properties available, and shows the gap analysis for the Palmdale Station area.

Table 3.12-18 Gap Analysis of Business Displacements in the Palmdale Station Area

Location	Retail and Food Services			Professional Services			Industrial		
	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus / (Deficit)
Los Angeles County									
City of Palmdale	13	(15)[1,2]	(28)[1,2]	149	(8)[1,3]	(141)[1,3]	13	(38)[1,4]	(51)[1,4]
Regional Total	**13**	**(15)**	**(28)**	**149**	**(8)**	**(141)**	**13**	**(38)**	**(51)**

Source: California High-Speed Rail Authority, 2020a, 2020b
[1] Space Availability and Surplus/(Deficit) reflect the entire Lancaster-Palmdale area.
[2] Space Availability was reduced by 115 units to account for the 115 retail and food service businesses in the Lancaster-Palmdale area relocated by Alternative 5, the Build Alternative that would result in the most retail and food service business displacements in that area.
[3] Space Availability was reduced by 56 units to account for the 56 professional service businesses in the Lancaster-Palmdale area relocated by Alternative 5, the Build Alternative that would result in the most professional service business displacements in that area.
[4] Space Availability was reduced by 91 units to account for the 91 industrial businesses in the Lancaster-Palmdale area relocated by Alternative 5, the Build Alternative that would result in the most industrial business displacements in that area.

As shown in Table 3.12-18, there would be more displaced businesses than there are currently available business spaces. There is a deficit of suitable available properties for all three business types/classes (retail and food services, professional services, and industrial). The gap analysis assumes that the same business spaces would be available to accommodate the relocation of

businesses displaced from the Palmdale Station area as were available for the B-P Build Alternatives. This would place additional pressure on the limited number of available properties for businesses.

As described below under the B-P Build Alternatives, an analysis of vacant land that is properly zoned for commercial and industrial use was completed in the vicinity of the cities of Lancaster and Palmdale. Similar to the business replacement analysis, vacant land parcels were identified by ZIP code. As shown in Table 3.12-16, 29 unimproved properties are available in the vicinity of the potential business displacements. These vacant land parcels could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space. It should be noted that upon improvement, those vacant parcels might be able to accommodate several businesses on each parcel. In addition to the vacant commercial/industrial land shown in Table 3.12-16, there is a large amount of vacant land in the cities of Lancaster and Palmdale zoned for commercial and industrial uses. While this land is not currently for sale or lease, it may become available for sale or lease at a later date.

Implementation of the IAMFs described above would minimize the potential for construction of the Palmdale Station site to relocate businesses outside their existing community; however, the Palmdale Station site would still relocate a substantial number of businesses in Palmdale.

CEQA Conclusion

The displacement of local businesses is not considered an environmental impact under CEQA, and therefore, a significance conclusion is not required for this type of impact (CEQA Guidelines Section 15064(e)). Although displaced businesses may relocate, the activities associated with such relocation, including the potential locations, are speculative, as is the potential for such relocation to result in significant environmental impacts.

As discussed above, there appears to be inadequate available business space in the Lancaster-Palmdale area to relocate all of the businesses in Los Angeles County that could be displaced by the Palmdale Station site. An analysis of vacant land in the vicinity of the cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use suggests that sufficient land is available to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space if those parcels are improved at some future date.

The development of new commercial and industrial space on such land is beyond the scope of the HSR project and would be subject to a separate environmental review and public decision-making process undertaken by the jurisdiction(s) with land use planning authority over the subject properties. Because no specific development projects have been proposed to fill the need for adequate replacement business properties, a quantitative analysis of the impacts associated with developing new commercial and industrial use is not possible. However, development of new commercial and industrial space generally would require vegetation removal, grading, trenching, and other ground-disturbing activities; construction of buildings, roads, and infrastructure; and the consumption of water and energy resources. Depending on the construction site, development of new commercial and industrial space may require the removal of native habitat. Construction would also result in the emission of criteria pollutants and greenhouse gases, and the generation of noise and vibration, possibly near sensitive receptors. While some additional vehicle miles traveled may be generated, if businesses are relocated near their existing locations, operational traffic may be similar to existing conditions. Many of these potential impacts are likely to be avoided through local land use policies, laws, regulations, and permit requirements. Other impacts are likely to be mitigable; however, because project-specific details cannot be known, it is possible that the construction and operation of new commercial and industrial space could result in significant and unavoidable impacts under CEQA.

Impact SO #6: Permanent Effects on Agricultural Businesses from Construction

No agricultural displacements or impacts to agricultural businesses are anticipated from construction of the Palmdale Station site, as there is no agricultural land within or adjacent to the Palmdale Station site.

CEQA Conclusion

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 conclusions are made related to agricultural displacements and relocations. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction

The Palmdale Station site would require the displacement of one existing community facility in Palmdale. R. Rex Parris High School would be displaced under this alternative. Similar to the B-P Build Alternatives, implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction of the Palmdale Station site to relocate community facilities during construction.

Although the relocation of the Palmdale Station would result in a noticeable localized social change, it would not result in a long-term social change in Palmdale, because the school would continue to operate elsewhere in the community.

CEQA Conclusion

As discussed above, the Palmdale Station site would displace one community facility, which could result in physical impacts associated with the provision of new or physically altered facilities, the construction of which could cause significant environmental impacts. This would constitute a potentially significant impact under CEQA.

As described in Section 3.12.7, Mitigation Measure SO-MM#3, which would apply to the Palmdale Station site, requires that the Authority consult with appropriate parties prior to land acquisition to assess potential opportunities to reconfigure buildings and/or relocate affected facilities, as necessary, to minimize any disruptions to activities and services at those facilities. Pursuant to SO-MM#3, to avoid disruption to these community amenities, the Authority will provide for reconfiguring land uses or buildings, or relocating community facilities before demolishing existing structures. Therefore, the replacement school would be constructed before the demolition of Rex Parris High School to accommodate the students.

Although compliance with Mitigation Measure SO-MM#3 would further reduce the Palmdale Station site's potential impacts related to community facility displacements, the potential impacts of the displacement during construction would remain significant and unavoidable.

Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction

Construction of the Palmdale Station site would not likely result in displacements or relocations that would uniquely affect sensitive populations, because none of the displacements associated with the Palmdale Station site involve readily discernible impacts to sensitive populations (i.e., affordable housing for low-income populations or facilities used by disabled populations).

CEQA Conclusion

Because construction of the Palmdale Station site would not likely result in displacements or relocations that would uniquely affect sensitive populations, the Palmdale Station site would not require the construction of replacement housing for such populations. The Palmdale Station site would result in less than significant impacts related to the displacement of substantial numbers of existing housing units and residents. Therefore, CEQA does not require any mitigation.

Impact SO #9: Temporary Disruption to Community Facilities from Construction

Construction of the Palmdale Station site would result in the same types of temporary disruptions to community facilities near the Palmdale Station site as the B-P Build Alternatives. Temporary construction effects would include diminished air quality, increased noise, and increased traffic congestion.

Implementation of IAMFs would minimize the potential for construction of the Palmdale Station site to temporarily disrupt community facilities. However, the Palmdale Station site would still result in noticeable localized social change, although it would not affect the overall ability of the affected facilities to continue serving the communities in which they are located.

CEQA Conclusion

Temporary disruption to community facilities from construction is not an environmental impact under CEQA. The potential environmental impacts that could cause such disruption (e.g., traffic, noise) are analyzed in other sections of this EIR/EIS.

Impact SO #10: Permanent Changes in School District Funding from Construction

As described under Impact SO #4 above, the Palmdale Station site would result in the permanent displacement of several hundred residential units along the proposed station. Table 3.12-19 identifies the estimated number of displaced residential units, the estimated student population that could be displaced, and the percentage of the student population that could be displaced from each school district in the Palmdale Station area.

Table 3.12-19 Residential and Student Displacements in School Districts in the Palmdale Station Area

School District	Residential Units Displaced	Estimated Number of Students Displaced	School District Enrollment/ Average Daily Attendance[1]	Percentage of Student Population Displaced
Los Angeles County School Districts				
Antelope Valley Union High School District	312	62	20,305	0.3
Palmdale Elementary School District	312	156	18,500	0.8
Regional Total	**312[2]**	**218**	**38,805**	**0.6**

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)

[1] Information is for Fiscal Year 2013–2014.

[2] Due to the overlapping of school districts, residential units in elementary and high school districts are only counted once in the regional totals.

As shown in Table 3.12-19, the greatest number of residential unit and student displacements resulting from the Palmdale Station site would occur within the Antelope Valley Union High School District and Lancaster School District. The Palmdale Station site could displace approximately 0.3 percent (approximately 62 students) out of the Antelope Valley Union High School District's enrollment. In the Palmdale Elementary School District, the Palmdale Station site could displace approximately 0.8 percent (approximately 156 students) out of that district's enrollment.

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate residents outside their existing school district, thereby minimizing losses to school district funding.

The estimated property tax revenue losses for elementary, secondary, and unified school districts associated with the Palmdale Station site are presented in Table 3.12-20. Both property tax and ADA-based revenue losses are possible for the Antelope Valley Union High School District and the Palmdale Elementary School District. The greatest revenue losses associated with the Palmdale Station site would occur in the Palmdale Elementary School District. The Palmdale Station site would result in the Palmdale Elementary School District losing approximately $846,042 (approximately 0.5 percent) of its total revenue. The majority of this revenue loss would come from the decrease in ADA from student displacements ($793,873), while an estimated $52,169 would be attributed to the decrease in property tax revenue.

Table 3.12-20 School District Revenue Losses in the Palmdale Station Area

School District	Estimated Property Tax Revenue Loss	Estimated ADA Revenue Loss	Estimated Total Revenue Loss	Total Revenue	Estimated Revenue Loss as a Percentage of Total Revenue
Los Angeles County School Districts					
Antelope Valley Union High School District	$85,444	$347,733	$433,177	$196,005,490	0.2
Palmdale Elementary School District	$52,169	$793,873	$846,042	$167,908,337	0.5
Regional Total	**$137,612**	**$1,141,606**	**1,279,218**	**$363,913,827**	**0.4**

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)
All information is for Fiscal Year 2013–2014.
ADA = average daily attendance

The Palmdale Station site could result in the Antelope Valley Union High School District losing approximately $433,177 (approximately 0.2 percent) of its total revenue. The majority of this revenue loss would come from the decrease in ADA from student displacements ($433,177), while an estimated $85,444 of the revenue loss would be attributed to the decrease in property tax revenue. As discussed under Impact SO #4, the high number of residential vacancies in Palmdale and unincorporated Los Angeles would most likely allow the affected residents to relocate within the same school districts, which could help offset revenue losses due to reductions in ADA.

Implementation of the IAMFs described above would minimize the potential f outside their existing school districts. Although the Palmdale Station site would relocate a substantial number of residents, changes to school district funding would not be substantial.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #11: Temporary Agricultural Access Impacts and Road Closures during Construction

Temporary construction detours would be provided during the construction of the Palmdale Station site. Because the station site is not in an agricultural area, construction of the Palmdale Station site would not impact agricultural access or require detours for agricultural operations.

CEQA Conclusion

As described above, the Palmdale Station site is not in an agricultural area; therefore, its construction would not impact agricultural access or require detours for agricultural operations. The Palmdale Station site would result in no impacts related to agricultural access. Therefore, CEQA does not require any mitigation.

Impact SO #12: Permanent Economic Effects on Agriculture from Construction

There would be no construction-related economic effects on agriculture as a result of the Palmdale Station site because the Palmdale Station is an urban area in which no land is in agricultural production.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction

The Palmdale Station site would result in parcel acquisitions, which would result in permanent property tax revenue losses for local jurisdictions as those properties are removed from the property tax assessment roll. Table 3.12-21 shows the estimated permanent loss in annual property tax revenue for each of the jurisdictions where property acquisitions could occur with the Palmdale Station site.

Table 3.12-21 Estimated Property Tax Loss Associated with the Palmdale Station Site

Jurisdiction	Estimated Property Tax Loss
City of Palmdale	$45,482
Los Angeles County	$297,353
Regional Total	**$342,835**

Sources: Kern County Assessor's Office, 2014; Los Angeles County Assessor's Office, 2014; California High-Speed Rail Authority, 2020b

As shown in Table 3.12-71, the parcel acquisitions in the Palmdale Station area could result in a total loss of approximately $342,835 in annual property tax revenue based on the assessed values of those properties in FY 2013–2014. Of the affected local jurisdictions, Los Angeles County could incur the largest property tax revenue loss ($297,353); however, the City of Palmdale could also experience a large property tax loss ($45,482).

Estimated Changes in Property Tax Revenue

Table 3.12-22 shows the estimated loss in annual property tax revenue for each of the jurisdictions where property acquisitions related to the Palmdale Station site would occur, the total property tax revenue collected and distributed to each jurisdiction's general fund in FY 2013–2014, and the percentage of the FY 2013–2014 property tax collections that could be lost as a result of property acquisitions related to the Palmdale Station site. As shown in Table 3.12-22, the Palmdale Station site could result in the loss of less than 1 percent of the property tax revenue collected and distributed to the respective general funds of the affected local jurisdictions in FY 2013–2014. Given the small percentage of total revenues that could be permanently lost as a result of property acquisitions, the overall effect of these revenue losses would not be perceptible to the residents in affected jurisdictions.

Table 3.12-22 Estimated Changes in Property Tax Revenue Related to the Palmdale Station Site

Jurisdiction	Property Tax Revenue (Fiscal Year 2013–2014)	Estimated Property Tax Loss	Estimated % Loss in Property Tax Revenue
City of Palmdale	$15,478,125	$45,482	0.3
Los Angeles County	$5,235,798,000	$297,353	0.01
Regional Total	**–**	**$864,302**	**–**

Sources: Kern County Assessor's Office, 2014; Los Angeles County Assessor's Office, 2014; California High-Speed Rail Authority, 2020a, 2020b

Long-Term Impacts on Property Values
The construction phase of the HSR project is limited in duration, and any short-term effects would cease when construction is complete. Therefore, the construction phase of the HSR project would have no effect on property values.

County and City Sales Tax Effects
The Palmdale Station site would result in 196 business displacements; however, only 105 of these businesses generate sales tax. In addition, as discussed under Impact SO #5, there is an inadequate supply of replacement properties is available in the replacement area in which to relocate these displaced businesses. If necessary, additional vacant land in the vicinity of the cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space. If some of the businesses displaced by the HSR project were to relocate outside the respective jurisdictions in which they are currently located, these jurisdictions would experience losses in sales tax revenues.

Table 3.12-23 shows the estimated loss in annual sales tax revenue for the City of Palmdale, the only jurisdiction where the displacement of sales tax-generating businesses related to the Palmdale Station site would occur, along with the percentage of the total sales tax revenue distributed to the city's general fund in 2013 that would be lost as a result of the Palmdale Station site. As shown in Table 3.12-23, the Palmdale Station site could result in a total permanent loss of approximately $521,468 in annual sales tax revenue to the City of Palmdale.

Table 3.12-23 Estimated Changes in Sales Tax Revenue Associated with the Palmdale Station Site

Jurisdiction	Total Sales Tax Revenue Apportioned to City/County	Palmdale Station Site	
		Estimated Sales Tax Loss	Percent Estimated Sales Tax Loss
City of Palmdale	$10,767,068	$521,468	<0.05
Regional Total	**–**	**$521,468**	**–**

Sources: California State Board of Equalization, 2013; California High-Speed Rail Authority, 2020a, 2020b

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate businesses outside their existing communities, thereby minimizing sales tax revenue losses.

Implementation of the IAMFs described above would minimize the potential for construction of the Palmdale Station site to relocate businesses outside their existing communities. Although construction of the Palmdale Station site would relocate a substantial number of businesses, changes to sales tax revenue would not be substantial.

CEQA Conclusion
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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #14: Potential for Permanent Physical Deterioration from Construction
Construction of the Palmdale Station site would have the potential to permanently disrupt existing communities and result in changes in local tax revenue. These effects are examined below for

their potential to result in permanent physical deterioration in communities in the vicinity of the Palmdale Station site.

Displacement and Relocation of Local Residents and Businesses

As described under Impacts SO #4 and SO #5, the Palmdale Station site would result in the permanent displacement of local residents and businesses within the City of Palmdale and unincorporated Los Angeles County.

As discussed under Impact SO #4, given the available housing stock in the communities surrounding the Palmdale Station site, considerable residential migration out of the Palmdale area is not expected.

Although there is a deficit of suitable available commercial and industrial business space to accommodate the businesses displaced by the Palmdale Station site, new commercial and industrial space could be developed on vacant land in the surrounding area. The development of new commercial and industrial space could help the local economy by providing new buildings featuring modern amenities, employing additional workers in the construction industry, and providing businesses with increased opportunities to serve the customer base in the community. Because most displaced businesses are anticipated to be relocated within the Palmdale-Lancaster area, considerable residential migration out of the Palmdale area is not expected.

Economic Effects

As described under Impact SO #13, the Palmdale Station site would result in property tax losses to the City of Palmdale and Los Angeles County. However, those property tax revenue losses would amount to well under 1 percent of the total property tax revenues received by those jurisdictions.

As stated previously, commercial and industrial uses are located in the vicinity of the proposed Palmdale Station site, and 105 sales tax-generating businesses would be displaced by the Palmdale Station site. However, these losses would account for less than 0.05 percent of the City of Palmdale's total sales tax revenue. These losses could be temporary for the most part, because they would occur during the time when displaced businesses relocate to new locations with modernized amenities and increased opportunities to serve the proposed project. These revenue losses would not represent a large reduction in property and sales tax revenues that would reduce the quality of government services in the affected communities.

CEQA Conclusion

The construction of the Palmdale Station site would have the potential to displace businesses and residents, disrupt existing communities by temporarily disrupting community circulation patterns, and result in temporary decreases in local tax revenues.

Implementation of the Authority's CMP (SOCIO-IAMF#1) would direct all street users around the construction, enabling them to access commercial destinations.

Although the Palmdale Station site would result in property and sales tax losses in the jurisdictions along the HSR alignment, the extremely small percentages of the total revenues that could be lost by those jurisdictions are not anticipated to result in a broad long-term impact on the regional tax base or reduce the quality of government services in the affected communities.

Because the circulation impacts would be short in duration and the revenue losses would not be expected to result in long-term economic changes to the regional economy or affect the quality of life in the affected jurisdictions, construction of the Palmdale Station site would result in less than significant impacts related to physical deterioration. Therefore, CEQA does not require any mitigation.

Impact SO #15: Temporary Sales Tax Revenue Gains from Construction

Table 3.12-24 provides information regarding the estimated temporary sales tax gains that could result from construction of the Palmdale Station site. As shown in Table 3.12-24, construction of the Palmdale Station site could generate approximately $2,510,110 in regional sales tax annually during the 4-year station construction period, the majority of which would be generated in Los Angeles County.

Table 3.12-24 Construction Sales Tax Revenue per Year for the Palmdale Station Site

Location	Palmdale Station Site
Kern County	$166,560
Los Angeles	$2,343,550
Regional Total	**$2,510,110**

Source: California High-Speed Rail Authority, 2020a, 2020b

As discussed in Impact SO #13, the construction of the Palmdale Station site could result in an estimated permanent loss of approximately $521,468 in annual sales tax revenues due to business relocations. As presented above, the estimated annual temporary sales tax gains from project spending during construction are anticipated to exceed the total expected sales tax revenue losses associated with business relocations. Therefore, construction of the Palmdale Station site would likely have a net benefit on sales tax revenue in the region.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) above for an evaluation of how the economic or social changes related to the construction of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #16: Temporary Effects on Children's Health and Safety from Construction

Construction-related impacts for the Palmdale Station site that could affect children's health and safety (e.g., traffic hazards, air emissions, noise/vibration, and use of hazardous materials) are described further below.

During construction, there may be temporary impacts related to school bus detours due to road closures. 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. The Palmdale Station site's temporary impacts related to community circulation would be minimized through compliance with SOCIO-IAMF#1 (Construction Management Plan) and TR-IAMF#2 (Construction Transportation Plan). These IAMFs would reduce potential temporary impacts related to community circulation from construction through the following mechanisms:

- **SOCIO-IAMF#1: Construction Management Plan**—By requiring the contractor to prepare a CMP that includes measures that minimize impacts on community residents and businesses and maintain access. The plan would include actions pertaining to communications, visual resources protection, air quality, safety controls, noise controls, and traffic controls.
- **TR-IAMF#2: Construction Transportation Plan**—By providing information ensuring the safety of students and advising school districts of construction activities.

With implementation of IAMFs, potential effects on local traffic impacts to school access and children's health and safety would be negligible.

Station construction would take place over a period of approximately 4 years, and children at schools, residences, and health-care facilities could potentially be exposed to health impacts from elevated concentrations of criteria pollutants and cancer risks. These emissions could have potential localized impacts on children in the vicinity of construction sites. The Palmdale Station site's temporary impacts related to air quality would be minimized through compliance with the IAMFs below. These IAMFs would reduce potential temporary impacts related to air quality through the following mechanisms:

- **AQ-IAMF#1: Fugitive Dust Emissions**—By reducing fugitive dust emissions during construction activities
- **AQ-IAMF#2: Selection of Coatings**—By requiring the use of low-volatile-organic-compound paints

Implementation of AQ-IAMF#1 and AQ-IAMF#2 would reduce air quality impacts during construction from substantial to moderate. Impacts would remain and mitigation is required.

Noise and vibration from construction activities would temporarily exceed noise and vibration standards and affect sensitive receivers along the entire project alignment. (See Section 3.4, Noise and Vibration, for information on construction impacts and IAMFs to minimize impacts.) As discussed in Section 3.4, no construction noise and vibration impacts are projected for any of the schools along the project corridor.

The construction of the Palmdale Station site would involve transporting, using, and disposing of construction-related hazardous materials and wastes. (See Section 3.10, Hazardous Materials and Wastes, for information on construction impacts and IAMFs to minimize impacts.) Potentially, such construction could result in accidental spills or releases of hazardous materials and wastes, and result in temporary hazards to schools. With implementation of the Spill Prevention, Control, and Countermeasure Plan described in HMW-IAMF#6, the project's construction effects to children's health related to routine transport and handling of hazardous or acutely hazardous materials would be reduced.

CEQA Conclusion

There is no specific requirement in California for an analysis of children's health impacts separate from that of other individuals. Therefore, this section does not provide CEQA significance conclusions related to specific impacts on children.

Operation

Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation

The operation of the Palmdale Station site would result in many of the same permanent impacts on community cohesion as the B-P Build Alternatives. Operation of the B-P Build Alternatives could permanently disrupt established patterns of interaction among community residents. Other permanent environmental effects 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 permanent changes in visual quality or aesthetics could result in a perceived change to community character or the quality of life experienced in affected neighborhoods.

The HSR project's permanent impacts on aesthetics and visual quality would be minimized through compliance with AVQ-IAMF#1 (Aesthetic Options) and AVQ-IAMF#2 (Aesthetic Review Process). These IAMFs would reduce potential impacts related to aesthetics and visual quality from construction through the following mechanisms:

- **AVQ-IAMF#1: Aesthetic Options**—By applying principles emphasizing that structures shall be designed and constructed with aesthetic character and visual harmony with the surrounding environment.
- **AVQ-IAMF#2: Aesthetic Review Process**—By defining the process that the contractor must follow to implement the Authority's aesthetic review process.

It would also result in regional social benefits by improving access to jobs and community amenities, reducing travel times, reducing traffic congestion, and providing new employment opportunities.

All three of the affected road crossings in the Palmdale Station area (Avenue P/Rancho Vista Boulevard, Sierra Highway, and Palmdale Boulevard) are currently at-grade with the existing UPRR tracks. Each of these at-grade crossings would be replaced with new grade-separated

crossings. These new grade separations would enhance mobility in Palmdale by eliminating traffic delays for motorists who are currently forced to wait for passing trains.

Any newly constructed or reconstructed roadways, including new grade separations, would provide Americans with Disabilities Act-compliant sidewalks. Where existing roads cross the proposed HSR alignment, the HSR project would replace all transportation improvements, including bike lanes, trails, sidewalks, and transportation facilities, to match the existing conditions. The new sidewalks and bikeways would enhance connectivity and improve community cohesion in Palmdale.

Implementation of the IAMFs described above would minimize the potential for operation of the Palmdale Station site to permanently affect community character; however, some of the effects related to aesthetics and visual quality would remain.

CEQA Conclusion

As discussed above, the new grade separations resulting from the construction of the Palmdale Station site would enhance mobility in Palmdale by eliminating traffic delays for motorists who are currently forced to wait for passing trains. The HSR project would also provide new sidewalks and bikeways that would enhance connectivity and improve community cohesion in Palmdale. As such, the Palmdale Station site would result in no impacts related to the physical division of an established community during operation. Therefore, CEQA does not require any mitigation.

Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities

The potential for the job creation related to operation and maintenance of the Palmdale Station site to require the construction of new community facilities is included in the discussion below under Impact SO #18 for the B-P Build Alternatives. That section concluded that the permanent effects resulting from operation of the B-P Build Alternatives, including the Palmdale Station site, would result in a broad increase in employment within the two-county region, especially in Kern County, and would improve the overall quality of life in the region.

CEQA Conclusion

As discussed above, operation of the Palmdale Station site would result in a small incremental population growth effect compared to forecasted growth under the No Project Alternative. As such, the HSR project would not represent a substantial increase in population growth in the region.

The percentage increase in population induced by the HSR project is expected to be lower than the percentage increase in employment induced by the project. This is based on the likelihood that a number of the jobs generated by the HSR project would be filled by area residents. Population increases are driven by growth in indirect employment, which is spread out over time. Therefore, the HSR project would not induce substantial growth in the region.

The HSR project would serve the existing and future need for transportation, help to provide employment opportunities in Los Angeles County, and encourage compact, transit-oriented development around the Palmdale Station site. The project would also assist local governments by providing station area planning matching grants and technical assistance to cities that apply for these grants. Increased travel to Palmdale by way of the HSR system would provide an economic incentive for revitalization of the area. Given that the HSR project would provide benefits that would help accommodate regional growth by supporting transit-oriented development in and around station areas and would not induce growth substantially beyond that which is already projected for the region, construction of additional community facilities would not be required to support the expanded population and employment base. The Palmdale Station site would result in less than significant impacts related to the provision of new or physically altered governmental facilities.

Impact SO #19: Permanent Disruption to Community Facilities from Operation

The operation of the Palmdale Station would be incompatible with some of the land uses near the station, including community facilities. Implementation of IAMFs would minimize the potential for operation of the Palmdale Station site to permanently disrupt community facilities; however, the

Palmdale Station site would still result in noticeable localized social change but would not affect the overall ability of residents to use these facilities.

CEQA Conclusion

Permanent disruption to community facilities from operations is not an environmental impact under CEQA. The potential environmental impacts that could cause such disruption (e.g., traffic, noise) are analyzed in other sections of this EIR/EIS.

Impact SO #20: Permanent Changes in School District Funding from Operation

Property acquisitions would occur as result of construction of the Palmdale Station site. Therefore, no residential or student displacements would occur during operation of the Palmdale Station site. While permanent revenue losses would occur as a result of construction, there is a potential for revenue loss to be minimized during operation. Permanent revenue losses could be partially offset if portions of properties that are acquired are ultimately declared as excess by the Authority and sold/exchanged in accordance with the procedures set forth in California Public Utilities Code Section 185040.

Compliance with California Public Utilities Code Section 185040 would minimize the potential for construction of the Palmdale Station site to result in permanent changes in school district funding by returning some land to the property tax rolls. However, some of those effects would remain because some of the land acquired by the Authority outside the permanent footprint may never be sold or exchanged and redeveloped due to challenging site conditions (i.e., parcel size, shape, or configuration) and the Authority's need to retain some properties to accommodate future HSR purposes.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) below for an evaluation of how the economic or social changes related to the operation of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation

The Palmdale Station site would not be located in an agricultural area, and no major road closures are associated with the station alternative. Any impacts due to road closures would be temporary and would not affect agricultural access.

CEQA Conclusion

As described above, the Palmdale Station site is not located in an agricultural area; therefore, its construction would not impact agricultural access or require detours for agricultural operations. The Palmdale Station site would result in no impacts related to agricultural access. Therefore, CEQA does not require any mitigation.

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) below for an evaluation of how the economic or social changes related to the operation of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation

Generally, 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. However,

there may also be a decrease in property values immediately adjacent to the project as a result of visual or noise disturbances.

Similarly, the potential for temporary sales tax loss would remain into the operational phase, either because some businesses might choose to close down rather than relocate. Although other businesses would eventually replace those that close, revenue losses would nevertheless occur as a result of operation of the Palmdale Station site. However, operation of the Palmdale Station site would result in permanent benefits related to property and sales tax revenues overall.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) below for an evaluation of how the economic or social changes related to the operation of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #23: Potential for Permanent Physical Deterioration from Operation

The operation of the Palmdale Station site would have the potential to displace businesses and residents, disrupt existing communities, and change local tax revenues.

Disruption or Division of Existing Communities

As discussed under Impacts SO #4 and SO #5, the displacement of residences and businesses would have a temporary disruptive effect on existing communities and established patterns of social interaction. However, the Palmdale Station site would provide pedestrian walkway overcrossings that would improve and enhance the connection between communities on opposite sides of existing transportation corridors.

The Palmdale Station site would result in the closure of existing at-grade railroad crossings at Palmdale Boulevard and Sierra Highway. However, the Palmdale Station site would provide new grade-separated crossings at these intersections. Palmdale Boulevard would retain access to local businesses along its frontage via surrounding streets (Avenue Q-7, Avenue Q-9, 3rd Street E, 9th Street E, and 10th Street E) during construction of the new grade separation. Therefore, the downtown Palmdale Business District would continue to have good local circulation. The land surrounding the area where the new Sierra Highway grade separation would be built is vacant. Therefore, operation of the Palmdale Station site would not disrupt an existing community at that location.

The provision of new grade-separated crossings at Palmdale Boulevard and Sierra Highway would result in enhanced access and circulation for existing communities. The conversion of at-grade crossings to grade-separated crossings would benefit customers both north and south of Palmdale Boulevard, who would no longer have to wait for trains in order to access businesses along Palmdale Boulevard on either side of the railroad tracks. The establishment of the Palmdale Station site would create a major transportation hub that would generate an influx of consumers and, therefore, enhance the community's business environment.

Economic Effects

As described under Impact SO #18, the operation of the Palmdale Station site would create job opportunities in the surrounding communities, region, and state. The operation of HSR system would create jobs directly, through operation and maintenance needs, and indirectly, though the growth projected to occur as a result of HSR operation. Employment growth from HSR project operation is expected to be a net benefit for the region, as it would provide jobs in the City of Palmdale, which comprises communities with unemployment rates that exceed the state average. This is an economic benefit that would reduce the likelihood of physical deterioration of communities surrounding the Palmdale Station site.

Although the short-term property and sales tax losses described under Impact SO #12 would continue into the operational phase of the HSR project, no additional impacts would be incurred

during the operation of the Palmdale Station site. The existing transportation hub at 39000 Clock Tower Plaza Drive, which serves Amtrak, Metrolink, and the local bus network, would be replaced by the Palmdale Station site, which would provide enhanced amenities, security, and employment opportunities for the surrounding communities. The highest estimate of the potential losses to property tax is 0.3 percent of the total property tax in the jurisdiction; this is not a large reduction in property tax revenues that would reduce the quality of government services in the community.

CEQA Conclusion

Because the HSR project would provide circulation and economic benefits and the revenue losses anticipated to be incurred during the construction phase would not be expected to result in long-term economic changes to the regional economy or the affected jurisdictions, operation of the Palmdale Station site would result in less than significant impacts related to physical deterioration. Therefore, CEQA does not require any mitigation.

Impact SO #24: Permanent Sales Tax Revenue Gains from Operation

Generally, the operation of the Palmdale Station site would generate new sales tax revenues for the region through project spending on operation and maintenance of the station facility. The expected annual gain in sales tax revenue from project spending is greater than the expected loss from business relocations because businesses would eventually replace those that chose to close rather than relocate.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) above for an evaluation of how the economic or social changes related to the operation of the Palmdale Station site could result in permanent physical deterioration in the affected communities.

Impact SO #25: Permanent Effects on Children’s Health and Safety from Operations

Operation-related impacts for the Palmdale Station site that could affect children’s health and safety (e.g., traffic hazards, air emissions, noise/vibrations, and use of hazardous materials) are described further below.

The Palmdale Station site would result in the closure of existing at-grade railroad crossings at Palmdale Boulevard and Sierra Highway. However, the Palmdale Station site would provide new grade-separated crossings at these intersections, and Palmdale Boulevard would retain access to local businesses along its frontage via connector streets Avenue Q7, Avenue Q9, Third Street E, Ninth Street E, and 10th Street E. The provision of new grade-separated crossings at Palmdale Boulevard and Sierra Highway would result in enhanced access and circulation for existing communities, including children from those communities. There is a potential for access benefits because roadway crossings would improve safety and access.

The Palmdale Station site would serve the HSR system, which would result in a net benefit on regional and statewide air quality because of a decrease in emissions. All residents, including children, in the San Joaquin Valley, the Antelope Valley, and the Tehachapi Mountains would benefit from the decrease in air pollutants associated with the projected shift in transportation modes.

Operation of the Palmdale Station site could result in impacts from increased noise levels. (See Section 3.4, Noise and Vibration, for information on operational impacts and mitigation measures to minimize these impacts.) No schools would be affected by vibration.

During operation of the Palmdale Station site, only minor amounts of hazardous materials would be used, and all laws, regulations, and ordinances would be followed with respect to the transport, use, storage, and disposal of hazardous materials. Compliance with regulatory requirements would reduce the potential for a severe spill.

CEQA Conclusion

There is no specific requirement in California for an analysis of children's health impacts separate from that of other individuals. Therefore, this section does not provide CEQA significance conclusions related to specific impacts on children.

3.12.6.5 Bakersfield to Palmdale Project Section Build Alternatives

Construction and operation of the B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) could result in temporary and permanent impacts on socioeconomics and communities, including the disruption or division of existing communities; residential and business displacements and relocations; agricultural displacements; sensitive population relocations; community facilities; children's health and safety; agricultural access and road closures; and economic impacts, including changes in employment, changes in school district funding, agricultural economy, county and city property tax revenue losses, permanent effects on property values, and county and city sales tax revenues. In addition, the B-P Build Alternatives could result in economic and access benefits, including job creation, increased property values, construction and operation sales tax gains, and improved access between communities on opposite sides of existing transportation corridors.

Construction Impacts

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

Heavy construction (e.g., grading, excavation, constructing the HSR railbed, and laying the trackway) would be accomplished over an 8-year period. Activities related to building the HSR project would include receiving and moving equipment and materials, clearing and exposing soils, introducing lights for nighttime work, storing construction materials, and generally visually changing the project landscape. As much as possible, construction would take place within the right-of-way acquired for the HSR project.

Construction effects would include temporary increases in noise and dust and traffic congestion related to road closures or detours. Potential noise effects during construction on residential properties would be greater during any required nighttime construction; overall construction noise effects on both residential and commercial properties are expected to result in an impact. Potential construction vibration effects are evaluated in Section 3.4, Noise and Vibration, and will be further evaluated during final design. In addition, construction effects related to temporary visual impacts would occur. These effects are described in further detail in Section 3.16, Aesthetics and Visual Quality.

Construction impacts related to local roadway modifications and construction may temporarily disrupt community circulation patterns. While access to some neighborhoods would be temporarily disrupted and detoured for short periods during construction, the HSR project's temporary impacts related to community circulation would be minimized through compliance with SOCIO-IAMF#1 (Construction Management Plan). This IAMF would reduce potential temporary impacts related to community circulation from construction through the following mechanisms:

- **SOCIO-IAMF#1: Construction Management Plan**—By requiring the contractor to prepare a Construction Management Plan (CMP) that includes measures that minimize impacts on community residents and businesses. The plan would include actions pertaining to communications, visual resources protection, air quality, safety controls, noise controls, and traffic controls.

The CMP would maintain property access for local businesses, residences, and emergency services. In addition, the CMP would include efforts to consult with local transit providers to minimize temporary impacts on local and regional bus routes in affected communities. Any roadways that would need to be moved due to the HSR project right-of-way requirements would be realigned before the closure of the existing roadway to minimize impacts. Construction would also require an increase in truck trips that could increase congestion and affect pedestrians,

bicyclists, and transit through detours and delays, or increased safety risks. Refer to Section 3.2, Transportation, for additional details.

Construction would require a large number of employees but is not expected to have any impacts related to temporary population increases and the need for increased housing and services. Unemployment in the region remains relatively high, so project-related construction jobs may be filled by current residents in the region who have the needed skills. This would result in benefits to the economies of the communities within the region. Because the jobs would be filled by area residents, it is expected that the B-P Build Alternatives would result in no effect relating to the need for additional housing or services.

Law enforcement, fire, and emergency services could experience increased response times due to construction-related road closures, detours, and increased traffic congestion in some locations. Delays could be longer in rural areas, where temporary road closures could result in several miles of out-of-direction travel to cross the HSR alignment. As noted above, implementation of SOCIO-IAMF#1 would maintain emergency vehicle access for police and fire protection services at all times, thereby minimizing the HSR project's temporary impacts on emergency response times.

Access to some community facilities could be modified temporarily during construction, potentially inconveniencing patrons, but access would not be eliminated (except in cases where facilities would be displaced). Construction effects would include temporary increases in noise and dust and traffic congestion related to temporary road closures or detours. Therefore, the B-P Build Alternatives could result in temporary impacts relating to access to some parks and community facilities resulting in potential inconvenience to some patrons. Refer to the discussion under Impact SO #9 for a more detailed discussion regarding the specific effects of construction on community facilities.

Construction noise effects on residents would be greater at night because of the extra sensitivity of people when they are trying to sleep. Construction noise effects on both residential properties and commercial properties would vary at different locations along the alignments, depending on their proximity to sensitive receptors. Construction activities could be disruptive to nearby community facilities and institutions (such as schools, clinics, and government offices) because construction would occur primarily during their normal hours of operation, when noise, traffic, and other conflicts would be most problematic.

The HSR project's temporary impacts related to noise and air quality would be minimized through compliance with NV-IAMF#1 (Noise and Vibration), AQ-IAMF#1 (Fugitive Dust Emissions), AQ-IAMF#2 (Selection of Coatings), and AQ-IAMF#6 (Reduce the Potential Impact of Concrete Batch Plants). These IAMFs would reduce potential impacts related to noise and air quality from construction through the following mechanisms:

- **NV-IAMF#1: Noise and Vibration**—By requiring the contractor to document how federal guidelines for minimizing noise and vibration would be employed when construction is occurring near sensitive receptors (e.g., hospitals, residential neighborhoods, and schools).
- **AQ-IAMF#1: Fugitive Dust Emissions—**By requiring the preparation of a fugitive dust control plan identifying the minimum features to be implemented during ground-disturbing activities.
- **AQ-IAMF#2: Selection of Coatings**—By limiting the type of paint to those with volatile organic compound content of less than 10 percent (low) to be used during construction. Using paint that releases fewer volatile organic compounds into the air after application is an air quality management measure effective in reducing construction emissions and achieving federal and state air quality standards.
- **AQ-IAMF#6: Reduce the Potential Impact of Concrete Batch Plants**—By requiring the preparation of a technical memorandum documenting consistency with the Authority's concrete batch plant siting criteria and utilization of typical control measures.

CEQA Conclusion

As described above, construction of the B-P Build Alternatives could temporarily disrupt community circulation patterns. While access to some neighborhoods would be disrupted and

detoured for short periods during construction, a CMP would be prepared for the project (SOCIO-IAMF#1). The CMP would maintain property access for local businesses, residences, and emergency services. In addition, the CMP would include efforts to consult with local transit providers to minimize impacts on local and regional bus routes in affected communities. Any roadways that would need to be moved due to the HSR project right-of-way requirements would be realigned before the closure of the existing roadway to minimize effects. Construction would also require an increase in truck trips that could increase congestion and affect pedestrians, bicyclists, and transit through detours, delays, or increased safety risks. Refer to Section 3.2, Transportation, for additional details.

As noted above, implementation of SOCIO-IAMF#1 would maintain emergency vehicle access for police and fire protection services at all times. Law enforcement, fire, and emergency services could experience increased response times due to construction-related road closures, detours, and increased traffic congestion in some locations. Delays could be longer in rural areas, where temporary road closures could result in several miles of out-of-direction travel to cross the HSR alignment.

Access to some community facilities could be modified temporarily during construction, potentially inconveniencing patrons, but access would not be eliminated (except in cases where facilities would be relocated). Construction activities could be particularly disruptive to nearby community facilities and institutions (such as schools, clinics, and government offices) because construction would take place primarily during their normal hours of operation, when noise, traffic, and other conflicts would be most problematic.

In summary, all B-P Build Alternatives would result in localized road closures and increases in noise that may disrupt established communities and community interactions and cause human annoyance. The impacts would be temporary and would be minimized with implementation of SOCIO-IAMF#1. These impacts would be less than significant under CEQA, because construction would not result in the physical division of an existing community. Therefore, CEQA does not require any mitigation.

Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction

In general, construction would take place primarily outside (but in some areas within or adjacent to) established neighborhoods in areas associated with agricultural, commercial, industrial, and residential uses. Where the B-P Build Alternatives would be adjacent to existing transportation corridors (Edison Highway, SR 58, and Sierra Highway), construction would not permanently bisect or isolate established communities, or permanently change the existing community character. Effects to pedestrian and vehicular circulation are not considered a barrier to interaction throughout most of the Bakersfield to Palmdale Project Section because the B-P Build Alternatives would be primarily adjacent to existing transportation corridors. However, the B-P Build Alternatives would divide parts of Tehachapi and Rosamond and would displace a substantial number of residents, businesses, and community facilities, which would result in substantial permanent changes to the community character of the affected communities.

Alternative 1

Construction of Alternative 1 could potentially divide or disrupt communities adjacent to the alignment by permanently displacing residents, businesses, and important community facilities (refer to the discussion under Impacts SO #5, SO #6, and SO #7 for a description of the residential, business, and community facility displacements associated with each B-P Build Alternative, respectively).

San Joaquin Valley

Alternative 1 would pass through predominantly industrial and commercial areas between Oswell Street and S Vineland Road. Alternative 1 would pass through agricultural and vacant land between S Vineland Road and Bealville Road. As described under Impacts SO #5 and SO #6, Alternative 1 would displace a total of 8 residential units in Edison and the Northeast Bakersfield district and a total of 11 businesses in the Northeast Bakersfield district, including a mix of retail,

food service, and industrial uses. As described in the DRIR (Authority 2018b), an adequate supply of replacement properties is available in the replacement area in which to relocate these displaced residents and businesses.

The HSR project's permanent impacts related to displacements and relocations would be minimized through compliance with SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan). These IAMFs would reduce potential impacts related to displacements and relocations from construction through the following mechanisms:

- **SOCIO-IAMF#2: Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act**—By providing relocation assistance for people displaced through right-of-way acquisition
- **SOCIO-IAMF#3: Relocation Mitigation Plan**—By requiring the Authority to develop a relocation mitigation plan specific to the issues of each project section in order to minimize the economic disruption related to relocation

Although all residents and businesses displaced by the HSR project would receive relocation assistance under the Uniform Act, some may not be relocated near their current locations.

The majority of the businesses in the San Joaquin Valley subsection that would be displaced by Alternative 1 are industrial in nature. Therefore, local residents do not appear to rely on the goods and services offered by most of the affected businesses to meet their essential needs. While the retail and food service businesses that could be displaced by Alternative 1 provide some essential goods and services, other businesses in the vicinity of the Alternative 1 alignment offer the same types of goods and services as those businesses that would be displaced. Because local residents would still be able to receive goods and services similar to those currently provided by the businesses that would be displaced, the business displacements associated with Alternative 1 would not permanently disrupt the existing social fabric of the communities in the San Joaquin Valley subsection.

Alternative 1 would not permanently affect any community facilities or permanently close any paved roads within the San Joaquin Valley subsection. Some roads would be realigned or grade-separated from the HSR tracks to maintain north-south connections in the community. Appendix 2-A, Road Crossings, provides information regarding the road crossings under each B-P Build Alternative, including the road name, a description of the existing roadway conditions, and the proposed roadway modifications. There would not be any permanent impacts to emergency access as a result of the HSR project. Furthermore, some of these roadway modifications would result in permanent improvements to mobility within the communities by providing new grade-separated crossings over existing railroads in addition to the HSR tracks. Any newly constructed or reconstructed roadways in urban areas would provide Americans with Disabilities Act-compliant sidewalks. In addition, Alternative 1 would provide a new Class II bikeway on a newly constructed Weedpatch Highway grade separation. The new bikeway and sidewalks would enhance connectivity and improve community cohesion within the San Joaquin Valley subsection.

Tehachapi Mountains

Alternative 1 would pass through predominantly undeveloped areas between Bealville Road and SR 58 in eastern Tehachapi. From there, Alternative 1 would pass through predominantly industrial, agricultural, and vacant land before descending into the Antelope Valley. As described under Impacts SO #5 and SO #6, Alternative 1 would displace a total of 7 residential units in Tehachapi and unincorporated Kern County and a total of 11 businesses (5 in Tehachapi and 6 in unincorporated Kern County), including a mix of light industrial and warehouse uses. Similar to the San Joaquin Valley subsection, the majority of the affected businesses in the Tehachapi Mountains subsection are not neighborhood-serving. As described in the DRIR (Authority 2018b), an adequate supply of replacement properties available in the replacement area in which to relocate these displaced residents and businesses. Therefore, the residential and business displacements associated with Alternative 1 would not disrupt the existing social fabric of the communities in the Tehachapi Mountains subsection.

While some roads in the Tehachapi Mountains subsection would be realigned or grade-separated from the HSR tracks to maintain north-south and east-west connections in the community, others would be permanently closed on either side of the HSR tracks. (Refer to Appendix 2-A for a description of each proposed road crossing.) The majority of the road closures would be dirt roads with continued community access via nearby grade-separated crossings. As noted above, any newly constructed or reconstructed roadways in urban areas would provide Americans with Disabilities Act-compliant sidewalks. In addition, the new sections of Steuber Road and Highline Road that would pass beneath the alignment would be built to accommodate the future construction of new Class II bikeways on those roads. The new sidewalks would enhance connectivity and improve community cohesion in the Tehachapi Mountains subsection.

Rural Antelope Valley

Alternative 1 would pass through predominantly agricultural and undeveloped areas between the southernmost ridgeline of the Tehachapi Mountains and western Rosamond. Alternative 1 would then pass through predominantly agricultural and undeveloped areas, as well as some rural residential land uses between western Rosamond and Avenue H in Lancaster. As described under Impacts SO #5 and SO #6, Alternative 1 would displace a total of 15 residential units in Rosamond and would not displace any businesses in the Rural Antelope Valley subsection. As described in the DRIR (Authority 2018b), an adequate supply of replacement properties is available in the replacement area in which displaced residents could find replacement properties. Therefore, the residential displacements associated with Alternative 1 would not disrupt the existing social fabric of the communities in the Rural Antelope Valley subsection.

Alternative 1 would not permanently affect any community facilities in the Rural Antelope Valley subsection. Additionally, while some roads would be realigned or grade-separated from the HSR tracks to maintain north-south and east-west connections in the community, others would be permanently closed on either side of the HSR tracks. (Refer to Appendix 2-A for a description of each proposed road crossing). All of the road closures would be dirt roads with continued community access via grade-separated crossings at nearby existing dirt and paved roads.

Although the HSR project would provide several roadway overcrossings and undercrossings to facilitate pedestrian, bicycle, and vehicular circulation, the project would introduce a new railroad line in a portion of the community of Rosamond where none currently exists. The HSR project would provide an adequate number of roadway overcrossings to facilitate the continuation of existing social interaction patterns in the vicinity of the proposed HSR alignment. In the vicinity of 60th Street W and Gobi Avenue in Rosamond, the HSR project would require residents to travel several blocks out of their way to reach their destination; however, due to the low-density, rural residential character of the area and the provision of new undercrossings at Rosamond Boulevard, 60th Street W, and Astoria Avenue, this impact is anticipated to affect fewer than a dozen households and would not represent a new barrier in the community. Therefore, Alternative 1 would not permanently disrupt community cohesion in the Rural Antelope Valley subsection.

Urban Antelope Valley

Alternative 1 would pass through predominantly industrial and commercial land uses as well as some residential areas between Avenue H in Lancaster and Avenue O in Palmdale. As noted under Impacts SO #5 and SO #6, Alternative 1 would displace a total of 206 residential units in Lancaster and unincorporated Los Angeles County and a total of 212 businesses (188 in Lancaster, 21 in Palmdale, and 3 in unincorporated Los Angeles County), including a mix of retail and food services, auto-related businesses, professional businesses, and various light industrial and warehouse uses. As described in the DRIR (Authority 2018b), an adequate supply of replacement properties and vacant commercial and industrial land is available in the replacement area in which residents and businesses could relocate. Nevertheless, some residents and businesses displaced by the HSR project may not be able to relocate within their communities.

Given the wide range of goods and services offered by the various businesses in the Urban Antelope Valley subsection that would be displaced by Alternative 1, local residents are likely to rely on at least some of the affected businesses to meet their essential needs. However, due to

the large size of Lancaster and Palmdale and the central location of the Alternative 1 alignment within those communities, many other businesses in the vicinity of the Alternative 1 alignment are expected to offer the same types of goods and services as those businesses that would be displaced. Because local residents would still be able to receive goods and services similar to those currently provided by the businesses that would be displaced, the business displacements associated with Alternative 1 would not permanently disrupt the existing social fabric of the communities in the Urban Antelope Valley subsection.

Alternative 1 would permanently affect community facilities in the Urban Antelope Valley subsection. As described in Impact SO #7, Alternative 1 would result in the displacement of the Los Angeles County Water Works District 4 Office, an associated water tank facility, Grace Reformed Church, and Iglesia De Dios Bethel Church.

A number of nearby properties zoned for mixed use could accommodate Grace Reformed Church and Iglesia De Dios Bethel Church, assuming the facilities' needs can be met at these properties. Therefore, Grace Reformed Church and Iglesia De Dios Bethel Church are expected to relocate locally, maintaining community ties. Displacement of these churches would not disrupt the community's cohesion.

While some roads would be realigned or grade-separated from the HSR tracks to maintain north-south and east-west connections in the community, others would be permanently closed on either side of the HSR tracks. All of the affected road crossings in this subsection, except W Avenue L in Lancaster, are currently at-grade with the existing UPRR tracks. As shown in Appendix 2-A, Alternative 1 would replace each of the existing at-grade crossings in Lancaster and Palmdale with new grade-separated crossings. These new grade separations would enhance mobility in Lancaster and Palmdale by eliminating traffic delays for motorists who are currently forced to wait for passing trains. Alternative 1 would also realign Sierra Highway from just north of Avenue K to Avenue N. While the realignment of Sierra Highway would eliminate or modify access to certain properties in Lancaster, the Authority would acquire any properties where access would be permanently eliminated. There would not be any permanent impacts to emergency access as a result of the HSR project.

Any newly constructed or reconstructed roadways, including new grade separations, would provide Americans with Disabilities Act-compliant sidewalks. Where existing roads cross the proposed HSR alignment, the HSR project would replace all transportation improvements, including bike lanes, trails, sidewalks, and transportation facilities, to match the existing conditions. The new sidewalks and bikeways would enhance connectivity and improve community cohesion in the Urban Antelope Valley subsection.

Implementation of the IAMFs described above would minimize the potential for construction to permanently disrupt community cohesion or divide existing communities. Alternative 1 would enhance connectivity and improve community cohesion in Edison, Lancaster, and Palmdale by constructing new grade separations in those communities, which are currently divided by existing railroad lines.

These effects would not represent a permanent physical division of an established neighborhood. However, it would relocate a substantial number of residences (in Lancaster and Palmdale), and result in noticeable permanent social changes (in Lancaster).

Alternative 2

Alternative 2 follows the same alignment from Bakersfield to Palmdale as Alternative 1, except through the community of Edison. Variations exist between Alternative 1 and Alternative 2 between Edison Road and Towerline Road, where the HSR alignment runs along the south side of existing SR 58 on an elevated embankment. Alternative 2 would allow SR 58 to remain on its current alignment but would require construction of an elevated structure spanning the SR 58/ Edison Road interchange diagonally. A second elevated structure crossing back over SR 58 would be required just past Towerline Road. Alternative 2 would move the HSR tracks 240 feet farther away from Edison Middle School, which would reduce any potential HSR noise and vibration effects to the school. Although Alternative 2 diverges from Alternative 1 for

approximately 12 miles in the San Joaquin Valley subsection, it would still be in or along the UPRR, Edison Highway, and SR 58 from Oswell Street to Caliente Creek. Construction of Alternative 2 would generally result in the same effects on community cohesion as Alternative 1. Refer to the construction discussion above under Alternative 1 for a description of the permanent effects on community cohesion associated with Alternative 2. SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan) would also apply to Alternative 2.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction to permanently disrupt community cohesion or divide existing communities. After consideration of those IAMFs, Alternative 2 would result in the similar permanent effects on community cohesion as Alternative 1. Alternative 2 would result in the same mobility enhancements, resulting in beneficial permanent effects on community cohesion as Alternative 1.

Alternative 3

Alternative 3 follows the same alignment from Bakersfield to Palmdale as Alternative 1 except along the base of the Tehachapi Mountains. Alternative 3 varies from Alternative 1 just south of Tehachapi in the vicinity of the CalPortland Cement Company property, where the alignment is approximately 3,000 feet west of Alternative 1, placing the HSR route closer to Tehachapi Willow Springs Road. This portion of the alignment also increases the cumulative tunnel length of the two most southerly tunnels, which would be in south Tehachapi, by a distance of 4,290 feet when compared to Alternative 1. South of Tehachapi, Alternative 3 splits off on a more westerly alignment than Alternative 1 until it reconnects at the common connection point of Alternative 1, approximately 17 miles south of Tehachapi.

The design objectives of Alternative 3 are similar to those of Alternative 1. Alternative 3 also has the design objective to identify a different alignment through the CalPortland Cement Company property that locates the HSR alignment further away from the existing CalPortland active limestone quarry and closer to Tehachapi Willow Springs Road. Although Alternative 3 combines transportation corridors between the HSR alignment and Tehachapi Willow Springs Road, it would potentially result in a greater disruption to existing mining areas at the CalPortland Cement Company property than Alternative 1.

Although Alternative 3 diverges from Alternative 1 south of Tehachapi for approximately 5 miles in the Tehachapi Mountains subsection and for approximately 9 miles in the Rural Antelope Valley subsection, it would still roughly follow Tehachapi Willow Springs Road until it reaches Rosamond. Construction of Alternative 3 would generally result in the same effects on community cohesion as Alternative 1. Refer to the construction discussion above under Alternative 1 for a description of the permanent effects on community cohesion associated with Alternative 3. SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan) would also apply to Alternative 3.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction to permanently disrupt community cohesion or divide existing communities. After consideration of those IAMFs, Alternative 3 would result in the same permanent effects on community cohesion as Alternative 1. Alternative 3 would also result in the same beneficial permanent effects on community cohesion as Alternative 1.

Alternative 5

Alternative 5 follows the same alignment from Bakersfield to Palmdale as Alternative 1 except in the City of Lancaster. Between Avenue H and Avenue M in the City of Lancaster, Alternative 5 proposes to avoid the UPRR and Metrolink facilities and relocate Sierra Highway as required by Alternatives 1, 2, and 3. The primary goal of this alternative is to place the HSR alignment as close as possible to the existing rail facilities and avoid as many business displacements as possible.

Although Alternative 5 diverges from Alternative 1 for approximately 2 miles in the Rural Antelope Valley subsection and throughout the entire length of the Urban Antelope Valley subsection, it

would still roughly follow Sierra Highway and the UPRR to Avenue O in Palmdale. Therefore, Alternative 5 would result in many of the same effects on community cohesion as Alternative 1; however, Alternative 5 would result in slightly different effects in the Urban Antelope Valley subsection. Those differences are highlighted below. Refer to the construction discussion above under Alternative 1 for a description of the permanent effects on community cohesion associated with Alternative 5 in the San Joaquin Valley, Tehachapi Mountains, and Rural Antelope Valley subsections.

As noted under Impacts SO #5 and SO #6, Alternative 5 would displace a total of 301 residential units in Lancaster and unincorporated Los Angeles County, and a total of 266 businesses (244 in Lancaster and 22 in Palmdale). Similar to Alternative 1, Alternative 5 would displace a mix of retail and food services, auto-related businesses, professional businesses, and various light industrial and warehouse uses. As described in the DRIR (Authority 2018b), an adequate supply of replacement properties and vacant commercial and industrial land is available in the replacement area in which to relocate these displaced residents and businesses. Nevertheless, some residents and businesses displaced by the HSR project may not relocate near their current locations. Because Alternative 5 would displace approximately the same number and types of businesses as Alternative 1, Alternative 5 would not permanently disrupt the existing social fabric of the communities in the Urban Antelope Valley subsection.

Alternative 5 would permanently affect community facilities in the Urban Antelope Valley subsection. Alternative 5 would displace the Grace Resource Center, a social service center run by a nonprofit organization that provides hot meals, groceries, classes, and other necessities to homeless and low income populations in the Antelope Valley. Alternative 5 would also displace the Los Angeles County Sheriff's Department's Lancaster Station, the California Department of Transportation (Caltrans) Lancaster Maintenance Station, and the University of Antelope Valley.

Relocation of the Los Angeles County Sheriff's Department's Lancaster Station and the Caltrans Lancaster Maintenance Station would be subject to all site selection criteria and processes required by their corresponding agencies. A replacement sheriff's station would be constructed. The Los Angeles County Sheriff's Department Lancaster Station would need to be relocated close to its existing location to service the police protection needs of the surrounding area. However, given the availability of vacant land in the Lancaster area and potential redevelopment sites in and around downtown Lancaster, it is likely that the Sheriff's Department and Caltrans would be able to find a suitable replacement properties for their facilities.

Suitable relocation sites for the privately administered University of Antelope Valley would need to be approved by its governing board and meet any requirements or criteria for its educational functions. Displacement of the Los Angeles County Sheriff's Department's Lancaster Station, the Caltrans Lancaster Maintenance Station, and the University of Antelope Valley are not anticipated to permanently disrupt community cohesion. Although areas in Lancaster designated and zoned for light industrial uses could accommodate the Grace Resource Center, its relocation process may prove challenging due to public scrutiny.

Displacement of the Grace Resource Center could permanently disrupt the cohesion of the Antelope Valley's homeless population should that facility be relocated to an area in Lancaster that is not served by public transportation or located near other support service for homeless populations. Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate community facilities, including Grace Resource Center outside its existing community.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan) would also apply to Alternative 5.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction to permanently disrupt community cohesion or divide existing communities. After consideration of those IAMFs, Alternative 5 would result in the same

permanent effects on community cohesion as Alternative 1. Alternative 5 would result in the same beneficial permanent effects on community cohesion as Alternative 1.

CEQA Conclusion

The communities of Bakersfield, Edison, Keene, Tehachapi, Lancaster, and Palmdale have grown historically on both sides of the existing heavy rail or highway corridors. Therefore, the HSR project would not introduce new features that would divide these communities. Rather, it would have minor effects on the edges of the neighborhoods, many of which have developed in the vicinity of the existing rail or highway corridors over the past decades. The HSR project would displace a relatively small number of homes, businesses, farms, or community amenities that currently occupy land near the B-P Build Alternative alignments.

The B-P Build Alternative alignments deviate from existing highway and railroad corridors when they pass through Tehachapi and western Rosamond. The HSR project would provide adequate roadway overcrossings and undercrossings to facilitate pedestrian, bicycle, and vehicular circulation. Therefore, the project would not physically divide the community of Rosamond. The impact would be less than significant for all B-P Build Alternatives, which follow the same alignment through western Rosamond. Therefore, CEQA does not require any mitigation.

Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities

Construction-Related Employment

Construction of the HSR project would result in temporary increases in employment. Employment associated with construction of the HSR project would vary by each B-P Build Alternative due to differences in construction difficulty and construction activity type. Generally, higher spending on construction leads to greater direct job creation, as well as the associated indirect and induced employment. Overall, it is expected that employment associated with construction of the HSR project would be a net benefit for the region, as it would spur additional economic activity.

Alternative 1

Over the 8-year construction period, project expenditures under Alternative 1 would result in the creation of an estimated 77,800 direct and 74,600 indirect and induced annual job years, for a total of 152,400 job years in the two-county area (Table 3.12-25). As described in Section 3.1, the 8-year construction period was assumed to take place between 2018 and 2025, which was the latest available information at the time the environmental analysis was prepared. During the peak period of construction, Alternative 1 would support an estimated 16,700 direct and 16,000 indirect and induced jobs, for a total of 32,700 jobs. Based on CEDD projections, the RSA would support 4,889,900 total jobs, with 161,100 of those jobs in the construction industry, by 2022, which is 1 year after the projected 2021 peak of the construction period for the Bakersfield to Palmdale Project Section. Given that projected employment in the RSA under the No Project Alternative is not expected to vary drastically over 1 year, CEDD projections for 2022 are a good representation of the baseline employment conditions at the 2021 peak of construction. Based on these projections, the up to 32,700 total jobs during the peak year of construction for the Alternative 1 would account for an additional 0.7 percent of the total jobs in the RSA. The 16,700 direct jobs under Alternative 1 would comprise an additional 10.4 percent total projected peak construction year jobs in the region. This small percentage increase would not be substantial enough to attract workers to the region. Therefore, the construction of Alternative 1 would not result in the need to construct new or expand existing community facilities to serve the expanded population and employment base.

What is an annual job year?

An annual job year is a measurement unit used by economists for estimating the number of jobs that a construction project would generate over a multi-year period. An annual job year is equivalent to one person fully employed for 1 year.

Table 3.12-25 Employment Impacts during Construction (in annual job years)[1]

Employment	2018	2019	2020	2021	2022	2023	2024	2025	Total
Alternative 1									
Direct	4,200	8,600	13,600	16,700	15,600	11,200	6,200	1,700	77,800
Indirect and Induced	4,100	8,200	13,100	16,000	15,000	10,700	5,900	1,600	74,600
Total	**8,300**	**16,800**	**26,700**	**32,700**	**30,600**	**21,900**	**12,100**	**3,300**	**152,400**
Alternative 2									
Direct	4,200	8,400	13,400	16,500	15,400	11,000	6,100	1,700	76,700
Indirect and Induced	4,000	8,100	12,900	15,800	14,700	10,500	5,800	1,600	73,400
Total	**8,200**	**16,500**	**26,300**	**32,300**	**30,100**	**21,500**	**11,900**	**3,300**	**150,100**
Alternative 3									
Direct	4,400	8,800	14,100	17,200	16,100	11,500	6,400	1,700	80,200
Indirect and Induced	4,200	8,500	13,500	16,500	15,400	11,000	6,100	1,700	76,900
Total	**8,600**	**17,300**	**27,600**	**33,700**	**31,500**	**22,500**	**12,500**	**3,400**	**157,100**
Alternative 5									
Direct	4,300	8,600	13,800	16,900	15,800	11,300	6,200	1,700	78,600
Indirect and Induced	4,100	8,300	13,200	16,100	15,100	10,800	6,000	1,600	75,200
Total	**8,400**	**16,900**	**27,000**	**33,000**	**30,900**	**22,100**	**12,200**	**3,300**	**153,800**

Source: California High-Speed Rail Authority, 2020b

[1] This data includes the portion of the Fresno to Bakersfield Locally Generated Alternative alignment from the intersection of 34th Street and L Street to Oswell Street, the Bakersfield and Palmdale stations, and the maintenance facilities.

Job creation associated with the Lancaster North B Maintenance of Way Facility (MOWF) site, the Avenue M LMF/MOWF, and the electric power utility improvements is included in the job creation numbers under Alternative 1.

The temporary effects resulting from the construction of Alternative 1 would result in a noticeable economic change within the two-county region.

Alternative 2

As shown in Table 3.12-25, over the 8-year construction period, project expenditures under Alternative 2 would result in the creation of an estimated 76,700 direct and 73,400 indirect and induced annual job years, for a total of 150,100 job years in the two-county. During the peak period of construction, Alternative 2 would support an estimated 16,500 direct and 15,800 indirect and induced jobs, for a total of 32,300 jobs. The 16,500 direct jobs would comprise an additional 10.2 percent of the total projected peak construction year jobs in the region. This small percentage increase would not be substantial enough to attract workers to the region because the existing underemployed construction workforce is expected to fill the majority of these jobs. Therefore, the construction of Alternative 2 would not result in the need to construct new or expand existing community facilities to serve the expanded population and employment base.

Job creation associated with the Lancaster North B MOWF site, the Avenue M LMF/MOWF, and the electric power utility improvements is included in the job creation numbers under Alternative 2.

Similar to Alternative 1, the temporary effects resulting from the construction of Alternative 2 would result in a noticeable economic change within the two-county region; however, they would not affect the overall quality of life in the region.

Alternative 3

As shown in Table 3.12-25, over the 8-year construction period, project expenditures under Alternative 3 would result in the creation of an estimated 80,200 direct and 76,900 indirect and

induced annual job years, for a total of 157,100 job years in the two-county. During the peak period of construction, Alternative 3 would support an estimated 17,200 direct and 16,500 indirect and induced jobs, for a total of 33,700 jobs. The 17,200 direct jobs would comprise an additional 10.6 percent of the total projected peak construction year construction jobs in the region. This small percentage increase would not be substantial enough to attract workers to the region. Therefore, the construction of Alternative 3 would not result in the need to construct new or expand existing community facilities to serve the expanded population and employment base.

Job creation associated with the Lancaster North B MOWF site, the Avenue M LMF/MOWF, and the electric power utility improvements is included in the job creation numbers under Alternative 3.

Similar to Alternative 1, the temporary effects resulting from the construction of Alternative 3 would result in a noticeable economic change within the two-county region; however, they would not affect the overall quality of life in the region.

Alternative 5

As shown in Table 3.12-25, over the 8-year construction period, project expenditures under Alternative 5 would result in the creation of an estimated 78,600 direct and 75,200 indirect and induced annual job years, for a total of 153,800 job years in the two-county area. During the peak period of construction, Alternative 5 would support an estimated 16,900 direct and 16,100 indirect and induced jobs, for a total of 33,000 jobs. The 16,900 direct jobs would comprise an additional 10.5 percent of the total projected peak construction year jobs in the region. This small percentage increase would not be substantial enough to attract workers to the region. Therefore, the construction of Alternative 5 would not result in the need to construct new or expand existing community facilities to serve the expanded population and employment base.

Job creation associated with the Lancaster North B MOWF site, the Avenue M LMF/MOWF, and the electric power utility improvements is included in the job creation numbers under Alternative 5.

Similar to Alternative 1, the temporary effects resulting from the construction of Alternative 5 would result in a noticeable economic change within the two-county region; however, they would not affect the overall quality of life in the region.

CCNM Design Option and Refined CCNM Design Option

There would be no change in the estimated number of construction jobs under the CCNM Design Option. However, for the Refined CCNM Design Option, there would be 3,500 direct jobs and 3,300 indirect jobs, for a total of 6,800. These jobs would only be generated when construction takes place for the alignments associated with the design options which are in the Keene area; therefore, these jobs have not been spread over the entire construction period. The additional jobs for the Refined CCNM Design Option would be in addition to the jobs generated by the alternatives.

CEQA Conclusion

Construction of the B-P Build Alternatives would result in temporary increases in employment. However, the temporary employment generated by the HSR project would represent a small percentage of the two-county region's forecasted employment growth. This small percentage increase would not be substantial enough to greatly attract workers to the region. Therefore, the construction of the B-P Build Alternatives would not result in the need to construct new or expand existing community facilities to serve the expanded population and employment base. All B-P Build Alternatives would result in less than significant impacts related to the provision of new or physically altered governmental facilities. Therefore, CEQA does not require any mitigation.

Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction

Alternative 1

Table 3.12-26 provides information regarding the residential displacements under Alternative 1, including the estimated number of displaced residential units and the estimated number of residents who would be permanently displaced. As shown in Table 3.12-26, Alternative 1 would displace approximately 243 residential units, which correlates to approximately 707 displaced residents. The majority of these displacements would occur in the Lancaster area, where approximately 203 residential units would be displaced. Most of these units would be displaced from 3 apartment complexes.

Table 3.12-26 Residential Displacements Under Alternative 1

Location	Units Displaced			Total Residential Units Displaced	Estimated Residents Displaced
	Single-Family Residential Units	Multifamily Residential Units	Mobile Homes		
Kern County					
Northeast Bakersfield	4	0	1	5	16
Community of Edison	2	0	0	2	1
City of Tehachapi	1	0	3	4	13
Rosamond CDP	6	0	15	21	60
Other Unincorporated Kern County Areas	4	0	1	5	15
Los Angeles County					
City of Lancaster	21	142	40	203	593
Unincorporated Los Angeles County	2	0	1	3	9
Regional Total	**40**	**142**	**61**	**243**	**707**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 1 would not result in any residential displacements in Keene, Golden Hills, or Palmdale.
The number of residential displacements under Alternative 1 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument CDP = census designated place

The remaining displacements along Alternative 1 include a mix of single-family residences and mobile homes scattered along the alignment in the Northeast Bakersfield district, Edison, Tehachapi, and unincorporated areas in Kern and Los Angeles Counties. The communities of Keene and Golden Hills and the City of Palmdale would have no residential displacements.

An examination of suitable replacement housing alternatives finds that a sufficient number of comparable replacement residences were available at the time of preparation of this Final EIR/EIS in all areas with relocations. This gap analysis is a likely indicator of available replacement properties during the acquisition phase of the project. Table 3.12-27 shows the gap analysis of residential properties that are available for relocation.

Approximately 84 percent of the total residential unit displacements under Alternative 1 would occur in Lancaster. As shown in Table 3.12-27, approximately 1,182 residential units are available for rent or sale in Lancaster. Therefore, the existing supply of vacant residential units would be substantially greater than necessary to house the relocated residents.

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for the project to displace residents who would not be able to find replacement properties with the community.

Table 3.12-27 Gap Analysis of Residential Displacements Under Alternative 1

Location	Residential Units Displaced	Residential Units Available			Surplus/(Deficit)
		Single-Family Residential	Multifamily Residential	Mobile Homes	
Kern County					
Northeast Bakersfield	5	2,303	338	53	2,689
City of Tehachapi	4	263	26	8	293
Community of Edison	2	240	12	4	254
Rosamond CDP	21	90	16	15	100
Other Unincorporated Kern County Areas	5	548	12	11	566
Los Angeles County					
City of Lancaster	203	972	190	20	976
Unincorporated Los Angeles County	3	517	101	11	626
Regional Total	**243**	**4,933**	**695**	**122**	**5,504**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 1 would not result in any residential displacements in Keene, Golden Hills, or Palmdale.
The number of comparable replacement residences under Alternative 1 is the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument CDP = census designated place

Table 3.12-27 also shows that the existing supply of vacant residential units exceeds the anticipated number of displaced residential units in the Northeast Bakersfield district, Edison, Tehachapi, Rosamond, and unincorporated areas in Kern and Los Angeles Counties.

As described in the DRIR (Authority 2018b) and DRIR Technical Report Supplement (Authority 2020b), the values of these potential replacement housing units are comparable to the values of the displaced properties. This comparison of cost is a good measure of the suitability of replacement housing because it is a function of important attributes, such as size, quality, and neighborhood amenities. A review of current vacant single-family and multifamily home prices in Lancaster reveals a price distribution that is similar to that of the displaced properties (Zillow 2016).

The Lancaster area would be heavily affected by the displacement of 142 multifamily residential units. Comparable rental units in these communities were quantified under the assumption that none of those living in multifamily housing would purchase a home (i.e., would continue to rent). Based on the number of available houses and apartments for rent in Lancaster and Palmdale (261 units), there appears to be sufficient replacement housing to accommodate the relocated potential renters in Lancaster. Nevertheless, the City of Lancaster's Affordable Housing Database (City of Lancaster 2014a) indicates that an overwhelming majority of the displaced multifamily residential units (81.5 percent of such units) are currently subject to long-term affordability covenants. Therefore, it is reasonable to conclude that the displaced residents living in those units may need to move to other rental units in the Lancaster area that are similarly reserved at affordable prices to income-qualified residents.

Given the historically limited supply of affordable housing units in the Antelope Valley, it is possible that existing housing would need to be price-restricted to house many of the residents displaced by the project. The relocation plan for residents in Lancaster would note the possibility that rental units available in the immediate area may not be adequate. As a result, it will be important to provide sufficient lead time to allow for identification of suitable rental properties and provision of 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 summary, although Alternative 1 would displace substantial numbers of existing housing units and relocate many people in Lancaster, adequate replacement housing appears to be available in the area, provided that such housing can be made available at

affordable prices. If sufficient housing is unavailable, the Authority would work collaboratively with the local jurisdictions to find the means to locate replacement housing.

The residential displacements outside Lancaster are fewer in number and less concentrated in a single community, but still represent approximately 16 percent of all residential displacements along the alignment. As noted above, the existing supply of vacant residential units exceeds the anticipated number of displaced residential units along the remainder of the alignment.

The residential displacements in the other communities along Alternative 1 are few in number and would therefore result in relatively minor effects on the region as a whole. The potential for the relocations to result in disproportionate effects on low-income and minority populations is discussed in detail in Chapter 5, Environmental Justice.

Alternative 1 would result in the displacement of 64 units of manufactured housing (or mobile homes) throughout the alignment. Although special considerations would need to be included in the project relocation plan to address the unique needs of these residents, the mobile homes that could be displaced by the project are in rural areas and not within a mobile home park. Therefore, their relocation process is not anticipated to be particularly challenging because it is not imperative that the displaced residents be relocated to a nearby mobile home park.

As discussed above, the majority of the residential units in Lancaster (and along the HSR alignment) that would be displaced by the project are reserved for low-income residents at affordable prices. Therefore, it is reasonable to assume that low-income residents comprise the majority of the residential population that would be displaced by Alternative 1.

From the perspective of property displacements, suitable existing replacement structures appear to be available within the community, as many vacant buildings are present in the area of the facility. Refer to Appendix 3.12-B, Relocation Assistance Benefits, for information on the Relocation Advisory Assistance Program, which would aid businesses, farms, and nonprofit organizations in locating a suitable replacement property. Also, if it is determined that a new building should be constructed to accommodate relocations, it would be a single structure and is not likely to place pressure on the availability of existing housing units, affect existing community housing objectives or plans, or require new, previously unplanned housing to be built. The HSR project would displace substantial numbers of existing housing units along this alternative alignment; however, given the existing supply of vacant residential units in the replacement area, the construction of replacement housing would not be required.

Implementation of the IAMFs described above would minimize the potential for construction of Alternative 1 to relocate residents outside their existing community; however, Alternative 1 would still relocate a substantial number of residents in Lancaster and Palmdale.

Alternative 2/Preferred Alternative

Table 3.12-28 provides information regarding the residential displacements under Alternative 2 and the Preferred Alternative, including the estimated number of displaced residential units and the estimated number of residents who would be displaced. Table 3.12-28 shows that Alternative 2 and the Preferred Alternative would displace approximately 243 residential units, which correlates to approximately 712 displaced residents. Similar to Alternative 1, the majority of these displacements would occur in the Lancaster area, where approximately 203 residential units would be permanently displaced.

Alternative 2 and the Preferred Alternative would result in many of the same additional displacements as Alternative 1 along the remainder of the alignment in the Northeast Bakersfield district, Edison, Tehachapi, and unincorporated areas in Kern and Los Angeles Counties. The communities of Keene and Golden Hills and the City of Palmdale would have no residential displacements.

It is assumed that the same replacement housing resources identified above for Alternative 1 would also be available to accommodate relocations associated with Alternative 2. SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 2.

Table 3.12-28 Residential Displacements Under Alternative 2/Preferred Alternative

Location	Units Displaced			Total Residential Units Displaced	Estimated Residents Displaced
	Single-Family Residential Units	Multifamily Residential Units	Mobile Homes		
Kern County					
Northeast Bakersfield	4	0	1	5	16
Community of Edison	2	0	0	2	6
City of Tehachapi	1	0	3	4	13
Rosamond CDP	6	0	15	21	60
Other Unincorporated Kern County Areas	4	0	1	5	15
Los Angeles County					
City of Lancaster	21	142	40	203	593
Unincorporated Los Angeles County	2	0	1	3	9
Regional Total	**40 (-1)**	**142**	**61**	**243**	**712**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 2 would not result in any residential displacements in Keene, Golden Hills, or Palmdale.
The number of residential displacements under Alternative 2 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument CDP = census designated place

Table 3.12-29 shows the gap analysis of residential properties that are available for relocation. As shown in Table 3.12-29, the existing supply of vacant residential units in each of the cities, communities, and counties where residential displacements would occur would be greater than necessary to house the relocated residents. However, Alternative 2 and the Preferred Alternative would remove approximately 132 residential units from the affordable housing market and displace approximately 417 low-income residents.

Table 3.12-29 Gap Analysis of Residential Displacements Under Alternative 2/Preferred Alternative

Location	Residential Units Displaced	Residential Units Available			Surplus/(Deficit)
		Single-Family Residential	Multifamily Residential	Mobile Homes	
Kern County					
Northeast Bakersfield	5	2,303	338	53	2,689
Community of Edison	2	240	12	4	254
City of Tehachapi	4	263	26	8	293
Rosamond CDP	21	90	16	15	100
Other Unincorporated Kern County Areas	5	548	12	11	566
Los Angeles County					
City of Lancaster	203	972	190	20	979
Unincorporated Los Angeles County	3	517	101	11	626
Regional Total	**243**	**4,933**	**695**	**122**	**5,507**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 2 would not result in any residential displacements in Keene, Golden Hills, or Palmdale.
The number of comparable replacement residences under Alternative 2 is the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument CDP = census designated place

Although Alternative 2 and the Preferred Alternative would displace considerable numbers of existing housing units and relocate many people in Lancaster, adequate replacement housing appears to be available in the area, provided that such housing can be made available at affordable prices.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction of Alternative 2 to relocate residents outside their existing communities; however, Alternative 2 would still relocate a substantial number of residents in Lancaster and Palmdale.

Alternative 3

Table 3.12-30 provides information regarding the residential displacements under Alternative 3, including the estimated number of displaced residential units and the estimated number of residents who would be permanently displaced. Table 3.12-30 shows that Alternative 3 would displace approximately 244 residential units, which correlates to approximately 715 displaced residents. Similar to Alternatives 1 and 2, the majority of these displacements would occur in the Lancaster area, where approximately 203 residential units would be displaced.

Table 3.12-30 Residential Displacements Under Alternative 3

Location	Units Displaced			Total Residential Units Displaced	Estimated Residents Displaced
	Single-Family Residential Units	Multifamily Residential Units	Mobile Homes		
Kern County					
Northeast Bakersfield	4	0	1	5	16
Community of Edison	2	0	0	2	6
City of Tehachapi	1	0	3	4	13
Rosamond CDP	6	0	15	21	60
Other Unincorporated Kern County Areas	4	0	2	6	18
Los Angeles County					
City of Lancaster	21	142	40	203	593
Unincorporated Los Angeles County	2	0	1	3	9
Regional Total	**40**	**142**	**62**	**244**	**715**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 3 would not result in any residential displacements in Keene, Golden Hills, or Palmdale.
The number of residential displacements under Alternative 3 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument
CDP = census designated place

Alternative 3 would result in many of the same additional displacements as Alternatives 1 and 2 along the remainder of the alignment in the Northeast Bakersfield district, Edison, Tehachapi, and unincorporated areas in Kern and Los Angeles Counties. The communities of Keene and Golden Hills and the City of Palmdale would have no residential displacements.

It is assumed that the same replacement housing resources identified above for Alternatives 1 and 2 would also be available to accommodate relocations associated with Alternative 3. SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO#2, would also apply to Alternative 3.

Table 3.12-31 shows the gap analysis of residential properties that are available for relocation. As shown in Table 3.12-31, the existing supply of vacant residential units in each of the cities, communities, and counties where residential displacements would occur would be greater than necessary to house the relocated residents. However, similar to Alternatives 1 and 2, Alternative 3 would remove approximately 132 residential units from the affordable housing market and displace approximately 417 low-income residents. Similar to Alternatives 1 and 2, although Alternative 3 would displace considerable numbers of existing housing units and relocate many people in Lancaster, adequate replacement housing appears to be available in the area, provided that such housing can be made available at affordable prices.

Table 3.12-31 Gap Analysis of Residential Displacements Under Alternative 3

Location	Residential Units Displaced	Residential Units Available			Surplus/(Deficit)
		Single-Family Residential	Multifamily Residential	Mobile Homes	
Kern County					
Northeast Bakersfield	5	2,303	338	53	2,689
Community of Edison	2	240	12	4	254
City of Tehachapi	4	263	26	8	293
Rosamond CDP	21	90	16	15	100
Other Unincorporated Kern County Areas	6	548	12	11	565
Los Angeles County					
City of Lancaster	203	972	190	20	979
Unincorporated Los Angeles County	3	517	101	11	626
Regional Total	**244**	**4,933**	**695**	**122**	**5,506**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 3 would not result in any residential displacements in Keene, Golden Hills, or Palmdale.
The number of comparable replacement residences under Alternative 3 is the same with or without the CCNM Design Option and Refined CCNM Design Option.
CCNM = César E. Chávez National Monument CDP = census designated place

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction of Alternative 3 to relocate residents outside their existing communities; however, Alternative 3 would still relocate a substantial number of residents in Lancaster and Palmdale.

Alternative 5

Table 3.12-32 provides information regarding the residential displacements under Alternative 5, including the estimated number of displaced residential units and the estimated number of residents who would be displaced. Table 3.12-32 shows that Alternative 5 would displace approximately 338 residential units, which correlates to approximately 989 displaced residents. Similar to Alternatives 1, 2 and 3, the majority of these displacements would occur in the Lancaster area, where approximately 301 residential units would be displaced.

Alternative 5 would result in many of the same additional displacements as Alternatives 1, 2, and 3 along the remainder of the alignment in the Northeast Bakersfield district, Edison, Tehachapi, and unincorporated areas in Kern and Los Angeles Counties. The communities of Keene and Golden Hills and the City of Palmdale would have no residential displacements.

It is assumed that the same replacement housing resources identified above for Alternatives 1, 2, and 3 would also be available to accommodate relocations associated with Alternative 5. SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 5.

Table 3.12-32 Residential Displacements Under Alternative 5

Location	Units Displaced			Total Residential Units Displaced	Estimated Residents Displaced
	Single-Family Residential Units	Multifamily Residential Units	Mobile Homes		
Kern County					
Northeast Bakersfield	4	0	1	5	16
Community of Edison	2	0	0	2	6
City of Tehachapi	1	0	3	4	13
Rosamond CDP	6	0	15	21	60
Other Unincorporated Kern County Areas	4	0	1	5	15
Los Angeles County					
City of Lancaster	23	278	0	301	879
Unincorporated Los Angeles County	0	0	0	0	0
Regional Total	**40**	**278**	**20**	**338**	**989**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 5 would not result in any residential displacements in Keene, Golden Hills, or Palmdale
The number of residential displacements under Alternative 5 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument
CDP = census designated place

Table 3.12-33 shows the gap analysis of residential properties that are available for relocation. As shown in Table 3.12-33, the existing supply of vacant residential units in each of the cities, communities, and counties where residential displacements would occur would be greater than necessary to house the relocated residents. As discussed above, similar to Alternatives 1, 2, and 3, Alternative 5 would remove approximately 132 residential units from the affordable housing market and displace approximately 417 low-income residents. Although Alternative 5 would displace considerable numbers of existing housing units and relocate many people in Lancaster, adequate replacement housing appears to be available in the area, provided that such housing can be made available at affordable prices.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction of Alternative 5 to relocate residents outside their existing community; however, Alternative 5 would still relocate a substantial number of residents in Lancaster.

CEQA Conclusion

Construction of the B-P Build Alternatives would displace existing housing, with the majority of those potential displacements occurring in the Lancaster area. Although each of the B-P Build Alternatives would displace considerable numbers of existing housing units and many people in Lancaster, adequate replacement housing appears to be available in the area, provided that such housing can be made available at affordable prices. If sufficient affordable housing options are unavailable, the Authority would work collaboratively with the local jurisdictions to find the means to locate affordable housing. Of all B-P Build Alternatives, Alternative 5 would displace the most housing units and people, especially in Lancaster, where approximately 301 housing units and approximately 881 residents would be displaced.

Because there are sufficient residential replacement properties in the replacement area to accommodate displaced residents, none of the B-P Build Alternatives would require the construction of replacement housing elsewhere. All B-P Build Alternatives would result in less than significant impacts related to the displacement of substantial numbers of existing housing units and residents. Therefore, CEQA does not require any mitigation.

Table 3.12-33 Gap Analysis of Residential Displacements Under Alternative 5

Location	Residential Units Displaced	Residential Units Available			Surplus/(Deficit)
		Single-Family Residential	Multifamily Residential	Mobile Homes	
Kern County					
Northeast Bakersfield	5	2,303	338	53	2,689
Community of Edison	4	240	12	4	252
City of Tehachapi	2	263	26	8	295
Rosamond CDP	21	90	16	15	100
Other Unincorporated Kern County Areas	5	548	12	11	566
Los Angeles County					
City of Lancaster	301	972	190	20	881
Regional Total	**338**	**4,416**	**594**	**111**	**4,783**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 5 would not result in any residential displacements in Keene, Golden Hills, Palmdale, or Other Unincorporated Los Angeles County areas.
The number of comparable replacement residences under Alternative 5 is the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument
CDP = census designated place.

Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction

Alternative 1

Table 3.12-34 provides information regarding the commercial and industrial business displacements under Alternative 1, including the estimated number of displaced businesses and the estimated number of employees who would be displaced. As shown in Table 3.12-34, Alternative 1 would displace approximately 231 businesses, which correlates to approximately 1,679 displaced employees. The majority of these displacements would occur in Lancaster, where approximately 188 businesses would be displaced, resulting in the displacement of approximately 1,365 employees.

Table 3.12-34 Business Displacements Under Alternative 1

Location	Businesses Displaced	Estimated Employees Displaced
Kern County		
Northeast Bakersfield	0	0
City of Tehachapi	3	39
Other Unincorporated Kern County Areas	16	133
Los Angeles County		
City of Lancaster	188	1,365
City of Palmdale	21	132
Unincorporated Los Angeles County	3	10
Regional Total	**231**	**1,679**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 1 would not result in any business displacements in Rosamond, Edison, Keene, or Golden Hills.
The number of business displacements under Alternative 1 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.

The remaining commercial and industrial business displacements along Alternative 1 would be scattered along the alignment in the Northeast Bakersfield district, Tehachapi, Palmdale, and unincorporated areas in Kern and Los Angeles Counties. No business displacements would occur in the communities of Edison, Rosamond, Keene, or Golden Hills.

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate local businesses during construction. Additionally, the Authority will purchase vacant land or buildings in the area, and consult with local authorities over matters such as zoning and permits, as appropriate, in cases where affected property and business owners and tenants wish to remain in the immediate vicinity. The Authority would make a best effort to locate suitable replacement properties that are comparable to those currently occupied by these property and business owners and tenants.

A general assessment was conducted to determine if suitable commercial and industrial business properties are available within the replacement area shown on Figure 3.12-A-6 in Appendix 3.12-A. In Kern County, an assessment of the business space availability was conducted within unincorporated Northeast Bakersfield and nearby unincorporated areas, as well as in the City of Tehachapi and nearby unincorporated areas. In Los Angeles County, an assessment of business space availability was conducted for the cities of Lancaster and Palmdale, including nearby unincorporated areas.

The assessment was conducted to determine the suitability of the available properties as replacement sites for those businesses that anticipate relocation under Alternative 1. Examination of the North American Industry Classification System (NAICS) codes of relocated commercial and industrial businesses reveals that the types of businesses requiring relocation include warehousing, automotive/tire shops, food service, retail, office, and business centers. The suitability of property was based on the NAICS codes of the businesses being relocated. Based on the NAICS code, the potentially displaced businesses were placed into one of three types/classes: retail and food service, professional service, or industrial. Business properties available were categorized into corresponding types/classes. Table 3.12-35 provides a comparison of the potential businesses displaced and the suitable properties available, and shows the gap analysis for this alternative.

Examination of suitable replacement locations for these businesses determined that a sufficient number of alternative sites are available for the retail, professional service, and industrial sectors in the two-county region. Kern County has a surplus of available business space in all three relevant business types/classes: retail and food service, professional service, and industrial. However, in Los Angeles County, there is a larger number of displaced businesses than there are suitable available spaces for the industrial sector. There is an equal amount of available business space and displacements in the retail and food services and professional services sectors.

Relocating these businesses could therefore require modification of the equipment or configuration of other properties to meet needed specifications.

Table 3.12-35 Gap Analysis of Business Displacements Under Alternative 1

Location	Retail and Food Services			Professional Services			Industrial			Apartment Management		
	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)
Kern County												
Northeast Bakersfield and Unincorporated Kern County	2	161	159	0	159	159	14	77	63	0	N/A	N/A
City of Tehachapi	0	15	15	0	4	4	3	7	4	0	N/A	N/A
Los Angeles County												
City of Lancaster	83	100[1]	16[1]	38	64[1]	25[1]	66	53[1]	(35)[1]	1	N/A	N/A
City of Palmdale	1			1			19			0		
Unincorporated Los Angeles County	0			0			3			0		
Regional Total	**86**	**276**	**190**	**39**	**227**	**188**	**105**	**137**	**32**	**1**	**N/A**	**N/A**

Source: California High-Speed Rail Authority, 2020a, 2020b

[1] Space Availability and Surplus/(Deficit) reflect the entire Lancaster-Palmdale area.

Alternative 1 would not result in any business displacements in Rosamond, Keene, or Golden Hills.

The number of comparable replacement properties for businesses under Alternative 1 is the same with or without the CCNM Design Option and the Refined CCNM Design Option.

CCNM = César E. Chávez National Monument

Additionally, an analysis of vacant land that is properly zoned for commercial and industrial use was completed in the vicinity of the Cities of Lancaster and Palmdale. Similar to the business replacement analysis, vacant land parcels were identified by ZIP code. As shown in Table 3.12-36, unimproved properties are available in the vicinity of the potential business displacements. These vacant land parcels could be improved to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space. It should be noted that upon improvement, each of the parcels numbered below might accommodate several businesses.

Table 3.12-36 Vacant Commercial/Industrial Land in Lancaster and Palmdale

Business Type/Class	Number of Vacant Parcels
Retail and Food Service/Professional Services[1]	22
Industrial[2]	7

Sources: City of Palmdale, 1994; City of Lancaster, 2009a; Loopnet, 2016
[1] Includes parcels zoned C-1, C-2, C-3, C-4, C-5, or AC.
[2] Includes parcels zoned M-1 and M-2.

Implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing communities from construction of Alternative 1; however, Alternative 1 would still displace a substantial number of businesses in Lancaster.

Alternative 2

Table 3.12-37 provides information regarding the commercial and industrial business displacements under Alternative 2 and the Preferred Alternative, including the estimated number of displaced businesses and the estimated number of employees who would be displaced. As shown in Table 3.12-37, similar to the displacements for Alternative 1, Alternative 2 and the Preferred Alternative would displace approximately 231 businesses, which correlates to approximately 1,681 displaced employees. The majority of these displacements would occur in Lancaster, where approximately 188 businesses would be displaced, resulting in the displacement of approximately 1,365 employees.

Table 3.12-37 Business Displacements Under Alternative 2/Preferred Alternative

Location	Businesses Displaced	Estimated Employees Displaced
Kern County		
Northeast Bakersfield	3	25
City of Tehachapi	3	39
Other Unincorporated Kern County Areas	11	110
Los Angeles County		
City of Lancaster	188	1,365
City of Palmdale	21	132
Unincorporated Los Angeles County	3	10
Regional Total	**231**	**1,681**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 2 would not result in any business displacements in Edison, Rosamond, Keene, or Golden Hills.
Alternative 2 and the Preferred Alternative result in the same number of businesses displaced per location.
The number of business displacements under Alternative 2 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

The remaining commercial and industrial business displacements along Alternative 2 and the Preferred Alternative would be scattered along the alignment in the Northeast Bakersfield district, Tehachapi, Palmdale, and unincorporated areas in Kern and Los Angeles Counties. No business displacements would occur in the communities of Edison, Rosamond, Keene, or Golden Hills. Table 3.12-38 provides a gap analysis for the potential business displacements associated with Alternative 2 and the Preferred Alternative.

Examination of suitable replacement locations for these businesses determined that a sufficient number of alternative sites are available for the retail and food service, professional service, and industrial sectors in the two-county region. Kern County has an ample surplus of available business space in both the retail and food service and professional service business sectors.

While there appear to be sufficient replacement locations available to accommodate the displaced businesses in the retail and food service and professional service sectors in Los Angeles County, there is inadequate available business space to relocate the industrial businesses that could be displaced by Alternative 2 and the Preferred Alternative.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 2 and the Preferred Alternative. As discussed above, the Authority will purchase vacant land or buildings in the area, and consult with local authorities over matters such as zoning and permits, as appropriate, in cases where affected property and business owners and tenants wish to remain in the immediate vicinity.

As discussed under Alternative 1 and shown in Table 3.12-36, an analysis of vacant land that is properly zoned for commercial and industrial use was completed in the vicinity of the cities of Lancaster and Palmdale. These vacant land parcels could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing community due to construction of Alternative 2; however, Alternative 2 would still displace a substantial number of businesses in Lancaster.

Table 3.12-38 Gap Analysis of Business Displacements Under Alternative 2/Preferred Alternative

Location	Retail and Food Services			Professional Services			Industrial			Apartment Management		
	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)
Kern County												
Northeast Bakersfield and Unincorporated Kern County	2	161	159	0	159	159	14	77	63	0	N/A	N/A
City of Tehachapi	0	15	15	0	4	4	3	7	4	0	N/A	N/A
Los Angeles County												
City of Lancaster	83	100[1]	16[1]	38	64[1]	25[1]	66	53[1]	(35)[1]	1	N/A	N/A
City of Palmdale	1			1			19			0		
Unincorporated Los Angeles County	0			0			3			0		
Regional Total	**86**	**276**	**190**	**39**	**227**	**188**	**105**	**137**	**32**	**1**	**N/A**	**N/A**

Source: California High-Speed Rail Authority, 2020a, 2020b

[1] Space Availability and Surplus/(Deficit) reflect the entire Lancaster-Palmdale area.

Alternative 2 and the Preferred Alternative result in the same number of businesses displaced per location.

Alternative 2 would not result in any business displacements in Edison, Rosamond, Keene, or Golden Hills.

The number of comparable replacement properties for businesses under Alternative 2 is the same with or without the CCNM Design Option and the refined CCNM Design Option.

CCNM = César E. Chávez National Monument

Alternative 3

Table 3.12-39 provides information regarding the commercial and industrial business displacements under Alternative 3, including the estimated number of displaced businesses and the estimated number of employees who would be displaced. As shown in Table 3.12-39, similar to the displacements for Alternatives 1 and 2, Alternative 3 would displace approximately 231 businesses, which correlates to approximately 1,679 displaced employees. The majority of these displacements would occur in Lancaster, where approximately 188 businesses would be displaced, resulting in the displacement of approximately 1,365 employees.

Table 3.12-39 Business Displacements Under Alternative 3

Location	Businesses Displaced	Estimated Employees Displaced
Kern County		
Northeast Bakersfield	0	0
City of Tehachapi	3	39
Other Unincorporated Kern County Areas	16	133
Los Angeles County		
City of Lancaster	188	1,365
City of Palmdale	21	132
Unincorporated Los Angeles County	3	10
Regional Total	**231**	**1,679**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 3 would not result in any business displacements in Edison, Rosamond, Keene, or Golden Hills.
The number of business displacements under Alternative 3 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

The remaining commercial and industrial business displacements along Alternative 3 would be scattered along the alignment in the Northeast Bakersfield district, Tehachapi, Palmdale, and unincorporated areas in Kern and Los Angeles Counties. No business displacements would occur in the communities of Edison, Rosamond, Keene, or Golden Hills.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 3. As with the other B-P Build Alternatives, the Authority will purchase vacant land or buildings in the area, and consult with local authorities over matters such as zoning and permits, as appropriate, in cases where affected property and business owners and tenants wish to remain in the immediate vicinity. Table 3.12-40 provides a gap analysis for the potential business displacements associated with Alternative 3.

Examination of suitable replacement locations for these businesses determined that a sufficient number of replacement sites are available for the retail, professional service, and industrial sectors in the two-county region. Kern County has an ample surplus of available business space in the retail and food service, professional service, and industrial sectors.

Similar to Alternatives 1 and 2, there appears to be inadequate available business space in the Lancaster-Palmdale area to relocate all of the industrial businesses that could be displaced by Alternative 3 in Los Angeles County. As discussed in Alternative 1 and shown in Table 3.12-36, an analysis of vacant land that is properly zoned for commercial and industrial use was completed in the vicinity of the cities of Lancaster and Palmdale. These vacant parcels could be improved to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space.

Table 3.12-40 Gap Analysis of Business Displacements Under Alternative 3

Location	Retail and Food Services			Professional Services			Industrial			Apartment Management		
	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)
Kern County												
Northeast Bakersfield and Unincorporated Kern County	2	161	159	0	159	159	14	77	63	0	N/A	N/A
City of Tehachapi	0	15	15	0	4	4	3	7	4	0	N/A	N/A
Los Angeles County												
City of Lancaster	83	100[1]	16[1]	38	64[1]	25[1]	66	53[1]	(35)[1]	1	N/A	N/A
City of Palmdale	1			1			19			0		
Unincorporated Los Angeles	0			0			3			0		
Regional Total	**86**	**276**	**190**	**39**	**227**	**188**	**105**	**137**	**32**	**1**	**N/A**	**N/A**

Source: California High-Speed Rail Authority, 2020a, 2020b
[1] Space Availability and Surplus/(Deficit) reflect the entire Lancaster-Palmdale area.
Alternative 3 would not result in any business displacements in Edison, Rosamond, Keene, or Golden Hills
The number of comparable replacement properties for businesses under Alternative 3 is the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing communities due to construction of Alternative 3; however, Alternative 3 would still displace a substantial number of businesses in Lancaster.

Alternative 5

Table 3.12-41 provides information regarding the commercial and industrial business displacements under Alternative 5, including the estimated number of displaced businesses and the estimated number of employees who would be displaced. As shown in Table 3.12-41, Alternative 5 would displace approximately 285 businesses, which correlates to approximately 2,163 displaced employees. The majority of these displacements would occur in Lancaster, where approximately 244 businesses would be displaced, resulting in the displacement of approximately 1,859 employees.

Table 3.12-41 Business Displacements Under Alternative 5

Location	Businesses Displaced	Estimated Employees Displaced
Kern County		
Northeast Bakersfield	0	0
City of Tehachapi	3	39
Other Unincorporated Kern County Areas	16	133
Los Angeles County		
City of Lancaster	244	1,859
City of Palmdale	22	132
Unincorporated Los Angeles County	0	0
Regional Total	**285**	**2,163**

Source: California High-Speed Rail Authority, 2020a, 2020b
Alternative 5 would not result in any business displacements in Edison, Rosamond, Keene, or Golden Hills.
The number of business displacements under Alternative 5 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

The remaining commercial and industrial business displacements along Alternative 5 would be scattered along the alignment in the Northeast Bakersfield district, Edison, Tehachapi, Palmdale, and unincorporated areas in Kern and Los Angeles Counties. No business displacements would occur in the communities of Edison, Rosamond, Keene, or Golden Hills.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 5. As with the other B-P Build Alternatives, the Authority will purchase vacant land or buildings in the area, and consult with local authorities over matters such as zoning and permits, as appropriate, in cases where affected property and business owners and tenants wish to remain in the immediate vicinity. Table 3.12-42 provides a gap analysis for the potential business displacements associated with Alternative 5.

Examination of suitable replacement locations for these businesses determined that a sufficient number of alternative sites are available for the retail and food service, professional service, and industrial sectors in the two-county region. Kern County has an ample surplus of available business space in both the retail and food service, and industrial sectors.

In Los Angeles County, there is adequate available business space in the professional services and retail and food service business sectors. However, there is a deficit of available business space in the industrial sector.

Table 3.12-42 Gap Analysis of Business Displacements Under Alternative 5

Location	Retail and Food Services			Professional Services			Industrial			Apartment Management		
	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)	Businesses Displaced	Business Space Availability	Surplus/ (Deficit)
Kern County												
Northeast Bakersfield and Unincorporated Kern County	2	161	159	0	159	159	14	77	63	0	N/A	N/A
City of Tehachapi	0	15	15	0	4	4	3	7	4	0	N/A	N/A
Los Angeles County												
City of Lancaster	113	100[1]	(15)[1]	55	64[1]	8[1]	72	53[1]	(38)[1]	4	N/A	N/A
City of Palmdale	2			1			19			0		
Unincorporated Los Angeles	0			0			0			0		
Regional Total	**117**	**276**	**159**	**56**	**227**	**171**	**108**	**137**	**29**	**4**	**N/A**	**N/A**

Source: California High-Speed Rail Authority, 2020a, 2020b
[1] Space Availability and Surplus/(Deficit) reflect the entire Lancaster-Palmdale area.
Alternative 5 would not result in any business displacements in Edison, Rosamond, Keene, or Golden Hills.
The number of comparable replacement properties for businesses under Alternative 3 is the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

As discussed in Alternative 1 and shown in Table 3.12-36, an analysis of vacant land that is properly zoned for commercial and industrial use was completed in the vicinity of the cities of Lancaster and Palmdale. These vacant parcels could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing communities due to construction of Alternative 5; however, Alternative 5 would still relocate a substantial number of businesses in Lancaster.

CEQA Conclusion

The displacement of local businesses is not considered an environmental impact under CEQA; therefore, a significance conclusion is not required for this type of impact (CEQA Guidelines Section 15064(e)). Although displaced businesses may relocate, the activities associated with such relocation, including the potential locations, are speculative, as is the potential for such relocation to result in significant environmental impacts. Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

As discussed above, there appears to be inadequate available business space in the Lancaster-Palmdale area to relocate all of the businesses in Los Angeles County that could be displaced by the B-P Build Alternatives. The shortage is particularly acute in the retail and food services and industrial sectors. An analysis of vacant land in the vicinity of the Cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use suggests that sufficient land is available to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space if those parcels are improved at some future date.

The development of new commercial and industrial space on such land is beyond the scope of the HSR project and would be subject to a separate environmental review and public decision-making process undertaken by the jurisdiction(s) with land use planning authority over the subject properties. As noted above, the displacement of local businesses is not considered an environmental impact under CEQA and the potential environmental impacts associated with the relocation of business is speculative. Moreover, because no specific development projects have been proposed to fill the need for adequate replacement business properties, a detailed analysis of the impacts associated with developing new commercial and industrial space is not possible. However, development of new commercial and industrial space generally would require vegetation removal, grading, trenching, and other ground-disturbing activities; construction of buildings, roads, and infrastructure; and the consumption of water and energy resources. Depending on the construction site, development of new commercial and industrial space may require the removal of native habitat. Construction would also result in the emission of criteria pollutants and greenhouse gases and the generation of noise and vibration, possibly near sensitive receptors. While some additional vehicle miles traveled may be generated, if businesses are relocated near their existing locations, operational traffic may be similar to existing conditions. Many of these potential impacts are likely to be avoided through local land use policies, laws, regulations, and permit requirements, and other impacts would likely be mitigated; however, because project-specific details cannot be known, it is possible that the construction and operation of new commercial and industrial space could result in significant and unavoidable impacts under CEQA.

Impact SO #6: Permanent Effects on Agricultural Businesses from Construction

Alternative 1

Alternative 1 would result in the permanent acquisition of agricultural land. Table 3.12-43 provides the number of full and partial land acquisitions under Alternative 1 (including the CCNM Design Option and the Refined CCNM Design Option) in Kern and Los Angeles Counties that, according to each respective county assessor's office, are currently used for agriculture. Table 3.12-43 also provides the number of agricultural facilities that would be subject to some type of displacement effect under Alternative 1 (including the CCNM Design Option and the Refined CCNM Design Option). As shown in Table 3.12-43, the majority of the agricultural parcel acquisitions under Alternative 1 would be in Kern County. The full acquisitions would displace three agricultural businesses. Five other businesses would be subject to some type of displacement due to partial acquisitions.

Table 3.12-43 Agricultural Displacements Under Alternative 1

Location	Full Agricultural Parcel Acquisitions	Full Agricultural Parcel Acquisitions Acreage	Partial Agricultural Parcel Acquisitions	Partial Agricultural Parcel Acquisitions Acreage	Partial Agricultural Parcel Acquisitions with Facilities Displaced
Kern County	34	163.2	184	2,533.4	5
Los Angeles County	0	0	4	0.9	0
Regional Total	**34**	**163.2**	**188**	**2,534.3**	**5**
CCNM Design Option[1]	No difference	No difference	+1	-12.0	No difference
Refined CCNM Design Option[1]	No difference	No difference	+4	+658	No difference

Source: California High-Speed Rail Authority, 2018
[1] Any differences are limited to Kern County.
CCNM = César E. Chávez National Monument

The agricultural parcel acquisitions are scattered throughout the alignment and are generally in unincorporated areas, including areas within Northeast Bakersfield.

Approximately 184 of the partial agricultural parcel acquisitions would result in the loss of crop or grazing land, but would not result in the displacement of agricultural operations on the remainder of the affected parcels. Five partial agricultural parcel acquisitions would result in the displacement of facilities. Final determinations regarding agricultural displacements would be made during the right-of-way acquisition process based on discussions with each affected property owner.

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate agricultural businesses outside their existing communities.

Preliminary analysis suggests that five of the partial agricultural parcel acquisitions would involve the displacement of existing facilities (e.g., processing facilities or warehouses). In most cases, the affected parcels appear large enough to accommodate the reconstruction of the displaced facilities on the same parcel. However, reconstruction of the displaced facilities elsewhere on the affected parcels has the potential to affect existing grazing land and/or crops. The largest displacements would involve two processing facilities on Assessor's Parcel Number (APN) 177-090-14 and several farm buildings on APNs 177-210-12 and 505-260-02 in Kern County. The other potential displacements under Alternative 1 are relatively minor. In the event that partial acquisitions sever an agricultural parcel (i.e., those parcels divided into two or more separate pieces by the Build Alternative), the project could result in additional operational expenses

associated with access to and movement within fields for irrigation, pesticide application, harvesting, and other farm equipment operations. Refer to the discussion under Impacts SO #11 and SO #21 for additional information regarding the HSR project's potential effects to agricultural access during construction and operation, respectively.

Implementation of the IAMFs described above would minimize the potential for agricultural businesses to relocate outside their existing communities due to construction of Alternative 1. Alternative 1 would displace agricultural businesses.

Alternative 2

Alternative 2 would result in the permanent acquisition of agricultural land. Table 3.12-44 provides the number of full and partial land acquisitions under Alternative 2 (including the CCNM Design Option and the Refined CCNM Design Option) in Kern and Los Angeles Counties that, according to each respective county assessor's office, are currently used for agriculture. Table 3.12-44 also provides the number of agricultural facilities that would be subject to some type of displacement effect under Alternative 2 (including the CCNM Design Option and the Refined CCNM Design Option). Similar to Alternative 1, the majority of the agricultural parcel acquisitions under Alternative 2 would be in Kern County. As with Alternative 1, two agricultural businesses would be displaced by full acquisitions. Four other businesses would be subject to some type of displacement due to partial acquisitions.

Table 3.12-44 Agricultural Displacements Under Alternative 2

Location	Full Agricultural Parcel Acquisitions	Full Agricultural Parcel Acquisitions Acreage	Partial Agricultural Parcel Acquisitions	Partial Agricultural Parcel Acquisitions Acreage	Partial Parcel Acquisitions with Facilities Displaced
Kern County	35	164.	170	2,322.1	4
Los Angeles County	0	0	4	0.9	0
Regional Total	**35**	**164**	**174**	**2,323.0**	**4**
CCNM Design Option[1]	No difference	No difference	+1	-12.0	No difference
Refined CCNM Design Option	No difference	No difference	+4	+658	No difference

Source: California High-Speed Rail Authority, 2018
[1] Any differences are limited to Kern County.
CCNM = César E. Chávez National Monument

Alternative 2 would result in many of the same agricultural land acquisitions as Alternative 1. It would also result in the displacement of two processing facilities on APN 177-090-14 and several farm buildings on APN 177-210-12 in Kern County, as well as the same minor displacements as Alternative 1. However, Alternative 2 would result in slightly fewer partial agricultural acquisitions than Alternative 1.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 2. Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for agricultural businesses to relocate outside their existing communities during construction of Alternative 2; however, Alternative 2 would still displace agricultural businesses.

Alternative 3

Alternative 3 would result in the permanent acquisition of agricultural land. Table 3.12-45 provides the number of full and partial land acquisitions under Alternative 3 (including the CCNM Design Option and Refined CCNM Design Option) in Kern and Los Angeles Counties that, according to each respective county assessor's office, are currently used for agriculture. Table 3.12-45 also provides the number of agricultural facilities that would be subject to some type of displacement effect under Alternative 3 (including the CCNM Design Option and the Refined CCNM Design Option). Similar to Alternatives 1 and 2, the majority of the agricultural parcel acquisitions under Alternative 3 would be in Kern County. As with Alternative 1, two agricultural businesses would be displaced by full acquisitions. Four other businesses would be subject to some type of displacement due to partial acquisitions.

Table 3.12-45 Agricultural Displacements Under Alternative 3

Location	Full Agricultural Parcel Acquisitions	Full Agricultural Parcel Acquisitions Acreage	Partial Agricultural Parcel Acquisitions	Partial Agricultural Parcel Acquisitions Acreage	Partial Parcel Acquisitions with Facilities Displaced
Kern County	49	191.9	184	2,510.4	4
Los Angeles County	0	0	4	0.9	0
Regional Total	**49**	**191.9**	**188**	**2,511.3**	**4**
CCNM Design Option[1]	No difference	No difference	+1	-12.0	No difference
Refined CCNM Design Option	No difference	No difference	+4	+658	No difference

Source: California High-Speed Rail Authority, 2018
[1] Any differences are limited to Kern County.
CCNM = César E. Chávez National Monument

Alternative 3 would result in many of the same agricultural land acquisitions as Alternative 1. It could also result in the displacement of two processing facilities on APN 177-090-14 and several farm buildings on APN 177-210-12 in Kern County, as well as the same minor displacements as Alternative 1. However, Alternative 3 would result in slightly more agricultural parcel acquisitions than the other B-P Build Alternatives.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 3.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for agricultural businesses to relocate outside their existing communities due to construction of Alternative 3.

Alternative 5

Alternative 5 would result in the permanent acquisition of agricultural land. Table 3.12-46 provides the number of full and partial land acquisitions under Alternative 5 (including the CCNM Design Option and Refined CCNM Design Option) in Kern and Los Angeles Counties that, according to each respective county assessor's office, are currently used for agriculture. Table 3.12-46 also provides the number of agricultural facilities that would be subject to some type of displacement effect under Alternative 5 (including the CCNM Design Option and the Refined CCNM Design Option). Similar to Alternatives 1, 2, and 3, the majority of the agricultural parcel acquisitions under Alternative 5 would be in Kern County. As with Alternative 1, two agricultural businesses would be displaced by full acquisitions. Five other businesses would be subject to some type of displacement due to partial acquisitions.

Table 3.12-46 Agricultural Displacements under Alternative 5

Location	Full Agricultural Parcel Acquisitions	Full Agricultural Parcel Acquisitions Acreage	Partial Agricultural Parcel Acquisitions	Partial Agricultural Parcel Acquisitions Acreage	Partial Parcel Acquisitions with Facilities Displaced
Kern County	34	163.2	184	2,533.4	5
Los Angeles County	0	0	4	0.9	0
Regional Total	**34**	**163.2**	**188**	**2,534.3**	**5**
CCNM Design Option[1]	No difference	No difference	+1	-12.0	No difference
Refined CCNM Design Option	No difference	No difference	+4	+658	No difference

Source: California High-Speed Rail Authority, 2018
[1] Any differences are limited to Kern County.
CCNM = César E. Chávez National Monument

Alternative 5 would result in many of the same agricultural land acquisitions as Alternative 1. It could also result in the displacement of two processing facilities on APN 177-090-14, several farm buildings on APNs 177-210-12 and 505-260-02 in Kern County, and most of the same minor displacements as Alternative 1.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 5.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for agricultural businesses to relocate outside their existing communities during construction of Alternative 5.

CEQA Conclusion
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 conclusions are made related to agricultural displacements and relocations. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction

Alternatives 1, 2, and 3
Table 3.12-47 identifies the community facilities that could be permanently displaced under Alternative 1 and the other B-P Build Alternatives. For discussion on displaced trails and bikeways, refer to Section 3.2, Transportation. For discussion on displaced parks, refer to Section 3.15, Parks, Recreation, and Open Space.

As shown in Table 3.12-47, Alternatives 1, 2, and 3 would require the displacement of four existing community facilities in Lancaster: Grace Reformed Church and Iglesia De Dios Bethel, places of worship, and a water tank facility and associated office space owned by Los Angeles County Water Works District 4. Previously under these alternatives, Solid Rock Bible Church and Iglesia de Cristo Church would have been displaced; however, with incorporation of updated project refinements, these two community facilities would no longer be impacted under Alternatives 1, 2, 3, and the Preferred Alternative.

Table 3.12-47 Community Facility Displacements by Bakersfield to Palmdale Project Section Build Alternative

Facility Name and Address	Alternative 1	Alternative 2*	Alternative 3	Alternative 5
Grace Resource Center 45134 Sierra Hwy, Lancaster, CA	No	No	No	Yes
Los Angeles County Sheriff's Department Lancaster Station 501 W Lancaster Blvd, Lancaster, CA	No	No	No	Yes
California Department of Transportation (Caltrans) Lancaster Maintenance Station 44023 Sierra Hwy, Lancaster, CA	No	No	No	Yes
University of Antelope Valley 44059 Sierra Hwy, Lancaster, CA	No	No	No	Yes
Iglesia De Dios Bethel 121 Carriage Ln, Ste.109, Lancaster, CA	Yes	Yes	Yes	No
Grace Reformed Church 121 Carriage Ln, Ste. 111, Lancaster, CA	Yes	Yes	Yes	No
Los Angeles County Water Works District 4 Office 43205 Division St, Lancaster, CA	Yes	Yes	Yes	No
Los Angeles County Water Works District 4 Water Tank Facility NE Corner of Sierra Hwy/Avenue J, Lancaster, CA	Yes	Yes	Yes	No

Source: California High-Speed Rail Authority, 2020a, 2020b
* Alternative 2 and the Preferred Alternative result in the same number of community facilities displaced per location.
The number of community facility displacements under the B-P Build Alternatives would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

The number of displacements with the CCNM Design Option and the Refined CCNM Design Option would be the same under Alternatives 1, 2, 3, and the Preferred Alternative. Therefore, the Preferred Alternative would not result in any additional community facility displacements.

A place of worship's relocation would not be challenging with the implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), as this land use is allowable under multiple zoning designations. The Lancaster Metrolink Station would not be displaced but would be reconfigured in its current location to accommodate the HSR project. Areas in Lancaster designated and zoned for light industrial uses could accommodate the Grace Resource Center.

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate community facilities outside their existing communities. Implementation of the IAMFs described above would minimize the potential for community facilities to relocate outside their existing community due to construction of Alternatives 1, 2, 3, and the Preferred Alternative.

Alternative 5

As shown in Table 3.12-47, Alternative 5 would displace the same number of community facilities as Alternatives 1, 2, and 3. Alternative 5 would displace the following community facilities:

- The Los Angeles County Sheriff's Department's Lancaster Station
- The Caltrans Lancaster Maintenance Station
- The University of Antelope Valley
- The Grace Resource Center

The number of displacements with the CCNM Design Option and the Refined CCNM Design Option would be the same under Alternative 5.

Pursuant to S&S-MM#2, relocation of the Los Angeles County Sheriff's Department's Lancaster Station would be subject to all site selection criteria and processes required by the Los Angeles County Sheriff's Department. A replacement sheriff's station would be constructed. The Los Angeles County Sheriff's Department Lancaster Station would need to be relocated close to its existing location in order to service the police protection needs of the surrounding area. This station serves the City of Lancaster as well as the smaller unincorporated areas of Antelope Acres, Quartz Hill, and Lake Los Angeles in the vicinity of Lancaster. If the new station cannot be completed prior to the displacement of the existing sheriff's station, the Authority would ensure that appropriate mutual aid agreements were established with other emergency service providers in the surrounding area in advance of any service disruption to ensure that existing service levels (i.e., sworn officers and response times) are maintained.

Suitable relocation sites for the privately administered University of Antelope Valley would need to be approved by its governing board and meet any requirements or criteria for its educational functions.

Existing sites in Lancaster could accommodate the Grace Resource Center.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 5.

Similar to Alternatives 1, 2, and 3, implementation of the IAMFs described above would minimize the potential for community facilities to relocate outside their existing communities due to construction of Alternative 5.

CEQA Conclusion

As discussed above, Alternatives 1, 2, and 3 would displace the same four community facilities, and Alternative 5 would also displace four different community facilities. The number of displacements with the CCNM Design Option and the Refined CCNM Design Option would be the same under all B-P Build Alternatives. Some of the project's potential impacts related to community facility displacements would be minimized by implementation of IAMFs. In the context of CEQA, impacts from the permanent displacement and relocation of community facilities are considered significant if displacements would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities; the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times; or other performance objectives for any of the public services.

Grace Resource Center and University of Antelope Valley are considered under this threshold in addition to the Caltrans Lancaster Maintenance Station and the Los Angeles County Sheriff's Department's Lancaster Station because they are considered quasi-public facilities. All projects requiring discretionary actions to construct replacement facilities would be subject to environmental review through which impacts associated with these projects would be addressed. Pursuant to S&S-MM#2, however, a replacement sheriff's station would be constructed. Mitigation Measure SO-MM#3 requires that the Authority consult with appropriate parties prior to land acquisition to assess potential opportunities to reconfigure buildings and/or provide assistance in helping the displaced party to find a suitable replacement property, as necessary, to minimize any disruptions to activities and services at those facilities. However, because the exact location and extent of the construction that would be required to relocate such facilities is unknown, it is conservatively determined that the impact of relocating these community facilities and the Los Angeles County Sheriff's Department Lancaster Station would be significant and unavoidable impacts under CEQA for all B-P Build Alternatives.

Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction

Displacement of residential units associated with the construction of the project section could result in the relocation of sensitive populations, including elderly residents. Displacement of other sensitive populations, such as disabled residents, linguistically isolated residents, or female-headed households may also occur, but available data are insufficient to make a conclusion about displacement effects for those populations. These sensitive populations may need additional assistance in the relocation process, such as access to interpreters or medical aid due to mobility issues. In addition, family requirements, such as dependence on childcare, school services, or community services, may also affect the relocation of sensitive populations, particularly in relation to female-headed households. Displacement effects on minority and low-income populations are examined specifically in Chapter 5, Environmental Justice.

The HSR project would also displace particularly vulnerable low-income populations. The relocation plan developed for the project section would need to take into account the unique needs of these populations.

Alternatives 1, 2, 3, and the Preferred Alternative

Alternatives 1, 2, 3, and the Preferred Alternative would displace approximately 243 residential units in Northeast Bakersfield, Edison, Tehachapi, Rosamond, Lancaster, and unincorporated areas in Kern and Los Angeles Counties. The CCNM Design Option and the Refined CCNM Design Option would not result in a change in the number of residential units displaced under Alternatives 1, 2, 3 and the Preferred Alternative.

The greatest concentration of these displacements would occur in Lancaster (approximately 203 residential units). Of the displacements in Lancaster, 97 units are in an apartment complex at 43321 Sierra Highway that has affordable housing units reserved for residents age 55 and older. According to the City of Lancaster's Affordable Housing Database (2014b), 96 of these units are subject to long-term affordability covenants that expire in 2029 (an on-site management unit is not subject to income restrictions) (Authority 2018b). Long-term affordability covenants are income-restrictions on housing units for a fixed term. Therefore, it is reasonable to conclude that low-income residents comprise 100 percent of the tenant population at that apartment complex and that many of the residents are over age 65. Figure 5.6-1 (provided in Chapter 5, Environmental Justice) shows the location of the apartment complex at 43321 Sierra Highway as well as several other facilities of concern in Lancaster that would be displaced by the B-P Build Alternatives.

Alternatives 1, 2, 3, and the Preferred Alternative would displace eight older motels along Sierra Highway in Lancaster that appear to rent rooms on a weekly and/or monthly basis to low-income populations. These motels collectively include 155 rooms. Assuming that all of these rooms are available for rent on a weekly or monthly basis, they could serve as up to 155 units of de facto affordable housing for low-income populations who are unable to move into more permanent rental housing due to bad credit, gaps in work history, a lack of credible references, and/or insufficient financial resources to pay for a security deposit and the first month's rent. Despite the important role of these motels in the local affordable housing market, the residents of these motels are not eligible to receive relocation benefits under the Uniform Act unless they have been living in their current residence for 30 days or longer. The displacement of these motels would result in an impact on low-income populations; however, given the uncertainty surrounding how many of the rooms are currently being rented on a weekly or monthly basis, the extent of this impact remains unknown.

There were no substantial linguistically isolated populations identified in areas where displacement would occur. Substantial elderly populations were identified in Northeast Bakersfield, but only seven to eight residential displacements are expected in this area. Small numbers of residential displacements would occur in Tehachapi and Rosamond in areas with substantial elderly populations.

Alternative 5
Alternative 5 would result in many of the same displacements as Alternatives 1, 2, and 3. In addition to the displacements required under Alternatives 1, 2, and 3, Alternative 5 would displace 36 residential units at an apartment complex at 45114 Beech Avenue in the City of Lancaster. Similar to the units in the complex at 43321 Sierra Highway, all 36 of the residential units at the complex on Beech Avenue are subject to long-term affordability covenants that expire in 2060 (Authority 2018b). Alternative 5 would also displace one additional motel along Sierra Highway, potentially resulting in the displacement of 200 additional motel rooms (or up to 200 units of *de facto* affordable housing). Displacements would be the same under Alternative 5 with the CCNM Design Option and the Refined CCNM Design Option.

CEQA Conclusion
Because there are sufficient residential replacement properties in the replacement area to accommodate displaced residents, none of the B-P Build Alternatives would require the construction of replacement housing elsewhere. All B-P Build Alternatives would result in less than significant impacts related to the displacement of substantial numbers of existing housing units and residents. Therefore, CEQA does not require any mitigation.

Impact SO #9: Temporary Disruption to Community Facilities from Construction

The B-P Build Alternatives would avoid most community facilities and other properties that provide public services. Each of the community facilities affected is listed below by alternative.

Alternatives 1, 2, and 3
Community facilities would be affected similarly under Alternatives 1, 2, and 3. Overall, 19 community facilities would be affected. The majority are in Lancaster, where Alternatives 1, 2, and 3 would affect 13 parcels containing community facilities, including 7 places of worship, 2 public/community facilities, 2 schools, 1 park, and a sheriff's station. Northeast Bakersfield, Edison, and Keene each have 2 affected community facilities, including 2 schools, 2 fire stations, 1 place of worship, and La Paz, a public facility. With the CCNM Design Option, the centerline of Alternatives 1, 2, and 3 would be moved approximately 460 feet farther from La Paz, reducing emissions and noise levels at this public facility. However, La Paz would still experience increased emissions and noise levels during construction with or without the CCNM Design Option. With the Refined CCNM Design Option, the centerline of Alternatives 1, 2, and 3 would be moved approximately 2,480 feet farther from La Paz compared to the B-P Build Alternatives. Additionally, the Refined CCNM Design Option would be on the other side of the mountains, north of La Paz. Increased emissions and nose levels during construction are not likely to be perceptible under Alternatives 1, 2, and 3 with the refined CCNM Design Option.

Table 3.12-48 also shows the construction effects to those community facilities under Alternatives 1, 2, and 3. Construction effects would be temporary in nature. Overall, impacts include diminished air quality, increased noise, increased traffic, and loss of parking stalls. In addition, construction effects related to temporary visual impacts would occur; they are described in further detail in Section 3.16, Aesthetics and Visual Quality. Refer to Section 3.15, Parks, Recreation, and Open Space, for discussion on temporary impacts on parks and recreational facilities.

Table 3.12-48 Alternatives 1, 2 and 3: Temporary Effects to Community Facilities Within 500 Feet of the Temporary and Permanent Effect Limits During Construction

Name	Type	City/Community	Construction Effects
Calvary Gospel Tabernacle	Place of Worship	Northeast Bakersfield	Diminished air quality
Foothill High School	Public School	Northeast Bakersfield	Diminished air quality; increased traffic
Edison Middle School	Public School	Edison	Diminished air quality; increased noise; increased traffic
Fire Station 45 – Edison	Fire Station	Edison	Increased traffic

Name	Type	City/Community	Construction Effects
Fire Station 11 – Keene	Fire Station	Keene	Increased traffic
La Paz	Public Facility	Keene	Diminished air quality; increased noise[1]
Whit Carter Park	Park	Lancaster	Diminished air quality; increased noise
Trinity Community Church	Place of Worship	Lancaster	Diminished air quality, increased noise; increased traffic
Iglesia de Cristo	Place of Worship	Lancaster	Diminished air quality
Power of Praise Ministries	Place of Worship	Lancaster	Diminished air quality; increased traffic; loss of parking stalls
Los Angeles County Sheriff's Department	Sheriff's Station	Lancaster	Increased traffic
Living Word Fellowship Church	Place of Worship	Lancaster	Diminished air quality; increased traffic
Antelope Valley Christian Center	Place of Worship	Lancaster	Diminished air quality; increased traffic
Lancaster Library	Public Facility	Lancaster	Diminished air quality; increased traffic
AVLife Church	Place of Worship	Lancaster	Diminished air quality; increased noise; increased traffic
Spirit & Truth Missionary Baptist Church	Place of Worship	Lancaster	Diminished air quality; increased noise; increased traffic
Jane Reynolds Park/ Webber Pool	Public Facility	Lancaster	Diminished air quality, increased traffic
Life Source International Charter School	Charter School	Lancaster	Partial parcel acquisition; increased noise; increased traffic
University of Antelope Valley	Private School	Lancaster	Diminished air quality; increased noise; loss of parking stalls

Source: California High-Speed Rail Authority, 2018a

[1] Although the CCNM Design Option would move the centerline of the Bakersfield to Palmdale Project Section Build Alternatives approximately 460 feet farther from La Paz and would reduce emissions and noise levels at this community facility, La Paz would still experience increased emissions and noise levels during construction. With the Refined CCNM Design Option, increased emissions and noise levels during construction are not likely to be perceptible at La Paz.

CCNM = César E. Chávez National Monument La Paz = Nuestra Señora Reina de la Paz/César E. Chávez National Monument

Implementation of IAMFs would minimize the potential for construction of Alternatives 1, 2, and 3 to temporarily disrupt community facilities. Alternatives 1, 2, and 3 would still result in noticeable localized social change, but they would not affect the ability of the community facilities to continue to serve the communities in which they are located.

Alternative 5

Effects on community facilities would be different under Alternative 5 than with the other B-P Build Alternatives. Overall, 23 community facilities would be affected. The majority of these community facilities are in Lancaster, where Alternative 5 would affect 17 parcels containing community facilities, including 10 places of worship, 3 public/community facilities, 2 schools, a park, a museum, and a post office. Northeast Bakersfield, Edison, and Keene each have 2 affected community facilities, including 2 schools, 2 fire stations, a place of worship, and La Paz, a public facility. As with Alternatives 1, 2, and 3, the CCNM Design Option would move the centerline of Alternative 5 approximately 460 feet farther away from La Paz, and the Refined CCNM Design Option would move the center line of Alternative 5 approximately 2,480 feet farther away from La Paz, reducing emissions and noise levels at this public facility. However, La Paz would still experience increased emissions and noise levels during construction with or without the CCNM

Design Option. La Paz is not likely to experience increased emissions and noise levels during construction under Alternative 5 with the Refined CCNM Design Option.

Table 3.12-49 shows specific affected community facilities and effects within 500 feet of the temporary and permanent effect limits for Alternative 5. Table 3.12-49 also shows the construction effects to those community facilities under Alternative 5. Construction effects would be temporary in nature. Overall, impacts would include diminished air quality, increased noise, increased traffic, and loss of parking stalls. In addition, construction effects related to temporary visual impacts would occur, and they are described in further detail in Section 3.16, Aesthetics and Visual Quality. Refer to Section 3.15, Parks, Recreation, and Open Space, for discussion on temporary impacts on parks and recreational facilities.

Table 3.12-49 Alternative 5: Temporary Effects on Community Facilities Within 500 Feet of the Temporary and Permanent Effect Limits during Construction

Name	Type	City/Community	Construction Effects
Calvary Gospel Tabernacle	Place of Worship	Northeast Bakersfield	Diminished air quality
Foothill High School	Public School	Northeast Bakersfield	Diminished air quality; increased traffic
Edison Middle School	Public School	Edison	Diminished air quality; increased noise; increased traffic
Fire Station 45 – Edison	Fire Station	Edison	Increased traffic
Fire Station 11 – Keene	Fire Station	Keene	Increased traffic
La Paz	Public Facility	Keene	Diminished air quality; increased noise[1]
Whit Carter Park	Park	Lancaster	Diminished air quality; increased noise; temporary loss of parking stalls
Trinity Community Church	Place of Worship	Lancaster	Diminished air quality, increased noise; increased traffic
Power of Praise Ministries	Place of Worship	Lancaster	Diminished air quality; increased traffic; loss of parking stalls
Sacred Heart Catholic Church	Place of Worship	Lancaster	Diminished air quality; increased noise; increased traffic
Living Word Fellowship Church	Place of Worship	Lancaster	Diminished air quality; increased traffic
Antelope Valley Christian Center	Place of Worship	Lancaster	Diminished air quality; increased traffic
Western Hotel Museum	Museum	Lancaster	Diminished air quality; increased traffic
Lancaster Library	Public Facility	Lancaster	Diminished air quality; increased traffic
Cedar Post Office	Post Office	Lancaster	Diminished air quality; increased traffic
AVLife Church	Place of Worship	Lancaster	Diminished air quality; increased noise; increased traffic
Spirit & Truth Missionary Baptist Church	Place of Worship	Lancaster	Diminished air quality; increased traffic
Lancaster Religious Science	Place of Worship	Lancaster	Diminished air quality; increased traffic
Jane Reynolds Park/Webber Pool	Public Facility	Lancaster	Diminished air quality, increased noise; increased traffic
St. Columba's Anglican Church	Place of Worship	Lancaster	Diminished air quality; increased traffic
Life Source International Charter School	Charter School	Lancaster	Increased noise; increased traffic

Name	Type	City/Community	Construction Effects
Lancaster Alternative and Virtual Academy	Public School	Lancaster	Diminished air quality; increased traffic

Source: California High-Speed Rail Authority, 2018a
[1] Although the CCNM Design Option would move the centerline of the Bakersfield to Palmdale Build Alternatives approximately 460 feet farther from La Paz and would reduce emissions and noise levels at this community facility, La Paz would still experience increased emissions and noise levels during construction. With the Refined CCNM Design Option, increased emissions and noise levels during construction are not likely to be perceptible at La Paz.
CCNM = César E. Chávez National Monument La Paz = Nuestra Señora Reina de la Paz/César E. Chávez National Monument

Implementation of IAMFs would minimize the potential for construction of Alternative 5 to temporarily disrupt community facilities. Alternative 5 would still result in noticeable localized social change, but it would not affect the ability of the community facilities to continue to serve the communities in which they are located.

CEQA Conclusion
Temporary disruption to community facilities from construction is not an environmental impact under CEQA. The potential environmental impacts that could cause such disruption (e.g., traffic, noise) are analyzed in other sections of this EIR/EIS.

Impact SO #10: Permanent Changes in School District Funding from Construction

Alternative 1
As described under Impact SO #4, Alternative 1 would result in the permanent displacement of several hundred residential units along the proposed alignment. Table 3.12-50 identifies the number of residential units, the estimated student population that could be displaced, and the percentage of the student population that could be displaced from each elementary, secondary, and unified school district along the alignment under Alternative 1.

Table 3.12-50 Residential and Student Displacements in School Districts for Alternative 1

School District	Residential Units Displaced	Estimated Number of Students Displaced	School District Enrollment/ Average Daily Attendance[1]	Percentage of Student Population Displaced
Kern County School Districts				
Kern Union High School District	7	1	34,225	<0.05
Bakersfield City School District	1	1	28,099	<0.05
Fairfax Elementary School District	4	2	2,284	0.1
Edison Elementary School District	2	1	1,066	0.1
Caliente Union School District	0	0	49	0.0
Tehachapi Unified School District	9	6	3,981	0.2
Southern Kern Unified School District	21	15	2,880	0.5
Los Angeles County School Districts				
Antelope Valley Union High School District	206	41	20,305	0.2
Westside Union School District	2	1	8,616	<0.05
Lancaster School District	204	102	13,433	0.8
Regional Total	**243**[2]	**170**	**114,938**	**0.1**

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)
The number of residential and student displacements under Alternative 1 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
[1] Information is for Fiscal Year 2013–2014.
[2] Due to the overlapping of school districts, residential units in elementary and high school districts are only counted once in the regional totals.
CCNM = César E. Chávez National Monument

As shown in Table 3.12-50, the greatest number of residential unit and student displacements along Alternative 1 would occur within the Antelope Valley Union High School District and Lancaster School District. This alternative could displace 0.2 percent (approximately 41 students) out of the Antelope Valley Union High School District's enrollment. In the Lancaster School District, Alternative 1 could displace 0.8 percent (approximately 102 students) out of that district's enrollment.

Additional student displacements could also occur in the Kern Union High School District, Bakersfield City School District, Fairfax Elementary School District, Edison Elementary School District, Tehachapi Unified School District, Southern Kern Unified School District, and Westside Union School District.

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate residents outside their existing school districts, thereby minimizing losses to school district funding.

The estimated property tax revenue losses for elementary, secondary, and unified school districts under Alternative 1 are presented in Table 3.12-51. Under Alternative 1, the greatest revenue loss would occur in the Lancaster School District. This alternative could result in the Lancaster School District losing approximately $585,224 (approximately 0.5 percent) of its total revenue. The majority of this revenue loss would come from the decrease in ADA from student displacements ($495,967), while an estimated $89,257 of the revenue loss would be attributed to the decrease in property tax revenue. With the CCNM Design Option, Alternative 1 would result in a total revenue loss of approximately $94 less. With the Refined CCNM Design Option, Alternative 1 would result in a total revenue loss of approximately $1,553 less.

As shown in Table 3.12-51, the largest revenue losses could occur in those school districts where both property tax and ADA-based revenue losses are possible. As discussed under Impact SO #4, the high number of residential vacancies in the cities and communities along the HSR alignment would most likely allow the affected residents to relocate within the same school districts, which could help offset revenue losses due to reductions in ADA.

Implementation of the IAMFs described above would minimize the potential for construction of Alternative 1 to relocate residents outside their existing school districts. Although Alternative 1 would relocate a substantial number of residents, changes to school district funding would not be substantial.

Alternative 2

Similar to Alternative 1, Alternative 2 and the Preferred Alternative would result in the permanent displacement of several hundred residential units along the proposed alignment. Table 3.12-52 identifies the number of residential units, the estimated student population that could be displaced, and the percentage of the student population that could be displaced from each elementary, secondary, and unified school district along the alignment under Alternative 2 and the Preferred Alternative.

As shown in Table 3.12-52, similar to Alternative 1, the greatest number of residential unit and student displacements along Alternative 2 and the Preferred Alternative would occur within the Antelope Valley Union High School District and Lancaster School District. This alternative could displace approximately 0.2 percent (approximately 41 students) out of the Antelope Valley Union High School District's enrollment. In the Lancaster School District, Alternative 2 could displace approximately 0.8 percent (approximately 102 students) out of that district's enrollment. Alternative 2 would also result in student displacements in the same school districts as Alternative 1.

Table 3.12-51 School District Revenue Losses under Alternative 1

School District	Estimated Property Tax Revenue Loss	Estimated ADA Revenue Loss	Estimated Total Revenue Loss	Total Revenue	Estimated Revenue Loss as a Percentage of Total Revenue	Estimated Revenue Loss—CCNM Design Option	Estimated Revenue Loss—Refined CCNM Design Option
Kern County School Districts							
Bakersfield City School District	$35	$2,653	$2,688	$258,371,309	<0.05	--	
Caliente Union School District	$139	$0	$139	$796,811	<0.05	--	+$199[2]
Di Giorgio School District	$44	$0	$44	$1,837,081	<0.05	--	
Edison Elementary School District	$12.526	$4,924	$17,450	$9,404,215	0.2	--	
Fairfax Elementary School District	$1,035	$9,938	$10,973	$20,458,957	0.1	--	
Kern Union High School District	$13,016	$5,820	$18,836	$347,587,570	<0.05	--	+197[2]
Mojave Unified School District	$575	$0	$575	$24,167,926	<0.05	--	
Southern Kern Unified School District	$19,650	$48,726	$68,376	$24,728,826	0.3	--	
Tehachapi Unified School District	$22,636	$23,169	$45,805	$33,319,585	0.1	-$94[1]	-$1,949[2]
Los Angeles County School Districts							
Antelope Valley Union High School District	$138,325	$229,593	$367,918	$196,005,490	0.2	--	
Lancaster School District	$89,257	$495,967	$585,224	$111,410,125	0.5	--	
Palmdale School District	$1,456	$0	$1,456	$167,908,337	<0.05	--	
Westside Union School District	$4,396	$4,137	$8,533	$62,480,183	<0.05	--	
Regional Total	**$303,090**	**$824,927**	**$1,128,017**	**$1,285,476,415**	**0.1**	**-$94**	-$1,553

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)

[1] With the CCNM Design Option, the estimated revenue loss for the Tehachapi Unified School District and the region would be approximately $94 less; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the CCNM Design Option.

[2] With the Refined CCNM Design Option, the estimated revenue loss for the Caliente Union School District would be approximately $199 greater and the estimated revenue loss for the Tehachapi Unified School District would be approximately $1,949 less, and the estimated revenue loss for Kern Union High School District would be approximately $197 greater; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the Refined CCNM Design Option.

All information is for Fiscal Year 2013–2014. Alternative 1 would not result in revenue losses to the Lamont Elementary School District.

ADA = average daily attendance

CCNM = César E. Chávez National Monument

Table 3.12-52 Residential and Student Displacements in School Districts for Alternative 2/ Preferred Alternative

School District	Residential Units Displaced	Estimated Number of Students Displaced	School District Enrollment/ Average Daily Attendance[1]	Percentage of Student Population Displaced
Kern County School Districts				
Kern Union High School District	7	1	34,225	<0.05
Bakersfield City School District	1	1	28,099	<0.05
Fairfax Elementary School District	4	2	2,284	0.1
Edison Elementary School District	2	1	1,066	0.1
Tehachapi Unified School District	9	6	3,981	0.2
Southern Kern Unified School District	21	15	2,880	0.5
Los Angeles County School Districts				
Antelope Valley Union High School District	206	41	20,305	0.2
Westside Union School District	2	1	8,616	<0.05
Lancaster School District	204	102	13,433	0.8
Regional Total	**243**[2]	**170**	**114,889**	**0.1**

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)
The number of residential and student displacements under Alternative 2 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
Alternative 2 and the Preferred Alternative result in the same number of businesses displaced per location.
[1] Information is for Fiscal Year 2013–2014.
[2] Due to the overlapping of school districts, residential units in elementary and high school districts are only counted once in this table.
CCNM = César E. Chávez National Monument

The estimated property tax revenue losses for elementary, secondary, and unified school districts under Alternative 2 are presented below in Table 3.12-53. Similar to Alternative 1, the greatest revenue loss under Alternative 2 would occur in the Lancaster School District. This alternative could result in the Lancaster School District losing approximately $585,450 (approximately 0.5 percent) of its total revenue. The majority of this revenue loss would come from the decrease in ADA from student displacements ($495,967), while an estimated $89,483 of the revenue loss would be attributed to the decrease in property tax revenue. With the CCNM Design Option, Alternative 2 would result in a total revenue loss of approximately $94 less. With the Refined CCNM Design Option, Alternative 2 would result in a total revenue loss of approximately $1,553 less.

Similar to Alternative 1, the largest revenue losses under Alternative 2 could occur in those school districts where both property tax and ADA-based revenue losses are possible. As discussed under Impact SO #4, the high number of residential vacancies in the cities and communities along the alignment would most likely allow the affected residents to relocate within the same school districts, which could help offset revenue losses due to reductions in ADA.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 2.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction of Alternative 2 to relocate residents outside their existing school districts; therefore, Alternative 2 would not result in substantial changes to school district funding.

Table 3.12-53 School District Revenue Losses under Alternative 2/Preferred Alternative

School District	Estimated Property Tax Revenue Loss	Estimated ADA Revenue Loss	Estimated Total Revenue Loss	Total Revenue	Estimated Revenue Loss as a Percentage of Total Revenue	Estimated Revenue Loss—CCNM Design Option	Estimated Revenue Loss—Refined CCNM Design Option/Preferred Alternative
Kern County School Districts							
Bakersfield City School District	$43	$2,653	$2,696	$258,371,309	<0.05	--	
Caliente Union School District	$127	$0	$123	$796,811	<0.05	--	+$199[2]
Di Giorgio School District	$40	$0	$40	$1,837,081	<0.05	--	
Edison Elementary School District	$10,759	$4,924	$15,683	$9,404,215	0.2	--	
Fairfax Elementary School District	$1,439	$9.938	$11,377	$20,458,957	0.1	--	
Kern Union High School District	$11,903	$17,723	$17,723	$347,587,570	<0.05	--	+197[2]
Mojave Unified School District	$575	$0	$575	$24,167,926	<0.05	--	
Southern Kern Unified School District	$19,650	$48,726	$68,376	$24,728,826	0.3	--	
Tehachapi Unified School District	$22,118	$23,169	$45,287	$33,319,585	0.1	-$94[1]	-$1,949[2]
Los Angeles County School Districts							
Antelope Valley Union High School District	$138,654	$229,593	$368,247	$196,005,490	0.2	--	
Lancaster School District	$89,483	$495,967	$585,450	$111,410,125	0.5	--	
Palmdale School District	$1,456	$0	$1,456	$167,908,337	<0.05	--	

School District	Estimated Property Tax Revenue Loss	Estimated ADA Revenue Loss	Estimated Total Revenue Loss	Total Revenue	Estimated Revenue Loss as a Percentage of Total Revenue	Estimated Revenue Loss—CCNM Design Option	Estimated Revenue Loss—Refined CCNM Design Option/Preferred Alternative
Westside Union School District	$4,396	$4,137	$8,533	$62,480,183	<0.05	--	
Regional Total	**$300,643**	**$824,927**	**$1,125,570**	**$1,285,476,415**	**0.1**	**-$94**	-$1,553

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)

[1] With the CCNM Design Option, the estimated revenue loss for the Tehachapi Unified School District and the region would be approximately $94 less; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the CCNM Design Option.

[2] With the Refined CCNM Design Option, the estimated revenue loss for the Caliente Union School District would be approximately $199 greater, the estimated revenue loss for the Tehachapi Unified School District would be approximately $1,949 less, and the estimated revenue loss for Kern Union High School District would be approximately $197 greater; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the Refined CCNM Design Option.

All information is for Fiscal Year 2013–2014. Alternative 2 would not result in revenue losses to the Lamont Elementary School District.

Alternative 2 and the Preferred Alternative result in the same number of businesses displaced per location.

ADA = average daily attendance CCNM = César E. Chávez National Monument

Alternative 3

Similar to Alternatives 1 and 2, Alternative 3 would result in the permanent displacement of several hundred residential units along the proposed alignment. Table 3.12-54 identifies the number of residential units, the estimated student population that could be displaced, and the percentage of the student population that could be displaced from each elementary, secondary, and unified school district along the alignment under Alternative 3.

Table 3.12-54 Residential and Student Displacements in School Districts for Alternative 3

School District	Residential Units Displaced	Estimated Number of Students Displaced	School District Enrollment/ Average Daily Attendance[1]	Percentage of Student Population Displaced
Kern County School Districts				
Kern Union High School District	7	1	34,225	<0.05
Bakersfield City School District	1	1	28,099	<0.05
Fairfax Elementary School District	4	2	2,284	0.1
Edison Elementary School District	2	1	1,066	0.1
Tehachapi Unified School District	10	7	3,981	0.2
Southern Kern Unified School District	21	15	2,880	0.5
Los Angeles County School Districts				
Antelope Valley Union High School District	206	41	20,305	0.2
Westside Union School District	2	1	8,616	<0.05
Lancaster School District	204	102	13,433	0.8
Regional Total	**244**[2]	**171**	**114,889**	**0.1**

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)
The number of residential and student displacements under Alternative 3 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
[1] Information is for Fiscal Year 2013–2014.
[2] Residential units in elementary and high school districts are only counted once in this table.
CCNM = César E. Chávez National Monument

As shown in Table 3.12-54, similar to Alternatives 1 and 2, the greatest number of residential unit and student displacements along Alternative 3 would occur within the Antelope Valley Union High School District and the Lancaster School District. This alternative could displace approximately 0.2 percent (approximately 41 students) from the Antelope Valley Union High School District's enrollment. In the Lancaster School District, Alternative 3 could displace approximately 0.8 percent (approximately 102 students) from that district's enrollment. Alternative 3 would also result in student displacements in the same school districts as Alternatives 1 and 2.

The estimated property tax revenue losses for elementary, secondary, and unified school districts under Alternative 3 are presented below in Table 3.12-55. Similar to Alternatives 1 and 2, the greatest revenue loss under Alternative 3 would occur in the Lancaster School District. This alternative could result in the Lancaster School District losing approximately $585,450 (approximately 0.5 percent) of its total revenue. The majority of this revenue loss would come from the decrease in ADA from student displacements ($495,967), while an estimated $89,483 of this revenue loss would be attributed to the decrease in property tax revenue. With the CCNM Design Option, Alternative 3 would result in a total revenue loss of approximately $94 less. With the Refined CCNM Design Option, Alternative 3 would result in a total revenue loss of approximately $1,553 less.

Table 3.12-55 School District Revenue Losses under Alternative 3

School District	Estimated Property Tax Revenue Loss	Estimated ADA Revenue Loss	Estimated Total Revenue Loss	Total Revenue	Estimated Revenue Loss as a Percentage of Total Revenue	Estimated Revenue Loss—CCNM Design Option[1]	Estimated Revenue Loss—Refined CCNM Design Option
Kern County School Districts							
Bakersfield City School District	$35	$2,653	$2,688	$258,371,309	<0.05	--	
Caliente Union School District	$41	$0	$41	$796,811	<0.05	--	+$199[2]
Di Giorgio School District	$44	$0	$44	$1,837,081	<0.05	--	
Edison Elementary School District	$12,218	$4,924	$17,142	$9,404,215	0.2	--	
Fairfax Elementary School District	$1,315	$9,938	$11,253	$20,458,957	0.1	--	
Kern Union High School District	$12,951	$5,820	$18,771	$347,587,570	<0.05	--	+197[2]
Mojave Unified School District	$576	$0	$576	$24,167,926	<0.05	--	
Southern Kern Unified School District	$19,358	$48,726	$68,084	$24,728,826	0.3	--	
Tehachapi Unified School District	$20,850	$25,744	$46,594	$33,319,585	0.1	-$94	-$1,949[2]
Los Angeles County School Districts							
Antelope Valley Union High School District	$174,265	$368,247	$368,247	$196,005,490	0.2	--	
Lancaster School District	$107,140	$585,450	$585,450	$111,410,125	0.5	--	
Palmdale School District	$7,781	$0	$1,456	$167,908,337	<0.05	--	
Westside Union School District	$4,072	$4,137	$8,533	$62,480,183	<0.05	--	
Regional Total	**$301,377**	**$827,502**	**$1,128,879**	**$1,258,476,415**	**0.1**	**$-94**	-$1,553

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)

[1] With the CCNM Design Option, the estimated revenue loss for the Tehachapi Unified School District and the region would be approximately $44 less; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the CCNM Design Option.

[2]With the Refined CCNM Design Option, the estimated revenue loss for the Caliente Union School District would be approximately $199 greater, the estimated revenue loss for the Tehachapi Unified School District would be approximately $1,949 less, and the estimated revenue loss for Kern Union High School District would be approximately $197 greater; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the Refined CCNM Design Option. All information is for Fiscal Year 2013–2014. Alternative 3 would not result in revenue losses to the Lamont Elementary School District.

ADA = average daily attendance CCNM = César E. Chávez National Monument

Similar to Alternatives 1 and 2, the largest revenue losses under Alternative 3 could occur in those school districts where both property tax and ADA-based revenue losses are possible. As discussed under Impact SO #4, the high number of residential vacancies in the cities and communities along the HSR alignment would most likely allow the affected residents to relocate within the same school districts, which could help offset revenue losses due to reductions in ADA.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 3.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction of Alternative 3 to relocate residents outside their existing school districts; moreover, Alternative 3 would not result in substantial changes to school district funding.

Alternative 5

Similar to Alternatives 1, 2 and 3, Alternative 5 would result in the permanent displacement of several hundred residential units along the proposed HSR alignment. Table 3.12-56 identifies the number of residential units, the estimated student population that could be displaced, and the percentage of the student population that could be displaced from each elementary, secondary, and unified school district along the alignment under Alternative 5.

Table 3.12-56 Residential and Student Displacements in School Districts for Alternative 5

School District	Residential Units Displaced	Estimated Number of Students Displaced	School District Enrollment/ Average Daily Attendance[1]	Percentage of Student Population Displaced
Kern County School Districts				
Kern Union High School District	7	1	34,225	<0.05
Bakersfield City School District	1	1	28,099	<0.05
Fairfax Elementary School District	4	2	2,284	0.1
Edison Elementary School District	2	1	1,066	0.1
Caliente Union School District	0	0	49	<0.05
Tehachapi Unified School District	9	6	3,981	0.2
Southern Kern Unified School District	21	15	2,880	0.5
Los Angeles County School Districts				
Antelope Valley Union High School District	301	60	20,305	0.3
Westside Union School District	0	0	8,616	<0.05
Lancaster School District	301	151	13,433	1.1
Regional Total	**338**[2]	**237**	**114,938**	**0.2**

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)
The number of residential and student displacements under Alternative 5 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
[1] Information is for Fiscal Year 2013–2014.
[2] Residential units in elementary and high school districts are only counted once in this table.
CCNM = César E. Chávez National Monument

As shown in Table 3.12-56, similar to Alternatives 1, 2, and 3, the greatest number of residential unit and student displacements along Alternative 5 would occur within the Antelope Valley Union High School District and Lancaster School District. This alternative could displace approximately 0.3 percent (approximately 60 students) out of the Antelope Valley Union High School District's enrollment. In the Lancaster School District, Alternative 5 could displace approximately 1.1 percent (approximately 151 students) out of that district's enrollment. Alternative 5 would also result in student displacements in the same school districts as Alternative 1.

The estimated property tax revenue losses for elementary, secondary, and unified school districts under Alternative 5 are presented below in Table 3.12-57. Similar to Alternatives 1, 2, and 3, the greatest revenue loss under Alternative 5 would occur in the Lancaster School District. This alternative could result in the Lancaster School District losing approximately $842,304 (approximately 0.8 percent) of its total revenue. The majority of this revenue loss would come from the decrease in ADA from student displacements ($731,795), while an estimated $110,509 of the revenue loss would be attributed to the decrease in property tax revenue. With the CCNM Design Option, Alternative 5 would result in a total revenue loss of approximately $94 less. With the Refined CCNM Design Option, Alternative 5 would result in a total revenue loss of approximately $1,553 less.

Similar to Alternatives 1, 2, and 3, the largest revenue losses under Alternative 5 could occur in those school districts where both property tax and ADA-based revenue losses are possible. As discussed under Impact SO #4, the high number of residential vacancies in the cities and communities along the alignment would most likely allow the affected residents to relocate within the same school districts, which could help offset revenue losses due to reductions in ADA.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 5.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for construction of Alternative 5 to relocate residents outside their existing school districts; however, Alternative 5 would not result in substantial changes to school district funding.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Table 3.12-57 School District Revenue Losses Under Alternative 5

School District	Estimated Property Tax Revenue Loss	Estimated ADA Revenue Loss	Estimated Total Revenue Loss	Total Revenue	Estimated Revenue Loss as a Percentage of Total Revenue	Estimated Revenue Loss—CCNM Design Option	Estimated Revenue Loss—Refined CCNM Design Option
Kern County School Districts							
Bakersfield City School District	$35	$2,653	$2,688	$258,371,309	<0.05	–	–
Caliente Union School District	$139	$0	$139	$796,811	0.6	–	+$199[2]
Di Giorgio School District	$44	$0	$44	$1,837,081	<0.05	–	–
Edison Elementary School District	$12,256	$4,924	$17,450	$9,404,215	0.2	–	–
Fairfax Elementary School District	$1,316	$9,938	$11,524	$20,458,957	0.1	–	–
Kern Union High School District	$13,372	$5,820	$19,192	$347,587,570	<0.05	–	+197[2]
Mojave Unified School District	$575	$0	$575	$24,167,926	<0.05	–	–
Southern Kern Unified School District	$19,650	$48,726	$68,376	$24,728,826	0.2	–	–
Tehachapi Unified School District	$22,636	$23,169	$45,805	$33,319,585	0.2	-$94[1]	-$1,949[2]
Los Angeles County School Districts							
Antelope Valley Union High School District	$169,247	$335,473	$504,720	$196,005,490	0.3	–	–
Lancaster School District	$110,509	$731,795	$842,304	$111,410,125	0.8	–	–
Palmdale School District	$1,470	$0	$1,470	$167,908,337	<0.05	–	–
Westside Union School District	$4,370	$0	$4,370	$62,480,183	<0.05	–	–
Regional Total	**$355,889**	**$1,162,499**	**$1,518,388**	**$1,285,604,339**	**0.1**	**-$94**	-$1,553

Sources: California High-Speed Rail Authority, 2020a, 2020b; California Department of Education, www.ed-data.org/ (accessed January 11, 2016)

[1] With the CCNM Design Option, the estimated revenue loss for the Tehachapi Unified School District and the region would be approximately $44 less; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the CCNM Design Option.

[2] With the Refined CCNM Design Option, the estimated revenue loss for the Caliente Union School District would be approximately $199 greater, estimated revenue loss for the Tehachapi Unified School District would be approximately $1,949 less and the estimated revenue loss for Kern Union High School District would be approximately 197 greater; however, given the small difference, the estimated revenue loss as a percentage of total revenue would be approximately the same with or without the Refined CCNM Design Option.

All information is for Fiscal Year 2013–2014.

ADA = average daily attendance

CCNM = César E. Chávez National Monument

Impact SO #11: Temporary Agricultural Access Impacts and Road Closures During Construction

Alternatives 1, 3, and 5

Table 3.12-58 lists the locations of temporary closures of paved roads that would occur during the construction of Alternatives 1, 3, and 5. As shown, temporary detours during construction of Alternative 1 would be required at a total of 10 locations in the community of Edison and the City of Lancaster. Because the temporary detour locations in Lancaster would not be in agricultural areas, those closures are not anticipated to affect agricultural operations.

Table 3.12-58 Existing Roads That Would Be Temporarily Closed at the High-Speed Rail Alignment During Construction of Alternatives 1, 3, and 5

Community	Street	Would Agricultural Access Be Affected by This Closure?	Is a Reasonable Detour for Agricultural Access Available?[1]
Edison	Edison Road	Yes	Yes (2.7 miles)
Edison	Malaga Road	Yes	Yes (2.5 miles)
Edison	Comanche Drive	Yes	Yes (3.0 miles)
Edison	Tejon Highway	Yes	Yes (2.9 miles)
Lancaster	Avenue G	No	Not applicable
Lancaster	Avenue H	No	Not applicable
Lancaster	Avenue I	No	Not applicable
Lancaster	Avenue J	No	Not applicable
Lancaster	Avenue K	No	Not applicable
Lancaster	Avenue L	No	Not applicable

Sources: California High-Speed Rail Authority, 2018a
Road closures under Alternatives 1, 3, and 5 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
[1] A reasonable detour is defined as a detour that adds 3 miles or less to a trip.
CCNM = César E. Chávez National Monument

The HSR project's temporary effects on agricultural access would be minimized through compliance with AG-IAMF#5 (Temporary Livestock and Equipment Crossings). This IAMF would reduce potential impacts related to agricultural access from construction through the following mechanisms:

- **AG-IAMF#5: Temporary Livestock and Equipment Crossings**—By requiring the Authority to coordinate temporary livestock and equipment crossings to minimize impacts to livestock movement, as well as routine operations and normal business activities, during the construction period

Implementation of AG-IAMF#5 would minimize the potential for construction to temporarily affect agricultural access; however, some minor delays would remain. As shown in Table 3.12-58, the detours around temporary road closures are expected to require 3 miles or less of out-of-direction travel for agriculture-related trips during the temporary road closures. Because the remaining travel delays would be less than 10 minutes and the road closures would be staggered over the 8-year construction period, the temporary road closures are expected to result in minor effects on agricultural operations.

Alternative 2

Table 3.12-59 lists the locations of temporary closures of paved roads that would occur during the construction of Alternative 2. As shown, temporary detours during construction of Alternative 2 would be required at seven locations in the City of Lancaster. AG-IAMF#5 (Temporary Livestock and Equipment Crossings), described in further detail under the discussion for Alternatives 1, 3, and 5 above, would also apply to Alternative 2.

Table 3.12-59 Locations of Temporary Detours during Construction of Alternative 2

Community	Streets/Location	Is Agricultural Access Affected?	Is a Reasonable Detour for Agricultural Access Available?[1]
Lancaster	Avenue G	No	Not applicable
Lancaster	Avenue H	No	Not applicable
Lancaster	Avenue I	No	Not applicable
Lancaster	Lancaster Boulevard	No	Not applicable
Lancaster	Avenue J	No	Not applicable
Lancaster	Avenue K	No	Not applicable
Lancaster	Avenue L	No	Not applicable

Source: California High-Speed Rail Authority, 2016
Temporary detours under Alternative 2 would be the same with or without the CCNM Design Option and the Revised CCNM Design Option.
[1] A reasonable detour is defined as a detour that adds 3 miles or less to a trip.
CCNM = César E. Chávez National Monument

Similar to Alternatives 1, 3, and 5, implementation of AG-IAMF#5 would minimize the potential for construction to temporarily affect agricultural access. However, some minor delays would remain.

CEQA Conclusion
Implementation of AG-IAMF#5 would minimize the potential for construction to temporarily affect agricultural access; however, some minor delays would remain. As shown in Table 3.12-59, the detours around temporary road closures are expected to require 3 miles or less of out-of-direction travel for agriculture-related trips during the temporary road closures. Because the remaining travel delays would be less than 10 minutes and the road closures would be staggered over the 8-year construction period, the temporary road closures are expected to result in minor effects on agricultural operations. Accordingly, the impact would be less than significant. No mitigation would be required under CEQA.

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #12: Permanent Economic Effects on Agriculture from Construction

As shown in Table 3.12-60, the property acquisitions associated with construction of the B-P Build Alternatives would result in the permanent loss of agricultural land used for 21 types of crops and products in Kern County, including cattle (beef). As shown in Table 3.12-60, the product that would experience the most loss in terms of acreage as a result of implementation of the project section are livestock and unknown farmland (unknown farmland refers to land identified as having no commodity and uncultivated agricultural land). However, Grazing Land has the lowest value per acre of land, and the estimated revenue loss in Kern County from the loss of livestock represents less than 1 percent of the total estimated loss of revenue from the project. In addition, because unknown farmland represents land that is identified by the data as either (1) Important Farmland with no designated crop cover or (2) uncultivated agricultural land, it essentially represents farmland that does not currently generate income from crops or livestock.

Table 3.12-60 Crop Revenue and Job Losses in Kern County Related to Agricultural Production Affected by the Bakersfield to Palmdale Project Section[1]

Crop Type	Alternatives 1, 3, and 5				Alternative 2			
	Acres Lost	% of Entire County Crop Lost	Estimated Revenue Loss in County	Estimated Job Loss in County	Acres Lost	% of Entire County Crop Lost	Estimated Revenue Loss in County	Estimated Job Loss in County
Apple	2	0.13	$7,046	1.2	2	0.13	$7,046	1.1
Arugula	2	0.07	$16,717	3.0	2	0.07	$16,717	2.3
Carrot	16	0.04[3]	$148,520	2.0	16	0.04	$148,520	1.5
Cattle (Beef)[1]	2,687[2]	0.15	$59,691	0.2	2,693	0.15	$59,818	0.2
Garlic	20	0.33	$187,106	12.5	21	0.34	$187,106	11.8
Grape	46	0.06	$765,687	4.3	37	0.05	$614,263	3.1
Grapefruit	1	0.07	$7,581	0.5	1	0.07	$7,581	0.3
Lemon	11	0.33	$149,552	1.6	14	0.40	$183,559	1.8
Lettuce Leaf	2	0.04	$16,717	1.7	2	0.04	$14,601	1.3
Mustard	2	0.05	$16,717	2.0	2	0.04	$14,601	1.5
N-Outdr Plants	1	0.13	$36,230	0.8	1	0.13	$36,230	0.4
Oat (forage/fodder)	40	0.86	$13,718	1.3	38	0.80	$12,787	1.2
Orange	241	0.64	$2,156,013	0.3	255	0.68	$2,283,778	0.4
Pepper Fruiting	1	0.04	$22,937	3.3	1	0.04	$22,937	1.3
Potato	194	0.66	$1,435,019	2.3	191	0.64	$1,408,463	1.8
Spinach	2	0.07	$11,713	2.6	2	0.06	$10,230	2.0
Swiss Chard	2	0.07	$16,717	2.6	2	0.06	$14,600	0.3
Tangerine	4	0.60	$71,438	1.0	2	0.33	$38,753	0.3
Tangerine SDLS	0.0[3]	0.00[3]	$9,011	0.7	0.00[3]	0.00[3]	$9,011	0.3
Wheat	2	0.01	$3,963	0.4	2	0.01	$3,963	0.0
Unknown Farmland[4]	319	--	$3,467,128	0.1	272	--	$2,956,786	3.5
Farm Management Services	**--**	**--**	**--**	**1.5**	**--**	**--**	**--**	**1.5**
Total	**3,595**	**0.29**	**$8,619,221**	**42.3**	**3,553**	**0.27**	**$8,052,207**	**39.7**

Sources: California Department of Conservation, 2012; County of Kern, 2014b; California Department of Food and Agriculture, 2015
Numbers may appear to not add up correctly due to rounding.
The acreage of impacted land with crops under the B-P Build Alternatives would be the same with or without the CCNM Design Option and the Refined CCNM Design Option. The acreage of impacted Grazing Land under the B-P Build Alternative would be 12 acres less with the CCNM Design Option and 658 acres more with the Refined CCNM Design Option and would result in a nominal difference in estimated revenue and job losses in the county.
[1] Cattle (beef) is included in this table for the purpose of showing the loss of agricultural production for all types of agricultural uses that generate revenue, including livestock.
[2] This number represents the average acreage of Grazing Land lost for Alternatives 1, 3, and 5.
[3] This number represents a value that is above 0 but is too small to be depicted in this table.
[4] Unknown farmland refers to land identified as having no commodity and uncultivated agricultural land. The value shown for unknown farmland is drawn from the average value of all other crops.
B-P: Bakersfield to Palmdale Project Section
CCNM = César E. Chávez National Monument
SDLS = seedless
N-Outdr Plants = indoor plants and outdoor plants

The estimated permanent revenue loss in Kern County for each of the crops affected by the project section represented less than 1 percent of the total revenue of that crop. Based on the analysis, the B-P Build Alternatives are estimated to permanently reduce the revenue of the oat forage/fodder crop by the highest portion within the context of Kern County (0.86 percent). However, for all crops, each Build Alternative would result in the loss of a small fraction of the revenue generated from that crop countywide.

Overall, the B-P Build Alternatives are estimated to result in a maximum loss of approximately $8.6 million, with unknown farmland (40 percent), potatoes (17 percent), and oranges (25 percent) representing more than 80 percent of the total revenue lost. The loss of $8.6 million represents only 0.002 percent of the market value of agricultural products sold (crops and livestock) in Kern County in 2012 (U.S. Department of Agriculture 2014).

The B-P Build Alternatives are estimated to result in a maximum permanent loss of approximately 42 jobs, with jobs associated with garlic accounting for more than one-quarter (30 percent) of the total jobs lost. The loss of 42 agricultural jobs represents less than 0.001 percent of the agricultural jobs in Kern County in 2015 (U.S. Department of Labor 2015).[7]

Although there would be permanent crop revenue and job losses resulting from construction of the B-P Build Alternatives, the project would affect a very small percentage of the overall agricultural crop revenue and jobs in Kern County.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction

Alternative 1

County and City Property Tax Losses

Alternative 1 would result in full and partial parcel acquisitions, which would result in permanent property tax revenue losses for local jurisdictions as those properties are removed from the property tax assessment roll. Table 3.12-61 shows the estimated permanent loss in annual property tax revenue for each of the jurisdictions where property acquisitions would occur under Alternative 1, the total property tax revenue collected and distributed to each jurisdiction’s general fund in FY 2013–2014, and the percentage of the FY 2013–2014 property tax collections that could be permanently lost as a result of property acquisitions under Alternative 1.

As shown in Table 3.12-61, the parcel acquisitions under Alternative 1 could result in a total loss of approximately $592,914 in annual property tax revenue, based on the assessed values of those properties in FY 2013–2014. Of the affected local jurisdictions, Los Angeles County could incur the largest property tax revenue loss ($478,472); however, the City of Lancaster could also experience a large property tax loss ($64,169). With the CCNM Design Option, Alternative 1 would result in an estimated property tax loss of approximately $67 less. With the Refined CCNM Design Option, Alternative 1 would result in an estimated property tax loss of approximately $823 less.

[7] The total agricultural jobs in Kern County (58,676) is the average annual employment provided in the U.S. Labor Department’s Bureau of Labor Statistics 2015 Quarterly Census of Employment and Wages for Kern County under NAICS 11 – Agriculture, forestry, fishing, and hunting, and exclusive of NAICS 11321 – Forest nursery and gathering forest products.

Table 3.12-61 Estimated Changes in Property Tax Revenue Under Alternative 1

Jurisdiction	Property Tax Revenue (Fiscal Year 2013–2014)	Estimated Property Tax Loss	Estimated % Loss in Property Tax Revenue	Estimated Property Tax Loss—CCNM Design Option[1]	Estimated Property Tax Loss—Refined CCNM Design Option[2]
City of Tehachapi	$1,187,822	$4,887	0.4	--	--
Kern County	$270,406,000	$35,006	<0.05	-$67	-$823
City of Lancaster	$14,371,000	$64,169	0.5	--	--
City of Palmdale	$15,478,125	$10,380	0.1	--	--
Los Angeles County	$5,235,798,000	$478,472	<0.05	--	--
Regional Total	**$5,537,240,947**	**$592,914**	<0.05	**-$67**	**-$823**

Sources: County of Kern, 2014a; County of Los Angeles, 2014a; California High-Speed Rail Authority, 2020b

[1] With the CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $67 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the CCNM Design Option.

[2] With the Refined CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $823 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the Refined CCNM Design Option.

CCNM = César E. Chávez National Monument

Table 3.12-61 also shows that Alternative 1 could result in the loss of less than 1 percent of the property tax revenue collected and distributed to the respective general funds of the affected local jurisdictions in FY 2013–2014. Given the small percentage of total revenues that could be permanently lost as a result of property acquisitions, these revenue losses would not be perceptible to local jurisdictions.

County and City Sales Tax Effects

Alternative 1 would result in 231 business displacements; however, only 86 of these businesses generate sales tax. As discussed under Impact SO #5, an adequate supply of replacement properties is available in the replacement area in which to relocate most of these displaced businesses. In Los Angeles County, there is inadequate available business space to relocate the businesses that could be displaced by the HSR project. If necessary, additional vacant land in the vicinity of the cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use could be improved to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space. If some of the businesses displaced by the HSR project were to relocate outside the respective jurisdictions in which they are currently located, these jurisdictions would experience losses in sales tax revenues.

Table 3.12-62 shows the estimated loss in annual sales tax revenue for each of the jurisdictions where the displacement of sales tax-generating businesses would occur under Alternative 1 along with the percentage of the total sales tax revenue distributed to each jurisdiction's general fund in 2013 that would be lost as a result of Alternative 1. As shown in Table 3.12-62, Alternative 1 could result in a total permanent loss of approximately $411,625 in annual sales tax revenue. Research and analysis have shown that sales tax losses for Alternatives 1, 2, and 3 would be the same for the listed jurisdictions.

It should be noted that these sales tax revenue losses could be temporary rather than permanent, for the most part, because they would occur during the short time when affected businesses are closed while they move to new locations. In many cases, relocations would generate tax revenue within the same taxing jurisdiction; hence, losses estimated here may be temporary. The estimated sales tax losses represent a relatively small percentage of the overall revenue in each affected jurisdiction.

Table 3.12-62 Estimated Changes in Sales Tax Revenue Under Alternatives 1, 2, and 3

Jurisdiction	Total Sales Tax Revenue Apportioned to City/County	Alternatives 1, 2, and 3	
		Estimated Sales Tax Loss	% Estimated Sales Tax Loss
Kern County[1]	$113,993,430	$14,181	<0.05
City of Lancaster	$11,898,998	$392,478	<0.05
City of Palmdale	$10,767,068	$4,966	<0.05
Regional Total	**$136,659,496**	**$411,625**	<0.05

Sources: California State Board of Equalization, 2013; California High-Speed Rail Authority, 2020a, 2020b
Estimated changes in sales tax revenue under Alternatives 1, 2, and 3 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
[1] Sales tax losses are associated with the displacement of sales tax-generating businesses in unincorporated County of Kern jurisdiction.
CCNM = César E. Chávez National Monument

Implementation of SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would minimize the potential for construction to relocate businesses outside their existing community, thereby minimizing sales tax revenue losses.

Although Alternative 1 would displace a substantial number of businesses, changes to sales tax revenue would not be substantial.

Alternative 2

County and City Property Tax Losses

Alternative 2 would result in parcel acquisitions, which would result in permanent property tax revenue losses for local jurisdictions as those properties are removed from the property tax assessment roll. Table 3.12-63 shows the estimated permanent loss in annual property tax revenue for each of the jurisdictions where property acquisitions would occur under Alternative 2 and the Preferred Alternative, the total property tax revenue collected and distributed to each jurisdiction's general fund in FY 2013–2014, and the percentage of the FY 2013–2014 property tax collections that could be permanently lost as a result of property acquisitions under Alternative 2 and the Preferred Alternative.

As shown in Table 3.12-63, the parcel acquisitions under Alternative 2 and the Preferred Alternative could result in a total loss of approximately $592,937 in annual property tax revenue, based on the assessed values of those properties in FY 2013–2014. Of the affected local jurisdictions, Los Angeles County could incur the largest property tax revenue loss ($479,650); however, the City of Lancaster could also experience a large property tax loss ($64,368). With the CCNM Design Option, Alternative 2 would result in an estimated property tax loss of approximately $67 less. With the Refined CCNM Design Option, Alternative 2 would result in an estimated property tax loss of $823 less.

Table 3.12-63 shows the estimated loss in annual property tax revenue for each of the jurisdictions where property acquisitions would occur under Alternative 2, the total property tax revenue collected and distributed to each jurisdiction's general fund in FY 2013–2014, and the percentage of the FY 2013–2014 property tax collections that could be lost as a result of property acquisitions under Alternative 2 and the Preferred Alternative. As shown in Table 3.12-63, in most jurisdictions, Alternative 2 could result in the loss of less than 1 percent of the property tax revenue collected and distributed to the respective general funds of the affected local jurisdictions in FY 2013–2014. Given the small percentage of total revenues that could be permanently lost as a result of property acquisitions, these revenue losses would not be perceptible to residents in the affected jurisdictions.

Table 3.12-63 Estimated Changes in Property Tax Revenue Under Alternative 2/Preferred Alternative

Jurisdiction	Property Tax Revenue (Fiscal Year 2013–2014)	Estimated Property Tax Loss	Estimated % Loss in Property Tax Revenue	Estimated Revenue Loss—CCNM Design Option[1]	Estimated Revenue Loss—Refined CCNM Design Option[2]/Preferred Alternative
City of Tehachapi	$1,187,822	$4,887	0.4	--	--
Kern County	$270,406,000	$33,652	<0.05	-$67	-$823
City of Lancaster	$14,371,000	$64,368	0.5	--	--
City of Palmdale	$15,478,125	$10,380	0.1	--	--
Los Angeles County	$5,235,798,000	$479,650	<0.05	--	--
Regional Total	**$5,537,240,947**	**$592,937**	<0.05	**-$67**	**-$823**

Sources: County of Kern, 2014a; County of Los Angeles, 2014a; California High-Speed Rail Authority, 2018a, 2020a
[1] With the CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $67 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the CCNM Design Option.
[2] With the Refined CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $823 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

County and City Sales Tax Effects

Research and analysis have shown that the sales tax losses for Alternatives 1, 2, and 3 would be the same. The estimated sales tax losses represent a relatively small percentage of the overall revenue in each affected jurisdiction (refer to the discussion for Alternative 1 and Table 3.12-62).

Table 3.12-64 Estimated Changes in Property Tax Revenue Under Alternative 3

Jurisdiction	Property Tax Revenue (Fiscal Year 2013–2014)	Estimated Property Tax Loss	Estimated % Loss in Property Tax Revenue	Estimated Revenue Loss—CCNM Design Option[1]	Estimated Revenue Loss—Refined CCNM Design Option[2]
City of Tehachapi	$1,187,822	$4,887	0.4	--	--
Kern County	$270,406,000	$33,615	<0.05	-$67	-$823
City of Lancaster	$14,371,000	$64,368	0.5	--	--
City of Palmdale	$15,478,125	$10,380	0.1	--	--
Los Angeles County	$5,235,798,000	$479,650	<0.05	--	--
Regional Total	**$5,537,240,947**	**$592,200**	**<0.05**	**-$67**	**-$823**

Sources: County of Kern, 2014a; County of Los Angeles, 2014a; California High-Speed Rail Authority, 2020a, 2020b
[1] With the CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $67 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the CCNM Design Option.
[2] With the Refined CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $823 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 2 and the Preferred Alternative.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing communities due to construction of Alternative 2. Similar to Alternative 1, Alternative 2 would not result in substantial changes to sales tax revenue.

Alternative 3

County and City Property Tax Losses

Alternative 3 would result in parcel acquisitions, which would result in permanent property tax revenue losses for local jurisdictions as those properties are removed from the property tax assessment roll. Table 3.12-64 shows the estimated permanent loss in annual property tax revenue for each of the jurisdictions where property acquisitions would occur under Alternative 3, the total property tax revenue collected and distributed to each jurisdiction's general fund in FY 2013–2014, and the percentage of the FY 2013–2014 property tax collections that could be permanently lost as a result of property acquisitions under Alternative 3.

As shown in Table 3.12-64, the parcel acquisitions under Alternative 3 could result in a total loss of approximately $592,200 in annual property tax revenue based on the assessed values of those properties in FY 2013–2014. Of the affected local jurisdictions, Los Angeles County could incur the largest property tax revenue loss ($479,650); however, the City of Lancaster could also experience a large property tax loss ($64,368). With the CCNM Design Option, Alternative 3 would result in an estimated property tax loss of approximately $67 less. With the Refined CCNM Design Option, Alternative 3 would result in an estimated property tax loss of $823 less.

Table 3.12-64 also shows that Alternative 3 could result in the loss of less than 1 percent of the property tax revenue collected and distributed to the respective general funds of the affected local jurisdictions in FY 2013–2014. Given the small percentage of total revenues that could be permanently lost as a result of property acquisitions, these revenue losses would not be perceptible to the affected jurisdictions.

County and City Sales Tax Effects

Research and analysis have shown that the sales tax losses for Alternatives 1, 2, and 3 would be the same. The estimated sales tax losses represent a relatively small percentage of the overall revenue in each affected jurisdiction. Refer to the discussion for Alternative 1 and Table 3.12-62.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 3.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing communities due to construction of Alternative 3. Similar to Alternative 1, Alternative 3 would not result in substantial changes to sales tax revenue.

Alternative 5

County and City Property Tax Losses

Alternative 5 would result in parcel acquisitions, which would result in permanent property tax revenue losses for local jurisdictions as those properties are removed from the property tax assessment roll. Table 3.12-65 shows the estimated permanent loss in annual property tax revenue for each of the jurisdictions where property acquisitions would occur under Alternative 5, the total property tax revenue collected and distributed to each jurisdiction's general fund in FY 2013–2014, and the percentage of the FY 2013–2014 property tax collections that could be permanently lost as a result of property acquisitions under Alternative 5.

Table 3.12-65 Estimated Changes in Property Tax Revenue under Alternative 5

Jurisdiction	Property Tax Revenue (Fiscal Year 2013–2014)	Estimated Property Tax Loss	Estimated % Loss in Property Tax Revenue	Estimated Revenue Loss—CCNM Design Option[1]	Estimated Revenue Loss—Refined CCNM Design Option[2]
City of Tehachapi	$1,187,822	$4,887	0.4	--	
Kern County	$270,406,000	$35,321	<0.05	-$67	-$823
City of Lancaster	$14,371,000	$86,209	0.6	--	
City of Palmdale	$15,478,125	$7,619	0.1	--	
Los Angeles County	$5,235,798,000	$588,840	<0.05	--	
Regional Total	**$5,537,240,947**	**$722,876**	**<0.05**	**-$67**	**-$823**

Sources: County of Kern, 2014a; County of Los Angeles, 2014a; California High-Speed Rail Authority, 2020a, 2020b
[1] With the CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $67 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the CCNM Design Option.
[2] With the Refined CCNM Design Option, the estimated revenue loss to Kern County and the region would be approximately $823 less; however, given the small difference, the estimated percentage loss in property tax revenue for Kern County and the region would be approximately the same with or without the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

As shown in Table 3.12-65, the parcel acquisitions under Alternative 5 could result in a total loss of approximately $722,876 in annual property tax revenue based on the assessed values of those properties in FY 2013–2014. Of the affected local jurisdictions, Los Angeles County could incur the largest property tax revenue loss ($588,840); however, the City of Lancaster could also experience a large property tax loss ($86,209). With the CCNM Design Option, Alternative 5 would result in an estimated property tax loss of approximately $67 less. With the Refined CCNM Design Option, Alternative 5 would result in an estimated property tax loss of $823 less.

Table 3.12-65 also shows that Alternative 5 could result in the loss of less than 1 percent of the property tax revenue collected and distributed to the respective general funds of the affected local jurisdictions in FY 2013–2014. Given the small percentage of total revenues that could be permanently lost as a result of property acquisitions, these revenue losses would not be perceptible to the affected jurisdictions.

County and City Sales Tax Effects

Alternative 5 would result in 285 business displacements; however, only 117 of these businesses generate sales tax. As discussed under Impact SO #5, an adequate supply of replacement properties is available in the replacement area in which to relocate most of these displaced businesses. In Los Angeles County, there is inadequate available business space to relocate the businesses that could be displaced by the HSR project. If necessary, additional vacant land in the vicinity of the cities of Lancaster and Palmdale that is properly zoned for commercial and industrial use could be improved at some future date to accommodate those displaced businesses that are unable to relocate within existing commercial or industrial business space. If some of the businesses displaced by the HSR project were to relocate outside the respective jurisdictions in which they are currently located, these jurisdictions would experience losses in sales tax revenues.

Table 3.12-66 shows the estimated loss in annual sales tax revenue for each of the jurisdictions where the displacement of sales tax-generating businesses would occur under Alternative 5, along with the percentage of the total sales tax revenue distributed to each jurisdiction's general fund in 2013 that would be lost as a result of Alternative 5. As shown in Table 3.12-66, Alternative 5 could result in a total loss of approximately $550,495 in annual sales tax revenue.

Table 3.12-66 Estimated Changes in Sales Tax Revenue Under Alternative 5

Jurisdiction	Total Sales Tax Revenue Apportioned to City/County	Alternative 5	
		Estimated Sales Tax Loss	Estimated % Sales Tax Loss
Kern County	$113,993,430	$14,181	<0.05
City of Lancaster	$11,898,998	$526,382	0.4
City of Palmdale	$10,767,068	$9,933	<0.05
Regional Total	**$136,659,496**	**$550,495**	**0.5**

Sources: California State Board of Equalization, 2013; California High-Speed Rail Authority, 2020a, 2020b
No sales tax revenue loss is expected for the cities of Bakersfield or Tehachapi.
Estimated changes in sales tax revenue under Alternatives 5 would be the same with or without the CCNM Design Option and the Refined CCNM Design Option.
CCNM = César E. Chávez National Monument

It should be noted that these sales tax revenue losses could be temporary rather than permanent, for the most part, because they would occur during the short time when affected businesses are closed while they move to new locations. In many cases, relocations would generate tax revenue within the same taxing jurisdiction, so the losses estimated may be temporary. The estimated sales tax losses represent a relatively small percentage of the overall revenue in each affected jurisdiction.

SOCIO-IAMF#2 (Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act) and SOCIO-IAMF#3 (Relocation Mitigation Plan), described in further detail under Impact SO #2, would also apply to Alternative 5.

Similar to Alternative 1, implementation of the IAMFs described above would minimize the potential for businesses to relocate outside their existing community due to construction of Alternative 5. Alternative 5 would not result in substantial changes to sales tax revenue.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) below for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #14: Potential for Permanent Physical Deterioration from Construction

The construction of the B-P Build Alternatives would permanently displace businesses and residents, disrupt existing communities, and change local tax revenues. These effects are examined below for their potential to result in permanent physical deterioration in communities along the HSR alignment.

Displacement and Relocation of Local Residents and Businesses

As described under Impacts SO #4 and SO #5, all B-P Build Alternatives would result in the permanent displacement of local residents and businesses, particularly within the City of Lancaster.

As discussed under Impact SO #4, there is a sufficient amount of housing in the communities along the alignment in which to relocate displaced residents, although there may be a deficit of affordable housing due to the quantity of affordable residences being displaced. Given the available housing stock in the communities along the alignment, residents are not likely to relocate outside their existing communities. Therefore, considerable residential migration out of a community is not expected.

Displaced businesses in Kern County have a surplus of suitable available properties in which to relocate, whereas the cities in Los Angeles County have a deficit of suitable available properties for displaced businesses. However, the loss of businesses across Lancaster, Palmdale, and unincorporated Los Angeles County is not anticipated to result in considerable residential migration out of those communities.

Economic Effects

As described under Impact SO #13, all B-P Build Alternatives would result in permanent property tax losses in the communities along the alignment. However, most of the potential property tax revenue losses would amount to less than 1 percent for all cities and counties (potential losses range from less than 0.05 percent to 1.1 percent of total property tax revenue).

All B-P Build Alternatives would result in permanent sales tax losses in the communities along the alignment during construction, but these losses would account for between less than 0.05 percent to 0.4 percent of the total property tax revenue in each jurisdiction. These losses could be temporary, for the most part, as they would occur during the time when displaced businesses relocate to new locations. These revenue losses would not represent a large reduction in property and sales tax revenues that would reduce the quality of government services in the affected communities.

CEQA Conclusion

The construction of the B-P Build Alternatives would have the potential to displace businesses and residents, disrupt existing communities, and change local tax revenues. All B-P Build Alternatives would result in the displacement of local residents and businesses, particularly within the City of Lancaster.

Although all B-P Build Alternatives would result in property and sales tax losses in the jurisdictions along the alignment, the small percentages of the total revenues that could be lost by those jurisdictions are not anticipated to result in a broad long-term impact on the regional tax base or reduce the quality of government services in the affected communities. Although the property tax losses would be permanent, the sales tax losses would be temporary for the most part, because they would occur during the time when affected businesses are closed for project construction or while displaced businesses relocate to a new location.

As discussed above, considerable residential migration out of a community is not expected. Construction of the B-P Build Alternatives could disrupt existing communities by temporarily disrupting community circulation patterns and resulting in temporary decreases in local tax revenues from reduced sales. Downtown Lancaster would be the community most disrupted during construction, but the Authority's CMP (SOCIO-IAMF#1) would direct all street users around the construction, enabling them to access commercial destinations. Because the circulation impacts would be short in duration and the revenue losses would not be expected to result in long-term economic changes to the regional economy in the affected jurisdictions, construction of all B-P Build Alternatives would result in less than significant impacts related to physical deterioration. Therefore, CEQA does not require any mitigation.

Impact SO #15: Temporary Sales Tax Revenue Gains from Construction

The construction of the project section would generate sales tax revenues. These effects are examined below for their potential to offset sales tax losses that could occur from business relocations (refer to discussion under Impact SO #5).

Alternative 1

Table 3.12-67 provides information regarding the estimated temporary sales tax gains under the B-P Build Alternatives and the CCNM Design Option. As shown in Table 3.12-67, construction of Alternative 1 could generate approximately $25,704,022 in regional sales tax annually during the 8-year construction period, the majority of which is likely to be generated in Los Angeles County. Construction of the CCNM Design Option would reduce annual regional sales tax gains by approximately $24,109. Construction of the Refined CCNM Design Option could generate approximately $1,091,594 in additional regional sales tax annually.

Table 3.12-67 Construction Sales Tax Revenue per Year under the Bakersfield to Palmdale Project Section Build Alternatives

Location	Alternative 1	Alternative 2	Alternative 3	Alternative 5	CCNM Design Option	Refined CCNM Design Option
Kern County	$1,579,230	$1,556,107	$1,629,098	$1,589,681	-$1,481	+$67,066
Los Angeles County	$24,124,792	$23,771,550	$24,886,588	$24,284,442	-$22,628	+$1,024,527
Regional Total	**$25,704,022**	**$25,327,657**	**$26,515,686**	**$25,874,124**	**-$24,109**	+$1,091,594

Source: Appendix 6-B: Bakersfield to Palmdale Project Section: Cost Estimate Report; California High-Speed Rail Authority, 2020a, 2020b
The proportion of the local purchases that are likely to be made within each of the two counties in the economic impacts resource study area is assumed to be proportional to the population of the two counties. Therefore, approximately 92 percent of the local purchases are assumed to be made in Los Angeles County and approximately 8 percent of local purchases are assumed to be made in Kern County.

As discussed in Impact SO #13, the construction of Alternative 1 would result in an estimated permanent loss of approximately $411,625 in annual sales tax revenues due to business relocations. As presented above, the estimated annual temporary sales tax gains from project spending during construction are anticipated to exceed the total expected sales tax revenue losses associated with business relocations. Therefore, construction of Alternative 1 would have a net benefit on sales tax revenue in the region.

Alternative 2
As shown in Table 3.12-67, construction of Alternative 2 would generate approximately $25,327,657 in regional sales tax annually during the 8-year construction period, the majority of which is likely to be generated in Los Angeles County. As noted above, construction of the CCNM Design Option would reduce annual regional sales tax gains by approximately $24,109. Construction of the Refined CCNM Design Option could generate approximately $1,091,594 in additional regional sales tax annually.

As discussed in Impact SO #13, the construction of Alternative 2 could result in an estimated permanent loss of approximately $411,625 in annual sales tax revenues due to business relocations. As presented above, the estimated annual temporary sales tax gains from project spending during construction are anticipated to exceed the total expected sales tax revenue losses associated with business relocations. Therefore, construction of Alternative 2 would have a net benefit on sales tax revenue in the region.

Alternative 3
As shown in Table 3.12-67, construction of Alternative 3 would generate approximately $26,515,686 in regional sales tax annually during the 8-year construction period, the majority of which is likely to be generated in Los Angeles County. As noted above, construction of the CCNM Design Option would reduce annual regional sales tax gains by approximately $24,109. Construction of the Refined CCNM Design Option could generate approximately $1,091,594 in additional regional sales tax annually.

As discussed in Impact SO #13, the construction of Alternative 3 would result in an estimated permanent loss of approximately $411,625 in annual sales tax revenues due to business relocations. As presented above, the estimated annual temporary sales tax gains from project spending during construction are anticipated to exceed the total expected sales tax revenue losses associated with business relocations. Therefore, construction of Alternative 3 would have a net benefit on sales tax revenue in the region.

Alternative 5
As shown in Table 3.12-67, construction of Alternative 5 would generate approximately $25,874,124 in regional sales tax annually during the 8-year construction period, the majority of which is likely to be generated in Los Angeles County. As noted above, construction of the CCNM Design Option would reduce annual regional sales tax gains by approximately $24,109.

Construction of the Refined CCNM Design Option could generate approximately $1,091,594 in additional regional sales tax annually.

As discussed in Impact SO #13, the construction of Alternative 5 would result in an estimated permanent loss of approximately $550,495 in annual sales tax revenues due to business relocations. As presented above, the estimated annual temporary sales tax gains from project spending during construction are anticipated to exceed the total expected sales tax revenue losses associated with business relocations. Therefore, construction of Alternative 5 would have a net benefit on sales tax revenue in the region.

Lancaster North B Maintenance-of-Way Facility

Table 3.12-68 provides information regarding the estimated temporary sales tax gains that would result from construction of the Lancaster North B MOWF and the Avenue M LMF/MOWF. As shown in Table 3.12-68, construction of the Lancaster North B MOWF would generate approximately $342,749 in regional sales tax annually during the 2-year construction period, the majority of which is likely to be generated in Los Angeles County.

Table 3.12-68 Construction Sales Tax Revenue per Year for the Maintenance Facilities

Location	Lancaster North B MOWF	Avenue M LMF/MOWF
Kern County	$22,743	$51,557
Los Angeles County	$320,006	$725,422
Regional Total	**$342,749**	**$776,979**

Source: California High-Speed Rail Authority, 2020a, 2020b
LMF = light maintenance facility
MOWF = maintenance-of-way facility
The proportion of the local purchases that are likely to be made within each of the two counties in the economic impacts resource study area is assumed to be proportional to the population of the two counties. Therefore, approximately 92 percent of the local purchases are assumed to be made in Los Angeles County and approximately 8 percent of local purchases are assumed to be made in Kern County.

Construction of the Lancaster North B MOWF would not result in any business displacements. Therefore, its construction would not result in any sales tax revenue losses. Construction of the Lancaster North B MOWF would have a net benefit on sales tax revenues in the region.

Avenue M Light Maintenance Facility/Maintenance-of-Way Facility

As shown in Table 3.12-68, construction of the Avenue M LMF/MOWF would generate approximately $776,979 in regional sales tax annually during the 2-year construction period, the majority of which is likely to be generated in Los Angeles County.

The sales tax losses associated with the Avenue M LMF/MOWF are included in the totals under Impact SO #13 for the B-P Build Alternatives. Although the specific sales tax losses that could be attributed to business relocations from the site of the Avenue M LMF/MOWF are unknown, the estimated annual temporary sales tax gains from project spending during construction are anticipated to exceed the total expected sales tax revenue losses associated with business relocations. Therefore, construction of the Avenue M LMF/MOWF would likely have a net benefit on sales tax revenue in the region.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that “economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment.” Refer to Impact SO #14 (Potential for Permanent Physical Deterioration from Construction) above for an evaluation of how the economic or social changes related to the construction of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #16: Temporary Effects on Children's Health and Safety from Construction

The potential for the construction of the B-P Build Alternatives to result in effects on children's health and safety is evaluated in Appendix 3.12-C, Children's Health and Safety Risk Assessment. The following discussion summarizes the analysis in Appendix 3.12-C. As discussed in Appendix 3.12-C, all B-P Build Alternatives would have similar effects on children's health and safety, and are not anticipated to result in impacts during construction. The project passes through large urban areas of Palmdale, Lancaster, and Bakersfield and through smaller communities that contain residences and businesses (Edison, Keene, Golden Hills, Tehachapi, and Rosamond). The remainder of the study area consists mostly of rural agricultural and vacant land with few concentrations of residences, businesses, services, community facilities, or other areas where children would congregate. Construction-related impacts that could affect children's health and safety (e.g., traffic hazards, air emissions, noise/vibrations, and use of hazardous materials in proximity to schools) are described further below.

Construction activities would temporarily disrupt circulation patterns in some communities and could affect school bus transportation routes and the safety of children bicycling or walking to school. (Refer to Section 3.2, Transportation, for information on construction impacts and mitigation measures to minimize impacts and maintain access.) Although access to some neighborhoods, businesses, or community facilities would be disrupted and detoured for short periods during construction, access would 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 detours, traffic delays, and increased congestion. The HSR project's temporary impacts related to community circulation would be minimized through compliance with SOCIO-IAMF#1 (Construction Management Plan) and TR-IAMF#2 (Construction Transportation Plan). These IAMFs would reduce potential temporary impacts related to community circulation from construction through the following mechanisms:

- **SOCIO-IAMF#1: Construction Management Plan**—By requiring the contractor to prepare a CMP that includes measures that minimize impacts on community residents and businesses and maintain access. The plan would include actions pertaining to communications, visual resources protection, air quality, safety controls, noise controls, and traffic controls.
- **TR-IAMF#2: Construction Transportation Plan**—By providing information ensuring the safety of students and advising school districts of construction activities.

Implementation of these IAMFs during construction would reduce the local traffic congestion effects on school access and safety.

Construction activities, such as earthmoving, would result in a substantial amount of fugitive dust emissions, potential exposure to cancer risks, and temporary disruption of soil or exposure to airborne transmission of the fungus that causes Valley Fever. (Refer to Section 3.3, Air Quality and Global Climate Change, and Section 3.11, Safety and Security, of the EIR/EIS for information on construction emissions and exposure to Valley Fever, as well as IAMFs to reduce fugitive dust and exhaust from construction and on-road vehicles and to prevent the spread of Valley Fever.) Fugitive dust emissions and the potential spread of Valley Fever could have potential localized impacts on children in the vicinity of construction sites. The HSR project's temporary construction effects related to air quality would be minimized through implementation of the IAMFs below. These IAMFs would reduce potential deterioration of air quality through the following mechanisms:

- **SS-IAMF#2: Safety and Security Management Plan**—By implementing a Valley Fever Action Plan
- **AQ-IAMF#1: Fugitive Dust Emissions**—By reducing fugitive dust emissions during construction activities

- **AQ-IAMF#2: Selection of Coatings**—By requiring the use of low-volatile-organic-compound paints
- **AQ-IAMF#6: Reduce the Potential Impact of Concrete Batch Plants**—By requiring the preparation of a technical memorandum documenting consistency with the Authority's concrete batch plant siting criteria and utilization of typical control measures.

Implementation of SS-IAMF#2, AQ-IAMF#1, AQ-IAMF#2, and AQ-IAMF#6 would reduce air quality impacts during construction.

Noise and vibration from construction activities would temporarily exceed noise and vibration standards and affect sensitive receivers along the entire project corridor. (Refer to Section 3.4, Noise and Vibration, for information on construction impacts and IAMFs to minimize impacts.) As described in Table 3.12-48 and Table 3.12-49, several schools would be subjected to increased noise levels during construction; however, as discussed in Section 3.4, no construction noise and vibration impacts are projected for any of the schools along the project corridor.

The construction of any of the B-P Build Alternatives would involve transporting, using, and disposing of construction-related hazardous materials and wastes. (Refer to Section 3.10, Hazardous Materials and Wastes, for information on construction impacts and IAMFs to minimize impacts.) Such construction could potentially result in accidental spills or releases of hazardous materials and wastes, and result in temporary hazards to schools. With implementation of the Spill Prevention, Control, and Countermeasure Plan described in HMW-IAMF#6, the project's construction effects to children's health related to routine transport and handling of hazardous or acutely hazardous materials would be reduced.

CEQA Conclusion

There is no specific requirement in California for an analysis of children's health impacts separate from that of other individuals. Therefore, this section does not provide CEQA significance conclusions related to specific impacts on children.

Operational Impacts

Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation

The B-P Build Alternatives would bring social benefits to the region by improving access to jobs and community amenities, reducing travel times, reducing traffic congestion, and providing new employment opportunities during operation. Although employment effects would be regional, the other benefits would be likely to occur in the neighborhoods where the new HSR stations would be constructed. The project would likely stimulate redevelopment efforts in these locations, which would likely result in improved neighborhood character and vitality, potentially strengthening community cohesion. The people who live or work in the general vicinity of the proposed stations would be likely to benefit the most from the improved access provided by the new HSR facilities. Those who live along the portions of the alignment without station access would not enjoy the same level of mobility and access benefits. The B-P Build Alternatives could enhance social conditions on a regional scale by facilitating new access to employment and educational opportunities through reduced commute times and by providing another means for people to visit friends and relatives living in other parts of California.

Operation of the B-P Build Alternatives could permanently disrupt established patterns of interaction among community residents. Other permanent environmental effects 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 permanent changes in visual quality or aesthetics could result in a perceived change to community character experienced in affected neighborhoods. Of the B-P Build Alternatives, Alternative 2 would result in fewer permanent noise and air quality impacts on the community of Edison because that alternative would be farther away from the community than Alternatives 1, 3, and 5.

The HSR project's permanent impacts on aesthetics and visual quality would be minimized through compliance with AVQ-IAMF#1 (Aesthetic Options) and AVQ-IAMF#2 (Aesthetic Review Process). These IAMFs would reduce potential impacts related to aesthetics and visual quality from construction through the following mechanisms:

- **AVQ-IAMF#1: Aesthetic Options**—By applying principles emphasizing that structures shall be designed and constructed with aesthetic character and visual harmony with the surrounding environment
- **AVQ-IAMF#2: Aesthetic Review Process**—By defining the process that the contractor must follow to implement the Authority's aesthetic review process

Implementation of the IAMFs described above would minimize the potential for operation of the B-P Build Alternatives to permanently affect community character; however, some of the effects related to aesthetics and visual quality and noise would remain.

CEQA Conclusion

Although some roads would be realigned or grade separated from the HSR tracks to maintain connections in the affected communities, others, particularly roads that have very low traffic volumes, would be permanently closed on either side of the HSR tracks. Many of the existing at-grade railroad crossings would be replaced with new grade-separated crossings. These new grade separations would enhance mobility in the affected communities by eliminating traffic delays for motorists who are currently forced to wait for passing trains. Any newly constructed or reconstructed roadways, including new grade separations, would provide Americans with Disabilities Act-compliant sidewalks. Where existing roads cross the proposed HSR alignment, the HSR project would replace all transportation improvements, including bicycle lanes, trails, sidewalks, and transportation facilities, to match the existing conditions. The new sidewalks and bikeways would reconnect communities that were previously divided by railroad tracks. As such, all B-P Build Alternatives would result in less than significant impacts related to the physical division of an established community during operation. Therefore, CEQA does not require any mitigation.

Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities

Long-term operation and maintenance of the HSR system, including the Bakersfield to Palmdale Project Section, would result in direct, indirect, and induced employment effects; induced employment effects due to economic effects related to increased accessibility of the region; and increased population related to the increase in employment. Direct, indirect, and induced employment effects associated with operating and maintaining the HSR system relate directly to the cost of operating the system, which is similar under all B-P Build Alternatives. Similarly, induced employment effects associated with increased accessibility provided by the HSR system would be the same for all B-P Build Alternatives due to the same number of stations. Therefore, employment effects associated with operation of the Bakersfield to Palmdale Project Section are the same for all B-P Build Alternatives. Increased population and associated land use consumption is a direct effect of increased employment in the region and is therefore the same for all B-P Build Alternatives (including the CCNM Design Option and Refined CCNM Design Option) as well. The potential for the job creation related to the long-term operation and maintenance of the Lancaster North B MOWF, the Avenue M LMF/MOWF, electric power utility improvements, maintenance of infrastructure siding facilities, Bakersfield Station—F Street (LGA), and Palmdale Station to require the construction of new community facilities is included in the employment effects discussion for all B-P Build Alternatives.

Operations-Related Employment

Operation of the HSR system would improve state and regional connectivity while creating job opportunities across many sectors of the regional economy. The employment created has the potential to draw workers to the region. Overall, employment growth from project operation would be a net benefit for the region, as it would spur additional economic activity in areas currently experiencing high unemployment.

Table 3.12-69 shows the population and employment projections for the two-county region (Kern and Los Angeles Counties) under the No Project Alternative and the B-P Build Alternatives (including the CCNM Design Option). Table 3.12-69 includes the following:

- Existing population and number of jobs in 2015
- Projected population and number of jobs in 2040 under the No Project condition
- Projected growth rates for population and number of jobs by 2040 under the No Project condition
- Number of residents and jobs projected to be induced by the HSR project
- Total projected population and number of jobs in 2040 under the HSR project
- The growth inducement rate attributed to the HSR project

Population and employment growth associated with operation of the HSR project relate directly to operating cost estimates. The differences among the B-P Build Alternatives are not large enough to affect operating costs; therefore, operation of any of the B-P Build Alternatives would result in similar direct effects on population and employment.

Table 3.12-69 Regional Projected and Induced Population and Employment Growth

Area	2015 Estimate	2040 Projections Baseline	HSR Direct, Indirect, and Induced Growth	HSR Increased Accessibility Growth	Total HSR Induced Growth	Total 2040 HSR Projections	Growth[1]
Two-county RSA	5,028,400	5,692,000	500	11,800	12,300	5,704,300	0.22%

Sources: *California Employment Development Department, 2016a; Kern Council of Governments, 2015; Southern California Association of Governments 2016; California High-Speed Rail Authority, 2017; and Appendix 3.18-A,* Regional Growth Methodology Memorandum.
[1] "Growth" shows the total additional growth attributable to the Bakersfield to Palmdale Project Section as a percentage of the "2040 Projections Baseline."
HSR = high-speed rail
RSA = resource study area

Kern County is in the San Joaquin Valley, where the agricultural industry defines the socioeconomic structure. The energy and natural resource sector, which includes oil and gas extraction as well as wind and solar energy production, also supports the county's economy (Milken Institute 2015). Although these industries play a decisive role in the county's economy, lower land and labor costs in the valley compared to those of other regions have attracted other businesses to the region as well, with growth occurring in all major industries from 2000 to 2012.

Despite growth in the number of jobs in Kern County between 2000 and 2013, unemployment rates in the county have remained higher than those in the state overall. In response to persistent unemployment in the San Joaquin Valley, including Kern County, local governments are making a concerted effort to help create jobs, including programs such as the California Partnership for the San Joaquin Valley, a public-private partnership focused on improving the region's economic vitality and quality of life. Therefore, although factors that attract jobs to the area have been growing, efforts remain underway to continue to create employment.

The existing economy and employment outlook in Los Angeles County is substantially different from that of Kern County. A broad mix of industries supports the county's economy, and the county's unemployment rates track relatively close to those experienced by the state. Between 2000 and 2012, the county experienced a decline in the number of jobs in most major industries, resulting in the loss of 91,500 jobs. The largest reductions occurred in manufacturing, information, and construction. CEDD projects that the number of jobs in the Los Angeles County will increase in the period from 2012 to 2022 for all major industries except manufacturing. Unemployment

rates have been declining since 2010, also indicating growing employment opportunities in the county.

Direct, Indirect, and Induced Jobs from Operation

Operation of the Bakersfield to Palmdale Project Section would result in a projected 500 direct jobs working for HSR and 900 indirect and induced jobs at businesses supported by local expenditures by the HSR project and its staff, for a total of 1,400 new jobs in the region by 2040 (Table 3.12-70). The increase in jobs associated with operation of the Bakersfield to Palmdale Project Section would result in an economic benefit to both counties.

Table 3.12-70 Direct, Indirect, and Induced Jobs by 2040

County	Direct	Indirect and Induced	Total[1]
Two-County Region	500	900	1,400

Source: California High-Speed Rail Authority, 2020a, 2020b; Bureau of Economic Analysis, 2015

[1] This data is inclusive of the CCNM Design Option, the Refined CCNM Design Option, and the portion of the Fresno to Bakersfield Locally Generated Alternative alignment from the intersection of 34th Street and L Street to Oswell Street.

Total Employment Effects by 2040

Total employment effects by 2040 include direct, indirect, and induced jobs from operation of the Bakersfield to Palmdale Project Section, as well as induced jobs associated with increased accessibility of the region. Operation of the HSR system would substantially increase the connection between Kern County and the rest of the state. As a result of this increase in accessibility, approximately 18,100 jobs would be generated in the county.

Los Angeles County already has substantial existing connections to the rest of the state and would not experience a large increase in accessibility. As a result, the employment gain from increased accessibility in Los Angeles County would be much smaller than in Kern County, representing an estimated 4,900 jobs.

The total projected employment effect by 2040 from operation of the HSR system would be an increase of 11,800 jobs in the region (Table 3.12-69). This total includes the direct jobs to operate and maintain the HSR project in the region (500 jobs); indirect and induced jobs created to support new operations workers (900 jobs); and additional jobs created because of the improved connectivity of the region to the rest of the state (11,800 jobs). In the region as a whole, this growth amounts to a 0.5 percent increase above the 2040 employment projections.

The employment projections presented in Table 3.12-69 are based on increased accessibility of each county and do not account for the dynamic economic structure of metropolitan areas of Los Angeles County, which may experience higher employment benefits related to increased connectivity than other areas. As a result, Los Angeles County may have additional job growth beyond these projections. The size of Los Angeles County, with a projected 2040 employment of 5.2 million jobs, is so large relative to the employment projections under operation of the HSR system that even a doubling of these projections would represent only a 0.2 percent increase above the 2040 No Project employment projection. Therefore, these potential additional employment effects in Los Angeles County, beyond those due to improved accessibility, would have little effect on total employment in the county.

Jobs created directly and indirectly by operation of the HSR project would provide employment opportunities for residents in the region. In Kern County, the annual average unemployment rate was 10.2 percent in 2015, which is far above the state's unemployment rate of 6.2 percent and represents 40,200 unemployed people in the civilian workforce (CEDD 2016a). In Los Angeles County, the average annual unemployment rate was much closer to that of the state, at 6.7 percent in 2015. Because the population of Los Angeles County is much larger, however, 6.7 percent of the civilian workforce represents 336,900 unemployed civilian workers (CEDD 2016b). Southern California Association of Governments projections under the No Project condition indicate that job growth in Los Angeles County through 2040 is expected to be slower (11.8 percent) than that in the rest of the state (16.9 percent). In addition, the unemployment

rates in the cities of Lancaster and Palmdale were substantially higher than that of the state in 2015, at 7.5 and 9.0 percent, respectively. Therefore, there are more unemployed workers per capita in these areas than in the rest of the county.

Given that there are more unemployed workers in both counties than the number of jobs that would be induced by the HSR project, many of these jobs would be filled by the existing workforce. Initial long-term direct jobs created by the HSR project would be in operation and maintenance of the system. These jobs would require similar skills to the 262,600 construction- and manufacturing-sector jobs that were lost in the region between 2000 and 2010, and therefore would support some of those workers. The HSR project would also induce other jobs over time as businesses begin to grow or relocate to the region to take advantage of increased regional connectivity and/or lower wage rates relative to other parts of California.

Job growth would occur in a wide variety of industries, providing jobs to workers with different skill sets. Given that the region experienced job losses in several industries between 2000 and 2010, the unemployed workforce in the region has a variety of skill sets and would be able to fill many of these jobs. Additionally, local workers are more likely to fill available jobs, because long-distance commuting via HSR would not be feasible for most workers. At a ticket price equivalent to 50 to 80 percent of airfare, it would not be cost-effective for most people to live in one urban area, such as Palmdale, and commute to another urban area, such as Bakersfield. Overall, it is expected that employment growth from HSR project operation would be a net benefit for the region, as it would provide jobs in areas with high numbers of unemployed workers.

Although the HSR project would induce employment growth, as discussed above, this growth would not be substantially beyond what is currently projected for these two counties in the absence of the HSR project. Additionally, existing workers in the area, where high unemployment currently exists, would fill many of these jobs, thereby providing a benefit to the region. As a result, construction of additional community facilities would not be required to support this workforce.

Induced Population Growth

As shown in Table 3.12-69, the B-P Build Alternatives would contribute a relatively small incremental increase in the projected growth for the two-county region associated with the No Project Alternative. Compared to current projections, the HSR project would result in a 0.22-percent population increase in the two-county region.

While increasing projected population growth, the HSR project would also result in environmental benefits over the No Project Alternative, including:

- Reduced automobile travel on major freeways
- Reduced long-term air pollutant emissions
- Promotion of transit-oriented development

Other effects of population growth include demand for public services and utilities, such as police and fire protection, and increased demand for water supply, wastewater services, and energy. As discussed in Section 3.11, Safety and Security, increased demand for public services may result in the need for new or expanded governmental facilities, but development and expansion of facilities would comply with local site development and permitting processes. Similarly, Section 3.6, Public Utilities and Energy, concluded that operation of the Bakersfield to Palmdale Project Section would not result in an impact on utilities and utility services when viewed on a systemwide basis.

This analysis discusses the various ways in which the HSR project could foster population growth or the construction of additional housing, directly or indirectly, in the surrounding environment. In general, a project may foster spatial, economic or population growth in a geographic area if it removes obstacles to population growth (e.g., the establishment or expansion of an essential public service, or the extension of a roadway to an area). The HSR project is included in this definition of infrastructure projects that remove obstacles to growth as it could facilitate travel between areas of California by providing an additional mode of transportation to those that already exist. The HSR project is designed for intercity travel to provide an alternative to personal

automobiles and airplanes for rapid travel between the major urban centers of the state. Thus, from this perspective, the HSR project would not induce additional population growth.

California's population is expected to increase by 17.6 percent between 2010 and 2040. Projections indicate that much of this population growth could be accommodated in the metropolitan coastal areas or in Southern California's Inland Empire (Authority and FRA 2014). However, the opportunities for growth and development in these regions are limited. Despite economic pressure to grow, the combination of rising costs and local opposition to increased development in these areas is likely to push a substantial number of people to seek homes and employment elsewhere. The San Joaquin Valley, including Kern County, is a likely outlet for this population pressure, regardless of whether or not the HSR project is constructed (Teitz et al. 2005). As shown in Table 3.12-69, the population of Kern County is projected to increase by 60.5 percent between 2015 and 2040 under the No Project Alternative, which is more than three times the population rate increase projected for the state over this period. This population increase is attributed to: (1) overflow from urban coastal areas in which people are seeking affordable housing within commuting range of major metropolitan areas, (2) immigration, and (3) local population growth (Cowan 2005).

Although Los Angeles County is projected to experience less growth than the state by 2040 (13.4 percent in Los Angeles County versus 17.6 percent statewide), the Cities of Lancaster and Palmdale are projected to grow by 33.0 and 27.1 percent, respectively, which is more than the state as a whole.

This analysis takes a conservative approach when evaluating the population growth from operation of the HSR system by using a constant population-to-employment ratio to generate population estimates. The resulting population estimates are conservatively high because they assume that every new job would draw new residents into the region. In practice, given the high unemployment rates in both Kern and Los Angeles Counties, local residents would fill many of the new jobs, which would reduce the number of jobs filled by new residents and the resulting population effects.

Using these conservative estimates, the HSR project would induce population growth by 45,000 people (3.2 percent) beyond the 2040 projection of 1.4 million people under the No Project Alternative in Kern County. In Los Angeles County, operation of the HSR system would induce population growth by 12,600 people (0.1 percent) beyond the 2040 projection of 11.5 million people under the No Project Alternative. In the region as a whole, this growth amounts to a 0.5 percent increase above the 2040 population projections. This contribution to population growth would be a small incremental effect compared to the 17.2 percent growth currently projected under the No Project Alternative.

The HSR project would serve the existing and future need for transportation, would help to provide employment opportunities in Kern and Los Angeles Counties, and would encourage compact, higher-density, pedestrian-oriented development around the station areas. This style of development would be similar to transit-oriented design and would support local efforts for transit-oriented development around stations that serve as multimodal transportation hubs. The HSR project would also assist local governments by providing station area planning matching grants and technical assistance to cities that apply for these grants. Increased connectivity to Bakersfield and Palmdale by way of the HSR system would provide an economic incentive for revitalization of station areas, as access to the train would attract businesses to locate in these station areas, thereby attracting employees of these businesses to locate near the station as well (Cambridge Systematics, Inc. 2010; Cambridge Systematics, Inc. 2007).

The HSR project's capacity to promote and support transit-oriented design in station areas is a benefit of the project, as it would help accommodate regional growth anticipated in the region. Additionally, the increased density of development in and around HSR stations would provide public benefits beyond the benefits of access to the HSR system itself. Such benefits could include relief from traffic congestion, improved air quality, promotion of infill development, preservation of natural resources, more affordable housing, promotion of job opportunities, reduction in energy consumption, and better use of public infrastructure. Given that the HSR

project would provide benefits that would help accommodate regional growth by supporting transit-oriented development in and around station areas and would not induce growth substantially beyond that which is already projected for the region, construction of additional community facilities would not be required to support the expanded population and employment base.

The permanent effects resulting from the operation of the B-P Build Alternatives would result in a broad increase in employment within the two-county region, especially in Kern County, and would improve the overall quality of life in the region.

Inducement of Additional Population Growth in Exurban Counties

Operation of the HSR system has the potential to induce additional population growth in suburban and exurban communities by providing fast, reliable service between these communities and the Los Angeles metropolitan area. As described in further detail in Section 3.18, Regional Growth, of the EIR/EIS, suburban and exurban communities could attract population from the dense urban cores of California's metropolitan areas because those communities provide lower-priced housing options.

While some individuals and their households may choose to relocate to suburban and exurban communities to purchase more affordable housing because of convenient access to potentially affordable HSR train commute services, the number, magnitude, and distribution of households that may make this decision is difficult to estimate because it involves many economic factors and individual preferences. Such households would likely relocate to these suburban and exurban communities over time, starting during construction, just prior to operation, or after HSR operations have been proven to be fast, reliable, and affordable. Local governments would take steps to accommodate this potential population growth and increased demand for housing by updating their general plan policies, transit plans, zoning, and building codes. The increases in population in these suburban and exurban communities would not be stimulated by local economic growth, but rather would be a shift of some population growth from expensive metropolitan central cities to suburban and exurban communities.

CEQA Conclusion

As discussed above, operation of all B-P Build Alternatives would result in a small incremental population growth effect compared to forecasted growth under the No Project Alternative. However, the HSR project would not cause a substantial increase in population growth in the region.

The percentage increase in population induced by the HSR project is expected to be lower than the percentage increase in employment induced by the project. This is based on the likelihood that a number of the jobs generated by the HSR project would be filled by area residents. Population increases are driven by growth in indirect employment, which is spread out over time. Therefore, the HSR project would not induce substantial growth in the region.

The HSR project would serve the existing and future need for transportation, help to provide employment opportunities in Kern and Los Angeles Counties, and encourage compact, transit-oriented development around the station areas. The HSR project would also assist local governments by providing station area planning matching grants and technical assistance to cities that apply for these grants. Increased travel to Bakersfield and Palmdale by way of the HSR system would provide an economic incentive for revitalization of those areas. Given that the HSR project would provide benefits that would help accommodate regional growth by supporting transit-oriented development in and around station areas and would not induce growth substantially beyond that which is already projected for the region, construction of additional community facilities would not be required to support the expanded population and employment base. All B-P Build Alternatives would result in less than significant impacts related to the provision of new or physically altered governmental facilities.

Impact SO #19: Permanent Disruption to Community Facilities from Operation

Alternatives 1, 2, and 3

Table 3.12-71 shows the operational effects to community facilities under Alternatives 1, 2, and 3. Operational effects would be permanent in nature. Alternatives 1, 2, and 3 would require the partial acquisition of the parcels on which Willow Springs International Raceway and Life Source International Charter School are located. Neither facility would be displaced. For discussion on traffic, noise, and aesthetic effects, refer to Section 3.2, Transportation; Section 3.4, Noise and Vibration; and Section 3.16, Aesthetics and Visual Quality, respectively.

Table 3.12-71 Alternatives 1, 2, and 3: Permanent Effects on Community Facilities Within 500 Feet of the Temporary and Permanent Effect Limits

Name	Type	City/Community	Operational Effects (Permanent)
Calvary Gospel Tabernacle	Place of Worship	Northeast Bakersfield	No effect other than proximity to the project
Foothill High School	Public School	Northeast Bakersfield	Decreased traffic
Edison Middle School	Public School	Edison	Directly adjacent to the project
Fire Station 45 – Edison	Fire Station	Edison	Improved access
Fire Station 11 – Keene	Fire Station	Keene	Improved access
La Paz	Public Facility	Keene	No effect other than proximity to the project[1]
Willow Springs International Raceway	Community Facility	Lancaster	Partial parcel acquisition
Whit Carter Park	Park	Lancaster	No effect other than proximity to the project
Trinity Community Church	Place of Worship	Lancaster	Improved access
Iglesia de Cristo	Place of Worship	Lancaster	Improved access
Power of Praise Ministries	Place of Worship	Lancaster	Directly adjacent to the project; improved access
Los Angeles County Sheriff's Department	Sheriff's Station	Lancaster	Improved access
Living Word Fellowship Church	Place of Worship	Lancaster	Improved access
Antelope Valley Christian Center	Place of Worship	Lancaster	Improved access
Lancaster Library	Public Facility	Lancaster	Improved access
AVLife Church	Place of Worship	Lancaster	Improved access
Solid Rock Bible Church	Place of Worship	Lancaster	Full acquisition
Grace Resource Center	Social Service Center	Lancaster	Full acquisition
Spirit & Truth Missionary Baptist Church	Place of Worship	Lancaster	Improved access
Jane Reynolds Park/Webber Pool	Public Facility	Lancaster	Improved access
Life Source International Charter School	Charter School	Lancaster	Partial parcel acquisition; improved access

Name	Type	City/Community	Operational Effects (Permanent)
University of Antelope Valley	Private School	Lancaster	No effect other than proximity to the project

[1] Although the CCNM Design Option would move the centerline of Alternatives 1, 2, and 3 approximately 460 feet farther from La Paz, La Paz would still be in close proximity to the Bakersfield to Palmdale Project Section Build Alternatives. With the Refined CCNM Design Option Alternatives 1, 2, and 3 would have no effect on La Paz.
CCNM = César E. Chávez National Monument
La Paz = Nuestra Señora Reina de la Paz/César E. Chávez National Monument

Implementation of IAMFs would minimize the potential for construction of Alternatives 1, 2, and 3 to permanently disrupt community facilities. Alternatives 1, 2, and 3 would still result in noticeable localized social change, but they would not affect the overall quality of life in the affected communities.

Alternative 5

Table 3.12-72 shows the operational effects to community facilities under Alternative 5. Operational effects would be permanent in nature. Alternative 5 would require the partial acquisition of the Life Source International Charter School; however, the school would not be displaced. Iglesia de Cristo, the Solid Rock Bible Church, the Los Angeles County Sheriff's Department's Lancaster Station, the Grace Resource Center, and the University of Antelope Valley's Sierra Highway Campus would be fully acquired. For discussion on traffic, noise, and aesthetic effects, refer to Section 3.2, Transportation; Section 3.4, Noise and Vibration; and Section 3.16, Aesthetics and Visual Quality, respectively.

Table 3.12-72 Alternative 5: Permanent Effects on Community Facilities Within 500 Feet of the Temporary and Permanent Effect Limits

Name	Type	City/Community	Operational Effects (Permanent)
Calvary Gospel Tabernacle	Place of Worship	Northeast Bakersfield	No effect other than proximity to the project
Foothill High School	Public School	Northeast Bakersfield	Decreased traffic
Edison Middle School	Public School	Edison	Directly adjacent to the project
Fire Station 45 – Edison	Fire Station	Edison	Improved access
Fire Station 11 – Keene	Fire Station	Keene	Improved access
La Paz	Public Facility	Keene	No effect other than proximity to the project[1]
Willow Springs International Raceway	Community Facility	Lancaster	Partial parcel acquisition
Whit Carter Park	Park	Lancaster	Partial parcel acquisition
Trinity Community Church	Place of Worship	Lancaster	Improved access
Power of Praise Ministries	Place of Worship	Lancaster	Partial parcel acquisition; improved access; loss of parking stalls
Sacred Heart Catholic Church	Place of Worship	Lancaster	Directly adjacent to the project; improved access
Los Angeles County Sheriff's Department	Sheriff's Station	Lancaster	Full acquisition
Living Word Fellowship Church	Place of Worship	Lancaster	Improved access

Name	Type	City/Community	Operational Effects (Permanent)
Antelope Valley Christian Center	Place of Worship	Lancaster	Improved access
Western Hotel Museum	Museum	Lancaster	Improved access
Lancaster Library	Public Facility	Lancaster	Improved access
Cedar Post Office	Post Office	Lancaster	Improved access
AVLife Church	Place of Worship	Lancaster	Directly adjacent to the project; improved access
Grace Resource Center	Social Service Center	Lancaster	Full acquisition
Spirit & Truth Missionary Baptist Church	Place of Worship	Lancaster	Improved access
Lancaster Religious Science	Place of Worship	Lancaster	Improved access
Jane Reynolds Park/Webber Pool	Public Facility	Lancaster	Improved access
St. Columba's Anglican Church	Place of Worship	Lancaster	Improved access
Life Source International Charter School	Charter School	Lancaster	Partial parcel acquisition; improved access
Lancaster Alternative and Virtual Academy	Public School	Lancaster	Improved access
University of Antelope Valley	Private School	Lancaster	Full acquisition

[1] Although the CCNM Design Option would move the centerline of Alternative 5 approximately 460 feet farther from La Paz, La Paz would still be in close proximity to the Bakersfield to Palmdale Project Section Build Alternatives. With the Refined CCNM Design Option, Alternative 5 would have no effect on La Paz.
CCNM = César E. Chávez National Monument
La Paz = Nuestra Señora Reina de la Paz/César E. Chávez National Monument

Implementation of IAMFs would minimize the potential for construction of Alternative 5 to permanently disrupt community facilities. Alternative 5 would still result in noticeable localized social change, but it would not affect the overall ability to access community facilities in the affected communities.

CEQA Conclusion
Permanent disruption to community facilities from operations is not an environmental impact under CEQA. The potential environmental impacts that could cause such disruption (e.g., traffic, noise) are analyzed in other sections of this EIR/EIS.

Impact SO #20: Permanent Changes in School District Funding from Operation

Property acquisitions would occur as a result of construction of the HSR project. Therefore, no residential or student displacements would occur as a result of HSR project operation. While permanent revenue losses would occur as a result of construction, there is a potential for revenue loss to be minimized during operation. Permanent revenue losses could be partially offset if portions of properties that are acquired are ultimately declared as excess by the Authority and sold/exchanged in accordance with the procedures set forth in California Public Utilities Code Section 185040.

Compliance with Section 185040 of the California Public Utilities Code would minimize the potential for construction of the B-P Build Alternatives to result in permanent changes in school district funding by returning some land to the property tax rolls. However, some of those effects would remain because some of the land acquired by the Authority outside the permanent footprint may never be sold or exchanged and redeveloped due to challenging site conditions (e.g., parcel

size, shape, or configuration) and the Authority's need to retain some properties to accommodate future HSR purposes.

As described in the discussion of permanent changes in school district funding from construction of the B-P Build Alternatives (Impact SO #10), implementation of SOCIO-IAMF#2 and SOCIO-IAMF#3 would minimize the potential for construction to relocate residents outside their existing school districts, thereby minimizing losses to school district funding. The permanent revenue losses that would occur as a result of construction would not result in substantial changes to school district funding.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) below for an evaluation of how the economic or social changes related to the operation of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation

Alternative 1

Appendix 2-A, Road Crossings, describes the locations of permanent road closures for the B-P Build Alternatives. As shown in Appendix 2-A, Alternative 1 could result in the permanent closure of a substantial number of smaller unpaved roads at their crossings of the HSR alignment. While these smaller roads may not serve as primary routes for cross-alignment traffic movements for the agricultural industry as a whole, their closures as part of Alternative 1 may have impacts for individual operations that regularly use these roads for day-to-day operations. Thus, these smaller roads may need to be examined on a case-by-case basis during the project's property acquisition phase to identify individual operations that may face special circumstances and suffer impacts related to operation value as a result of these closures.

As described in Impact AG #6 (Creation of Remnant Parcels of Important Farmland) in Section 3.14, Agricultural Farmland and Forest Land, the B-P Build Alternatives could divide agricultural parcels, potentially severing parcels actively being cultivated. For Alternative 1, this parcel severance could result in the indirect conversion of up to 54 acres of Important Farmland.

The HSR project's permanent effects on agricultural access would be minimized through compliance with AG-IAMF#3 (Farmland Consolidation Program) and AG-IAMF#6 (Equipment Crossings). These IAMFs would reduce potential permanent impacts related to agricultural access from operation through the following mechanisms:

- **AG-IAMF#3: Farmland Consolidation Program**—This commitment reduces impacts on agricultural farmland by administering a farmland consolidation program to sell remnant agricultural parcels to neighboring landowners which can be combined with adjacent farmland properties to provide for continued agricultural use on the maximum feasible amount of remnant parcels. Program implementation would reduce the amount of agricultural lands converted to nonagricultural use by HSR construction and operation.
- **AG-IAMF#6: Equipment Crossings**—This action would reduce potential permanent operational impacts to agricultural property owners by requiring the Authority to coordinate the realignment of any affected access roads. Requiring affected access roads to be realigned to provide livestock and equipment crossings to minimize impediments to routine agricultural operations and normal business activities from long-term project operation.

Implementation of AG-IAMF#3 and AG-IAMF#6 described above would minimize the potential for operation to indirectly convert Important Farmland due to access disruptions and permanently

affect agricultural access; however, some of the effects related to agricultural parcel severance would remain.

Neither the CCNM Design Option nor the Refined CCNM Design Option would permanently convert any Important Farmland to nonagricultural use from direct impacts or parcel severance.

Alternative 2

As shown in Appendix 2-A, Alternative 2 would result in the potential closure of a substantial number of unpaved dirt roads at their crossings of the HSR alignment. As described in Impact AG #6 (Creation of Remnant Parcels of Important Farmland) in Section 3.14, Agricultural Farmland and Forest Land, Alternative 2 could result in the indirect conversion of up to 43 acres of Important Farmland due to parcel severance.

Similar to Alternative 1, implementation of AG-IAMF#3 and AG-IAMF#6 would minimize the potential for operation to indirectly convert Important Farmland due to access disruptions and permanently affect agricultural access under Alternative 2. However, some of the effects related to agricultural parcel severance would remain because agricultural parcel severance could result in long-term economic changes.

Alternative 3

Appendix 2-A indicates that Alternative 3 could also result in the permanent closure of a substantial number of smaller unpaved roads at their crossings of the HSR alignment. While these smaller roads may not serve as primary routes for cross-alignment traffic movements for the agricultural industry as a whole, their closures as part of Alternative 1 may have impacts for individual operations that regularly use these roads for day-to-day operations. Thus, these smaller roads may need to be examined on a case-by-case basis during the property acquisition phase of the project to identify individual operations that may face special circumstances and suffer an impact related to operational value as a result of these closures.

As shown in Appendix 2-A, Alternative 3 would result in the potential closure of a substantial number of unpaved dirt roads at their crossings of the HSR alignment. As described in Impact AG #6 (Creation of Remnant Parcels of Important Farmland) in Section 3.14, Agricultural Farmland and Forest Land, Alternative 3 could result in the indirect conversion of up to 54 acres of Important Farmland due to parcel severance.

Similar to Alternative 1, implementation of AG-IAMF#3 and AG-IAMF#6 would minimize the potential for operation to indirectly convert Important Farmland due to access disruptions and permanently affect agricultural access under Alternative 3. However, some of the effects related to agricultural parcel severance would remain because agricultural parcel severance could result in long-term economic changes.

Alternative 5

As shown in Appendix 2-A, Alternative 5 would result in the potential closure of a substantial number of unpaved dirt roads at their crossings of the HSR alignment. As described in Impact AG #6 (Creation of Remnant Parcels of Important Farmland) in Section 3.14, Agricultural Farmland and Forest Land, Alternative 5 could result in the indirect conversion of up to 54 acres of Important Farmland due to parcel severance.

Similar to Alternative 1, implementation of AG-IAMF#3 and AG-IAMF#6 would minimize the potential for operation to indirectly convert Important Farmland due to access disruptions and permanently affect agricultural access under Alternative 5. However, some of the effects related to agricultural parcel severance would remain because agricultural parcel severance could result in long-term economic changes.

CEQA Conclusion

As discussed above, implementation of AG-IAMF3# and AG-IAMF#6 would minimize the potential for operations to indirectly convert Important Farmland due to access disruptions and permanently affect agricultural access under all B-P Build Alternatives. The CCNM Design Option and the Refined CCNM Design Option would not directly or indirectly convert any Important Farmland. The B-P Build Alternatives and the CCNM Design Option and Refined CCNM Design Option would not indirectly or permanently convert Important Farmland to nonagricultural use

from parcel severance caused by agricultural access impacts and road closures from operation, To address potential significant impacts associated with the permanent indirect conversion of Important Farmland to a nonagricultural use from access disruptions, the Authority would implement Mitigation Measure SO-MM#4. SO-MM#4 requires the Authority to evaluate each partial-property acquisition and determine if the acquisition would impact access to the parcel. If so, the contractor must evaluate opportunities for providing modified access to allow continued use of agricultural lands and facilities. With the implementation of Mitigation Measure SO-MM#4, impacts related to permanent agricultural access impacts and road closures from operation would be less than significant pursuant to CEQA.

Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation

County and City Property Tax Losses

The permanent property tax losses discussed under Impact SO #13 would continue into the operational phase of the HSR project; however, no additional effects would be incurred during operation of the B-P Build Alternatives. Although property tax revenue losses would occur during construction, there is a potential for those losses to be minimized during operation. As discussed under Impact SO #20, permanent revenue losses could be partially offset if portions of properties that are acquired are ultimately declared as excess by the Authority and sold/exchanged in accordance with the procedures set forth in California Public Utilities Code Section 185040.

Compliance with Section 185040 of the California Public Utilities Code would minimize the potential for construction of the B-P Build Alternatives to result in permanent changes in school district funding by returning some land to the property tax rolls. However, some of those effects would remain, because some of the land acquired by the Authority outside the permanent footprint may never be sold or exchanged and redeveloped due to challenging site conditions (e.g., parcel size, shape, or configuration) and the Authority's need to retain some properties to accommodate future HSR purposes.

Long-Term Impacts on Property Values

Impacts of Rail Transit Projects on Property Values

The results presented in this section are drawn primarily from two literature reviews: (1) one prepared in 1999 summarizing findings from 12 studies of the property value effects associated with light and heavy rail projects throughout the U.S., and (2) one completed in 2008 by Reconnecting America's Center for Transit-Oriented Development. The latter focuses more on California studies but also includes findings from studies conducted in several other major U.S. cities (Chicago, St. Louis, Dallas, Washington, D.C., Atlanta, and Portland).

Table 3.12-73 summarizes the findings on the effects caused by other rail transit projects on residential real estate values. As listed in the findings column, the majority of the studies found that rail transit access had a positive influence on residential property values, with the property value premium for proximity to transit ranging from 2 to 45 percent. Most of the studies focused on single-family home sales, but several examined condominium or apartment rental rates. Only the Landis studies conducted in the early 1990s found no discernible effect (or impact) associated with proximity to transit, which some analysts attribute to the economic recession that was occurring at the time the data were collected and/or the relative newness of the transit systems studied (i.e., there may not have been a sufficient number of real estate transactions after the opening of the lines to reflect changes in market value) (Reconnecting America, Center for Transit-Oriented Development 2008).

The studies summarized in Table 3.12-73 focused on property value effects in the vicinity of transit stations due to a presumed relationship between property values and improved accessibility (both for residents to regional jobs and for employers to a larger labor pool). However, this focus does not address the question of property value effects for real estate near a rail line but not close to a station. Such properties could be exposed to the nuisance effects associated with rail (e.g., noise, vibration, visibility, potential for accidents) without enjoying the benefits of improved accessibility. This question is particularly pertinent to HSR, because the stations tend to be fewer and much farther apart than in commuter rail or light-rail transit systems.

Table 3.12-73 Summary of Findings on Effect of Rail Transit on Residential Real Estate Values

Author/Year	Rail Transit Type	Location	Findings
Boyce 1972	Heavy rail	Southern New Jersey (Lindenwold High-Speed Line)	+$149 in home price for each dollar of value in commute time savings
Blayney-Dyett Associates et al. 1979	Rapid transit	San Francisco Bay Area (BART)	+17% in single-family home sales price w/in 500 ft of a station
Bajic 1983	Heavy rail	Toronto (Spadina Line)	$2,237 premium for the average home
Voith 1991	Commuter rail	Southern New Jersey (PATCO)	+10% premium for median home price in census tracts served by a rail line
Voith 1991	Commuter rail	Suburban Philadelphia (SEPTA)	+3.8% premium for median home price in tracts served by a rail line (Philadelphia)
Bernick et al. 1991	Rapid transit	San Francisco Bay Area (BART)	+5% in apartment rental rates within 0.25 mile of a station
VNI Rainbow Appraisal Service 1992	Light rail	San Diego	+2% increase in single-family home sales price within 200 ft of a station
Nelson 1992	Heavy rail	Atlanta	+$1,000 in home sales price for each 100 ft closer to a rail station in low-income census tracts; slight negative effect in high-income tracts
Al-Mosaind et al. 1993	Heavy rail	Portland (MAX Eastside Line)	+10.6% increase in single-family home sales price w/in 500 meters (1,640 ft) of a station
Gatzlaff 1993	Heavy rail	Miami (Metrorail)	At most a 5% higher rate of appreciation in sales value compared to the rest of Miami
Landis et al. 1994	Heavy rail	San Mateo County (Caltrain)	Negative effect based on proximity to Caltrain
Landis et al. 1994	Rapid transit	San Francisco Bay Area (BART)	+$2.29 per meter (3.3 ft) closer to BART in Alameda County; +$1.96 per meter closer in Contra Costa County
Landis et al. 1994	Light rail	Sacramento	No discernible + or - effect
Landis et al. 1994	Light rail	San Jose	-$1.97 per meter closer to light rail
Landis et al. 1994	Light rail	San Diego (Trolley)	+$2.72 per meter closer to the Trolley
Landis et al. 1995	Light rail	Sacramento	+6.2% in single-family home sales price within 900 ft of a station
Landis et al. 1995	Light rail	Santa Clara County (VTA)	-10.8% in single-family home sales price within 900 ft of a station
Cervero 1996	Rapid transit	Pleasant Hill (BART)	+10%–15% in rent for residential units within 0.25 mile of a BART station
Gruen 1997	Commuter rail	Chicago (Metra)	+20% in single-family home sales price within 1,000 ft of a station
Cervero et al. 2002	Light rail	San Diego (Trolley)	+2%–18% in condominium sales prices and 0–4% increase in apartment rental rates within 0.5 mile of a station

Author/Year	Rail Transit Type	Location	Findings
Cervero 2002	Light rail	Santa Clara County (VTA)	+45% in apartment rental rates within 0.25 mile of a station
Garrett 2004	Light rail	St. Louis (Metrolink)	+32% in single-family home sales price within 100 ft of a station

Sources: All author-date citations listed in the first column of this table are listed in full and summarized in Diaz, 1999, and Reconnecting America, Center for Transit-Oriented Development, 2008.
BART = Bay Area Rapid Transit
ft = feet
MAX = Metropolitan Area Express
PATCO = Port Authority Transit Corporation
SEPTA = Southeastern Pennsylvania Transportation Authority
VTA = Valley Transportation Authority

In a study of the property value effects associated with a variety of disadvantages, such as environmental contamination or proximity to linear features like roadways and railroads, Simons (2006) reviewed several rigorous studies (conducted in Ohio, Georgia, and Norway) of the relationship between residential property values and proximity to rail lines, and concluded that there were negative property value effects in the single digits (i.e., 2 to 3 percent) for residential properties within 750 feet of an active railroad track. Furthermore, he found that this impact could increase depending on the amount of whistle blowing and the volume of train trips. Another study that examined the residential property value effects of four commuter rail lines and six light rail lines around the U.S. found a wide variety of results in different regions and concluded that home price changes were influenced more by regional housing market conditions than by proximity to railroad tracks (Baldwin and Frank 2008).

Although transit rail studies have focused predominantly on the effects of improved access on residential property values, some have examined the effects on commercial property values, as shown in Table 3.12-74. Similar to the residential findings, most of the studies identified a positive influence on commercial properties in the vicinity of transit stations, with premiums ranging from 1 percent to as much as 167 percent. Only the Landis study published in 1994 found no effect.

Table 3.12-74 Summary of Findings on Effect of Rail Transit on Commercial Real Estate Values

Author/Year	Rail Transit Type	Location	Findings
Falcke 1978	Rapid transit	San Francisco Bay Area (BART)	+1% premium for retail space within 500 ft of a station
Rybeck 1981	Rapid transit	Washington, D.C. (Metrorail)	+9% premium for office space within 300 ft of a station
Rybeck 1981	Rapid transit	Silver Springs, Maryland (Metrorail)	+14% premium for office space within 300 ft of a station
VNI Rainbow Appraisal Service 1992	Light rail	San Diego (Trolley)	+167% premium for retail space within 200 ft of a station
Cervero 1993	Rapid transit	Washington, D.C. (Metrorail)	+12.3%–19.6% premium for office space within 300 ft of a station
Cervero 1993	Rapid transit	Atlanta (MARTA system)	+11%–15% premium for office space within 300 ft of a station
Landis et al. 1995	Rapid transit	San Francisco Bay Area (BART)	No premium effect for office or retail space within 0.5 mile of East Bay stations
Weinstein et al. 1999	Light rail	Dallas (DART)	+10% for office space and +30% for retail space within 0.25 mile of a station
Weinberger 2001	Light rail	Santa Clara County (VTA)	+15% for office space within 0.5 mile of a station

Author/Year	Rail Transit Type	Location	Findings
Cervero 2002	Light rail	Santa Clara County (VTA)	+120% for commercial land in a business district within 0.25 mile of a station

Source: All author-date citations listed in the first column of this table are listed in full and summarized in Reconnecting America, Center for Transit-Oriented Development, 2008.
BART = Bay Area Rapid Transit ft = feet VTA = Valley Transportation Authority
DART = Dallas Area Rapid Transit MARTA = Metropolitan Atlanta Rapid Transit Authority

Studies and Findings About the Effect of High-Speed Rail on Property Values

No studies were conducted that focused specifically on HSR effects on real estate property values; however, several studies evaluate the broader effects of HSR projects on growth and development trends and regional economies. Sands (1993) conducted one of the first reviews of the development effects of the relatively new HSR systems that had been built in Japan, France, and Germany, with a view to identifying the implications for constructing HSR in California. He noted substantial development effects at the regional, urban, and station levels, including changes to population and employment growth rates, ridership, business behavior, and real estate values and activity. These effects were most evident in situations where there was a strong regional economy, excellent links to other transportation modes, and public-sector support for development. In these situations, substantial growth in commercial activity was observed in station vicinities, as well as overall increases in land values of approximately 20 percent. Sands predicted that construction of HSR in California would reinforce existing population and employment growth trends, and called for coordination and planning by local government entities and transportation agencies to optimize potential benefits at future station locations.

In a more recent review, Givoni compared the development effects of HSR systems around the world (Givoni 2006). He found that in Japan, regions served by the *Shinkansen* had higher rates of population and employment growth than those without the service. However, it is not clear whether the higher rates of growth were caused by the *Shinkansen* or the *Shinkansen* was built in areas that had higher growth rates. At the station level, the intensity of development that occurred as a result of the new service varied. Where existing stations had been expanded to accommodate the *Shinkansen*, little or no new development occurred around the station. At newly created stations, development appeared to depend on other factors, especially good links to other modes of transportation (Givoni 2006; Sands 1993).

HSR effects were also found to vary from station to station in France, with links to other forms of transit again appearing to be key. Substantial growth occurred around the new *Train à Grande Vitesse* station in Lyon, where there was high demand for office space and good access to the station, but little development occurred in two other new stations on the same line. Some studies have even found that a connection to an HSR network can have an impact on the local economy if unfavorable economic conditions exist in a new station location relative to neighboring cities or regions (Givoni 2006). Similar findings were reported in a 2006 paper prepared by Greengauge 21, reviewing the European experience with economic growth and development associated with new HSR stations. The most successful economic stimulus effects were found to be associated with new stations built in regional centers with strong existing service sectors and good transportation links to subregional centers (Greengauge 21 2006).

As Givoni (2006) concluded, “The evidence from different studies on the effect of high-speed rail is mixed and the conclusion is that the introduction of high-speed rail alone is not sufficient for social-economic impacts to take place. Such impacts depend on other prevailing conditions,” especially a buoyant local economy that can take advantage of new opportunities offered by improved accessibility, supported by local planning policies. “In summary, there is no agreement on the extent to which the high-speed rail infrastructure leads to wider socioeconomic impacts.…The evidence is mixed and there seems to be disagreement on whether overall impacts, if they exist, are positive or negative.”

In 2010, Andersson et al. published a study of residential property value impacts associated with the Tainan station (Andersson et al. 2010), one of the less urbanized (more suburban) station locations on the relatively new HSR system that began operations along Taiwan’s west coast in

2007. Unlike several other stations that were integrated nodes in existing transportation networks or easily reachable by commuter rail or rapid transit, the Tainan station is only accessible by motor vehicle. The authors used several rigorous methods to determine that there had been a small impact on residential values in the vicinity of the new station. They concluded that this was partly the result of its relatively inaccessible location combined with high ticket prices. A typical monthly commuting ticket cost the equivalent of 70 percent of the median monthly wage in Taiwan. (A comparable monthly commuter ticket for trips between Uppsala and Stockholm in Sweden cost about 10 percent of the median monthly wage.)

Thus, station accessibility, commute time savings, and commute costs may all contribute to the complex of factors that can influence (or not influence) real estate values in the vicinity of HSR stations.

Conclusions

The studies that have been conducted to date related to HSR offer no clear consensus on findings. While good data exist on such outcomes as shifts in travel modes resulting from the introduction of new HSR service, economic development effects "are less clear, harder to observe and quantify, and therefore are more controversial" (Givoni 2006). Successful HSR station area development (and presumably related real estate price effects) appears to be linked to a number of factors, including robust local economic conditions, strong travel demand, and excellent links to other forms of transit. It is difficult to extrapolate from studies conducted in high-density urbanized areas of Japan, Korea, and Europe to predict property value effects in U.S. communities that are much more dispersed. For example, Japan's Tokaido line connects Tokyo and Osaka, cities with approximately 30 million and 16 million inhabitants, respectively. Furthermore, these cities are far more densely developed than the relatively rural areas between Bakersfield and Palmdale.

The studies show that the potential exists for the values of residential and commercial properties to appreciate as a result of HSR projects. Property value increases can result from both new access to a HSR transportation system and the associated intensification of development that can occur around station locations. However, given the potential for nuisance effects (e.g., noise and visual effects) resulting from HSR trains passing in close proximity, it is possible that some properties could experience a decrease in value. This potential for a decrease in property value may be particularly true for residences and businesses in locations considerably removed from train stations but exposed to some nuisance effects of the project. These residences and businesses would enjoy relatively few benefits (mainly those deriving from improved accessibility) to offset the nuisance effects. This balance between the amount of project benefit enjoyed compared to the nuisance factor endured would be unique for each property and would be only one of the many factors influencing the ultimate market value of any particular property.

County and City Sales Tax Losses

Although the effects discussed under Impact SO #13 would continue into the operational phase of the HSR project, no additional impacts would be incurred during operation of the B-P Build Alternatives. All effects discussed under construction would remain the same during operation.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) below for an evaluation of how the economic or social changes related to the operation of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #23: Potential for Permanent Physical Deterioration from Operation

The operation of the project section would have the potential to displace businesses and residents, disrupt existing communities, and change local tax revenues.

Disruption or Division of Existing Communities
The B-P Build Alternatives would provide overcrossings and undercrossings that would improve the connection between communities on opposite sides of existing transportation corridors. The B-P Build Alternatives would retain the connectivity of Lancaster Boulevard as an underpass to replace the existing at-grade railroad crossing. Therefore, the Downtown Lancaster business district would continue to have good local circulation.

The provision of a new grade-separated crossing at Lancaster Boulevard would result in a change to access and circulation; however, it would not divide an existing community. The conversion of at-grade crossings to grade-separated crossings would benefit customers on the east side of Lancaster, who would no longer have to wait for trains to access businesses on the west side of Sierra Highway. The replacement of the existing Lancaster Boulevard at-grade railroad crossing would not lead to extensive changes to the business environment that could result in the closure of anchor businesses that support the area and attract customers to other businesses.

Economic Effects
As described under Impact SO #18, the operation of B-P Build Alternatives would create job opportunities in the region and the state. The operation of the HSR system would create jobs directly, through operation and maintenance needs, and indirectly, though the growth projected to take place as a result of HSR operation. Employment growth from HSR project operation is expected to be a net benefit for the region as it would provide jobs in Kern County, an area with unemployment rates that exceed the state average. This is an economic benefit that would reduce the likelihood of physical deterioration in communities along the alignment.

Although the short-term losses to property and sales tax described under Impact SO #13 would continue into the operational phase of the HSR project, no additional impacts would be incurred during the operation of any of the B-P Build Alternatives. The highest estimate of potential losses to property tax is 1.1 percent of the total property tax in the jurisdiction; this is not a reduction in property and sales tax revenues large enough to reduce the quality of government services in the community.

CEQA Conclusion
The B-P Build Alternatives would provide overcrossings and undercrossings that would improve the connection between communities on opposite sides of existing transportation corridors. Operation of all B-P Build Alternatives would create job opportunities in the region and state and provide economic benefits that would reduce the likelihood of physical deterioration in communities along the alignment.

The revenue losses anticipated to be incurred during the construction phase would represent extremely small percentages of the total revenues that could be lost by the jurisdictions along the HSR alignment. Thus, operation of all four of the B-P Build Alternatives is not anticipated to result in a broad long-term impact on the regional tax base or reduce the quality of government services in the affected communities.

Because the project would provide circulation and economic benefits and the revenue losses anticipated to be incurred during the construction phase would not be expected to result in long-term economic changes to the regional economy in the affected jurisdictions, operation of all B-P Build Alternatives would result in less than significant impacts related to physical deterioration. Therefore, CEQA does not require any mitigation.

Impact SO #24: Permanent Sales Tax Revenue Gains from Operations

During operation, the B-P Build Alternatives would generate sales tax in the region from both direct and indirect effects. Direct effects include operation and maintenance expenditures for the project that are assumed to be purchased locally, including items such as gasoline, oil, paint, parts, and light bulbs. In addition, the sales tax lost from displacements would begin to decrease as these businesses are re-established at new locations and/or new businesses move in to replace those that do not reopen. Overall, sales tax revenues generated directly from the operation of the Build

Alternatives are expected to exceed sales tax revenue reductions from displacements. The direct sales tax gains from operation would likely be similar under all Build Alternatives.

Indirect effects would occur from long-term changes in land use and intensity beyond the station footprint and include increased spending at local businesses from passengers and long-term employees, as well as transit-oriented development. The indirect sales tax gains from operation would likely be the same under all Build Alternatives.

CEQA Conclusion

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 conclusions are made related to economic impacts. Section 15064(e) of the CEQA Guidelines also notes that "economic or social changes may be used … to determine that a physical change shall be regarded as a significant effect on the environment." Refer to Impact SO #23 (Potential for Permanent Physical Deterioration from Operation) above for an evaluation of how the economic or social changes related to the operation of the B-P Build Alternatives could result in permanent physical deterioration in the communities along the HSR alignment.

Impact SO #25: Permanent Effects on Children's Health and Safety from Operations

All B-P Build Alternatives would have similar effects on children's health and safety, and are not anticipated to result in impacts during operation. The project passes through large urban areas of Palmdale, Lancaster, and Bakersfield and smaller communities that contain residences and businesses (Edison, Keene, Golden Hills, Tehachapi, and Rosamond). The remainder of the study area consists mostly of rural agricultural and vacant land with few concentrations of residences, businesses, services, community facilities, or other areas where children would congregate. Operation-related impacts that could affect children's health and safety (e.g., traffic hazards, air emissions, noise/vibrations, and use of hazardous materials in proximity to schools) are described further below.

Roadway modifications may change some access and routing of school buses due to road closures, but alternative routes are provided to minimize any impacts. (See Section 3.2, Transportation, for information on access impacts and mitigation measures to maintain access.) The resulting out-of-direction travel distances required due to road closures would not result in long detours, and the Authority would work with the local jurisdictions to provide additional access as needed. The B-P Build Alternatives would all be grade-separated from the existing transportation corridors, so there would be no conflict between school buses and the HSR trains. All of the B-P Build Alternatives would provide new crossings over existing transportation corridors. These overcrossings would remove conflicts with railroads and improve safety and access for buses. Effects to children's health and safety as a result of school district bus transportation changes would be negligible. There is a potential for access and mobility benefits, because roadway crossings would improve safety and access.

All B-P Build Alternatives would result in a net benefit on regional and statewide air quality from HSR operation because of a decrease in emissions. (See Section 3.3, Air Quality and Global Climate Change, for information on operational emissions.) All residents, including children, in the San Joaquin Valley, Antelope Valley, and Tehachapi Mountains would benefit from the decrease in air pollutants associated with the projected shift in transportation modes.

HSR operation could result in impacts from increased noise levels at schools (see Section 3.4, Noise and Vibration, for information on operational impacts and mitigation measures to minimize impacts). No schools would be affected by vibration. Mitigation is required to address noise levels on schools.

During operation of the HSR system, only minor amounts of hazardous materials would be used, and all laws, regulations, and ordinances would be followed with respect to the transport, use, storage, and disposal of hazardous materials. (See Section 3.10, Hazardous Materials and Wastes, for information on operational impacts and mitigation measures to minimize impacts.) Compliance with applicable regulatory requirements would reduce the potential for a severe spill.

Cal. Code Regs. Title 5, Section 14010c, calls for a separation between schools and power transmission lines of 100 feet for 50- to 133-kV lines. The Bakersfield to Palmdale Project Section would be powered by a 25-kV system; therefore, the electrification of the trains itself would not be a safety hazard to schools. The project would not require the construction of new power transmission lines in the vicinity of existing or future planned schools.

Derailment of a train during a seismic event or other natural disaster could be a substantial safety hazard to schools along the B-P Build Alternatives if the train were to leave the HSR right-of-way and collide with other structures or people on adjacent properties. This hazard is associated with the physical mass and speed of the train. Because the HSR system would carry passengers and be electric-powered, there would be no safety hazard associated with HSR cargo or fuel. The physical impact of a high-speed train leaving the right-of-way could only occur within roughly 100 feet of the right-of-way. Therefore, only Edison Middle School would be subject to this safety risk. A basic design feature of an HSR system is to contain trainsets within the operational corridor. Because the train would be contained in the HSR right-of-way in the event of derailment and would not contain cargo or fuel that could result in a fire or explosion, the proposed project would not substantially increase hazards to nearby schools.

CEQA Conclusion

There is no specific requirement in California for an analysis of children's health impacts separate from that of other individuals. Therefore, this section does not provide CEQA significance conclusions related to specific impacts on children.

3.12.6.6 Maintenance Facilities

Lancaster North B Maintenance-of-Way Facility

The socioeconomic and community impacts associated with the construction and operation of the Lancaster North B MOWF site are included in the discussion for the B-P Build Alternatives in Section 3.12.6.3. Where applicable, the impacts analysis in Section 3.12.6.3 provides a broken-out discussion for the Lancaster North B MOWF.

Avenue M Light Maintenance Facility/Maintenance-of-Way Facility

The socioeconomic and community impacts associated with the construction and operation of the Avenue M LMF/MOWF are included in the discussion for the B-P Build Alternatives in Section 3.12.6.2. Where applicable, the impacts analysis in Section 3.12.6.3 provides a broken-out discussion for the Avenue M LMF/MOWF.

Maintenance of Infrastructure Siding Facilities

The socioeconomic and community impacts associated with the construction and operation of the maintenance of infrastructure siding facilities are included in the discussion of the B-P Alternatives in Section 3.12.6.3. Where applicable, the impacts analysis in Section 3.12.3 provides a broken-out discussion for the maintenance of infrastructure siding facilities.

3.12.6.7 Electric Power Utility Improvements

The socioeconomic and community impact of the electric power utility improvements, including impacts related to road closures, property acquisitions, displacements, community facilities, employment growth and losses, and property sales tax losses is included within the impacts of the B-P Build Alternatives in Section 3.12.6.4.

3.12.7 Mitigation Measures

The *Fresno to Bakersfield Section Final Supplemental EIR* (Authority 2018d) identified mitigation measures that are applicable to the entire length of the F-B LGA from just north of Poplar Avenue to Oswell Street. Not all measures identified in the Final Supplemental EIR and the Final Supplemental EIS are applicable to the portion of the F-B LGA from 34th Street and L Street to Oswell Street. The following socioeconomic and community-related mitigation measures are applicable to the portion of the F-B LGA from 34th Street and L Street to Oswell Street:

- **F-B LGA SO-MM#1: Implement Measures to Reduce Impacts Associated with the Division of Residential Neighborhoods**—The Authority will minimize impacts associated with the F-B LGA in the rural residential areas around the community of Oildale as well as in urban residential areas in Shafter and Bakersfield 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 occupied 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, moving of homes, and replacement of services and utilities, as appropriate.

  Before land acquisition, 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 HSR 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).

- **F-B LGA SO-MM#3: Implement Measures to Reduce Impacts Associated with the Relocation of Important Facilities**—The Authority will minimize impacts resulting from the disruption to key community facilities including the Mercado Latino Tianguis, Golden Empire Gleaners (a food bank), Bakersfield Homeless Center, Kern County Veterans Service Department, Iglesia de Dios Pentecostes La Hermosa (a religious facility).

  The Authority will consult with the appropriate 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.

- **F-B LGA SO-MM#5: Develop Measures to Minimize the Potential for Physical Deterioration**—The Authority will work with the communities on the design of project features consistent with Technical Memorandum 200.6, Aesthetic Guidelines for Non-Station Structures (Authority 2011b). The guidelines for station and non-station structures allow for contextual design responses to site-specific or unique conditions, or “context sensitive solutions”. Context sensitive solutions mean structural aesthetics must respond to local settings with concern for the human scale, building scale, and the vantage points from which the structures will be viewed. Included in the Authority’s design principles is the requirement that the structures enhance local environments and community context. Landscaping will be used to visually integrate project structures into the local context with plantings that recreate the natural setting into which they are placed. The aesthetic design of project structures, in combination with landscape and urban design that serve the local community, can create a positive contribution to the surrounding visual context and minimize the potential for physical deterioration.

3.12.7.1 Bakersfield to Palmdale Project Section

Impacts related to socioeconomics and communities related to the B-P Build Alternatives could be reduced with implementation of the mitigation measures discussed below.

SO-MM#3: Implement Measures to Reduce Impacts Associated with the Relocation of Important Facilities

Prior to Construction, the Authority will minimize impacts resulting from the acquisition, displacement, and/or relocation of key community facilities

The Authority will consult with the appropriate 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 to provide for relocation that allows the community currently being served to continue to use these services.

The Authority will continue to implement a comprehensive non-English speaking language outreach program 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. To avoid disruption to these community amenities, the Authority will provide for reconfiguring land uses or buildings, or relocation of community facilities is completed before the demolishing existing structures. The Authority shall document compliance with this measure through annual reporting.

Impacts from Implementing Mitigation Measure

The reconfiguration of land uses and/or buildings and the construction of replacement community facilities generally may require vegetation removal, grading, trenching, and other ground-disturbing activities, the construction and/or demolition of buildings, roads and infrastructure, and the consumption of water and energy resources. Depending on the construction site, these activities may require the removal of native habitat. Construction would also result in the emission of criteria pollutants and greenhouse gases, and the generation of noise and vibration, possibly near sensitive receptors. Many of these potential impacts would likely to be avoided through local land use policies, laws, regulations, and permit requirements, and would be subject to separate site-specific analysis under CEQA, including measures to mitigate impacts to a less than significant level. For this reason, the impacts of mitigation would be less than significant under CEQA.

SO-MM#4: Provide Access Modifications to Affected Farmlands

Prior to Construction in cases where partial-property acquisitions result in division of agricultural parcels by the HSR alignment or facilities, the Authority will evaluate with the property owner's input modified access, including the effectiveness of providing overcrossings or undercrossings of the HSR track to allow continued use of agricultural lands and facilities. This could include the design of overcrossings or undercrossings to allow farm equipment passage. The Contractor shall prepare a technical memorandum for Authority review and approval detailing outreach to affected property owners, evaluation results and what measures were implemented to address bifurcated agricultural properties.

Impacts from Implementing Mitigation Measure

The development of new overcrossings or undercrossings of the HSR track generally may require vegetation removal, grading, trenching, and other ground-disturbing activities, construction of roads and infrastructure, and the consumption of water and energy resources. Depending on their location, the construction of these new overcrossings or undercrossings may require the removal of native habitat or the conversion of farmland. Construction would also result in the emission of criteria pollutants and greenhouse gases, and the generation of noise and vibration, possibly near sensitive receptors. Because the goal of the new overcrossings and undercrossings is to eliminate circuitous routes for farm equipment to travel between severed properties, it would likely reduce vehicle miles traveled. The new overcrossing or undercrossing would also provide access to agricultural properties that might otherwise be permanently left fallow due to lack of access and

thereby reduce the conversion of agricultural land to a nonagricultural use. Many of these potential impacts are likely to be avoided through local land use policies, laws, regulations, and permit requirements and would be subject to separate analysis under CEQA where appropriate, including measures to mitigate impacts to a less than significant level. For this reason, the impacts of mitigation would be less than significant under CEQA

3.12.8 NEPA Impact Summary

This section summarizes the impacts of the B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) and compares them to the anticipated impacts of the No Project Alternative. Table 3.12-75 provides a comparison of the potential impacts of each of the B-P Build Alternatives, summarizing the more detailed information presented in Section 3.12.6.

The No Project Alternative represents the state's transportation system and major planned land use changes anticipated by 2040. Under the No Project Alternative, there would be no HSR rail stations or impacts associated with those stations in the HSR project study area. The No Project Alternative would also not result in any of the economic benefits related to the HSR project, including the creation of temporary construction-related jobs or permanent operation-related jobs.

Implementing the B-P Build Alternatives could also result in impacts on socioeconomics and communities through activities and infrastructure development that may disrupt or divide communities; potentially affect children's health and safety; and result in displacements or affect the use of residential and commercial properties, agricultural operations, and community facilities. Operation of the B-P Build Alternatives could affect socioeconomics and communities through inspection and maintenance activities that could result in the disruption of communities, potential impacts on children's health and safety, and changes in employment and property and sales tax revenues.

The B-P Build Alternatives would incorporate IAMFs to reduce project effects on socioeconomics and communities. These IAMFs would include transportation, noise, and air quality controls; context-sensitive design; and relocation assistance and benefits to displaced residents, businesses, and agricultural operations. The incorporation of IAMFs would minimize or avoid impacts of the B-P Build Alternatives on community displacements and relocations, and children's health and safety.

The Bakersfield to Palmdale Project Section does not provide NEPA effect determinations for the Bakersfield Station site. NEPA impact determinations for the Bakersfield Station site are provided in the *Fresno to Bakersfield Section Final EIR/EIS* (Authority 2014b) and the *Fresno to Bakersfield Section Draft Supplemental EIR/EIS* (Authority 2018d).

Table 3.12-75 Comparison of Bakersfield to Palmdale Project Section Build Alternative Impacts for Socioeconomics and Communities

Impact	Alternative 1	Alternative 2	Alternative 3	Alternative 5	CCNM Design Option	Refined CCNM Design Option
Construction						
Impact SO #1: Temporary Disruption to Community Cohesion or Division of Existing Communities from Project Construction	All B-P Build Alternatives would result in temporary increases in noise and dust. Project-related roadway modifications and construction may also temporarily disrupt community circulation patterns.				No difference	No difference
Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction	All B-P Build Alternatives would create a new physical barrier in the community of Rosamond where none currently exists, permanently altering the existing character of the community and affect existing social interaction patterns.				No difference	No difference
	All B-P Build Alternatives would result in permanent improvements to mobility within the affected communities by providing new grade-separated crossings over existing railroads in addition to the HSR tracks.				No difference	No difference
Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities	Approximately 152,400 jobs created over the 8-year construction period (77,800 direct jobs and 74,600indirect and induced jobs).	Approximately 150,100 jobs created over the 8-year construction period (76,700 direct jobs and 73,400 indirect and induced jobs).	Approximately 157,100 jobs created over the 8-year construction period (80,200 direct jobs and 76,900 indirect and induced jobs).	Approximately 153,800 jobs created over the 8-year construction period (78,600 direct jobs and 75,200 indirect and induced jobs).	No difference	Approximately 6,800 jobs created over the 8-year construction period (3,500 direct jobs and 3,300 indirect and induced jobs).
	None of the B-P Build Alternatives (including the CCNM Design Option and Refined CCNM Design Option) would attract a substantial number of workers to the region. Therefore, none of the B-P Build Alternatives would result in the construction or expansion of community facilities.					
Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction	Approximately 243 units displaced and 712 residents relocated.		Approximately 244 units displaced and 712 residents relocated.	Approximately 338 units displaced and 990 residents relocated.	No difference	No difference
Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction	Approximately 231 businesses and 1,679 employees displaced.			Approximately 285 businesses and 2,163 employees displaced.	No difference	No difference

Impact	Alternative 1	Alternative 2	Alternative 3	Alternative 5	CCNM Design Option	Refined CCNM Design Option
Impact SO #6: Permanent Effects on Agricultural Businesses from Construction	Permanent acquisition of 2,534 acres of agricultural land.	Permanent acquisition of 2,323 acres of agricultural land.	Permanent acquisition of 2,511 acres of agricultural land.	Permanent acquisition of 2,534 acres of agricultural land.	Permanent acquisition of 12 fewer acres of agricultural land.	Permanent acquisition of 658 additional acres of agricultural land.
	3 displaced agricultural businesses; 5 other businesses subject relocation or reconfiguration.	2 displaced agricultural businesses; 4 other businesses subject to relocation or reconfiguration.		2 displaced agricultural businesses; 5 other businesses subject relocation or reconfiguration.	No difference	No difference
Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction	4 community facilities relocated.			4 community facilities relocated.	No difference	No difference
Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction	96 units displaced from a senior affordable housing complex and 8 older motels that serve as affordable housing displaced.			96 units displaced from a senior affordable housing complex, 36 units displaced from an affordable apartment complex, and 9 older motels that serve as affordable housing displaced.	No difference	No difference
Impact SO #9: Temporary Disruption to Community Facilities from Construction	19 community facilities could be temporarily disrupted by diminished air quality, increased noise, increased traffic, and the temporary loss of parking stalls.			23 community facilities could be temporarily disrupted by diminished air quality, increased noise, increased traffic, and the temporary loss of parking stalls.	No difference	No difference

Impact	Alternative 1	Alternative 2	Alternative 3	Alternative 5	CCNM Design Option	Refined CCNM Design Option
Impact SO #10: Permanent Changes in School District Funding from Construction	Displacement of 243 residences. Sufficient relocation resources available within affected school districts.		Displacement of 244 residences. Sufficient relocation resources available within affected school districts.	Displacement of 338 residences. Sufficient relocation resources available within affected school districts.	No difference	No difference
	$1,128,017 (0.1% of total Fiscal Year 2013/2014 revenue) decrease.	$1,125,570 (0.1% of total Fiscal Year 2013/2014 revenue) decrease.	$1,128,879 (0.1% of total Fiscal Year 2013/2014 revenue) decrease.	$1,518,388 (0.1% of total Fiscal Year 2013/2014 revenue) decrease.	-$94 (the estimated percentage of total revenue would be the same with or without the CCNM Design Option)	-$1,553 (the estimated percentage of total revenue would be the same with or without the Refined CCNM Design Option)
Impact SO #11: Temporary Agricultural Access Impacts and Road Closures During Construction	4 temporary paved road closures in agricultural areas; maximum of 3 miles of out-of-direction travel.	No temporary paved road closures in agricultural areas.	4 temporary paved road closures in agricultural areas; maximum of 3 miles of out-of-direction travel.		No difference	No difference
Impact SO #12: Permanent Economic Effects on Agriculture from Construction	$8.6 million in estimated agricultural revenue losses, and 42 estimated jobs lost in Kern County.	$8.1 million in estimated agricultural revenue losses, and 40 estimated jobs lost in Kern County	$8.6 million in estimated agricultural revenue losses, and 42 estimated jobs lost in Kern County.		No difference	No difference
	$592,914 in annual property tax losses.	$592,937 in annual property tax losses.	$592,200 in annual property tax losses.	$722,876 in annual property tax losses.	-$67 in annual property tax losses	-$823 in annual property tax losses
	All B-P Build Alternatives would result in a decrease of <0.05% of total Fiscal Year 2013/2014 property tax revenues for affected cities/counties.				No difference	No difference
	$411,625 in annual sales tax losses, or a decrease of 0.3% of total Fiscal Year 2013/2014 sales tax revenue for affected cities/counties.			$550,495 in annual sales tax losses, or a decrease of 0.4% of total Fiscal Year 2013/2014 sales tax revenue for affected cities/counties.	No difference	No difference

Impact	Alternative 1	Alternative 2	Alternative 3	Alternative 5	CCNM Design Option	Refined CCNM Design Option
Impact SO #14: Potential for Permanent Physical Deterioration from Construction	None of the B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) would result in considerable residential outmigration from communities affected by residential and business displacements.					
	None of the property and sales tax revenue losses associated with construction of the B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) would represent a large reduction in property and sales tax revenues that would reduce the quality of government services in the affected communities.					
Impact SO #15: Temporary Sales Tax Revenue Gains from Construction	$25,704,022 in annual sales tax revenue created.	$25,327,657 in annual sales tax revenue created.	$26,515,686 in annual sales tax revenue created.	$25,874,124 in annual sales tax revenue created.	-$24,109 in annual sales tax revenue created.	+$1,091,594 in annual sales tax revenue created
Impact SO #16: Temporary Effects on Children's Health and Safety from Construction	All B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) would have similar effects on children's health and safety, and are not anticipated to result in impacts during construction.					
Operations						
Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation	All B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) would bring social benefits to the region by improving access to jobs and community amenities, reducing travel times, reducing traffic congestion, and providing new employment opportunities during operation. The project would likely stimulate redevelopment efforts in these locations, which would likely result in improved neighborhood character and vitality, potentially strengthening community cohesion.					
	Greater permanent noise and air quality impacts in the community of Edison	Fewer permanent noise and air quality impacts in the community of Edison	Greater permanent noise and air quality impacts in the community of Edison	No difference	No difference	
	All B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) could also permanently disrupt established patterns of interaction among community residents by resulting in noise and traffic increases in certain locations. The B-P Build Alternatives could also result in a perceived change to community character or the quality of life experienced in affected neighborhoods by creating permanent changes in visual quality or aesthetics.					
Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities	All B-P Build Alternatives (including the CCNM Design Option and Refined CCNM Design Option) would increase employment in Kern and Los Angeles Counties by 11,000 jobs (including 200 direct jobs, 300 indirect and induced jobs, and 22,500 additional jobs resulting from improved connectivity to the rest of the state).					
Impact SO #19: Permanent Disruption to Community Facilities from Operation	All B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) would improve access to community facilities.					

Impact	Alternative 1	Alternative 2	Alternative 3	Alternative 5	CCNM Design Option	Refined CCNM Design Option
Impact SO #20: Permanent Changes in School District Funding from Operation	No	No	No	No	No difference	No difference
Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation	All B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option) could result in the permanent closure of a substantial number of smaller unpaved roads at their crossings of the HSR alignment, potentially affecting agricultural operations by severing agricultural parcels.					
Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation	Yes	Yes	Yes	Yes	No difference	No difference
Impact SO #23: Potential for Permanent Physical Deterioration from Operation	All B-P Build Alternatives would modify access and circulation patterns in the Downtown Lancaster business district; however, the circulation changes would not lead to extensive changes to the business environment that could result in the closure of anchor businesses that support the area and attract customers to other businesses.				No difference	No difference
	All B-P Build Alternatives would create job opportunities through operation and maintenance needs, which is expected to be a net benefit and would reduce the likelihood of physical deterioration in communities along the alignment.				No difference	No difference
Impact SO #24: Permanent Sales Tax Revenue Gains from Operations	Yes	Yes	Yes	Yes	No difference	No difference
Impact SO #25: Permanent Effects on Children's Health and Safety from Operations	All B-P Build Alternatives would result in an overall benefit to air quality as the rest of transportation modes shift.				No difference	No difference
	All B-P Build Alternatives would result in safety and accessibility benefits by providing grade-separated crossings over existing transportation corridors, thereby removing conflicts with railroads and highways.				No difference	No difference

B-P = Bakersfield to Palmdale Project Section
CCNM = César E. Chávez National Monument
HSR = high-speed rail

3.12.9 CEQA Significance Conclusions

This section summarizes impacts identified in Sections 3.12.6.3, 3.12.6.4, 3.12.6.5, and 3.12.6.6 for the B-P Build Alternatives and maintenance facilities, respectively, and evaluates whether they are significant according to CEQA. Table 3.12-76 provides a summary of impacts, associated mitigation measures, and the level of significance after mitigation.

Table 3.12-76 Summary of CEQA Significance Conclusions and Mitigation Measures for Socioeconomics and Communities

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Bakersfield to Palmdale Project Section Build Alternatives			
Construction			
Impact SO #1: Temporary Disruption to Community Cohesion or Division of Existing Communities from Project Construction	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction	Potentially significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Significant and unavoidable for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #6: Permanent Effects on Agricultural Businesses from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction	Potentially significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	SO-MM#3	Significant and unavoidable for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #9: Temporary Disruption to Community Facilities from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #10: Permanent Changes in School District Funding from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #11: Temporary Agricultural Access Impacts and Road Closures During Construction	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #12: Permanent Economic Effects on Agriculture from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #14: Potential for Permanent Physical Deterioration from Construction	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #15: Temporary Sales Tax Revenue Gains from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #16: Temporary Effects on Children's Health and Safety from Construction	N/A; not evaluated under CEQA	N/A	N/A
Operations			
Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #19: Permanent Disruption to Community Facilities from Operation	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #20: Permanent Changes in School District Funding from Operation	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation	Potentially significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	SO-MM#4	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #23: Potential for Permanent Physical Deterioration from Operation	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)	None	Less than significant for all B-P Build Alternatives (including the CCNM Design Option and the Refined CCNM Design Option)
Impact SO #24: Permanent Sales Tax Revenue Gains from Operations	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #25: Permanent Effects on Children's Health and Safety from Operations	N/A; not evaluated under CEQA	N/A	N/A
Fresno to Bakersfield Locally Generated Alternative from the Intersection of 34th Street and L Street to Oswell Street			
Construction			
Impact SO #1: Temporary Disruption to Community Cohesion or Division of Existing Communities from Project Construction	Less than significant	None	Less than significant
Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction	Less than significant	None	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities	Less than significant	None	Less than significant
Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction	Potentially significant	SO-MM#1 and SO-MM#3 of Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant
Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction	Potentially significant	SO-MM#3 of Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant
Impact SO #6: Permanent Effects on Agricultural Businesses from Construction	Less than significant	None	Less than significant
Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction	Potentially significant	SO-MM#3 of Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant
Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction	Potentially significant	SO-MM#3 of the Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant
Impact SO #9: Temporary Disruption to Community Facilities from Construction	Potentially significant	SO-MM#3 of the Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant
Impact SO #10: Permanent Changes in School District Funding from Construction	Less than significant	None	Less than significant
Impact SO #11: Temporary Agricultural Access Impacts and Road Closures During Construction	Less than significant	None	Less than significant
Impact SO #12: Permanent Economic Effects on Agriculture from Construction	Less than significant	None	Less than significant
Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction	Less than significant	None	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Impact SO #14: Potential for Permanent Physical Deterioration from Construction	Potentially significant	Mitigation Measure SO-MM#5 of the Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant
Impact SO #15: Temporary Sales Tax Revenue Gains from Construction	Less than significant	None	Less than significant
Impact SO #16: Temporary Effects on Children's Health and Safety from Construction	Less than significant	None	Less than significant
Operations			
Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation	Less than significant	None	Less than significant
Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities	Less than significant	None	Less than significant
Impact SO #19: Permanent Disruption to Community Facilities from Operation	Potentially significant	SO-MM#1 and SO-MM#3 of the Fresno to Bakersfield Section Supplemental EIR/EIS	Less than significant with mitigation
Impact SO #20: Permanent Changes in School District Funding from Operation	Less than significant	None	Less than significant
Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation	Less than significant	None	Less than significant
Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation	Less than significant	None	Less than significant
Impact SO #23: Potential for Permanent Physical Deterioration from Operation	Less than significant	None	Less than significant
Impact SO #24: Permanent Sales Tax Revenue Gains from Operations	Less than significant	None	Less than significant
Impact SO #25: Permanent Effects on Children's Health and Safety from Operations	Less than significant	None	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Palmdale Station Site			
Construction			
Impact SO #1: Temporary Disruption to Community Cohesion or Division of Existing Communities from Project Construction	Potentially significant	SO-MM#3	Less than significant
Impact SO #2: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Construction	No Impact	None	Less than significant
Impact SO #3: Temporary Construction Employment Resulting in the Need for Additional Community Facilities	Less than significant	None	Less than significant
Impact SO #4: Permanent Displacement and Relocation of Local Residents from Construction	Less than significant	None	Less than significant
Impact SO #5: Permanent Displacement and Relocation of Local Businesses from Construction	Less than significant	None	Less than significant
Impact SO #6: Permanent Effects on Agricultural Businesses from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #7: Permanent Displacement and Relocation of Community Facilities from Construction	Potentially significant	SO-MM#3	Significant and unavoidable
Impact SO #8: Permanent Displacement and Relocation of Sensitive Populations from Construction	Less than significant	N/A	Less than significant
Impact SO #9: Temporary Disruption to Community Facilities from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #10: Permanent Changes in School District Funding from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #11: Temporary Agricultural Access Impacts and Road Closures During Construction	No Impact	None	No Impact
Impact SO #12: Permanent Economic Effects on Agriculture from Construction	N/A; not evaluated under CEQA	N/A	N/A

Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Impact SO #13: Permanent Property and Sales Tax Revenue Losses from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #14: Potential for Permanent Physical Deterioration from Construction	Less than significant	None	Less than significant
Impact SO #15: Temporary Sales Tax Revenue Gains from Construction	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #16: Temporary Effects on Children's Health and Safety from Construction	N/A; not evaluated under CEQA	N/A	N/A
Operations			
Impact SO #17: Permanent Disruption to Community Cohesion or Division of Existing Communities from Project Operation	No impact	None	No impact
Impact SO #18: Permanent Employment Resulting in the Need for Additional Community Facilities	Less than significant	None	Less than significant
Impact SO #19: Permanent Disruption to Community Facilities from Operation	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #20: Permanent Changes in School District Funding from Operation	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #21: Permanent Agricultural Access Impacts and Road Closures from Operation	No impact	None	No impact
Impact SO #22: Permanent Property and Sales Tax Revenue Losses from Operation	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #23: Potential for Permanent Physical Deterioration from Operation	Less than significant	None	Less than significant
Impact SO #24: Permanent Sales Tax Revenue Gains from Operations	N/A; not evaluated under CEQA	N/A	N/A
Impact SO #25: Permanent Effects on Children's Health and Safety from Operations	N/A; not evaluated under CEQA	N/A	N/A

B-P = Bakersfield to Palmdale Project Section
CCNM = César E. Chávez National Monument
CEQA = California Environmental Quality Act
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
N/A = not applicable