

3.13 Station Planning, Land Use, and Development

3.13.1 Introduction

This section describes the regulatory setting and affected environment for land use, and identifies the potential effects of the project, both beneficial and negative, on land use associated with the alignment alternatives, stations and station areas, and the HMFs. The National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require evaluation of impacts on land use. This analysis focuses on how the project would affect adjacent land uses and the effects on the downtowns of Fresno and Bakersfield as a result of the proposed stations. The high-speed train (HST) stations in these two cities would provide opportunities for infill development and redevelopment that would revitalize the downtown areas as well as reduce pressures to continue development outward.

The Kings/Tulare Regional Station is located on the border of Hanford in Kings County. Therefore, land use and development in the area of Kings County surrounding the Kings/Tulare Station is also discussed. This section also addresses whether the project would be consistent with regional and local goals and policies. The Fresno to Bakersfield Section of the California HST System includes rural areas in unincorporated Fresno, Kings, Tulare, and Kern counties and urban areas in Fresno, Corcoran, Wasco, Shafter, and Bakersfield. In urban areas, land uses primarily are residential (single-family and multifamily), industrial, commercial, institutional, and parks and recreational. In rural areas, agriculture is the primary land use.

The development of the HST project involves collaboration with the Fresno and Bakersfield jurisdictions on upcoming updates to local general plans and land use planning processes to establish opportunities for enhanced transit-oriented development (TOD)¹ around stations (Transit Cooperative Research Program 2004). In this process, the Authority will minimize incompatibility issues with adjacent land uses and help foster a mutually beneficial transportation and land use plan. By following existing transportation corridors as much as possible, the design of the HST project reduces land use conflicts. In some locations, the HST project incorporates an elevated guideway into its design, which reduces right-of-way impacts and minimizes traffic impacts that could affect land use.

What is Transit-Oriented Development?

A transit-oriented development (TOD) is a pattern of dense, diverse, pedestrian-friendly land uses located near transit nodes that, under the right conditions, translates into higher transit patronage (Transit Cooperative Research Program 2004).

The following sections provide additional information related to land use and development:

- Section 3.2, Transportation, provides information regarding parking.
- Section 3.12, Socioeconomics, Communities, and Environmental Justice, includes information regarding demographics, property, economic, minority and low-income population effects.
- Section 3.14, Agricultural Lands, provides information regarding impacts on agricultural land.
- Section 3.15, Parks, Recreation, and Open Space, provides information regarding park impacts.
- Section 3.18, Regional Growth, provides information regarding regional growth and the project's potential to induce growth.

¹ A transit-oriented development is a pattern of dense, diverse, pedestrian-friendly land uses, located near transit nodes, which under the right conditions translates into higher transit patronage.

The following sections discuss mitigation measures that would minimize project impacts on adjacent land uses: Sections 3.2, Transportation; 3.3, Air Quality and Global Climate Change; 3.4, Noise and Vibration; 3.12, Socioeconomics, Communities, and Environmental Justice; and 3.15, Parks, Recreation, and Open Space.

3.13.2 Laws, Regulations, and Orders

The following sections outline key regulations for local development and growth, station planning, and land use most relevant to the HST project. The project would comply with applicable federal and state laws and regulations regarding land use. The consistency of the project with regional and other plans is also considered in this evaluation to identify potential environmental impacts on land use flowing from inconsistencies.

A. FEDERAL

There are no federal regulations relevant to the project.

B. STATE

California Land Conservation Act [California Government Code Sections 51200 to 51295]

Provides incentives to deter the early conversion of agricultural and open-space lands. These incentives are possible because of reduced property taxes.

Senate Bill No. 375, Chapter 728

Requires regional planning agencies to develop regional land use plans (called "Sustainable Community Strategies") that will reduce greenhouse gas emissions by reducing sprawl, by co-locating uses to shorten necessary trips (e.g., home to work, home to store, etc.) and by coordinating land use and transportation/transit planning. Coordination is enforced by requiring transportation planning projects to comply with the sustainable community strategies to receive state funding. SB 375 also allows projects that meet regional sustainable community strategies to qualify for CEQA exemptions or streamlining.

California State Planning and Zoning Law [California Government Code Sections 65000 to 66037]

Delegates most of the state's local land use and development decisions to cities and counties. It describes laws pertaining to land use regulations by local governments, including the general plan requirement, specific plans, subdivisions, and zoning.

C. REGIONAL AND LOCAL

The following regional and local plans and policies were identified and considered in the preparation of this analysis. A full listing of policies and the project's consistency is included in Appendix 3.13-A, Land Use Plans, Goals, and Policies.

San Joaquin Valley Blueprint Planning Process – (2010)

The San Joaquin Valley Blueprint Planning Process is a plan for the future of the San Joaquin Valley and will be used to guide growth over the next 50 years (San Joaquin Valley Regional Policy Council 2010). The San Joaquin Valley Blueprint Program was created by the California Department of Transportation's California Regional Blueprint Planning Program. The planning process involves seven councils of government and one regional transportation planning agency:

- Council of Fresno County Governments.
- Kern Council of Governments.
- Kings County Association of Governments.
- Madera County Transportation Commission.
- Merced County Association of Governments.
- San Joaquin Council of Governments.
- Stanislaus Council of Governments.
- Tulare County Association of Governments.

The Blueprint process promotes less land used for development, more resources for preservation, enhancing distinctive communities, and greater availability of more travel choices. The San Joaquin Valley Blueprint identified and evaluated growth scenarios, including one growth scenario that assumes an HST system, and selected a preferred scenario. On April 1, 2009, the San Joaquin Valley Regional Policy Council adopted the preferred growth scenario and a list of Smart Growth Principles to be used as the basis of Blueprint planning in the San Joaquin Valley. The preferred scenario includes an HST system. These 12 principles represent the core values of the San Joaquin Valley and reflect the regional outlook.

1. Create a range of housing opportunities and choices.
2. Create walkable neighborhoods.
3. Encourage community and stakeholder collaboration.
4. Foster distinctive, attractive communities with a strong sense of place.
5. Make development decisions predictable, fair, and cost-effective.
6. Mix land uses.
7. Preserve open space, farmland, natural beauty, and critical environmental areas.
8. Provide a variety of transportation choices.
9. Strengthen and direct development towards existing communities.
10. Take advantage of compact building design.
11. Enhance the economic vitality of the region.
12. Support actions that encourage environmental resource management.

The next steps in implementing the San Joaquin Valley Blueprint include developing an implementation program, preparing a schedule and set of milestones, and preparing a Planners Toolkit that will provide the Valley's cities and counties with strategies and tools allowing them to incorporate the Smart Growth Principles and move toward the preferred scenario. In 2010, the Fresno Council of Governments began preparation of the Valley Blueprint Roadmap that will act as a policy guide on implementing the Valley Blueprint.

2011 Fresno County Regional Transportation Plan (Adopted)

The *2011 Regional Transportation Plan* (Council of Fresno County Governments 2010) provides a comprehensive long-range plan and identifies the needs for travel and movement of goods until the year 2035. The regional transportation plan (RTP) includes four elements: the Policy Element provides information on the transportation goals, policies, and objectives; the Action Element identifies how to achieve the goals; the Air Quality Element addresses air quality issues (a new element in the 2011 RTP); and the Financial Element provides information regarding funding for the actions identified in the Action Element. The following are directly related to the project:

- Goal: Develop a safe, efficient, and convenient rail system that serves the passenger and freight needs of the region, and is integrated with and complementary to the total transportation system.
- Objective: Promote the growth of rail passenger and freight usage.

- Policy: Support the planning and construction of a high-speed rail system in the San Joaquin Valley which directly connects the major population centers within the valley.

Kings County Association of Governments RTP (Adopted and Draft)

Kings County's current RTP was adopted in 2007. The Kings County Association of Governments (KCAG) is now in the process of updating its 2011 Regional Transportation Plan (Kings County RTP) (KCAG 2010). The Kings County RTP serves as the basis for the county's transportation decisions and provides policy direction for local plans. The Draft 2011 Kings County RTP includes the implementation of a high-speed rail facility in the region among its stated objectives. The 2011 Kings County RTP supports state efforts to implement a high-speed rail corridor in the San Joaquin Valley and the development of strategies that further the goals of reduced traffic congestion through development of alternative transportation modes. The Kings County RTP supports an HST station in Hanford to better serve Kings and Tulare counties. The following public transportation policy from the 2011 Kings County RTP is directly related to the project:

- Policy: IV. B. Intercity Rail and Bus Policy. Supports state efforts to implement a high-speed rail corridor in the San Joaquin Valley.

Tulare County Association of Governments RTP (Adopted)

The Tulare County Association of Governments (TCAG) adopted the 2011 Regional Transportation Plan (Tulare County RTP) on April 30, 2010 (TCAG 2010). The Tulare County RTP addresses transportation needs through 2035. Implementation of the Tulare County RTP would result in improvements to existing regional transportation and circulation systems. The plan anticipates construction of a high-speed train corridor that would connect the county to the Bay Area, Southern California, and other areas in the San Joaquin Valley. The Tulare County RTP includes several policies supporting the extension of continuous rail passenger service, including the HST; encouraging participation in the planning effort for HST; and supporting the CHSRA in connecting the Bay Area with Southern California. The RTP also includes policies supporting an HST station in Tulare or Kings counties.

The following goals, objectives, and policies are related to the project:

- Goal: Promote safe, economical, convenient rail systems and schedules that meet the needs of passenger and freight services.
- Objective: Support the growth of rail passenger and freight usage by identifying available funding and programming in the Federal Transportation Improvement Program (4-year programming document).
- Policies:
 1. Support the extension of continuous rail passenger service, Cross Valley Rail, High-Speed Rail and light-rail along select corridors.

Other policies under this goal include:

1. Support the High-Speed Rail Commission in connecting the Bay Area and Southern California with high-speed rail.
2. Support a high-speed rail alignment that would accommodate a station stop in Tulare or Kings County.

- Goal: Improve goods movement within the region to increase economic vitality, meet the growing needs of freight and passenger services, and improve traffic safety, air quality, and overall mobility.
- Objective: Coordinate with regional transportation systems across county borders to ensure an efficient flow of people and goods along key trade and interregional commuting corridors.
- Policies:
 1. Improve safety and capacity of vital east-west corridors.
 2. Ensure that the high-speed rail system, if implemented, supports Tulare County in achieving its economic, environmental, land use, and mobility goals.

Kern Council of Governments Destination 2030 RTP (Adopted)

The Kern Council of Governments' (KCOG's) Regional Transportation Plan (Kern County RTP) is a multimodal plan representing KCOG's vision for a better transportation system through the planning horizon of 2030 (KCOG 2007). The Kern County RTP identifies the HST as a future transit option in the region, and supports state and federal actions that would increase accessibility to passenger rail service. The Kern County RTP does not contain any specific policies related to the HST.

County and City General Plans

The counties of Fresno, Kings, Tulare, and Kern and the cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield have adopted general plans; some include community-specific plans (Fresno County 2003; Kings County Community Development Agency 2010; Tulare County 2008; Kern County Planning Department 2007; City of Fresno Planning and Development Department 2009; City of Hanford 2002b, City of Corcoran 2007; City of Wasco [2002] 2010; City of Shafter 2005; City of Bakersfield 2007). Appendix 13.1-A provides detailed descriptions of these plans, goals, and policies.

California law requires that counties and cities adopt general plans, and each general plan must include seven elements: Circulation, Conservation, Housing, Land Use, Noise, Open Space, and Safety and Seismic Safety. Optional elements include Air Quality, Economic Development, Hazardous Waste, and Parks and Recreation. The general plans must describe goals, objectives, and policies for the county or city to guide long-range growth, development, and redevelopment. The following sections summarize local plans that specifically consider the project.

Fresno County General Plan (Adopted). The goals, policies, and implementation programs under the *Fresno County General Plan* reflect a commitment to preserve the existing rural character of the county and its natural and managed resources (Fresno County 2003). The policies also recognize the need to maintain economic productivity and allow for urban growth. The intent of the policies is not to preclude intensive development, but to direct it to minimize loss of agriculture and open space. The BNSF Alternative Alignment and the Fresno Heavy Maintenance Facility (HMF) would be located on lands designated primarily as industrial and agricultural.

The following brief summaries of policies and programs are related to the project:

Policy TR-E.5. The County shall support multimodal stations at appropriate locations to integrate rail transportation with other transportation modes.

Program TR-E.A. The County shall work with other agencies to plan line-designated railroad corridors to facilitate the preservation of important railroad rights-of-way for future rail expansion or other appropriate transportation facilities.

Program TR-E.B. The County shall use appropriate zoning in designated rail corridors to ensure preservation of rail facilities for future local rail use.

Program TR-E.C. The County shall participate in the Council of Fresno County Governments Rail Committee to support improvement, development, and expansion of rail service in Fresno County.

2025 City of Fresno General Plan (Adopted)

The *2025 Fresno General Plan* (City of Fresno Planning and Development Department 2009) guides development and investment of public infrastructure. Goals, policies, and objectives specific to land use and relevant to the project include the following:

- Goal 6: Coordinate land uses and circulation systems to promote a viable and integrated multimodal transportation network.
- Goal 9: Provide activity centers and intensity corridors within plan areas to create a mix of land uses and amenities to foster community identity and reduce travel.
- Policy C-3-b: Conduct a comprehensive update of the zoning ordinance to facilitate the implementation of intensity corridors. These zoning ordinance amendments should address mixed uses, expedited administrative zoning procedures, shared parking, underground and multistory parking structures incorporated into buildings, transit facilities, open space, and aesthetic considerations.
- Objective C-8: Facilitate the development of mixed uses to blend residential, commercial, and public land uses on one site.
- Policy C-16-a: The City shall review its planning principles, development regulations, and public service, transit and infrastructure policies and programs to incorporate "Transit Oriented Development" and "Traditional Neighborhood Development" approaches.
- Objective C-17: Encourage and facilitate urban infill by building and upgrading community and neighborhood public infrastructure and services that will enhance public health and convenience and the overall experience and quality of city living.
- Policy C-17-b: The City shall identify and pursue measures to lower auto dependence and encourage public transit (including pursuit of fixed guideway systems such as a monorail or people mover), bicycle use, and walking consistent with other transit-oriented development concepts and principles.
- Objective E-5: Promote continued growth of rail passenger and freight travel through a safe, efficient, and convenient rail system that is integrated with, rather than conflicts with, other modes of travel.
- Objective E-7: Serve future population concentrations with feasible alternative transportation modes that are efficient and safe, and that minimize adverse environmental impacts.
- Policy E-7-c: Pursuant to resolution of the City Council of December 18, 2001, support the planning and construction of HST in the San Joaquin Valley using the UPRR Railway alignment, which would directly connect the major population centers within the valley and include a station stop in Downtown Fresno.

- Policy E-7-d: Support the development of a multimodal transportation terminal facility in or in close proximity to the central area.
- Policy E-9-aa: Support the HST corridor in the vicinity of the UPRR Railway corridor connecting Los Angeles and the San Francisco Bay Area.

Fresno Central Area Community Plan (Adopted)

The proposed Fresno Station alternatives would be located in the *Central Area Community Plan*, which encompasses the downtown core of the city of Fresno, which is bounded by SR 41, SR 99, and SR 180 (City of Fresno Planning and Development Department 1989). The Central Area Community Plan focuses on restoring and revitalizing the city's central core. Priorities of the plan include developing new housing and rehabilitating existing residential homes, encouraging mixed-use development, and protecting and expanding the convention center businesses. The Central Area Community Plan was developed to help direct the revitalization of Fresno's Central Area and restore the area as the urban center of Fresno. The policies and goals encourage a mix of residential densities that are compatible with an urban living environment. The transportation goals of the central area Community Plan include identifying, maintaining, and improving major "gateway" routes and intersections serving the central area. The plan also calls for development of a comprehensive transportation center in the central area. The plan promotes the mixed-use concept to encourage diversity of development.

City of Fresno Fulton Corridor Specific Plan and Downtown Neighborhoods Community Plan (Drafts)

In early 2010, Fresno initiated the preparation of two new plans, the *Fulton Corridor Specific Plan* and the *Downtown Neighborhoods Community Plan*. Fresno anticipates adopting these in mid-2012 (City of Fresno 2010). The project has coordinated and will continue to coordinate with the City of Fresno on the development of these plans as they relate to the proposed station. The plans will incorporate extensive outreach and will focus on revitalization, aesthetics, infrastructure, incorporation of a high-speed rail station, and attraction and expansion of businesses (City of Fresno 2010). The project will identify ways for the HST station to stimulate downtown development.

Fresno Roosevelt Community Plan (Adopted)

The Fresno HMF facility would be partially located in the Roosevelt Community Plan area (City of Fresno Development Department Planning Division 1992). The *Roosevelt Community Plan* was prepared to identify and address growth and vitality, to anticipate the need for new public facilities, and to stimulate the development of well-balanced quality neighborhoods. The *Roosevelt Community Plan* encourages a variety of land use types and balance among the different land uses, including providing sufficient and viable locations for light and heavy industrial development.

Kings County General Plan (Adopted)

The *Kings County General Plan* land use designations and policies are designed to encourage compact and community-centered development patterns that lower public-service costs, make more efficient use of land, and discourage premature conversion of farmland to other uses (Kings County Community Development Agency 2010). The *Kings County General Plan* states that because the county has the highest future growth rate in the Central Valley, the existing vehicular transportation system has insufficient capacity to meet current and expected future travel demand. The General Plan states that there is a need for improved intercity transportation, reflected by poor air quality, impaired travel reliability, increased travel congestion, and longer travels times. The HST, the Kings/Tulare Regional Station, and the Hanford HMF site would be

located on lands designated primarily as agricultural, industrial, low-density commercial, and very low-density residential.

The following policies and programs are related to the project:

Regional Transportation System C GOAL C1: Integrate through the County's regional transportation system, an efficient and coordinated goods and people-moving network of highways, railroads, public transit, and non-motorized options that reduce overall fuel consumption and associated air emissions.

- Objective C1.2: Ensure the continued operational effectiveness of rail lines throughout the County, and ensure the preservation of rail right-of-way for future transportation alternative use.
- Policy C1.2.4: Coordinate with the California High-Speed Rail Authority and Caltrans if a high-speed rail corridor is to be established within the County, and plan for the establishment of transportation linkages to the nearest High-Speed rail station.

City of Hanford General Plan (Adopted)

A portion of the study area surrounding the Kings/Tulare Regional Station would be located in the city of Hanford. The *Hanford General Plan* (City of Hanford 2002) does not contain any policies specific to the HST or Kings/Tulare Station. However, it does contain policies supporting the coordination of local transportation plans with the Kings County Congestion Management Program, to ensure eligibility for state and federal funding, and supporting varying modes of public transportation.

The following policies and programs are related to the project:

- Objective LU 20: To provide a location for traveler oriented commercial uses near the intersection of major state highways that have adequate access and visibility and is located on land that is not designated as Agricultural land.
- Objective CI 10 (AQ): Contribute towards improving the air quality of the region through more efficient use of private vehicles and increased use of alternative transportation modes.
- Objective CI 3: Achieve a coordinated regional and local transportation system that minimizes traffic congestion and efficiently serves users.
- Policy CI 3.4 (AQ): Transportation projects shall be prioritized with emphasis on reducing traffic congestion and improving traffic circulation.
- Objective CI 7 (AQ): Develop a public transit system addressing both local and regional travel demand.

City of Corcoran General Plan (Adopted)

The *City of Corcoran General Plan* (City of Corcoran 2007) seeks to maintain a fully integrated local network that provides for safe and convenient circulation using a variety of transportation modes. The General Plan also includes policies that would support the improvement of mass transit in the city, and enhance the current status of the existing rail system, including connections to rail passenger service. The HST would be located in areas designated as High Density Residential, High Density Commercial, and Industrial.

The following policies and programs are related to the project:

- Objective B: Enhance the availability and accessibility of alternative modes of transportation, such as walking, bicycling, carpools, buses, and rail.
- Policy 2.72: Ensure choices among modes of travel and give priority to each mode when and where it is most appropriate.
- Policy 2.74: Improve the speed and efficiency of mass transit in the City and enhance the current status of the existing rail system including connections to rail passenger service.
- Policy 2.75: The transportation facilities are interdependent, and efforts shall be made to ensure an efficient system by coordination of local and regional efforts. The regional and local transit links must be closely related and synchronized to provide maximum efficiency and transfers.

Tulare County General Plan (Adopted)

The *Tulare County General Plan* includes policies stating that the county will work with cities to support improvement, development, and expansion of passenger rail service in the county, and will coordinate with the Tulare County Association of Governments and the Authority in efforts to locate the HSR corridor in Tulare County, with a passenger stop and maintenance facility (Tulare County 2010). The HST would pass through areas designated by the *Tulare County General Plan* as Rural Valley Lands Plan (RVLP) area. The RVLP area includes a goal to sustain the viability of Tulare County's agriculture by "restraining division and use of land which is harmful to continued agricultural use of non-replaceable resources." To meet this goal, the county limits nonagricultural development and maintains several exclusive agricultural zones.

The following policies and programs are related to the project:

- **ED-2.14 Railways.** The County shall encourage improvements to rail lines and services for cargo and passenger services in support of existing and future industrial and commercial development.
- **ED-3.5 High-Speed Rail.** The County shall support development of high-speed rail through the Central Valley with service to Tulare County.
- **SL-4.3 Railroads and Rail Transit.** The County shall encourage rail infrastructure for freight and passenger service to be planned and designed to limit visual impacts on scenic landscapes by:
 - Concentrating infrastructure in existing railroad rights-of-way.
 - Avoiding additional grade-separated crossings in viewshed locations.
 - Using new transit stations supporting rail transit as design features in existing and future core community areas.
- **TC-1.6 Intermodal Connectivity.** The County shall ensure that, whenever possible, roadway, highway, and public transit systems will interconnect with other modes of transportation. Specifically, the County shall encourage the interaction of truck, rail, and air-freight/passenger movements.
- **TC-2.** To improve and enhance current rail services that stimulate economic growth and meet the needs of freight and human transportation.
- **TC-2.1 Rail Service.** The County shall support improvements to freight and expanding passenger rail service throughout the County.

- **TC-2.2 Rail Improvements.** The County shall work with cities to support improvement, development, and expansion of passenger rail service in Tulare County.
- **TC-2.4 High-Speed Rail (HSR).** The County shall coordinate with TCAG and the California High-Speed Rail Authority in efforts to locate the HSR corridor with a passenger stop and maintenance facility in Tulare County.
- **TC-2.5 Railroad Corridor Preservation.** The County shall work with other agencies to plan railroad corridors to facilitate the preservation of important railroad rights-of-way for future rail expansion or other appropriate transportation facilities.
- **AQ-2.3 Transportation and Air Quality.** When developing the regional transportation system, the County shall work with TCAG to comprehensively study methods of transportation which may contribute to a reduction in air pollution in Tulare County. Some possible alternatives that should be studied are:
 - Commuter trains (Light Rail, Amtrak, or High-Speed Rail) connecting with Sacramento and San Francisco, with attractive services scheduled up and down the valley.

City of Visalia General Plan (Adopted)

The City of Visalia is in the process of updating their General Plan. The update will address all the elements of their General Plan, as in the past the city has chosen to update the elements of their General Plan individually as deemed needed. The current City of Visalia General Plan (City of Visalia 1991) Land Use Element was revised in June 1996. The Circulation Element was updated in April 2001. The current General Plan does not contain any specific policies directly related to the HST.

The following policies and programs are related to the project:

- Objective 1.2: Promote the development of inter- and intra-regional transportation facilities, including railroad passenger and freight usage.
- Implementing Policy 1.2.2: Support regional and statewide efforts to extend passenger rail service to Los Angeles and Sacramento.
- Objective 2.1: Development and maintain a coordinated mass transportation system which will encourage increased transit use through convenient, safe, efficient, and cost-effective services.
- Policy 2.1.7: Promote all modes of transportation, including passenger rail, bus, bicycling, walking, ridesharing, etc. for the development of alternatives to the single occupant vehicle. The role of the Transit Advisory Committee should be modified to promote and advocate alternative ideas.

City of Tulare General Plan (Adopted)

The City of Tulare initiated an update to the General Plan in 2005 (City of Tulare 2005). The City Council approved the 2030 General Plan in April 2008. The city of Tulare prepared a Climate Action Plan (CAP) to expand the General Plan to address air quality and climate change among other resource issues. This document is currently in draft form and has not been adopted. However, the CAP includes the following policies and programs related to the project:

- Goal 3: Shift single-occupancy vehicle trips to alternative modes.
- TM 3.6: Support regional transportation management programs to shift single-occupancy vehicle trips to other modes.

Kern County General Plan (Adopted)

The Kern County General Plan's Land Use, Conservation, and Open-Space Element provides for a variety of land uses for future economic growth while also ensuring the conservation of Kern County's agricultural, natural, and resource attributes (Kern County Planning Department 2007). The Circulation Element of the General Plan does not contain any specific policies related to the HST, but does include the goal of making certain that transportation facilities needed to support development are available. The HST would extend through a variety of land use designations, including agricultural, commercial, industrial, residential, and open space. The Wasco HMF site would be located on land designated as limited agricultural. The Shafter HMF site would be located on land designated as agricultural.

City of Wasco General Plan (Adopted)

The *City of Wasco General Plan* encourages the reduction of vehicle miles traveled by providing transit and rail options (City of Wasco [2002] 2010). The plan also promotes choices among modes of travel and encourages use of the Wasco Amtrak Multi-Modal Transit Station. The General Plan does not contain any policies specific to the HST. Land uses along the HST include light and heavy industrial, commercial, and retail.

City of Shafter General Plan (Adopted)

The *City of Shafter General Plan* supports and encourages the use of transportation modes that provide an alternative to travel by private automobile (City of Shafter 2005). The General Plan also calls for the coordination of city transportation plans with those of the City of Bakersfield, Kern County, and the state. The General Plan does not contain any policies specific to the HST. Land uses near the HST include industrial, commercial, and residential. Land uses near the proposed Shafter HMF are primarily industrial and agricultural.

Shafter Orchard Park Final Specific Plan (Adopted)

The *Orchard Park Final Specific Plan* area is located in the northeastern quadrant of the city of Shafter in an area traversed by the Wasco-Shafter Bypass (City of Shafter 2006). The Specific Plan proposes development with a mix of residential housing, park areas, and neighborhood linkages, along with an oil production island and improvement of street and infrastructure components. The Specific Plan was adopted by the City in 2006 to facilitate the development of a planned community on the eastern edge of Shafter. Subdivision and tentative maps have been filed for the Specific Plan, but no construction approvals or plans have been issued at this point.

Metropolitan Bakersfield General Plan (Adopted)

The area covered by the *Metropolitan Bakersfield General Plan* coincides with the Bakersfield Metropolitan Priority Area of the Kern County General Plan (City of Bakersfield and County of Kern 2007). The *Metropolitan Bakersfield General Plan* includes policies to enhance rail service capacities and use in the planning area, and to support efforts to develop high-speed rail facilities to serve the city. In addition, it encourages the cooperation and support of local agencies to pursue the establishment of high-speed rail service for the plan area, including potential routes and terminal locations. The HST would be located on lands designated as high- and low-density commercial, and industrial.

The *Metropolitan Bakersfield General Plan* contains the following goal, policy, and implementation measure related to the HST:

- Goal 5: Enhances rail service capacities and usage in the planning area.
- Policy 12: Supports efforts to develop high-speed rail facilities to serve the plan area (I-11).
- Implementation Measure 10: Local agencies should cooperate in studies to pursue the establishment of high-speed rail service for the plan area, including consensus on potential routes and terminal locations.

Kern County Western Rosedale Specific Plan (Adopted)

The BNSF Alternative would extend through a portion of the *Western Rosedale Specific Plan* in Kern County. The Specific Plan includes standards for developing industrial, commercial, and residential uses and for supporting utility infrastructure (Kern County 1994). The Specific Plan was intended to support growth in the area in a sustainable manner by pacing growth to match available infrastructure. The Specific Plan further refines land use designations of the *Metropolitan Bakersfield General Plan*. The Specific Plan does not include any policies related to the HST or to the accommodation of a transportation project of this type.

Downtown Bakersfield Pioneer Redevelopment Plan (Adopted)

The Bakersfield Station would be located adjacent to the Downtown Redevelopment Plan area. The goals of the Downtown Redevelopment Plan are to eliminate and prevent the spread of blight and deterioration in Downtown Bakersfield through the demolition or removal of certain buildings and the rehabilitation of structures and improvements by present owners, potential successors, and the Redevelopment Agency (City of Bakersfield Redevelopment Agency 1979).

Bakersfield Old Town Kern Pioneer Redevelopment Plan (Adopted)

The Bakersfield North and Bakersfield South Alternative stations would be located in the Old Town Kern Redevelopment Plan area. The Redevelopment Plan is focused on eliminating blight and revitalizing the area, promoting the rehabilitation of existing housing units, removing economic impediments to land assembly and infill development, and developing new and diverse employment opportunities (City of Bakersfield Central District Development Agency 1999). Both plans support the elimination and prevention of the spread of blight and deterioration in Downtown Bakersfield, and encourage the stimulation of new commercial, industrial, and residential construction. The Old Town Kern Redevelopment Plan includes policies to improve the physical appearance of the plan area through the stimulation of new commercial, industrial, and residential construction. The plan also encourages and promotes the rehabilitation of existing commercial and industrial buildings and sites, and infrastructure improvements.

3.13.3 Methods for Evaluating Impacts

Data collected from local municipalities include local and regional land use plans and other relevant planning documents. The geographic information system (GIS) database includes electronic information from local and regional government sources. Land uses for the counties and cities were generalized into the dominant land use categories so that the land use could be presented consistently among the areas to the extent possible.

This analysis based the compatibility of the HST alternatives on (1) the potential sensitivity of various land uses to the changes that likely would result from project implementation and (2) the potential impact of these changes on the pattern and intensity of existing and planned land uses. GIS tools and aerial photographs facilitated the assessment of land use compatibility and helped identify and locate sensitive land uses (e.g., single-family residences and schools). The analysts used quantitative analysis and GIS tools to determine direct impacts related to the conversion of

land uses to a transportation-related use and the required property acquisitions for the project. The analyst also reviewed local plans and zoning to determine indirect impacts.

Station alternatives have been planned in collaboration with the cities and with substantial public input to help identify key HST station design, placement, access, and other pertinent issues. (For a review of outreach activities, see Chapter 7, Agency and Public Involvement.) In brief, outreach activities for the Fresno, Kings/Tulare Regional, and Bakersfield HST stations included the following:

- Technical working group meetings with agency, city, and county staff.
- Station workshop meetings with city and county staff.
- Community educational workshops.

The impact analysis for HST station planning and land use includes a qualitative analysis of (1) this project's compatibility with regional and local land use plans, goals, and policies so as to identify any related environmental effects (incompatibility by itself is not an environmental effect) and (2) the potential impacts, particularly around the HST stations. For example, what type of development and redevelopment opportunities are anticipated with the implementation of an HST station in the downtown areas of Fresno and Bakersfield.

A. METHODS FOR EVALUATING EFFECTS UNDER NEPA

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

For land use, the terms are defined as follows:

Negligible is defined as changes in land use that would be measurable, but not perceptible. Moderate is defined as those impacts that would require acquisitions but not change existing land uses, result in any induced growth, and would be consistent with applicable plans. Substantial is defined as an impact that would result in changes in the existing land use patterns due to acquisitions; indirect impacts related to induced growth and land uses less sensitive to impacts related to noise, visual, and transportation; and is not consistent with applicable plans.

B. CEQA SIGNIFICANCE CRITERIA

Based on CEQA Guidelines, the project would result in a significant impact on land use and development if it would:

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan or specific plan) adopted for the purpose of avoiding or mitigating an environmental effect.
- Cause a substantial change in pattern or intensity of land use incompatible with adjacent land uses.

C. STUDY AREA

The study area comprises those areas where the project components, including stations and HMFs, could result in changes or impacts to land use type, density, and patterns of development. For the direct effects on land use, the study area includes the construction footprint as described in Section 3.13.1, Introduction, and the area of the five proposed sites for an HMF. For indirect effects on land use, the study area includes the land adjacent to and outside of the construction footprint. The study particularly focuses on station areas, which have the greatest probability of causing changes or impacts to land use type, density, and patterns of development. More distant land use effects were also considered, such as where roadway intersection impacts would influence land use decisions.

3.13.4 Affected Environment

A full listing of policies and the project's consistency is included in Appendix 3.13-A, Land Use Plans, Goals, and Policies.

A. BNSF ALTERNATIVE

Approximately 84 miles of the proposed BNSF Alternative Alignment would be located adjacent to or within the existing rail right-of-way. The BNSF Alternative Alignment predominantly passes through agricultural and transportation right-of-way areas. Other existing land uses along the alignment include industrial, institutional, agricultural, single-family and multifamily residential, and commercial uses. Refer to Section 3.14, Agricultural Lands, for information about and the location of agricultural lands. The following describes the land uses adjacent to the north-south alignment beginning in Fresno and traveling south to Bakersfield.

In the city of Fresno, the alignment would not be located in the existing BNSF right-of-way; however, it would be located to the west and adjacent to the UPRR right-of-way. From the Fresno County border to Conejo, the BNSF Alternative would generally be adjacent to the existing right-of-way. South of Conejo, the alignment would pass through agricultural land extending in a separate right-of-way. Land uses along the alignment in the city of Fresno are primarily industrial adjacent to the existing right-of-way, but include small amounts of commercial, institutional, and residential uses. Existing land uses along the alignment in unincorporated Fresno County are generally agricultural, industrial, and scattered residential uses.

The alignment through Kings County would not be located in or adjacent to the existing BNSF right-of-way except for the area starting just north of and through Corcoran. The alignment would extend primarily through existing agricultural lands in the county. Existing uses in the city of Corcoran along the alignment include residential, light and heavy industrial, park, and agricultural uses.

In unincorporated Tulare County, the entire alignment in the county would run adjacent to the existing rail corridor. Existing land uses along the BNSF Alternative Alignment are primarily agricultural. Other uses along the alignment include public parks and large lot/rural residential.

In Kern County, the majority of the alignment would be located in or adjacent to existing rail rights-of-way. Agriculture is the predominant land use in the unincorporated part of the county north of Wasco. Other land uses along the alignment include industrial, institutional, and residential. Within the city of Wasco, existing land uses along the BNSF Alternative Alignment include industrial, agriculture, institutional, and commercial land uses. Some residential uses are located nearby. In the city of Shafter, existing land uses along the alignment include transportation facilities, industrial, agriculture, parks, and commercial. Similar to Wasco, some residential uses are located nearby. South of Shafter, agricultural land uses are predominant up to the Rosedale area. Land uses from the Rosedale area to the Bakersfield city limits include

residential, commercial, agricultural, and light industrial. The pattern of existing uses along the study area in the Bakersfield city limits is very diverse. Much of the corridor is characterized by industrial uses associated with oil-related businesses and rail yards. The downtown portion of the alignment, however, is predominantly commercial and institutional with considerable areas of vacant and underused land.

Downtown Fresno Station

As shown on Figure 3.13-1, the study area surrounding the two station alternatives in Downtown Fresno is organized around a northwest-southeast street grid, perpendicular to the existing Union Pacific Railroad (UPRR) corridor and State Route (SR) 99. The proposed station area is generally southwest of the downtown core. Mariposa Street is the main street through the downtown. Other ancillary streets include Fresno, Tulare, and Van Ness.

The Fresno County Courthouse and other institutional facilities, including a civic and convention center, are located within 0.5 mile of the proposed station area. Industrial, commercial, office, service, and retail uses, as well as some parks, are within the immediate area of the proposed station locations. Chukchansi Park, a minor-league baseball stadium, is located nearby, across H Street. Heavy commercial uses are located close to Chukchansi Park and east of the UPRR corridor, consisting of automotive and construction services. Some higher-density apartment buildings are located downtown 0.5-mile from the proposed stations.

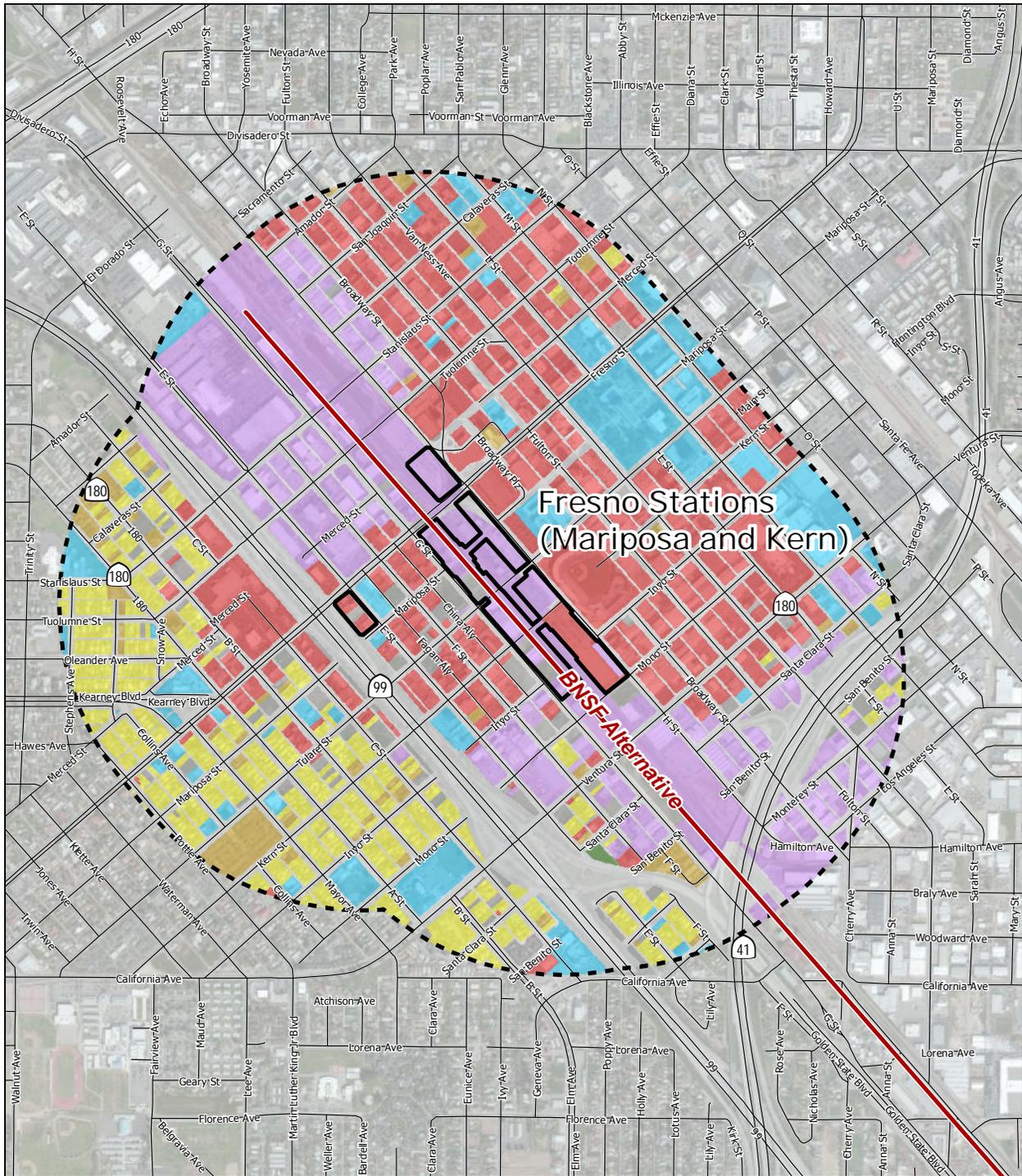
Residential neighborhoods, consisting of single-family and multifamily homes, are located north and west of the proposed station locations. Fresno's Chinatown is located south and southwest of the proposed Fresno Stations. This once-thriving neighborhood has been largely abandoned, with many of its facades boarded up and only a few remaining businesses.

Zoning in the Fresno Station area is shown on Figure 3.13-2. Zoning consists of Commercial, Industrial, Institutional, Single-Family and Multifamily Residential, and Parks.

As described in Section 3.2, Transportation, Fresno owns and operates 10 parking lots and garages with a total of more than 4,700 downtown parking spaces for event, monthly, and daily parking. These parking lots and garages provide hourly parking and monthly permits. Most are in the vicinity of H Street and Van Ness Avenue, approximately 0.5 mile, or less, from the proposed station sites. In addition, the city operates approximately 2,200 parking meters in the downtown area. Most of these meters allow 2-hour parking, but some meters have time limits ranging from 30 minutes to 10 hours.

Kings/Tulare Regional Station

The Kings/Tulare Regional Station would be located in Kings County, east of the intersection of SR 43 and SR 198, and approximately 3 miles east of Downtown Hanford. Although the Kings/Tulare Regional Station study area is predominantly within Kings County, a portion of the study area extends into the city of Hanford.

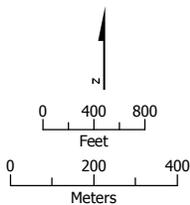


Fresno Stations
(Mariposa and Kern)

BNSF Alternative

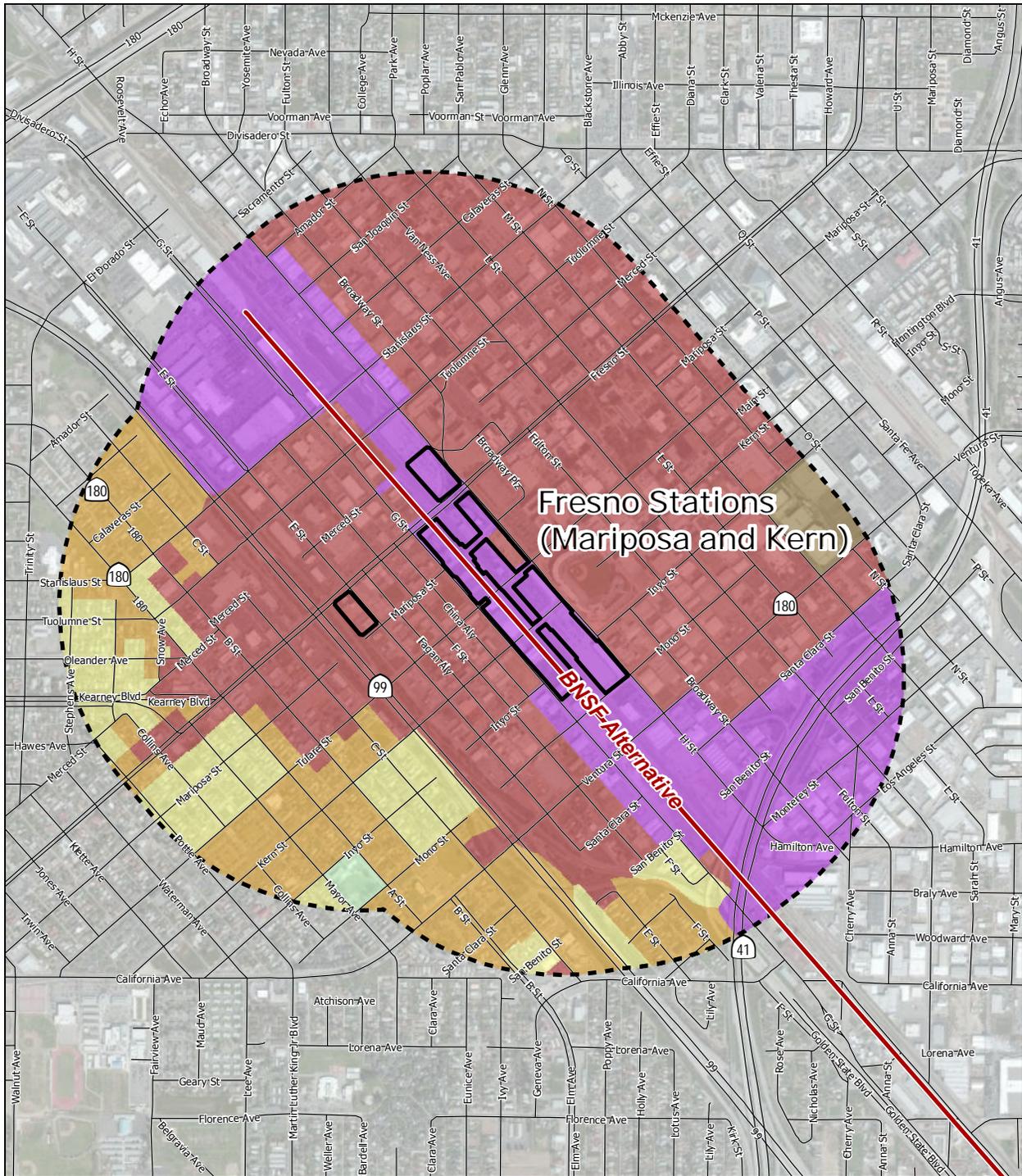
PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2011; Fresno County, 2009; Tulare County, 2009; Kings County, 2009; Kern County, 2009;
 City of Fresno, 2009
 Imagery Source: Microsoft Corporation, 2009

July 20, 2011



- | | | |
|-----------------------------|---------------------------|----------------|
| Alternative alignments | Land use | Institutional |
| Footprint of station | Residential single-family | Agriculture |
| Half-mile buffer of station | Residential multi-family | Transportation |
| | Commercial | Uncategorized |
| | Industrial | |

Figure 3.13-1
Existing land use—Fresno stations



Fresno Stations (Mariposa and Kern)

BNSF Alternative

PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2011; Fresno County, 2009; Tulare County, 2009; Kings County, 2009; Kern County, 2009;
 City of Fresno, 2009
 Imagery Source: Microsoft Corporation, 2009

July 20, 2011

<p>0 400 800 Feet</p> <p>0 200 400 Meters</p>	<ul style="list-style-type: none"> — Alternative alignments Footprint of station Half-mile buffer of station 	<p>Zone</p> <ul style="list-style-type: none"> Agriculture Commercial Industrial Multifamily residential Parks and Recreation Residential
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Figure 3.13-2
Current zoning—Fresno stations

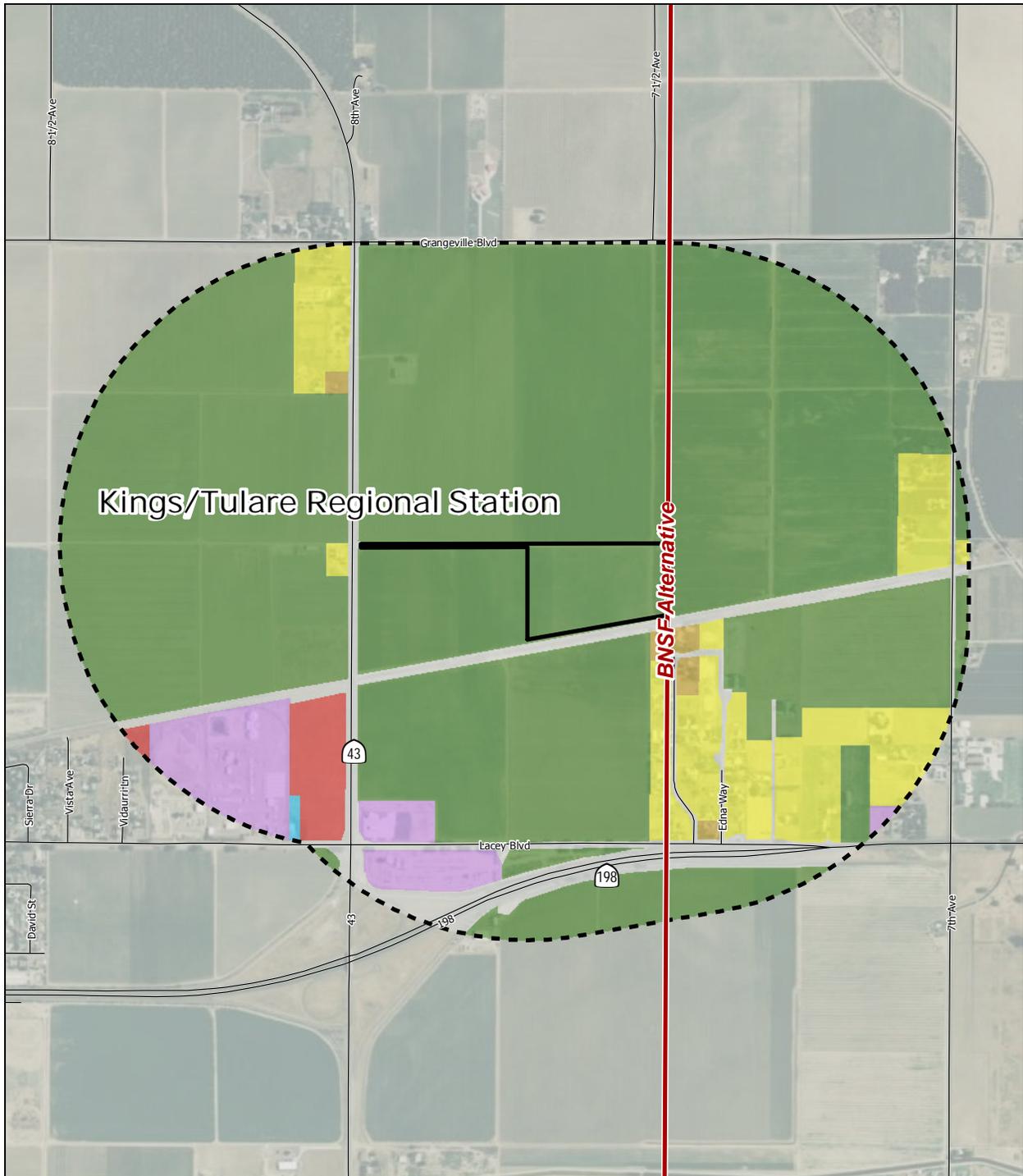
As shown on Figure 3.13-3, existing land uses in the station study area are primarily agricultural and include field crops, orchards, and animal husbandry land uses. The area is characterized by large parcel sizes and some single-family residential buildings. Two residential neighborhoods are located in the study area: one cluster of homes is immediately to the east of the proposed station area; and a residential subdivision is approximately 0.5 mile west, across SR 43. Some commercial uses are located west of SR 43. Other uses in the area include industrial, institutional, multifamily residential, and public rights-of-way.

The station site would be located in an area categorized in the Kings County General Plan as Urban Fringe, in an area designated as a Secondary Sphere of Influence (SOI). The "Urban Fringe" Land Use Category is intended to represent residential, commercial, and industrial land uses immediately adjacent to the cities of Corcoran, Hanford, and Lemoore, including the county unincorporated islands surrounded by the city of Hanford.

Kings County Local Agency Formation Commission (LAFCo) is required by state law to adopt a Sphere of Influence for each city and community district in the county. LAFCo of Kings County is unique in that it adopts not just a Primary Sphere of Influence, but a Secondary Sphere of Influence as well. The SOI boundaries clearly coincide with areas planned for urban growth, and Kings County intends for new development within these spheres to be annexed to the nearest municipal service providing entity. Additionally, the station area is also located adjacent to (but north of) a Blueprint Urban Growth Area. Under the coordination efforts of the Kings County Association of Governments, a Kings County Blueprint for urban growth was defined that emphasized city-centered urban growth, economic development, and agricultural preservation.

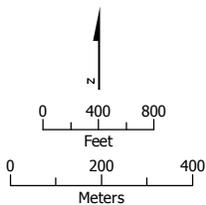
Although land uses to the west of SR-43 are located within Kings County, they are also located within the city of Hanford planning area. Lands to the west and south of the station site within this planning area are designated by the city of Hanford with a variety of Urban Reserve designations, including UR/Service Commercial (UR/SC), UR/Neighborhood Commercial (UR/NC), UR/Planned Commercial (UR/PC), UR/Office (UR/O), UR/Public Facility (UR/PF), UR/Very Low Density (UR/VLD), UR/Low Density (UR/LD), and UR/Medium Density (UR/MD). Other land uses in the area include Planned Highway Development (PHD), Service Commercial (SC), and Open Space (OS). The Urban Reserve designation is a prefix that is applied to land within the city of Hanford's Planning Area Boundary that is also designated with an underlying Land Use Designation in the General Plan. The City of Hanford General Plan states that the development of any Urban Reserve lands is either not anticipated within the planning horizon, or will require the resolution of significant infrastructure constraints in the area prior to moving any projected development threshold.

Zoning for the Kings/Tulare Regional Station is shown in Figure 3.13-4. The station area is zoned by Kings County as Industrial. Other zoning in the area includes Agricultural, Service Commercial, and Rural Residential Estate.



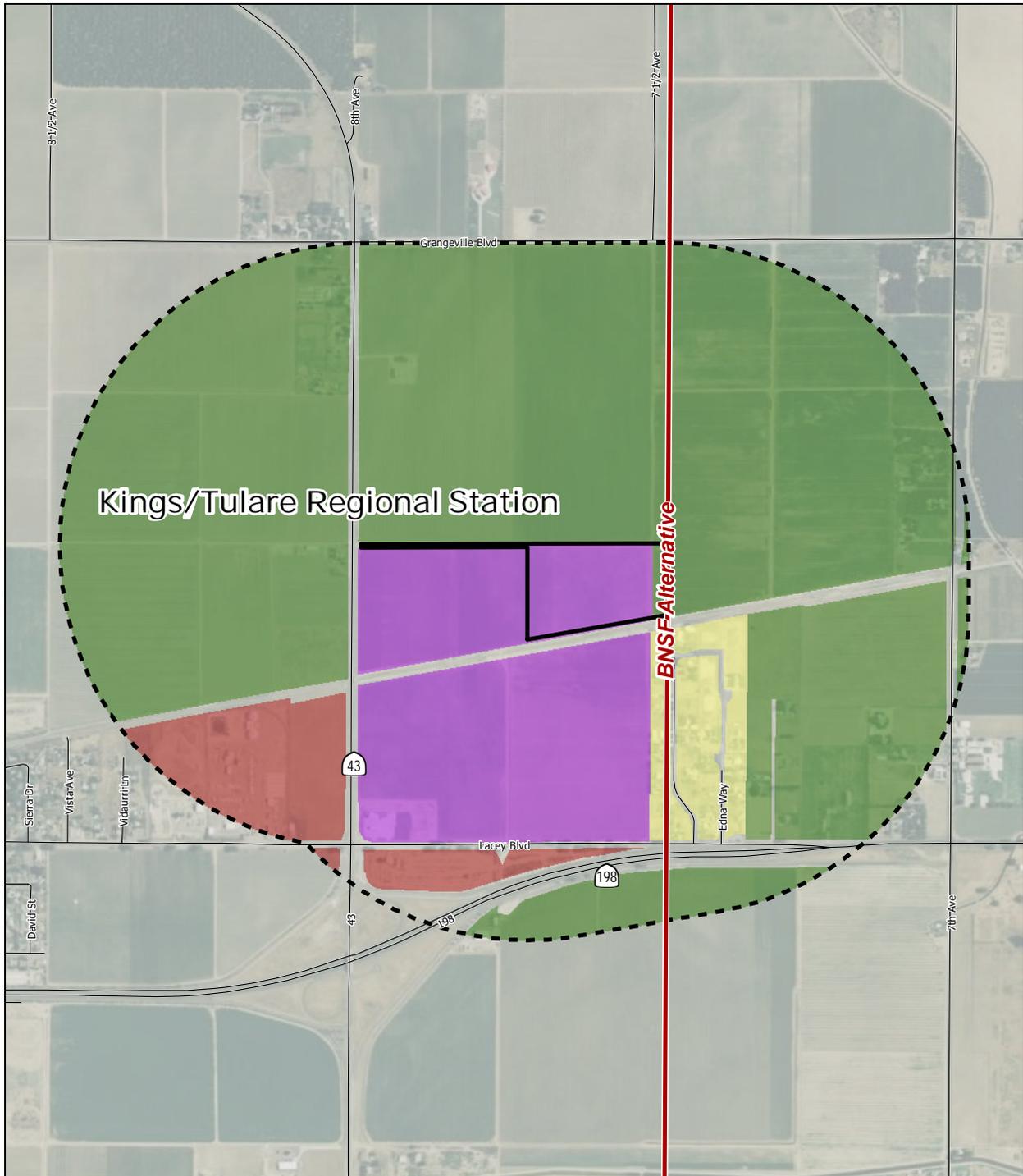
PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2011; Fresno County, 2009; Tulare County, 2009; Kings County, 2009; Kern County, 2009;
 City of Fresno, 2009
 Imagery Source: Microsoft Corporation, 2009

March 23, 2011



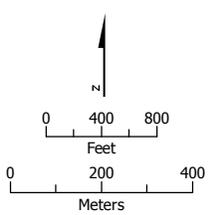
- | | | |
|-----------------------------|---------------------------|----------------|
| Alternative alignments | Residential single-family | Institutional |
| Footprint of station | Residential multi-family | Agriculture |
| Half-mile buffer of station | Commercial | Transportation |
| | Industrial | Uncategorized |

Figure 3.13-3
 Existing land use—Kings/Tulare Regional Station



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2011; Fresno County, 2009; Tulare County, 2009; Kings County, 2009; Kern County, 2009;
 City of Fresno, 2009
 Imagery Source: Microsoft Corporation, 2009

March 23, 2011



- Alternative alignments
 - Footprint of station
 - Half-mile buffer of station
- | Zone | |
|------|-------------------------|
| | Agriculture |
| | Commercial |
| | Industrial |
| | Multifamily residential |
| | Parks and Recreation |
| | Residential |

Figure 3.13-4
 Current zoning—Kings/Tulare Regional Station

Downtown Bakersfield Station

The proposed sites of the two Bakersfield Station Alternatives, Bakersfield North and Bakersfield South, are located in Downtown Bakersfield, between Truxtun Avenue and California Avenue, just west of SR 204. This area serves as a corridor for the existing BNSF railroad that extends through the downtown.

As described in Section 3.2, Transportation, there are 4 parking lots located in the vicinity of the proposed station sites. All 4 parking lots are located approximately 0.5 mile, or less, from the proposed station sites.

The Bakersfield Station study area is characterized by commercial, industrial, and institutional uses, as shown on Figure 3.13-5. Downtown Bakersfield, to the northwest of the proposed station sites, includes Bakersfield City Hall and major commercial uses. Several commercial streets are also in the study area, including Chestnut, Union, California, and Truxtun avenues. A mix of light industrial and offices are generally located east of the sites. Institutional uses are located throughout the station study area and include Beale Memorial Library, the McMurtrey Aquatics Center, numerous parking lots, churches, and government land. The Rabobank Arena, Theater, and Convention Center, Marriott Hotel, and Amtrak station are located near the proposed sites. A hospital and rail yard are located farther west.

Figure 3.13-6 shows the zoning for the Bakersfield Station area, which consists of Commercial, Industrial, Single-Family and Multifamily Residential, and Parks.

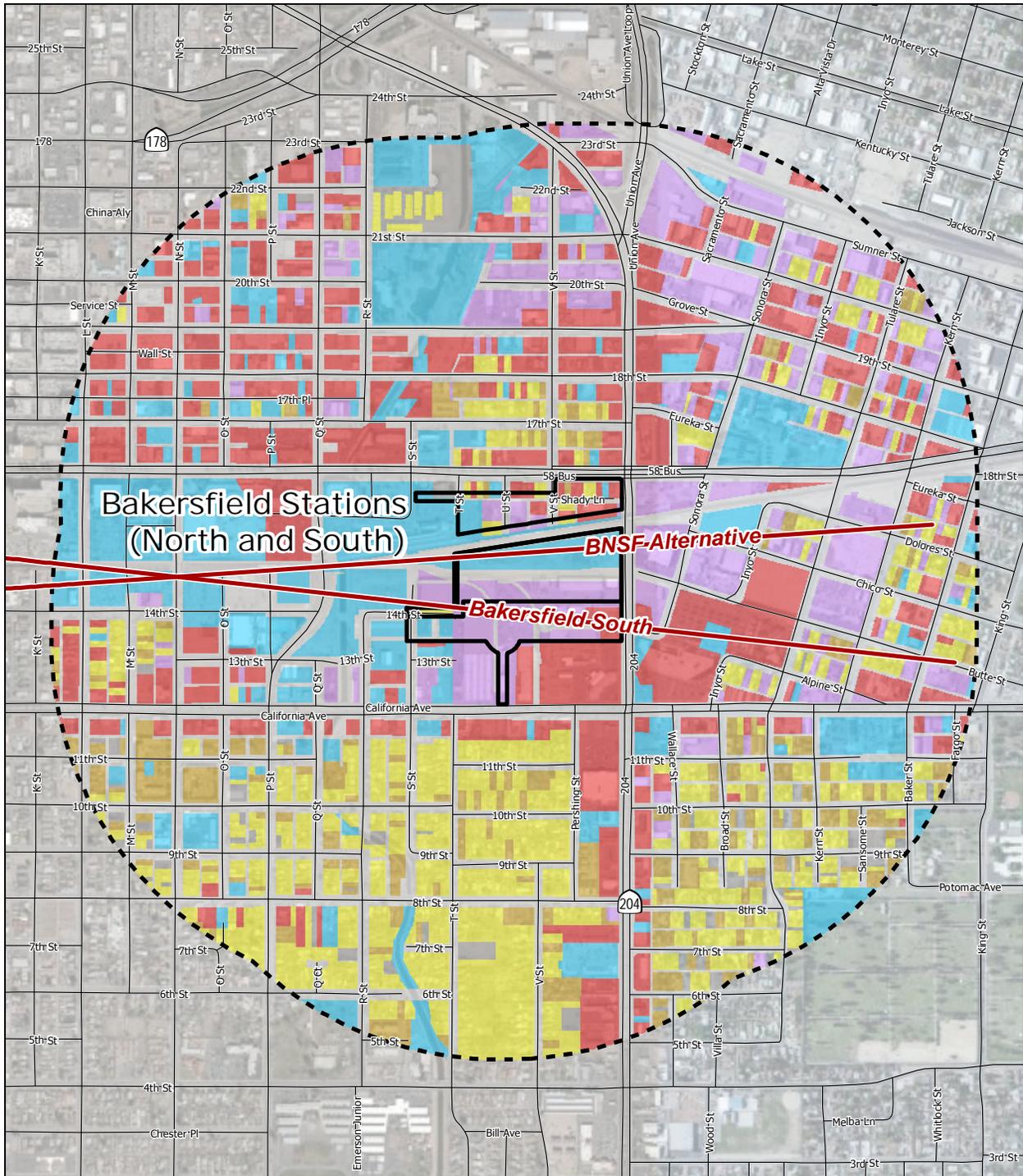
Residences in the area are generally single-family with some multifamily units. The majority of the residential uses in the station study area are south of California Avenue. Some residential uses are also located west of the proposed sites, between the sites and the rail yard. Residential uses also occur north of the sites, across the existing rail line.

B. OTHER ALIGNMENT ALTERNATIVES

Corcoran Elevated Alternative. The Corcoran Elevated Alternative would begin north of Nevada Avenue (north of Corcoran) and would extend south of Corcoran, joining the BNSF Alternative south of Avenue 144. The Corcoran Elevated Alternative would be located parallel with and to the east of the BNSF Alternative through Corcoran. The Corcoran Elevated would cross from the east to the west side of the BNSF near the intersection of Santa Fe Avenue and 4th Avenue. The Corcoran Elevated Alternative would be adjacent to the existing rail right-of-way. Land uses along the Corcoran Elevated Alternative are similar to the BNSF Alternative.

Corcoran Bypass Alternative. The Corcoran Bypass would pass to the east of Corcoran, beginning south of Nevada Avenue and ending near Avenue 144. The Corcoran Bypass includes more agricultural and agricultural residential land uses and fewer industrial uses than the comparative BNSF Alternative Alignment segment. Other uses would remain similar to the comparative segment. Approximately 5.9 miles would be adjacent to existing rail right-of-way.

Allensworth Bypass Alternative. The Allensworth Bypass begins near Road 64, joining up with the BNSF Alternative near Taussig Avenue. The Allensworth Bypass would be located west of Pixley National Wildlife Refuge (approximately 500 feet), west of Allensworth State Historic Park (approximately 450 feet), and east and west of the Allensworth Ecological Reserve. Approximately 3.2 miles of the Allensworth Bypass would be adjacent to existing rail right-of-way, with the remainder extending through agricultural land uses.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2011; Fresno County, 2009; Tulare County, 2009; Kings County, 2009; Kern County, 2009;
 City of Fresno, 2009
 Imagery Source: Microsoft Corporation, 2009

March 23, 2011

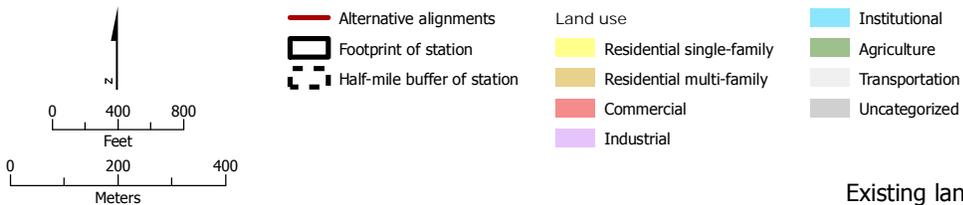
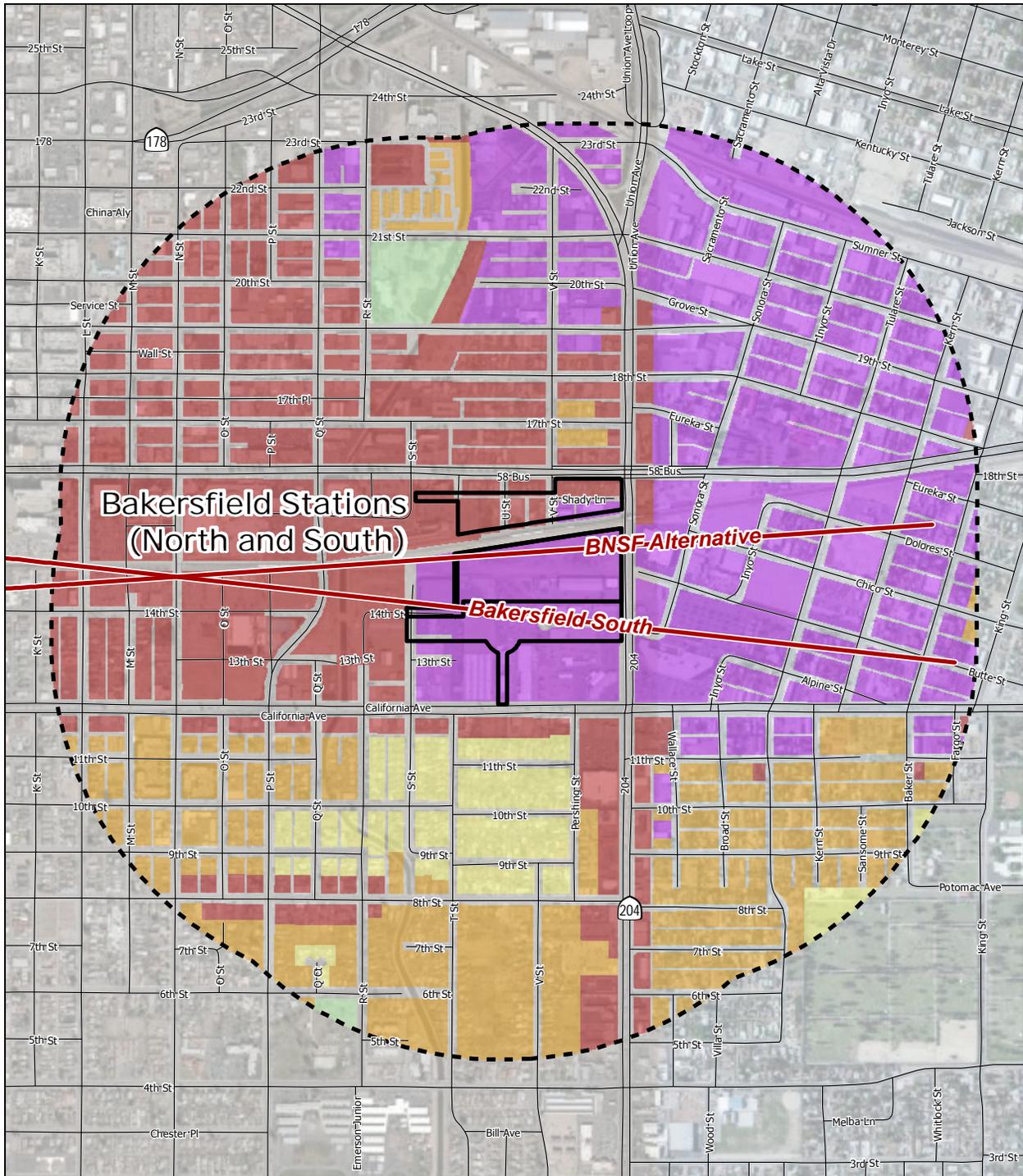


Figure 3.13-5
 Existing land use—Bakersfield stations



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
 Source: URS, 2011; Fresno County, 2009; Tulare County, 2009; Kings County, 2009; Kern County, 2009;
 City of Fresno, 2009
 Imagery Source: Microsoft Corporation, 2009

March 23, 2011

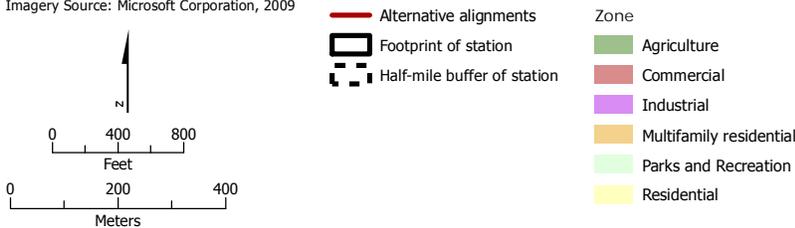


Figure 3.13-6
 Current zoning—Bakersfield stations

Wasco-Shafter Bypass Alternative. The Wasco-Shafter Bypass begins near Taussig Avenue, extending through agricultural land to the east of the BNSF Alternative. The Wasco-Shafter Bypass joins the BNSF Alternative to the south near 7th Standard Road. Land uses along the Wasco-Shafter Bypass include agriculture, industrial, and public land uses. Approximately 5.6 miles of the Wasco-Shafter Bypass would be adjacent to BNSF existing rail right-of-way.

Bakersfield South Alternative. The Bakersfield South Alternative begins at SR 58 and ends at the Bakersfield Station, to the south of the BNSF Alternative. Land uses along the Bakersfield South Alternative include industrial, residential, commercial, public, residential, and agricultural uses. Approximately 5.4 miles of the alternative would be adjacent to existing rail right-of-way.

C. HEAVY MAINTENANCE FACILITY ALTERNATIVES

Fresno. The Fresno Works HMF site is located along the southern edge of the city of Fresno, partially within the city and partially within unincorporated Fresno County. The site is south of SR 99, north and west of the alignments. In the unincorporated area, land uses on the site are predominantly agricultural, and within the city, land uses on the site are predominantly industrial and commercial, including warehouses, a freight truck terminal, slaughterhouse, offices, and retail. Single-family residential neighborhoods are located in the study area as well. The Fresno HMF study area is zoned as Heavy Industrial, Light Manufacturing, and Agriculture.

Hanford. The Hanford HMF site is southeast of Hanford in unincorporated Kings County. The site is south of Houston Avenue, west of the alignment, and east of SR 43. Existing uses on the site are primarily agricultural. Rural residential single-family homes are also located throughout the area. The Hanford HMF study area is zoned as Agriculture.

Wasco Kern Council of Governments. The Wasco site is east of SR 43 and south of SR 46, partially within the city of Wasco and partially within Kern County. The site is east of SR 43 and south of SR 46. The existing land uses on the site are entirely agricultural and include row crops. Some residential and light and heavy industrial uses are located immediately adjacent to the west, between the site and SR 43. The Wasco HMF study area is zoned as Heavy Industrial and Agriculture.

Shafter East Kern Council of Governments. The Shafter East site is within the city of Shafter. The site is east of Zachary Avenue and south of Burbank Street. The existing land uses on the site are primarily agricultural and include vineyards and orchards. Some industrial uses exist in the area, including warehouses, distribution centers, and railroad-related uses. Existing uses also include some residential uses, public uses, and rights-of-way for utilities. The Shafter East HMF study area is zoned as Agriculture.

Shafter West Kern Council of Governments. The Shafter West site is located entirely on Kern County lands. Existing land uses on and surrounding the site are agriculture. The Shafter West HMF study area is zoned as Exclusive Agriculture, Limited Agriculture, and Medium Industrial, Precise Development Combining.

D. PLANNED DEVELOPMENT

The areas surrounding the proposed HST stations in Fresno and Bakersfield include underutilized and vacant parcels. Little planned development or redevelopment has occurred in either vicinity. The cities of Fresno and Bakersfield are planning for new, increased land use density opportunities related to the HST stations in their downtown areas. The community plan, specific plan, and redevelopment plans for Fresno and Bakersfield call for land use changes in the station areas. Fresno expects to adopt a plan for the area in 2012. In the Downtown Fresno Station study area there are a number of development proposals for primarily mixed-use developments, the largest being a 200-unit development in the Chinatown neighborhood southwest of the

station. Other developments are located northwest and northeast of the station and consist of smaller mixed-use developments planning to open in early 2011. Development proposals for the Downtown Bakersfield study areas include the Mill Creek Linear Park Plan, a mixed-use project that would include 65,000 square feet of commercial development, recreation and neighborhood services, and 115 townhome/condominium units.

3.13.5 Environmental Consequences

A. OVERVIEW

Agriculture is the most common land use in the four counties. The Fresno to Bakersfield downtown centers are developed around historic train stations. The project alignment would convert agricultural land use to railroad use along the Corcoran Bypass, Allensworth Bypass, and Wasco-Shafter Bypass and create new transportation corridors. Few differences would occur between the Bakersfield South and the BNSF Alternative because the alignment lies mostly adjacent to existing transportation corridors and would not result in large variations from existing development patterns. Although deviating from the existing transportation corridor, the Allensworth Bypass Alternative would extend through areas of similar land use types as the BNSF Alternative in an equivalent area.

As allowed by local plans and as a result of the Authority's adopted Station Area Development Policies, the stations would encourage beneficial high-density TOD in those urban areas and discourage the potential for development at urban boundary edges (also called *sprawl*). The presence of an HMF would have greater potential for indirect land use changes than other alternative elements because many of the HMF alternatives would be located in rural areas on the periphery of urban areas that could provide services (i.e., gas stations and restaurants) to HMF employees. (Refer to Section 3.12, Socioeconomics, Communities, and Environmental Justice; Section 3.14, Agricultural Lands; and Section 3.15, Park, Recreation, and Open Space, for impacts and mitigation measures related to the displacement of residential, businesses, and community facilities and the acquisition of agricultural and park land.) .

While consistency with local plans and policies is not required, the analysis did include a review of the goals and policies of the local land use plans, as well as other plans, to identify conflicts that could result in potential environmental impacts.

B. NO PROJECT ALTERNATIVE

The No Project Alternative includes many planned projects that will likely be implemented by the year 2035. Chapter 2, Alternatives, describes the No Project Alternative. Section 3.19, Cumulative Impacts, provides foreseeable future projects in the Fresno to Bakersfield Section. These projects include shopping centers, large residential developments, office buildings/complexes, schools and hospitals, industrial facilities, agricultural business, and transportation projects. Growth would result in congestion, which based on experience in other parts of California, is likely to pressure expansion and new roadways. Road capacity expansion increases accessibility of adjacent land and therefore puts pressure on local governments to permit development of those lands.

Section 3.19, Cumulative Impacts, lists the specific development projects that could affect land use, including transportation changes. The projected population growth is anticipated to require many additional acres when the comparable supporting land uses, such as commercial, industrial, schools, parks, other services, and infrastructure, are factored in. In other words, population is projected to grow substantially by 2035. Based on the California DOF estimates (2010), growth in the four counties is projected to require 86,100 acres to accommodate future housing. With necessary supporting infrastructure, including commercial, office, transportation, parks, and schools, a typical density for an area similar to the San Joaquin Valley would result in the

development of 175,800 acres. (Refer to Chapter 2, Alternatives, for complete information on the anticipated growth in the four counties.)

Local jurisdictions are currently working to address what this growth means for their communities. One planning tool is the previously described San Joaquin Valley Blueprint Process that engaged Fresno, Kings, Tulare, and Kern counties. The San Joaquin Valley Blueprint committee recently adopted smart-growth principles and worked with each county to identify its preferred scenario for influencing general plan development. While infill development could occur without the HST to act as a catalyst, much TOD development would likely not be attracted to the downtown areas of Fresno and Bakersfield with the No Project Alternative. As an example, newly planned residential development proposed in the four counties would primarily be located on currently undeveloped lands. The current pattern of low-density development (four to eight dwelling units per acre) would likely persist until an incentive develops to do otherwise.

The isolated development and roadway transportation projects would not provide the same opportunities for redevelopment within the downtown areas of Fresno and Bakersfield as would the development of HST stations. The HST project provides an opportunity to improve and expand local transit systems leading to the HST stations, and to offer additional job and housing growth at key central locations around stations. Instead, roadway projects would likely extend growth outward toward rural areas; land use development patterns would respond to increases in auto travel and would likely follow existing patterns of lower-density development at urban boundary edges that are automobile-oriented. Fresno's and Bakersfield's general plans include goals and policies that support development of an HST System to achieve their economic development goals. Overall, the No Project Alternative would not be as strong a catalyst in supporting the development envisioned in these general plans and other planning documents as would the HST alternatives.

C. HIGH-SPEED TRAIN ALTERNATIVES

Construction Period Impacts

Common Land Use Impacts

All six alternatives would affect land uses during construction, although in potentially differing ways. Construction can cause hardship on adjacent businesses and residents and may temporarily influence land use activities. Also, the project must acquire land for project construction. Acquisition and construction activities would have the potential to alter land use patterns.

Potential for Construction to Alter Land Use Patterns

The project alternatives would result in temporary construction impacts, including increases in noise levels, dust, traffic congestion, visual changes, and disrupted access to properties and neighborhoods. Residential, park, and open-space land uses are more sensitive than other types of land uses to construction noise, dust, and visual impacts. Construction would primarily occur in agricultural, commercial, and industrial surroundings, which are less affected by construction activities. Construction would affect some residential land uses in unincorporated Fresno, Kings, and Kern counties and in the cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield. Businesses could experience hardship during construction because of access disruptions and traffic congestion; however, this would not affect land use types unless those properties become vacant, primarily as a result of construction impacts. The project would include measures to help adjacent land use maintain open and accessible conditions, which would reduce the impacts associated with construction.

Construction impacts would be temporary in duration or occur intermittently and, in general, would occur during the designated construction hours and timeframe. Therefore, construction effects upon land use are considered negligible under NEPA, due to the temporary nature of the construction. Additionally, construction impacts upon land use are less than significant under CEQA. Chapter 2, Alternatives, includes information regarding the methods of construction. Sections 3.2, Transportation; 3.3, Air Quality and Global Climate Change; 3.4, Noise and Vibration; 3.12, Socioeconomics, Communities, and Environmental Justice; 3.14, Agricultural Lands; 3.15, Parks, Recreation, and Open Space; and 3.16, Visual and Aesthetic Resources, provide more information regarding construction impacts.

For the most part, the BNSF, Corcoran Elevated, and Bakersfield South alternative alignments would follow existing transportation corridors where the land use patterns are already related to transportation; therefore, construction impacts related to the alteration of land use patterns would be minimized. The Corcoran Bypass, Allensworth Bypass, and Wasco-Shafter Bypass alternative alignments would extend through agricultural areas, which would avoid construction impacts to commercial, industrial, and residential land uses. Moreover, construction by itself is not expected to cause abutting businesses or other land uses to permanently vacate or change. Consequently, land use alteration or land use pattern effects during the construction period for the alternatives are considered negligible under NEPA as land use patterns would not be disrupted. Land use alteration or land use pattern impacts during the construction period for the alternatives are considered less than significant under CEQA.

Construction of any of the six project alternatives would result in the conversion of existing land uses to transportation-related land uses. Most of the acquired property would become a public right-of-way (i.e., a transportation-related land use) for construction and operation of the HST System. In addition, some portions may be used temporarily and returned to prior uses after construction. The BNSF Alternative would temporarily use approximately 210 acres of land for construction staging areas. The other alternatives would temporarily use smaller areas of land for construction staging. All construction staging areas would be returned to their original use once construction ceases. Effects from the conversion of land for the alternatives, HST stations, and HMF during construction are considered negligible under NEPA due to the temporary nature of the use for construction staging. Land use impacts from construction of the alternatives, HST stations, and HMF are considered less than significant under CEQA. Impacts to land permanently converted to a public right-of-way are discussed below under Project/Operational Impacts and in Section 3.12, Socioeconomics, Communities, and Environmental Justice.

Compared with other project elements, the HST stations would likely require the longest consistent construction time (approximately 3 to 4 years). Because of the station construction duration and size, localized dust, visual and noise impacts, access disruption, and traffic congestion would likely occur. With the exception of the Kings/Tulare Regional Station, which would require the use of a small amount of residential land for construction staging, construction is not anticipated to affect land use surrounding the proposed HST stations. Therefore, land use alteration or land use pattern effects during the construction period for the HST stations are considered negligible under NEPA due to the temporary nature of these effects. Land use alteration or land use pattern impacts during the construction period for the HST stations are considered less than significant under CEQA.

All of the proposed HMF sites would involve conversion of land to transportation-related use. With the exception of the Wasco HMF, which is located adjacent to the Wasco city boundary and to some urban land uses, the HMFs are located in primarily rural areas where the adjacent land uses are agricultural. Counties and cities favor the proposed HMF sites because of the economic benefits during operation. The Authority may decide to use any of the proposed sites during construction as a staging area. After construction staging use, if a site is not selected for the HMF facility, the land would return to existing agricultural use. Therefore, this use would be temporary

and land use alteration or land use pattern effects during the construction period for the HMF are considered negligible under NEPA. Land use alteration or land use pattern impacts during the construction period for the HMF are considered less than significant under CEQA.

Project Impacts

Common Land Use Impacts

All six project alternatives would result in permanent conversion of land to transportation-related uses and indirect changes to surrounding land uses. The HST stations would potentially increase densities and TOD in Downtown Fresno and Downtown Bakersfield. The proposed Kings/Tulare Regional Station would be located near the city limits of Hanford, in unincorporated Kings County, at considerable distance from the downtown area. Therefore, the potential for land use changes created by the Kings/Tulare Regional Station would be low.

Increased development density in and around the HST stations would provide public benefits beyond the access benefits to the system itself. These include relief from traffic congestion, improved air quality, promotion of infill development and job opportunities, natural resource preservation, more affordable housing, less energy consumption, and better use of public infrastructure. Another positive outcome would be a revitalized downtown that would attract residents who would not ride the HST (as well as those who would).

Permanent Conversion of Existing Land Uses to Transportation Use

Table 3.13-1 summarizes the estimated acreage for each land use that the six alternatives would likely convert to transportation-related uses. The estimated acreage was calculated in GIS using the construction footprint of the six alternatives. Most of the land that would be converted is agricultural, followed by land classified as Other, which consists of existing transportation right-of-way and vacant land. The next-largest amount of land that would be converted is industrial and institutional uses. (Refer to Section 3.14, Agricultural Lands, for complete information on impacts on agricultural lands.)

The acquired land would constitute a small portion of the total industrial, residential, commercial, and public land in the four counties, and would not result in material changes in regional or local land uses, or development patterns. The size of the four counties together is approximately 13.05 million acres (3.85 million, 891,000, and 3.09 million, and 5.22 million acres, respectively, for Fresno, Kings, Tulare, and Kern counties). The footprint of the entire project would require less than 0.01% of the four-county area and is not anticipated to result in any negative impacts on land use patterns. The project would not cause a substantial change in land use patterns or intensity incompatible with adjacent land uses and direct effects are considered negligible under NEPA. Direct impacts from the permanent conversion of land to transportation uses would be less than significant under CEQA.

Table 3.13-1
 Permanent Land Use Impacts by Alternative (acres)

Alternative	Single Family	Multi-family	Commercial	Industrial	Institutional	Agri-cultural	Other	Total Acres
BNSF	65	8	64	301	81	2,678	1,158	4,355
Corcoran Elevated	0 (6)	0 (1)	0 (26)	17 (16)	0 (1)	5 (439)	0 (116)	45
Corcoran Bypass	16 (10)	2 (1)	1 (-24)	2 (-31)	0 (-1)	888 (51)	143 (3)	660
Allensworth Bypass	0 (-7)	0 (-1)	0 (0)	8 (-7)	4 (-7)	587 (114)	87 (-88)	394
Wasco-Shafter Bypass	2 (-4)	0 (0)	0 (-5)	7 (-28)	8 (0)	587 (110)	87 (-153)	427
Bakersfield South	20 (-1)	1 (-1)	15 (-2)	91 (8)	48 (7)	9 (3)	87 (-77)	189

Notes: Numbers in parenthesis illustrate the difference in acres of land use impact that would occur for each alternative as compared to a comparable segment of the BNSF Alternative.
 Includes all project components. Numbers may vary slightly due to rounding.

BNSF Alternative

Table 3.13-1 illustrates the potential land use conversion under the BNSF Alternative (including roadway and all other improvements). The BNSF Alternative would convert agricultural, industrial, public, commercial, and residential uses to transportation use. The amount of land that would be acquired would constitute a small portion of the total commercial, industrial, and public land in the cities and counties, and would not result in any material changes in local or regional land uses or development patterns.

In Fresno, Corcoran, Wasco, Shafter, and Bakersfield, commercial, industrial, and residential land would be converted to transportation use. Residential land that would be converted would be located in small pockets in Fresno County, a small residential area south of the Kings/Tulare Regional Station, and in the Bakersfield area between SR 58 and the Kern River. The BNSF Alternative would convert agricultural and park lands to transportation use throughout Kings and Tulare counties. Station areas in Fresno would convert industrial and commercial uses. Station areas in Bakersfield would transition from institutional, industrial, and small amounts of commercial and residential uses to transportation use. This impact is considered negligible under NEPA as the amount of land acquired would constitute a small portion of the total commercial, industrial, and public land in the cities and counties. Direct impacts from the permanent conversion of land to transportation uses for the BNSF Alternative would be less than significant under CEQA. Impacts to agricultural land are discussed in Section 3.14, Agricultural Lands.

Corcoran Elevated Alternative

The Corcoran Elevated Alternative would be located parallel and to the east of the BNSF Alternative through Corcoran. Similar to the BNSF Alternative, the Corcoran Elevated would convert agricultural, industrial, public, commercial, and residential uses to transportation use.

Overall, land use effects and impacts would be the same as those discussed under the BNSF Alternative.

Corcoran Bypass Alternative

The Corcoran Bypass Alignment would extend through areas of agricultural land uses in a new right-of-way. Although the Corcoran Bypass Alignment would convert more agricultural uses and fewer industrial uses than the BNSF Alternative, overall land use effects and impacts would be the same as those discussed under the BNSF Alternative.

Allensworth Bypass Alternative

The Allensworth Bypass Alignment would branch to the east just past the Pixley National Wildlife Refuge, and would bypass Allensworth State Historic Park and Allensworth Ecological Reserve. Like the BNSF Alternative, the Allensworth Bypass would convert agricultural land (although to a greater extent). Unlike the BNSF Alternative, this alternative would not convert any land at the Allensworth Ecological Reserve.

Wasco-Shafter Bypass Alternative

The Wasco-Shafter Bypass Alignment would primarily be located in a new right-of-way through agricultural lands. The Wasco-Shafter Bypass Alignment would convert less industrial, but more agricultural land than the BNSF Alternative.

Bakersfield South Alternative

The Bakersfield South Alternative would convert slightly less commercial land than the BNSF Alignment. The Bakersfield South Alternative would convert slightly more industrial lands than the BNSF Alignment. Land use impacts in Bakersfield would be the same as those discussed under the BNSF Alternative.

HST Stations

Land converted for stations in Fresno and Bakersfield is discussed above under the BNSF Alternative. The Kings/Tulare Regional Station would be located on agricultural land. Construction staging areas would be located on agricultural land, adjacent to single-family residential lands located southeast of the station footprint. Because the Kings/Tulare Regional Station would be located on a new right-of-way on agricultural land, this station would result in the conversion of 21.9 acres of agricultural land to a transportation facility. This effect is considered negligible under NEPA as this amount of land would represent a small amount of land in the area. Direct impacts from the permanent conversion of land to transportation uses for the HST stations would be less than significant under CEQA. Impacts to agricultural land are discussed in Section 3.14, Agricultural Lands.

Heavy Maintenance Facility Alternatives

Table 3.13-2 shows land use conversion acreages for the HMF sites. Only one site would be selected for the HMF. The Fresno Works – Fresno HMF site would be located in an area consisting of residential, commercial, industrial, institutional, and agricultural and uses. The Kings County – Hanford HMF site would be located on a new right-of-way on agricultural lands. The Kern Council of Governments – Wasco HMF site would be located primarily on agricultural lands adjacent to areas of residential, industrial, and agricultural lands. Both Kern Council of Governments – Shafter HMF sites would be located in areas composed entirely of a new right-of-way on agricultural lands, with small amounts of industrial lands. This effect is considered negligible under NEPA as this amount of land would represent a small amount of land in the area.

Direct impacts from the permanent conversion of land to transportation uses for the HMF would be less than significant under CEQA. Impacts to agricultural land are discussed in Section 3.14, Agricultural Lands.

Land Use Effects of Parking Demand at Station Sites

The Fresno Station would not be a terminus station in Phase I. Fresno ridership and parking demand would experience changes in demand for parking in the transition to the full HST System. Fresno ridership would be expected to continue to rise incrementally with population growth. Parking demand at the Fresno Station is conservatively estimated to require approximately 5,900 parking spaces in 2020 and 7,400 spaces in 2035. Based on the amount of excess public parking within 1 mile of the station, it is estimated that the 2035 parking demand can be met with a total of 5,000 parking spaces provided in the four new parking structures built adjacent to the station by 2035.

As described above, all four structures would not be needed at the opening of the station in 2020. Instead, parking would be provided as demand requires. At the opening of the Fresno Station in 2020, a combination of parking structures and surface parking lots with a total of about 3,500 spaces would be constructed adjacent to the station. Approximately 5,000 parking spaces exist in Downtown Fresno; however, some parking spaces are used on a daily basis and may not be available for use by HST passengers. Additional parking areas are being identified in the downtown area to accommodate both passengers and visitors to the station area and to encourage land uses that would support other development types.

There are no existing parking facilities at the Kings/Tulare Regional Station or in the vicinity of the proposed station. However, 1,600 spaces would be provided in a surface parking lot or a portion would be provided on-site and a portion in shuttle lots located in downtown Hanford. If a parking structure is constructed on the surface lot to increase the number of parking spaces as ridership and parking demand grow, adequate parking will be provided.

Similar to the Fresno Station, Bakersfield ridership and parking demand would experience changes in demand for parking in the transition to the full HST System. Bakersfield ridership would be expected to continue to rise incrementally with population growth. The Downtown Bakersfield Station would provide up to 4,500 parking spaces. These spaces would be provided in one or two structures, depending on the alternative chosen for the station. In addition, four parking lots are located approximately 0.5 mile, or less, from the proposed station location. Similar to the Fresno Station area, some parking spaces are used on a daily basis and are not available for HST parking. Additional parking areas are being identified in the downtown area to accommodate both passengers and visitors to the station area and to encourage land uses that would support other development types.

Parking for the downtown Fresno and Bakersfield HST stations would be located near the HST station or dispersed throughout the downtown areas for the stations. Construction of any new parking garages would not result in land use changes because current zoning allows parking structures in downtown Fresno and Bakersfield. However, dispersed parking options would better encourage TOD because land uses could be located closer to the station. In addition, the street network in the proposed HST station areas is a grid network that provides access to SR 99, 41, and 180 in Fresno and SR 99, 204, and 178 in Bakersfield and to arterial and collector streets that would serve the HST stations, making the areas compatible with multimodal development.

The development of parking to accommodate demand at station locations would be consistent with applicable plans and would be compatible with adjacent land uses because current zoning supports this development. Therefore, this effect is considered negligible under NEPA as parking would be consistent with surrounding land use designations. Additionally, impacts from the

development of parking at stations locations would be considered less than significant under CEQA. Section 3.2, Transportation, provides additional information on the effects associated with increased parking demand resulting from the HST and the methods for mitigating those effects.

Table 3.13-2
 Permanent Land Impacts by Potential HMF Site (acres)

HMF Site	Single Family	Multi-family	Commercial	Industrial	Institutional	Agricultural	Other	Total Acres
Fresno Works	23	0	1	125	69	299	69	586
Kings County–Hanford	0	0	0	0	0	507	4	511
KCOG–Wasco	0	0	1	5	0	407	2	415
KCOG–Shafter East	0	0	0	5	0	484	6	495
KCOG–Shafter West	4	0	0	10	0	465	1	480

Acronyms:
 HMF = heavy maintenance facility
 KCOG = Kern Council of Governments

Indirect Effects on Surrounding Land Uses

BNSF Alternative

Changes in transportation systems can influence nearby land uses. Although the project would convert land to transportation-related uses (less than 0.01%), it would not adversely affect surrounding land uses. Impacts related to noise, visual and aesthetics, air quality, and agricultural lands are discussed in separate sections of this EIR/EIS. Where the alternative alignments are adjacent to existing transportation corridors, existing land uses and current zoning are predominantly agricultural in unincorporated areas and commercial or industrial in urban areas. These land uses are less sensitive to the potential impacts of noise, visual changes, and transportation operations than residential, park, and open-space uses. In communities where stations are not proposed, there is much concern about the effects of the HST on adjacent land uses.

The BNSF Alternative would be located near some residential areas, but is not expected to result in many changes in residential land use patterns because the alternative would not create new physical divisions or barriers among residential areas; many of the residential areas are already adjacent to the BNSF right-of-way. In these areas, the HST would add to an existing transportation corridor, but would not change the function or interaction of adjacent land uses. Noise levels are already high in these areas and the HST would contribute to this situation, but this would not change the land use designation. Although visual impacts would be substantial in some areas where the guideway would be elevated, they would not change land use patterns and would likely result in improvements in the station areas.

Adverse indirect effects on surrounding land uses would be negligible under NEPA as the HST and stations would not create new physical divisions or barriers among residential area. Impacts on surrounding land uses would be less than significant under CEQA. Section 3.18, Regional Growth, discusses the project's effects on regional growth, including impacts related to induced growth.

Indirect effects on surrounding land uses resulting from the HST stations are described below under Potential for Future Increased Density and TOD Development at HST stations.

Heavy Maintenance Facility Alternatives

The HMF sites under consideration are primarily in areas associated with agricultural land uses. Because of the size of the HMF and of the number of employees who would be working there, an HMF could potentially result in unanticipated development from the demand for services by facility employees. This development could include new gas stations, restaurants, and other service-type businesses near the HMF. The provision of utility services (e.g., electricity, water, and sewer) to these sites could also induce nearby development (e.g., service station and restaurants). However, county planning departments require that development comply with existing zoning. In areas where the zoning does not allow commercial development, induced development would not occur unless the zoning was changed.

The potential effects of induced development are considered negligible under NEPA because although land use changes could occur, these uses would be consistent with the existing zoning. These impacts would be less than significant under CEQA because the land use changes would comply with county zoning codes and because such development would be compatible with adjacent agricultural land (because these types of land uses currently coexist with agricultural land across the Central Valley).

Impacts on land use surrounding the Fresno and Shafter alternatives HMF sites would be fewer than those of the other sites because land use surrounding the sites is commercial and industrial. Land uses surrounding the Kern Council of Governments – Wasco HMF site include agricultural, industrial, and multifamily residential uses. Impacts on land use surrounding these sites would not be significant because the cities of Fresno, Wasco, and Shafter would provide services to HMF employees. The other potential HMF site would be in the rural part of Kings County but adjacent to the Hanford city boundary. The proximity of this HMF site to Hanford would minimize development and associated land use changes because employees would have access to existing needed services in Hanford. Providing a cafeteria and other employee services at the HMF site would help minimize the demand for new services near the site. Adverse indirect effects are considered negligible under NEPA because services for HMFs employees could be provided on-site or nearby and would not result in unanticipated development. Indirect impacts would be less than significant under CEQA.

Potential for Future Increased Density and TOD Development at HST Stations

Experience in the United States demonstrates that new transit facilities development has been concurrent with major changes in land development near stations (typically within 0.25 mile of the station). Jurisdictions with supportive policies, land use controls, and direct incentives can facilitate TOD development near transit stations (Transit Cooperative Research Program 2004). These references concern development within 0.25 mile of the station for the typical light-rail transit project, but with the higher-ridership attraction and interconnectivity with larger economic centers, an HST project would have a stronger influence on land use, and therefore HST Station Area Development Guidelines developed by the Authority focus on development occurring within 0.5 mile of a station.

As discussed below, generally, TOD occurs under three conditions:

- Policies and regulations of local agencies encourage or allow TOD in station areas. Other regional agencies and transit providers have started to adopt policies that bring together funding for transit expansion with land use.
- Stations are located in prime regional and community activity centers that are attractive to typical market forces.
- Regional and local real estate markets are active.

The Authority has developed *Urban Design Guidelines* (Authority and FRA 2005 and 2010), which describe six core principles embodying the essential characteristics of a successful TOD and which directly influence the land use, circulation, and urban form around the stations:

- Development density greater than the community average.
- Mixed land uses.
- Compact, high-quality, pedestrian-oriented environment.
- An active, defined center.
- Limited, managed parking.
- Public leadership.

More on Station Area Land Use

To learn more about potential land uses in the HST station areas, go to www.cahighspeedrail.ca.gov/gallery_centralvalley_05.aspx.

The *Transit Oriented Development Design Report for Fresno Final Report* (UC Berkeley 2010) analyzed the effects of an HST station in Downtown Fresno. The report identified tremendous opportunities to revitalize the downtown through urban design, diversity of higher densities, mixed-use development with improved transit, bike, and pedestrian connectivity. The report identified a number of vacant and underutilized parcels (i.e., surface parking lots) adjacent to the corridor, which are available for infill development in downtown areas. The report also revealed how existing wide streets in the downtown area could provide opportunities for widened sidewalks, streetscapes, and bicycle lanes. The higher densities in the station area would translate into higher levels of transit, and the station could become a major transit hub. Office development would be attracted to the area because of the improved access to the larger markets of Los Angeles and the Bay Area, and the station could become an 18-hour destination as more commercial businesses are drawn to the area. Residential growth would be expected to occur because of the increases in retail, nightlife, and improved multimodal connectivity—not because residents want to commute to Los Angeles or the Bay Area (Authority and FRA [2008] 2010).

The reports also identified certain actions that would need to be taken for the HST to be successful:

- Transit supportive land use designations and zoning in the station areas.
- Downtown revitalization efforts.
- Proactive parking policies.
- Construction of transit-oriented development.
- Strategies to encourage compact growth and infill along with strategies to reduce conversion of farmland to suburban use.
- The need to start station area planning early.

In addition, reports by independent agencies also examine policies that cities can implement to coordinate regional land use and transportation planning. *Thinking Ahead: High-Speed Rail in Southern California* (Center for Urban Infrastructure 2010) explores strategies such as streamlining zoning and implementing land use codes that support intensive development that would allow cities to cluster housing, retail, and office space in areas around the HST stations.

To maximize benefits from HST, the HST Station Area Development Policies (Authority and FRA [2008] 2010) for land use around the stations suggest the following:

- Creating a high-density development pattern in the surrounding area that includes a mixture of land uses (i.e., retail, office, and open space) and a mix of housing types (i.e., apartments, condominiums, and townhomes).
- Maintaining a grid street pattern and compact pedestrian-oriented design that promotes walking, biking, and transit access.
- Coordinating the design for both street-level and upper-level architectural detailing.
- Limiting the amount of parking to that which is essential for system viability.
- Placing parking in structures with retail or other land uses.

The buildings in the area would be designed to complement and mutually support public spaces including plazas and other open-space areas, and would also take into consideration context-sensitive building design. A grid street pattern would include streets with landscaping features and small parks or open space and a pedestrian-oriented design to promote alternative forms of transportation (i.e., walking and bicycling). While some parking would be needed around station locations, the HST station development would encourage the use of transit and other modes. More information regarding the approach to parking can be found in Chapter 2, Alternatives.

Downtown Fresno and Bakersfield Stations

The HST station would be located in an area where the City of Fresno is updating plans to address the potential for infill development and increased densities associated with the HST stations. The City of Bakersfield has adopted redevelopment plans for the HST station area in Bakersfield. The HST stations would induce desired infill development and minimize growth impacts associated with sprawl. Infill development may reduce development pressure on surrounding agricultural land, especially around the cities of Fresno and Bakersfield. Only a limited number of planned development projects are proposed in the Downtown Fresno Station study area. Some development projects are located on the edge of the Bakersfield Station study area. HST station development would not affect planned development in Fresno or Bakersfield because those developments are planned for the station study area edges and include higher-density residential uses that would be compatible with TOD around stations. Adverse indirect effects on surrounding land uses are considered negligible under NEPA because the HST stations would not affect any planned development and would be located in areas planned for the redevelopment of TOD uses. Indirect impacts would be less than significant under CEQA. Indirect effects on surrounding land uses would be beneficial, encouraging more-efficient land use patterns that are in agreement with Fresno and Bakersfield planning goals.

Kings/Tulare Regional Station

The Kings/Tulare Regional Station is located adjacent to the city of Hanford planning boundary, and within Kings County. The station area is shown as Urban Fringe in the Kings County General Plan, a designation intended to represent residential, commercial and industrial land uses immediately adjacent to cities. The Kings/Tulare Regional Station is also located within an area designated as a Secondary Sphere of Influence. Secondary Sphere of Influence boundaries clearly coincide with areas planned for urban growth, and Kings County intends for new development within these spheres to be annexed to the nearest municipal service providing entity. Kings County has zoned the site as Light Industrial. Surrounding zoning is Limited Agricultural. Some areas to the south and southwest are zoned as Industrial, Commercial, and Residential (to the southeast) by both Kings County and the City of Hanford.

Land uses to the west inside the City of Hanford's Sphere of Influence are designated with a variety of Urban Reserve land uses. The Urban Reserve designation is a prefix applied to land

within the City of Hanford's Planning Area Boundary that is also designated with an underlying land use designation in the Hanford General Plan. The City of Hanford General Plan states that the development of any Urban Reserve lands is either not anticipated within the planning horizon, or will require the resolution of significant infrastructure constraints in the area prior to moving any projected development threshold.

The City of Hanford General Map designates land on the west side of the city as Residential (Very Low-, Low-, Medium-, and High-Density), Office, Light- and Heavy-Industrial, and Public Facilities. A significant amount of these areas, although designated with these land uses, are still undeveloped. None of the land uses in this area include the Urban Reserve prefix. Therefore, the City of Hanford is not anticipating any constraints in developing this area and would likely approve development on the west side of Hanford prior to developing any Urban Reserve lands on the east side.

As stated in Section 3.14, Agricultural Lands, the Authority would work with the Department of Conservation to purchase and establish agricultural conservation easements to mitigate for the loss of agricultural land in the Central Valley from the HST facilities' footprint. It is possible that the Authority could seek to locate some of the agricultural easements directly surrounding the Kings/Tulare Regional Station footprint. In addition, the Authority may provide a portion of the Kings/Tulare Regional Station parking in downtown Hanford, Visalia and/or Tulare. Reducing the number of spaces provided at the station area would allow for more open space areas around the station, discourage growth at the station, encourage revitalization of the downtowns and reduce the development footprint of the station. The FRA's and Authority's goals for Kings/Tulare station include creating a station that serves as a regional transportation hub to provide quick transit connections from the station to the downtown areas of Hanford and Visalia; the Authority and FRA have approved \$600,000 in planning funds to assist local jurisdictions around the Kings/Tulare station to plan to make these goals a reality.

Given the Urban Reserve and agricultural land use designations surrounding the station area, the availability of appropriately designated land on the west side of Hanford that could be developed, the potential for the Authority to purchase conservation easements around the station, and the Authority's vision for the Kings/Tulare Regional Station to act as a transit hub, the potential for indirect effects on land use in the area surrounding the Kings/Tulare Regional Station is low. Due to land use planning in the station area and measures that the Authority would take to preserve agricultural lands in the area, indirect effects from land use changes surrounding the Kings/Tulare Regional Station would be negligible under NEPA. Indirect impacts would be less than significant under CEQA.

Current Policies and Local Regulations

The counties and cities in the study area control the location and intensity of development through general plans, zoning regulations, and land use ordinances. The adopted general plans for Fresno and Kern counties and the cities of Fresno and Bakersfield include policies related to infill development, development of mixed uses, improvement of mobility, and enhancement of downtown areas. The cities of Fresno and Bakersfield have updated their general plans to reflect the addition of an HST station in their downtown areas.

The Kings/Tulare Regional Station would be located in unincorporated Kings County. The *Kings County General Plan* does not contain any policies specific to the HST. However, the Draft 2011 Kings County RTP includes the implementation of a high-speed rail facility in the region among its stated objectives (KCAG 2010). The 2011 Kings County RTP supports state efforts to implement a high-speed rail corridor in the San Joaquin Valley and the development of strategies that further the goals of reduced traffic congestion through development of alternative transportation modes.

The Kings County RTP supports an HST station in Hanford to better serve Kings and Tulare counties.

Current zoning around both downtown Fresno and Bakersfield HST station sites is primarily commercial and industrial. Land use in Downtown Fresno is primarily high- and low-density commercial; with public and medium-density residential on the outer edges of the station study area. Several vacant and underutilized properties fall within the HST station study area. Land use in Downtown Bakersfield is industrial, commercial, and medium- and low-density residential. According to the general plan, opportunities exist for increasing development densities consistent with TOD in the proposed HST station areas.

The City of Fresno is currently updating the specific and community plans for the HST station area to support greater development densities and mixed uses consistent with TOD. Fresno anticipates adopting these plans in 2012. As shown in Table 3.13-3, the current zoning around both downtown station sites allows higher densities than currently exist. The HST stations would promote the infill development and redevelopment opportunities that the cities of Fresno and Bakersfield are addressing in the updates to their plans and in existing redevelopment plans that address the station areas.

Figures 3.13-2, 3.13-4, and 3.13-6, respectively, show the stations in the center of the 0.5-mile-radius of the Fresno, Kings/Tulare, and Bakersfield HST station study areas. In Fresno and Bakersfield, commercial and industrial uses are located nearest the proposed stations. The Kings/Tulare Regional Station study area consists predominately of agricultural lands. However, some areas to the south and southwest have been zoned as Industrial and Commercial. These designations are appropriate zoning designations for areas near the station and it is anticipated that they would remain and become developed with these uses that are compatible with the station. Residential land uses lie at the outer edges of the station study area, and because of their location would be less susceptible to changes in land use patterns or intensity.

This analysis shows that both Fresno and Bakersfield have and are planning to increase densities near and around the proposed HST station areas and to increase density of mixed uses in the downtown areas. Additionally, zoning to encourage the development of complementary industrial or commercial uses in the Kings/Tulare study area illustrates that land uses in the surrounding area have been contemplated by Kings County and have been zoned to accommodate the Kings/Tulare Regional Station.

Strengthened Market Activity Centers

Fresno and Bakersfield are poised to become strong activity centers with the addition of the HST. First, the projected growth for this region is nearly an additional 1.7 million persons by 2035, with comparable growth in employment even before adding the HST to the Central Valley. Fresno is already the economic hub of the Central Valley. Both Fresno and Bakersfield have major, expanding state universities. In addition, the HST project is estimated to bring up to 7,000 and 8,800 passengers a day to Fresno and Bakersfield, respectively, which translates into nearly 3 million persons getting on or off at either the Fresno and Bakersfield stations each year (Cambridge Systematics 2007). This, in combination with nearly 1.7 million additional inhabitants projected in this part of the valley, means that there would be the presence of a large population in the downtown areas.

Table 3.13-3
 Acreage of Existing Land Uses and Current Zoning Opportunities Within the
 HST Station Study Areas

HST Station	Existing Land Uses	Zoning	Changes
Downtown Fresno Station	Commercial 18% Industrial 20% Institutional 9% Multifamily residential 2% Single-family residential 8% Parks and recreation 2% Vacant 16%	Commercial 49% Industrial 28% Institutional 1% Multifamily residential 13% Single-family residential 8% Parks and recreation 1%	Increased density of commercial uses and multifamily residential uses likely
Kings/Tulare Regional Station	Commercial 2% Industrial 4% Multifamily residential 1% Single-family residential 9% Agriculture 78% Right-of-way 7%	Commercial 6% Industrial 17% Rural residential 4% Agriculture 71% Right-of-way 2%	Increased density of commercial uses likely
Downtown Bakersfield Station	Commercial 18% Industrial 10% Institutional 16% Single-family residential 13% Multifamily residential 5% Right-of-way 36% Vacant 2%	Commercial 35% Industrial 37% Institutional 26% Single-family residential 6% Multifamily residential 21%	Increased density of commercial uses and multifamily residential uses likely
Note: Includes study area for all station alternatives. Sources: City of Fresno 2009a, 2009b; Kings County 2010; City of Bakersfield 2010.			

Increased Real Estate Forces

The necessary investment in the region would equally strengthen market forces. After the recession, growth is projected to continue in Fresno, Kings, Tulare, and Kern counties, and there will be high investment to accommodate housing for the projected population. Just developing enough housing for the projected population, factoring a low average of 500 square feet per person at a low estimate of \$110 per square foot (a low square footage price, in 2007\$), would mean that this four-county region would experience an investment of \$97 billion of construction activity without the HST and before factoring in roads, schools, and commercial establishments, or even the development of the HST itself. This type of investment provides the assurance of market forces for infill development opportunities. The HST would provide a catalyst to concentrate the market energy at station centers that supply interregional connectivity with other metropolitan centers, like airports do except with more convenience of destination to destination connection.

The HST stations in Fresno and Bakersfield would be compatible with local zoning for higher-density development. The stations would build upon existing activity centers with a large number of passengers, and effective regional connectivity and growth to this region would be inevitable,

bringing investment and the potential to change or influence future lands use patterns. With proper coordination, the HST planning and the station area land use planning would lead to a revitalized and vibrant downtown core in both Fresno and Bakersfield that acts as a destination for area residents. The Fresno and Bakersfield HST stations would be a catalyst for development investment and a focal point for which high-density downtown development and redevelopment could be fiscally viable. The HST stations would encourage the creation of new mixed-use centers with commercial and retail stores, hotels, offices, high-density residential developments, major civic facilities, and open space. TOD would occur not only on individual parcels surrounding the HST station, but throughout the entire district influenced by the station.

To reinforce this direction, as identified in the 2008 Bay Area to Central Valley HST Program EIR/EIS (Authority and FRA [2008] 2010), the Authority has developed guidelines for station area development and is working closely with communities where an HST station is proposed to ensure that polices related to TOD are adopted and implemented. The guidelines also discuss how the Authority will work with local governments with jurisdiction over the station area (i.e., the cities of Fresno and Bakersfield) to use a community planning process to develop a station area plan; plan street, pedestrian, bicycle, parks, open-space areas, and other amenities around the stations; incorporate the station area plan into city plans; and use a coordinated planning process to develop regional plans that focus development in existing areas to protect farmland, habitat, and open space.

Ultimately, the cities of Fresno and Bakersfield would be responsible to implement the guidelines that would focus the growth in the HST station areas, but as described above, the HST stations would attract more people to the station areas and create opportunity for redevelopment of these areas with new commercial and residential uses. To help accomplish this, the Authority and the FRA are providing funding to assist cities such as Fresno and Bakersfield in undertaking the studies, research, and planning needed for the station areas and to develop station area plans reflective of their unique local situations.

The area affected by the potential for TOD development and the surrounding region would realize beneficial effects including increased employment, recreation, and community cohesion. No incompatible changes in land use patterns or intensities are anticipated. Consequently, HST station effects related to increased density and TOD development would be beneficial under NEPA. Additionally, station effects related to increased density and TOD development would be beneficial and the impacts are considered less than significant under CEQA.

Consistency with Local and Regional Plans

BNSF Alternative

There are no federal or state plans that are applicable to land use for the HST. The San Joaquin Valley Blueprint is the only regional plan for the Fresno to Bakersfield HST study area. At this point in time, no adopted policy document exists. However, the San Joaquin Valley Council of Governments has adopted 12 Smart-Growth Principles, a density commitment, and maps. Principles 7, 8, 11, and 12 are relevant to the HST project.

The BNSF Alternative would be consistent with relevant San Joaquin Valley Blueprint Principles 8 and 11 by increasing the variety of transportation choices in the San Joaquin Valley and assisting with the enhancement of the region's economic vitality. In addition, the BNSF Alternative would be consistent with San Joaquin Valley Blueprint Principles 7 and 12 inasmuch as the BNSF Alternative follows the existing rail right-of-way to the greatest extent feasible. This circumstance would help to preserve open space and farmland areas, avoid critical environmental areas, and support environmental resource management by limiting development of a transportation facility to areas of existing development. Therefore, as the BNSF Alternative would be consistent with

these policies and would not be inconsistent with a policy adopted to avoid physical impacts, effects would be negligible under NEPA. Impacts would be less than significant under CEQA.

Local and regional transportation plans related to the Fresno to Bakersfield Section identify the need to improve mobility in the Central Valley and to reduce dependency on automobile travel by improving transit accessibility and by encouraging the use of alternative transportation modes. General Plans for the cities of Fresno and Bakersfield and Tulare County include policies that specifically support the implementation of a high-speed rail as well as the regional transportation plans for Fresno, Kings, and Tulare counties.

Local plans and zoning focus on permitted land uses and development scale, density, and intensity within land use zones. The City of Fresno is in the process of updating plans that will specifically address higher development density (including medium- and high-density mixed use consisting of multifamily residential, commercial, and office development) in the HST station areas that will result in beneficial effects for the cities. Fresno has begun to define land use opportunities for TOD planning by using land use overlay zones and by identifying supporting services for transit passengers (i.e., restaurants and retail). The adoption of goals and policies in Fresno related to the HST station would bring additional incentive for infill development to encourage the higher densities that would help to protect agricultural lands in the area. The Bakersfield Station would be located in an area subject to several redevelopment planning efforts.

The Kings/Tulare Regional Station is located in Kings County, in an area adjacent to the city of Hanford Planning Area. The station area is zoned as light industrial by Kings County and the station would be compatible with this zoning. Land uses surrounding the HST station are zoned as commercial and industrial. Zoning in the study area is compatible with the Kings/Tulare Regional Station and would not be inconsistent with a policy adopted to avoid physical impacts. Since the station use would be consistent with existing land use zoning, effects would be negligible under NEPA. Impacts would be less than significant under CEQA.

The HST itself would result in the conversion of agricultural lands, which would be inconsistent with local plans and policies related to the protection and conservation of agricultural lands. Impacts to agricultural land uses are described in Section 3.14, Agriculture.

Corcoran Bypass Alternative Alignment

The Corcoran Bypass Alternative Alignment would extend through areas of agricultural land uses in a new right-of-way. Therefore, the Corcoran Bypass Alignment would convert more agricultural uses than the BNSF Alternative. This conversion would not be consistent with San Joaquin Valley Blueprint Principles 7 and 8 or Kings County General Plan policies. Therefore, the Corcoran Bypass Alternative would be less consistent with the San Joaquin Valley Blueprint and Kings County General Plan than would the BNSF Alternative. Impacts to agricultural land uses are described in Section 3.14, Agriculture, and impacts to biological resources are described in Section 3.7, Biological Resources.

Corcoran Elevated Alternative

The Corcoran Elevated Alternative would be located to parallel and to the east of the BNSF Alternative through Corcoran. The Corcoran Elevated would convert a similar amount of agricultural as the BNSF Alternative. Overall land use effects and impacts would be the same as those discussed under the BNSF Alternative.

Allensworth Bypass Alternative Alignment

Although the Allensworth Bypass Alignment would avoid Allensworth State Historic Park and Allensworth Ecological Reserve, the Allensworth Bypass would convert more agricultural land than the BNSF Alternative. This conversion would be less consistent than would the BNSF Alternative with San Joaquin Valley Blueprint Principles 7 and 8. Impacts to agricultural land uses are described in Section 3.14, Agriculture.

Wasco-Shafter Bypass Alternative Alignment

The Wasco-Shafter Bypass Alignment would primarily be located in a new right-of-way through agricultural lands. Therefore, the Wasco-Shafter Bypass Alignment would convert more agricultural uses than the BNSF Alternative. This conversion would be less consistent than would the BNSF Alternative with San Joaquin Valley Blueprint Principles 7 and 8 and the Kern County General Plan. Impacts to agricultural land uses are described in Section 3.14, Agriculture.

Bakersfield South Alternative Alignment

Similar to the BNSF Alternative Alignment in the same area, the Bakersfield South Alternative would extend through areas of industrial uses and would be consistent with San Joaquin Valley Blueprint Principles adopted to avoid environmental impacts. Impacts would be negligible under NEPA and less than significant under CEQA.

Heavy Maintenance Facility Alternatives

The general plans for Fresno, Kings, and Kern counties and the city of Shafter support the construction and operation of an HMF at the five alternative sites. The HMF sits in Fresno County is predominately zoned for industrial development with some parcels zoned for agriculture or light manufacturing. The HMF sites in Kings County and the two sites near the city of Shafter are designated for agriculture. Parcels not designated for industrial uses would require rezoning. However, once this land was rezoned, zoning would be consistent with its use as an HMF. Effects from the HMF are considered negligible under NEPA. Impacts would be less than significant under CEQA.

3.13.6 Mitigation Measures

No specific mitigation measures are included for land use. Between the Statewide and the Bay Area to Central Valley Program EIR/EIS (Authority and FRA 2005, [2008] 2010) and the project EIR/EIS, refined planning (i.e., HST Station Area Development: General Principles and Guidelines [Authority and FRA 2005 and {2008} 2010]) has resulted in fewer conflicts than anticipated regarding land use and planning. The program design strategies of involving the local jurisdictions in the development of station planning and alignment design considerations, in identification of issues, and in avoidance measures and solutions, and also of providing information to assist local jurisdictions in accommodating the proposed HST and TOD opportunities around stations in updates of local general plans, are collectively reducing the potential for land use conflicts.

Many related impacts in other resources have mitigation measures that work to further reduce the likelihood for impacts on land uses. For example, mitigation measures for transportation are found in Section 3.2.6, for community resources in Section 3.12.6, for agricultural in Section 3.14.6, for parks in Section 3.15.6, and for regional growth in Section 3.18.6. While the project development would continue to engage the local jurisdictions on continued planning and TOD development opportunities, no further mitigation measures are required.

3.13.7 NEPA Impacts Summary

Direct and indirect land use effects have been identified under NEPA for the project. Land use alteration during construction is considered a negligible direct effect because all alternatives would primarily be located next to other transportation uses. Permanent conversion of land to transportation-related land uses is considered a negligible effect because the new transportation land uses would be adjacent to existing transportation corridors and would not result in substantial impacts on land use patterns. Lands changed to transportation-related land uses would encompass less than 0.01% of the total land area in Fresno, Kings, Tulare, and Kern counties.

Effects related to increased density around the HST stations that would minimize sprawl and promote TOD are considered beneficial and would revitalize the downtown areas of Fresno and Bakersfield. Development of parking to accommodate demand at the HST stations would be consistent with applicable plans and would be compatible with adjacent land uses. The additional parking would, therefore, result in negligible effects under NEPA.

The BNSF Alignment and other alternative alignments and the Fresno, Hanford, Wasco, and Shafter East and West HMF sites would be consistent with local and regional plans, and impacts would be negligible. Indirect effects on surrounding land uses are considered negligible for the BNSF and other alternatives and the Fresno, Hanford, Wasco, and Shafter East and West HMF sites. An HMF could potentially result in unplanned development from the demand for services by facility employees. Effects would be reduced by providing some services within the HMF site. However, all HMF sites are surrounded by zoning that would allow the development of supporting facilities that would provide many of the services the employees would likely need. This effect is considered negligible because while land uses could change, any development would need to be in compliance with county zoning codes.

3.13.8 CEQA Significance Conclusion

No impacts on land use have been identified that would be significant or potentially significant under CEQA. All six alternatives and the HMF sites are consistent with local and regional land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental impact. The alternatives and the HMF sites would not cause significant changes in land use patterns or intensities that would be incompatible with adjacent land uses. Station effects related to increased density and TOD development are considered beneficial and would result in infill development and redevelopment of the downtown centers, which would reduce pressures on the surrounding agricultural lands.