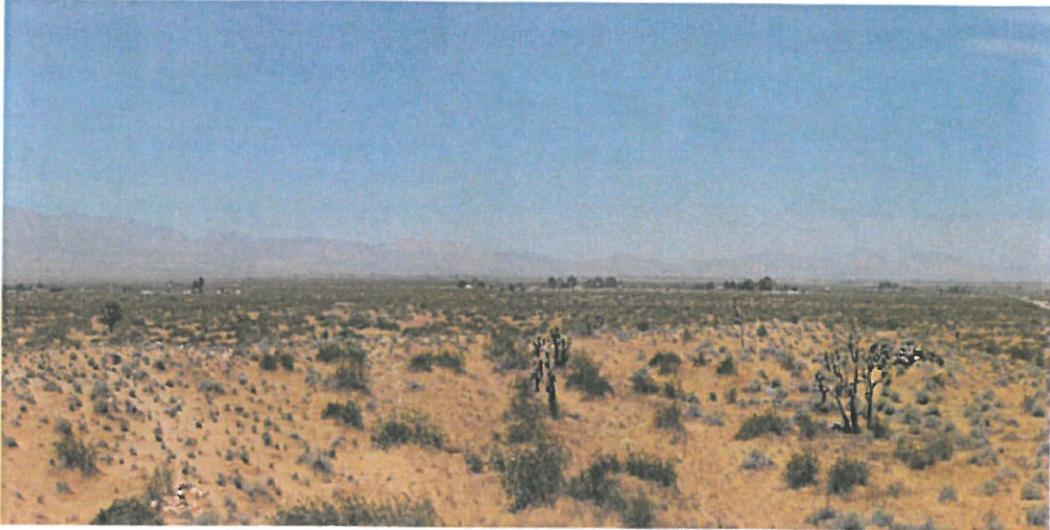


# High Desert Corridor Project Community Impact Assessment



Los Angeles and San Bernardino County

07-LA-HDC

EA: 2600U0/Project ID: 0712000035/Phase: 0

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Date: March 28, 2016

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The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 U.S. Code 327.

March 2016





## Summary

### ***Land Use***

Direct land use impacts will result through the acquisition of right-of-way required to construct the Project. Indirect impacts to land use may also occur within areas that are within close proximity to proposed access points at interchange locations and rail stations within existing developed areas.

### ***Growth***

The Project may shift future development toward the new interchange locations in the Palmdale and Victorville/Adelanto areas. The Project itself is not expected to attract new growth beyond population and employment forecasts. Alternatives with the high-speed rail element may shift current low-density development patterns to higher density and mixed use within areas of close proximity to proposed rail stations in Palmdale and Victorville. Desired growth patterns and density of land use are ultimately accomplished through proper land use planning and zoning by the local jurisdictions in which the Project is based.

### ***Environmental Justice***

Low-income and minority populations were identified within the project area. However, the dispersion of such populations is quite proportional throughout the various cities and counties in which the Project is based. Under the alternatives, however, which include the use of tolling, such populations may be affected and deterred from utilizing the expressway facility. Therefore, low-income populations should be taken into consideration in determining toll prices and processes for collecting tolls.

### ***Community Character***

The Project was designed as such to avoid developed areas and from bisecting established communities. The proposed Variation C alternative, which proposed to widen and utilize the existing State Route 18 as part of the main alignment for the Project was eliminated from consideration due to community opposition and potential community cohesion impacts as a result of bisecting the existing community of Apple Valley. Therefore, measures have been taken to avoid impacts to community cohesion at an early stage. However, temporary indirect impacts to local communities may occur throughout the construction phase of the Project. The proposed Variation D would further avoid potential impacts as it shifts the project alignment further south, away from the community of Lake Los Angeles within unincorporated Los Angeles County.

Under Option 1 of the High-Speed Rail Alternative, there is a potential impact to a tract of homes located along 10<sup>th</sup> Street East in which the high-speed rail alignment, in conjunction with the Project freeway alignment, may create an “island” effect for these particular residences.

### ***Traffic and Transportation/Pedestrian and Bicycle Facilities***

Early coordination has been conducted with local agencies in order to minimize potential impacts to recreational trails within the project area.

### ***Public Involvement***

Public outreach has been conducted throughout the various phases of the project, in which several formal public meetings and informal community workshops have been conducted to encourage and solicit public input from the various communities within the area. Community input has been taken into consideration throughout the various phases of the Project.

### ***Relocation***

Right-of-way acquisition of residential homes and businesses will be required as part of the Project. However, adequate replacement stock has been identified. The relocation process for the Palmdale School District facilities will require an extensive length of time, in which the Division of Caltrans Right-of-Way estimates to be approximately eight years. The extended length of time is a result of finding adequate replacement facilities for the relocation of the Palmdale School District.

### ***Farmland***

The project will convert approximately 252 acres of designated Important Farmland and 2,760 acres of grazing to non-agricultural use, which will become part of the new transportation facility and its right-of-way.

**Summary of Major Potential Impacts From Alternatives**

Potential Impact		No Build Alternative	Freeway/ Expressway Alternative	Freeway/ Tollway alternative	Freeway/Express way alternative with HSR	Freeway/Tollway alternative with HSR
Land Use	Consistency with the City General Plans	No impact.	No impact.	No impact.	No impact.	No impact.
	Consistency with the County General Plans	No impact.	No impact.	No impact.	No impact.	No impact.
Coastal Zone		No impact.	No impact.	No impact.	No impact.	No impact.
Wild and Scenic Rivers		No impact.	No impact.	No impact.	No impact.	No impact.
Parks and Recreation		No impact.	Impact to Westwinds Golf Course and Rockview Nature Park parking facility.	Impact to Westwinds Golf Course and Rockview Nature Park parking facility.	Impact to Westwinds Golf Course and Rockview Nature Park parking facility.	Impact to Westwinds Golf Course and Rockview Nature Park parking facility.
Growth		No impact.	No impact.	No impact.	No impact.	No impact.
Farmland/Timberland		No impact.	252 Acres Important Farmland Impacted			
Community Character and Cohesion		No impact.	No impact.	No impact.	No impact.	No impact.
Utilities/Emergency Services		No impact.	No impact.	No impact.	No impact.	No impact.
Relocations	Housing Displacements	No impact.	No impact.	No impact.	No impact.	No impact.
	Business Displacements	No impact.	No impact.	No impact.	Impact to businesses under Option 1.	Impact to businesses under Option 1.
	Public Facility Displacements	No impact.	Impact to Palmdale School District Facility			
Environmental Justice		No impact.	No impact.	High toll prices may affect low income populations	No impact.	High toll prices may affect low income populations
Traffic and Transportation/ Pedestrian and Bicycle Facilities		No impact.	No impact.	No impact.	No impact.	No impact.



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# Chapter 1 Introduction

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The purpose of this technical report is to evaluate the potential community impacts related to the development of the High Desert Corridor project. This report was prepared in accordance with the California Department of Transportation (Caltrans) Standard Environmental Reference (SER), *Caltrans Environmental Handbook Volume 4 – Community Impact Assessment* dated October 2011.

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

## 1.1 What is a Community Impact Assessment

The purpose of this report is to provide information regarding social, economic, and land use effects of the project so that final transportation decisions will be made in the public's interest. The report is intended to clearly describe the relevant existing conditions and the potential socioeconomic impacts of the project. The report focuses on important topics identified through the "scoping" (preliminary environmental analysis) process.

Both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require consideration of social and economic impacts of projects in the preparation of environmental documents. The CIA is intended to satisfy provisions under both CEQA and NEPA.

## 1.2 Laws and Regulation

The following list of existing laws, either directly or indirectly, require investigation to determine potential impacts to communities from a proposed action:

- CEQA
- NEPA
- Title VI of the Civil Rights Act of 1964
- Executive Order (EO) 12898 - Environmental Justice
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, and as amended in 1987.
- The Americans with Disabilities Act (ADA) of 1990
- The Farmland Protection Policy Act (FPPA)
- The California Land Conservation Act of 1965 (Williamson Act)
- The California Timberland Productivity Act of 1982

- CFR 652 Accommodation for Pedestrians and Bicyclists
- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) incorporates Sections 109(h)
- 128 of Title 23 (Highways) of the United States Code of Federal Regulations (CFR)

### **1.3 Assessment Process and Methodology Used**

The study area for direct impacts is based on the magnitude and scale of the project footprint. As a result of the large scale magnitude of this project, it was determined that a delineated project area consisting of a one-mile buffer (0.5-mile from the centerline) encompassing the entire project corridor would be appropriate for the purposes of the analysis of direct impacts.

Direct impacts as defined by NEPA are those effects caused by the action and occurring at the same time and place. While under CEQA, direct impacts are defined as direct or primary effects that are caused by a project and occur at the same time and place.

Indirect impacts as defined by NEPA are those effects caused by the action and occurring at later in time or farther removed in distance, but still reasonably foreseeable. While under CEQA, indirect impacts are defined as indirect or secondary effects that are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. The study area for indirect impacts was defined through the use of community plans, census tract boundaries, political boundaries, geographical boundaries, and/or other pertinent data sets.

Various datasets were obtained as part of the data collection efforts for the development of the various sections of this report including community cohesion, land use, farmland, etc. The data sources included the U.S. Census Bureau, Southern California Association of Governments (SCAG), local city governments, Los Angeles and San Bernardino Counties, GIS analysis, site visits, windshield surveys, and community input through public meetings.

Demographic information was obtained from the U.S. Census Bureau, in addition to the Southern California Association of Governments (SCAG) *Local Profile Reports 2011*. Other sources of information utilized for the analysis include input from local agencies, GIS mapping, *SCAG Integrated Growth Forecasts for 2020 and 2035*, and field visits to the various communities.

The methodology utilized to assess the degree of cohesiveness within a community includes three indicators; the percentage of household members in the same housing unit, the percent of owner occupied housing units, and the percent of single-family units. The culmination of these three indicators will serve as the “stability index” towards the determination of the

degree of cohesiveness a particular community may possess. The information utilized for the indicators was obtained from the U.S. Census Bureau, which was obtained at the block group and/or census tract level for the various communities within the project area.

Once data was obtained and a community profile was developed for the communities within the project area, county and regional data was used to compare demographics and trends in population characteristics and growth within the area.

Several field visits to the Project site were conducted during the months of October 2011 through January 2012 in which a digital tablet was utilized for the collection of field data. ESRI ArcPad, a mobile field mapping and data collection software, was utilized to survey structures and community resources within the right-of-way limits of the proposed alignment. The data collected provided verification of existing conditions, and certain land use designations. Information regarding a total of 221 resources and/or structures was collected for the entire project.

Community input was obtained through various public meetings conducted throughout the duration of the project approval and environmental document phase for the Project. Through community input, certain project alternatives were refined in order to avoid impacts to the community and the surrounding area.

The study area included communities within the cities of Palmdale, Adelanto, Victorville, Apple Valley, and unincorporated areas within Los Angeles and San Bernardino County.

## **1.4 Project**

The California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro), proposes construction of the High Desert Corridor (HDC) as a new transportation facility in the High Desert region of Los Angeles and San Bernardino counties. The proposed 63-mile-long west-east facility would provide route continuity and relieve traffic congestion between State Route (SR) 18 and United States Highway 395 (US 395) in San Bernardino County with SR-14 in Los Angeles County. The project would comprise of one or more of the following major components, including highway, tollway, rail transit, bikeway, and recommendation for green energy facilities. Figures 1-1 and 1-2 are project vicinity and location maps, respectively.

Figure 1-1 – Project Vicinity Map

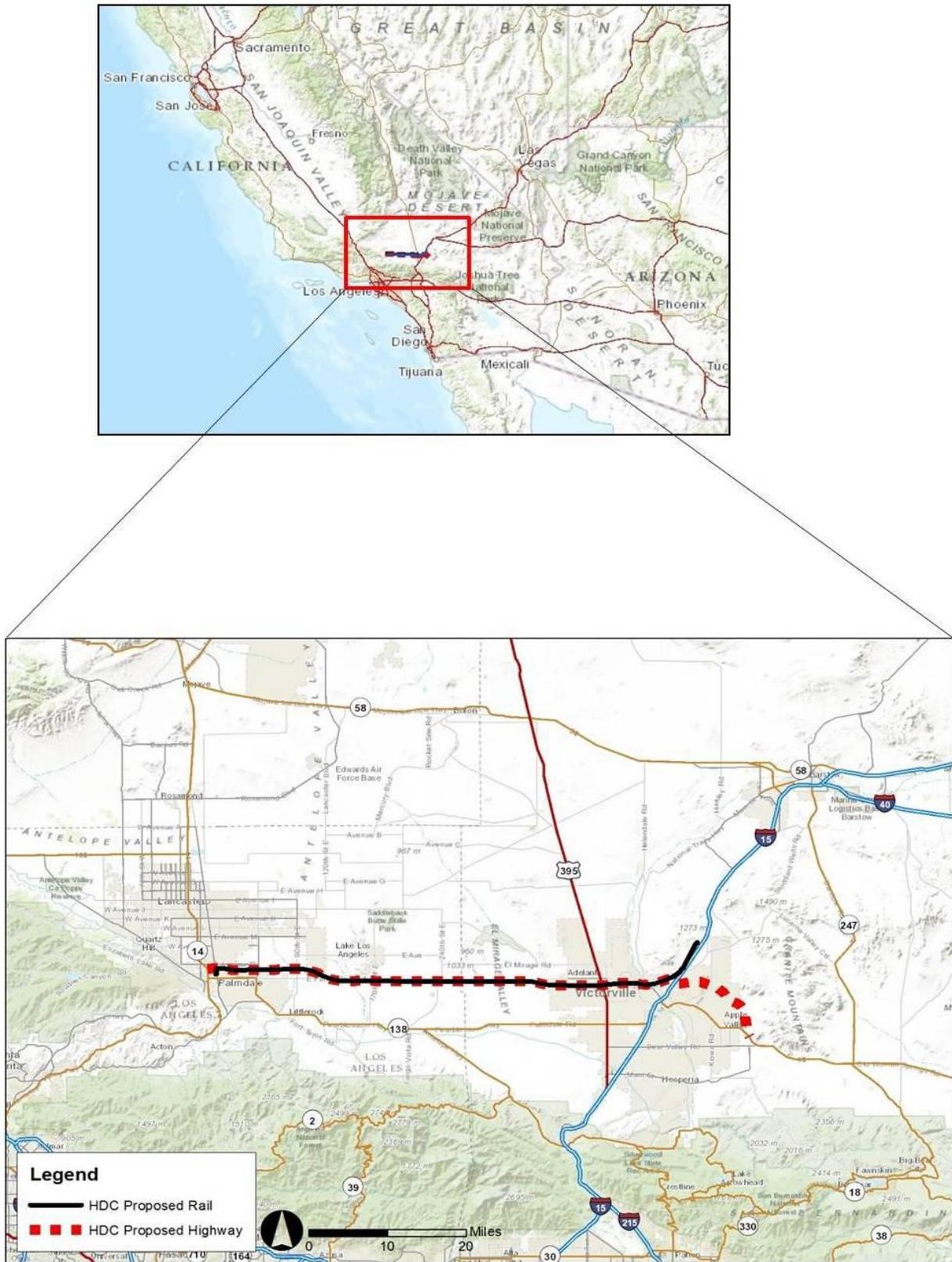
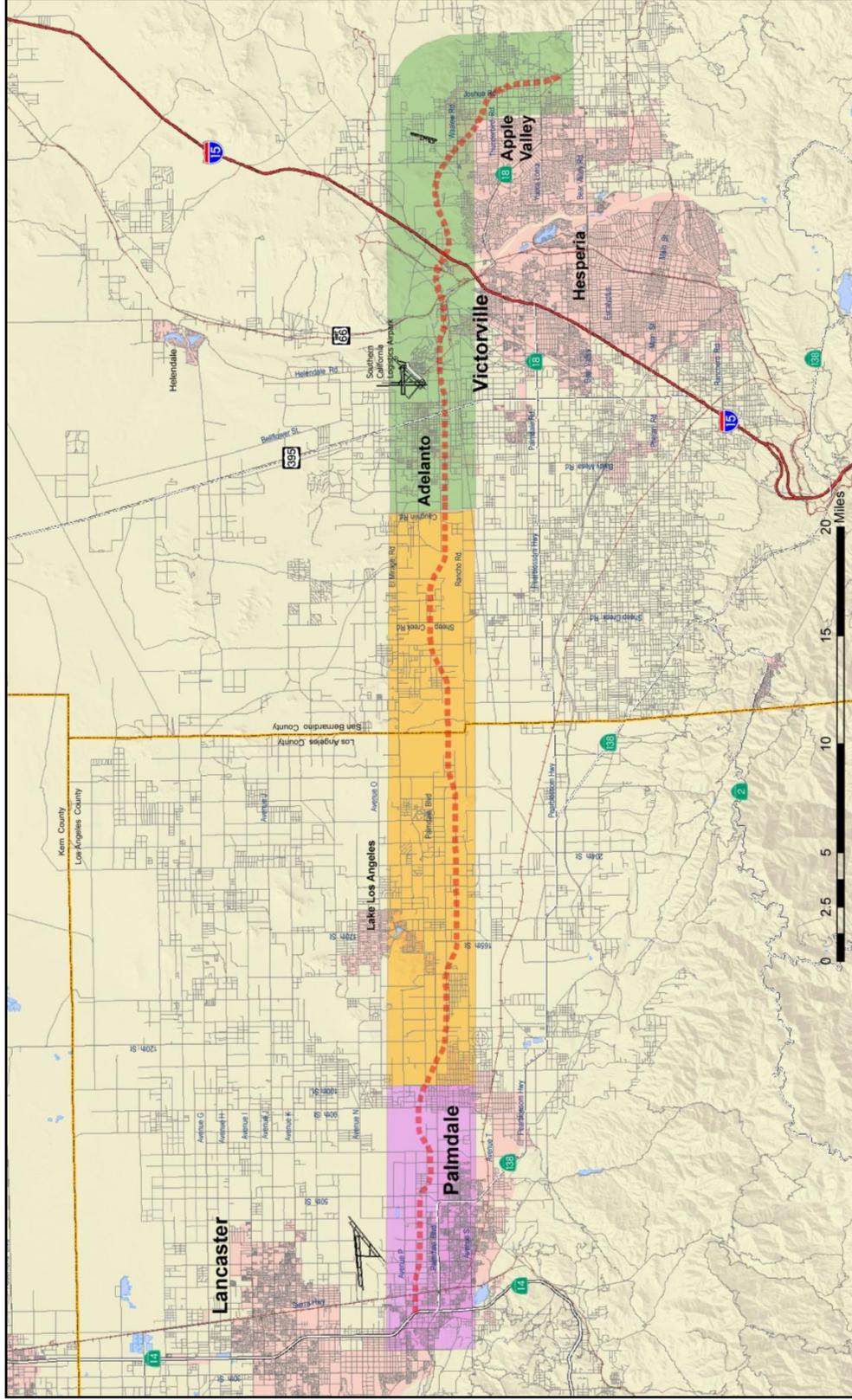


Figure 1-2 Project Location Map



<p><b>ANTELOPE VALLEY</b> Los Angeles County Lancaster, Palmdale</p>	<p><b>HIGH DESERT</b> Los Angeles County–San Bernardino County Lake Los Angeles, El Mirage</p>	<p><b>VICTOR VALLEY</b> San Bernardino County Adelanto, Victorville, Apple Valley, Hesperia</p>
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### 1.4.1 Purpose and Need

The purpose of the proposed action is to improve west-east mobility through the High Desert region of southern California by addressing present and future travel demand and mobility needs within the Antelope and Victor valleys. The proposed action is intended to achieve the following objectives:

- Increase capacity of west-east transportation facilities to accommodate existing and future transportation demand
- Improve travel safety and reliability within the High Desert region
- Improve the regional goods movement network
- Provide improved access and connectivity to regional transportation facilities, including airports and existing and future passenger rail systems, which include the proposed California HSR system and the proposed XpressWest HSR system
- Contribute to state greenhouse gas (GHG) reduction goals through the use of green energy features

The specific needs to be addressed by the proposed action include:

- Recent and future planned population growth within the High Desert region
- Limited and unreliable west-east connectivity within the High Desert region
- Regional demands for goods movement to support the growth of the regional economy
- Future demands for the use of green energy, including sustainability and green energy provisions in state law and policy

### 1.4.2 Project Description

Several project alternatives and design variations have been considered and evaluated. A No Build Alternative and four build alternatives were selected for detailed evaluation in the Draft Environmental Impact Report/Environmental Impact Statement.

#### 1.4.2.1 No Build Alternative

Under the No Build alternative, no new transportation infrastructure would be built within the project area to connect Los Angeles and San Bernardino Counties aside from existing SR-138 safety corridor improvements in Los Angeles County and SR-18 corridor improvements in San Bernardino County. Traffic circulation and congestion currently experienced on Palmdale Boulevard, Air Expressway, and Happy Trails Highway (existing SR-18) would remain. The no action alternative functions as a baseline to compare against all of the proposed build alternatives.

### **1.4.2.2 Freeway/Expressway Alternative**

This alternative would consist of a combination of a controlled-access freeway and an expressway. It generally would follow Avenue P-8 in Los Angeles County and just south of El Mirage Road in San Bernardino County. This alternative then extends east to Air Expressway Road near I-15 and curves south, terminating at Bear Valley Road. The incorporation of green energy technologies and a bike path along segments of the alternative would also be considered.

Four physical alignment variations are being considered, including:

- Variation A: Near Palmdale, the freeway/expressway would dip slightly south of the main alignment, approximately between 15<sup>th</sup> Street East and Little Rock Wash.
- Variation B: East of the county line, the freeway/expressway would flare out slightly south of the main alignment between Oasis Road and Coughlin Road.
  - Variation B1 would be at the same location, but it would flare out a little less and pass through the Krey airfield.
- Variation D: Near the community of Lake Los Angeles, the freeway/expressway would dip slightly south of the main alignment, just south of Avenue R approximately between 180<sup>th</sup> Street East and 230<sup>th</sup> Street East.
- Variation E: Near Adelanto and Victorville, the freeway/expressway would dip south of the federal prison.

### **1.4.2.3 Freeway/Tollway Alternative**

This alternative would follow the same physical alignment as the Freeway/Expressway Alternative (including Variations A, B, D, and E), but it would have a section between 100<sup>th</sup> Street East and US 395 operate as a tollway. The Central Segment would consist of a toll facility, and motorists who choose not to use this segment of the HDC would have the option to exit and use local west-east parallel roads adjacent to the HDC and reenter the freeway segments from either 90<sup>th</sup> Street East in Palmdale or US 395 in Adelanto. Each toll lane would be 12 feet wide. Details of this operating feature are being evaluated as part of an ongoing P3 analysis. Bicycle facility and green energy components would be incorporated into the design features of this

### **1.4.2.4 Freeway/Expressway Alternative with High-Speed Rail**

This alternative would be the same route as the Freeway/Expressway Alternative except that it would also include an HSR Feeder/Connector Service between the cities of Palmdale and Victorville. Variations A, B, D, and E were considered, but Variation A was later determined to

be not a viable variation for the alternatives with HSR due to some geometric constraint. The HSR Feeder/Connector Service would utilize proven steel wheel-on-steel track technology and with an operating speed of 125 mph. Additional elements would include bikeways and green energy facilities as described under the Freeway/Expressway Alternative.

The HSR component of the HDC would operate as a new west to east passenger rail corridor from the existing Metrolink station in Palmdale (Antelope Valley) to Victorville (Victor Valley). This service could also conveniently allow rail passengers to continue on to Las Vegas without having to change trains at Victorville (a one-seat ride). It would fill a gap by providing a crucial missing interregional link between two major rail infrastructure investments currently in the planning stages for southern California, the California HSR and the XpressWest, formerly known as Desert Xpress.

The HSR Feeder would be built within the HDC right-of-way (ROW). The area needed for this rail facility would be approximately 160 feet wide to accommodate the tracks and associated structures. While 100 feet of ROW is the typical required width for two HSR tracks, 160 feet of ROW is proposed to allow for potential future expansion where additional tracks may be needed for sidings. The rail alignment would primarily run in the median of the HDC freeway. Certain areas would require additional ROW to allow the train to negotiate curves and reach the train station. A 52-foot buffer would be kept from the edge of the freeway to the railway travel path for safety and maintenance access.

### **Palmdale Rail Connection**

For the Palmdale rail connection, two rail connection approaches are proposed for connecting the HDC to the California HSR network, Options 1 and 7. Both options allow for eastbound and westbound tracks on the HDC to connect to the California HSR network northbound and southbound tracks by using a combination of aerial and cut-and-cover or tunneling structures.

#### *Rail Option 1*

Option 1 would shift the existing Palmdale Transportation Center south approximately 800 feet and would require a cut-and-cover box and mined tunnels configuration. This option would encroach into the Air Force Plant 42 parking lot associated with the Palmdale Airport. The alignment would also cross under commercial development at Rancho Vista Boulevard and 15<sup>th</sup> Street East. This option would diverge outside of the HDC median and would require only two rail tracks to cross under the HDC westbound lanes, reducing the ROW needed for the HDC.

- **Variation A:** This variation would place the HDC and Metrolink station platforms on the west side of Sierra Highway inside the Union Pacific Railroad (UPRR) ROW. The HDC platforms would be approximately 20 feet in width and 1,400 feet in length. The Metrolink platforms would be approximately 50 feet in width and 500 feet in length. The HDC platforms would extend from Transportation Drive to about 700 feet north of Avenue Q. Station area parking is proposed at the terminus of 6<sup>th</sup> Street (UPRR/Sierra Highway) and would provide 6,200 surface parking spaces. The existing Palmdale Transportation Center would be shifted approximately 800 feet south of its current location.
- **Variation B:** This variation is the same as Variation A with the following exceptions: (1) HDC station platforms would extend from just north of Avenue Q and immediately north of Avenue Q3; and (2) this option would not affect the location of the existing Palmdale Transportation Center.
- **Variation C:** This option would place the HDC and Metrolink station platforms on the west side of Clock Tower Plaza East and outside of the UPRR ROW. The HDC platforms would extend from East Avenue Q to East Avenue Q4. Station area parking is proposed at the terminus of 6<sup>th</sup> Street (UPRR/Sierra Highway) and would provide 6,200 parking spaces (via an above-grade structure). This option would not affect the location of the existing Palmdale Transportation Center.

### Rail Option 7

Option 7 would require a mix of aerial structures and tunneling, and it would allow the Palmdale Transportation Center to remain at its current location. This option would encroach into a small residential area near 10<sup>th</sup> Street East and would require a four-track section within the HDC median, necessitating a larger ROW section for the HDC in this area.

As part of the design refinement, the California High-Speed Rail Authority has proposed the modification to the “wye” (track splits) connections associated with HDC Rail Options 1 and 7, and parking associated with each of the three proposed variations as outlined above. Station location variations A, B, and C are the same for Rail Options 1 and 7, although the “wye” connections differ, as well as the corresponding details on location and tunnel/aerial configurations.

### **Victorville Rail Connection**

Caltrans has evaluated several rail connection approaches for connecting the HDC HSR Feeder/Connector track alignment to the XpressWest rail network at Victorville. Two alignment options are being evaluated. The proposed HDC rail tracks would connect to the southernmost limits of

the XpressWest Victorville Station tracks. The Victorville XpressWest station, including the station footprint, would not be part of the HDC Project. Both options would allow eastbound and westbound travel by using a combination of culverts and bridges, as well as fill material.

### ExpressWest Rail Main Alignment

Express West Rail Main Alignment (previously termed Northern Alignment Option 1) would cross over the Mojave River and Quarry Road and gradually curve northeast until it crosses the Variation E Option at Walton Drive. This option diverges outside of the HDC median in a trench and requires only two rail tracks to pass under the HDC westbound travel lanes, HDC on-ramp, and Mojave Railroad, where the connector tracks would be constructed on fill material to connect to the southernmost limit of the XpressWest tracks. This option would encroach into three Bureau of Land Management (BLM) parcels. The alignment lies within an area currently identified as a mix of commercial, transportation, open space, and passive open space under the Desert Gateway Specific Plan for the City of Victorville.

### ExpressWest Rail Variation E

The ExpressWest Rail Variation E Alignment Option (previously termed Variation E Alignment Option) spurs off the HDC alignment at East El Evado Road in a northeasterly direction at approximately 0.5 mile south of the ExpressWest Rail Main Alignment by traversing the Mojave River and crossing the ExpressWest Rail Main Alignment at Walton Drive. This option diverges outside of the HDC median and would require only two rail tracks to cross under the HDC westbound and eastbound lanes, and it would be connected to the southernmost limit of the XpressWest tracks. This option would encroach into two BLM parcels and would affect about 10 single-family homes. Under the Desert Gateway Specific Plan, this alignment would lie within an area currently identified as a mix of commercial, transportation, open space, and passive open space.

### Freeway/Tollway Alternative with High-Speed Rail

This alternative would follow the same route as the Freeway/Expressway Alternative (including Variations B, D, and E) except that it would also include an HSR Feeder/Connector Service between the cities of Palmdale and Victorville. The Palmdale Rail Options 1 and 7 and variations A, B, and C, as well as ExpressWest Rail Main Alignment and Variation E are also included under this alternative. Similar to the Freeway/Tollway Alternative, the bicycle facility and green energy components would be incorporated into the design features of this alternative.

# Chapter 2 Land Use

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## 2.1 Existing and Future Land Use

Local municipal general plans provided the framework for land use within a given area. In addition, general plans provided a roadmap for where future growth and location of development through land use designations, goals/policies, and land use/zoning maps.

The general plans reviewed for the project include *City of Palmdale General Plan* (1993), *City of Adelanto General Plan* (1994), *City of Victorville General Plan 2030* (2008), *Town of Apple Valley General Plan* (2009), *Preliminary Draft Antelope Valley Area Plan* (2011), and *the County of San Bernardino 2007 General Plan* (2007). Specific plans review include *the Desert Gateway Specific Plan* (2009). Additional resources include, land use maps, GIS maps, and consultation with local municipalities.

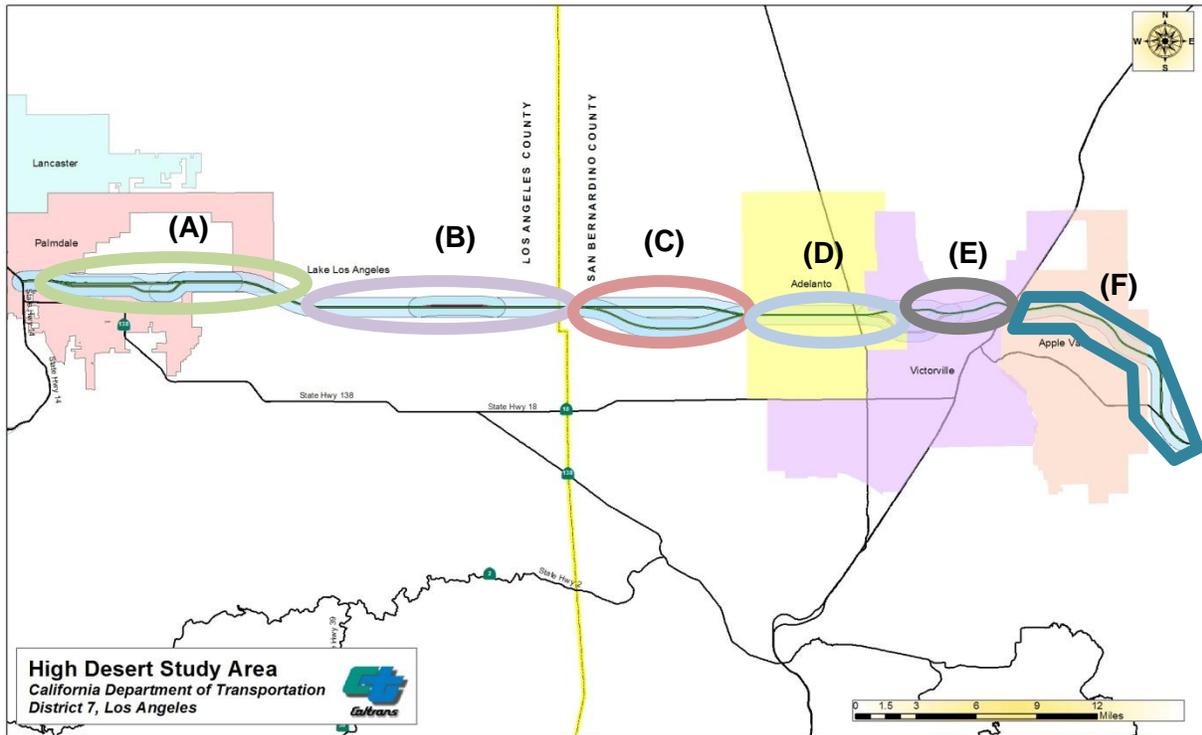
### 2.1.1 Affected Environment

Due to the length of the Project, the study area for the affected environment will be divided into sections based on jurisdictional boundaries. The jurisdictions include the City of Palmdale, Unincorporated Los Angeles County, Unincorporated San Bernardino County, the City of Adelanto, the City of Victorville, and the Town of Apple Valley. The study area will be delineated by each jurisdiction beginning at the western end of the alignment moving east towards San Bernardino County. **Table 2.1.1.A**, provides a list of the study areas.

**Table 2.1.1.A – Sections of the Study Areas**

Land Study Areas by Jurisdiction		
(A) = Palmdale Study Area	(B) = Unincorporated Los Angeles County Study Area	(C) = Unincorporated San Bernardino County Study Area
(D) = Adelanto Study Area	(E) = Victorville Study Area	(F) = Apple Valley Study Area

**Figure 2.1.1.A - Land Use Section of the Study Areas Map**



## RURAL AND URBAN LAND USE

The U.S. Census Bureau classifies all land in the United States as either urban or rural land. According to the U.S. Census Bureau, urban areas consist of two types: urban clusters and urbanized areas. An urban cluster is defined as a densely settled territory that has at least 2,500 people but fewer than 50,000 people. An urbanized area is defined as an area consisting of a central place or central places and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of 50,000 people. Rural areas are all territory, population, and housing units not classified as urban.

Based on U.S. Census Bureau definition of urban and rural land, the cities of Palmdale and Victorville can be classified as urbanized areas since both cities have a population above 50,000 and a population density above 1,000 people per square mile, as shown under **Table 2.1.1.B**. The Town of Apple Valley and City of Adelanto can be classified as “urban clusters” since both municipalities do not meet the criteria of an urbanized area, but both are densely populated with population levels above 2,500. The remaining unincorporated areas within Los Angeles and San Bernardino County can be classified as rural since it does not fit the criteria as an urbanized area and/or urban cluster.

**Table 2.1.1.B - Urban Land Classification**

Jurisdiction	Population	Area (sq. mi.)	Population Density	Classification
Palmdale	152,750	106.26	1,438.1/sq mi.	Urbanized Area
Adelanto	31,765	56.009	567.14/sq. mi.	Urbanized Cluster
Victorville	115,903	73.178	1,583.9/sq. mi.	Urbanized Area
Apple Valley	69,135	73.193	944.6/sq. mi.	Urbanized Cluster

Source: U.S. Census Bureau

## **PALMDALE**

Vacant land accounts for 79.5 percent of the total 111,528 acres of land in Palmdale, while the U.S. Air Force Plant 42 occupies about 5 percent of the land. Residential and industrial land uses account for 11.7 and 1.7 percents, respectively.

According to the Land Use Element of the *City of Palmdale General Plan*, (1993), Palmdale’s planning area as defined in the general plan extends east to 120th Street East and towards the south, the boundaries traverse along Avenue W (Angeles National Forest) east of SR-14 and follow an irregular boundary along the Sierra Pelona ridgeline. The City of Palmdale General Plan is dated circa 1993, however at the time of the analysis this was the most recent source available at the time, as of such field visits were conducted to verify existing land uses and development. To the west, the boundary extends out to 90<sup>th</sup> Street West and to the north, it extends to Avenues M and L. The city’s downtown area is east from SR-14 and runs along Palmdale Boulevard.

As the most southerly community within the Antelope Valley, Palmdale’s location serves as a major transportation node due to its direct accessibility to SR-14 and SR-138. It is in close proximity to the Palmdale Metrolink Rail Station and Palmdale Regional Airport. The planning area contains roughly 11 miles of freeway frontage along SR-14, in which a large percentage of the land is undeveloped, thus allowing for potential future development within the area. In addition to the freeway frontage, the planning area includes 17,750 acres designated to the Palmdale Regional Airport – owned and operated by the Los Angeles World Airports, an agency of the City of Los Angeles. However, the transfer of the operations of the airport may be transferred to the City of Palmdale ([www.dailybreeze.com](http://www.dailybreeze.com))

According to the Land Use Element of the *City of Palmdale General Plan*, land use categories within the planning area include rural residential, single-family residential, multi-family residential, mobile home, commercial, industrial, public facility, United States Air Force Plant 42 (USAF Plant 42), agriculture, parks/open space, and vacant. Major land use categories include vacant, single-family residential, United States Air Force (USAF) Plant

42, industrial, and rural residential. Vacant land includes land that is currently undeveloped in which future land use designations may be altered dependent on future growth within the city. **Table 2.1.1.C** provides an allocation of existing land uses within Palmdale.

**Table 2.1.1.C – Land Use in Palmdale**

Existing Land Use	Acres	Percentage
Rural Residential (less than 1 du/ac)	1,342	1.2%
Single-Family Residential (1-6 du/ac)	10,841	9.7%
Multi-Family Residential (7-35 du/ac)	717	0.6%
Mobile home (7-18 du/ac)	244	0.2%
Commercial	529	0.5%
Industrial	1,842	1.7%
Public Facility	494	0.4%
United States Air Force Plant 42	5,470	4.9%
Agriculture	741	0.4%
Parks and Open Space	677	0.6%
Vacant	88,630	79.5%
Total	111,527	100.0 %

*Source: City of Palmdale General Plan, 1993*

The majority of the city’s manufacturing and industrial plants are densely located within the northeast part of the city, which also includes the Palmdale Regional Airport and airport related uses. Within Downtown Palmdale and along Palmdale Boulevard, land use designations include public facilities, downtown commercial, and medium residential. The Palmdale City Hall and retailers such as Palmdale Honda, Vallarta Supermarkets, and AutoZone are all located along the Palmdale Boulevard corridor.

Towards the west of the city, primary land uses include residential and specific plan designations. To the south, major land uses include single-family residential designations located south of Downtown Palmdale and west of State Route 14.

Palmdale Study Area (A)

The total land area within the Palmdale study area is approximately 12.77 square miles or 18 percent of the total area for the entire Project study area. Planned land uses as allocated within the Palmdale study area, as shown in **Figure 2.1.1.C**, include industrial, business park, airport, low-density residential, regional commercial, office commercial, community commercial, single-family residential, public facility, commercial manufacturing, open space, and specific plan designations. Based on field reviews, major land uses within the study area include a mixture between industrial, business park, airport, and low-density residential uses.

Along the western portion of the study area there is a mixture of industrial and commercial uses, which includes three major regional retail centers and an auto center. Retailers include Wal-Mart, Home Depot, Best Buy, Target and K-Mart. Also, located within the western end of the study area is the Palmdale Transit Village in which according to the, *Palmdale Transit Village Specific Plan*, calls for the implementation of transit-oriented development (TOD), and the development of a transit center located north of Avenue Q and west of Sierra Highway. The area land in the center of the study area is largely undeveloped and/or vacant. The majority of the project alignment is within the undeveloped land currently owned by the Los Angeles World Airports (LAWA). Land use within the eastern end of the study area primarily includes industrial and low-density residential use.

Land use in the area of the High Speed Rail Connector Options 1 and 7, as shown in **Figures 2.1.1.D – 2.1.1.F** include airport, public facility, industrial commercial manufacturing, business park, medium residential, open space, community commercial and specific plan designations. Airport and public facility land uses are located towards the eastern end of the study area, while industrial and business park land uses are more centralized located along Sierra Highway and Technology Drive. Commercial and residential uses within the study area are less dominant and are spread out along Sierra Highway. West Palmdale, which includes land to the west of SR 14, primarily includes single-family residential, low-density residential land uses. West Palmdale also includes open space land uses and mountainous terrain, including Ritter Ranch Park. The Ritter Ranch Specific Plan governs the development of Ritter Ranch. The plan's objectives are to develop the area as a mixed use project incorporating residential, open space, public facility, recreational, school, and commercial land uses. In addition, the census designated place of Desert View Highlands is geographically located within West Palmdale; however, it is not considered to be part of the City of Palmdale.

### Palmdale Rail Station Study Area

According to the Land Use Element of the *City of Palmdale General Plan*, as well as the *Palmdale Transit Village Specific Plan*, land use categories within the study area include business park, commercial manufacturing, community commercial, downtown commercial, industrial, other jurisdiction (Los Angeles County), public facility, and specific plan. However, a large portion of the study area is comprised of industrial and business park land uses, although many of these lots are currently vacant. **Table 2.1.1.D** provides an allocation of general plan land uses within the southern Palmdale rail station study area. The total land area within the southern Palmdale rail station study area is approximately 1.53 square miles, or 981.77 acres.

**Table 2.1.1.D – Existing General Plan Land Use in Southern Palmdale Rail Station Study Area**

Existing Land Use	Acres	Percentage
Business Park	154.71	27.8%
Commercial Manufacturing	14.79	2.7%
Community Commercial	5.89	1.1%
Industrial	304.71	54.7%
Other Jurisdiction	50.63	9.1%
Public Facility	19.00	3.4%
Specific Plan	7.25	1.3%
Total	556.98	100.00%

Source: City of Palmdale General Plan, 1993

The majority of the commercial manufacturing and industrial land uses are densely located within the northern portion of the study area. Towards the west of the study area, primary land uses include Business Park, commercial manufacturing, community commercial, and specific plan designations. To the south, major land uses include commercial manufacturing, community commercial, and public facility designations located north of East Palmdale Boulevard and east of State Route 14. To the north of the study area there is undeveloped land currently owned by the Los Angeles World Airports (LAWA), which is designated for industrial use according to the City of Palmdale general plan.

The western portion of the study area has a mixture of industrial and commercial uses, which includes one community retail center, *Plaza Del Centro*. Also, located within the central portion of the study area is *The Palmdale Transit Village Specific Plan* planning area, whose specific plan calls for the implementation of transit-oriented development (TOD), which includes the development of a transit center located north of Avenue Q and west of Sierra Highway. The land in the northern half of the study area is largely underdeveloped or vacant, and is located north of the proposed HDC alignment. Land use in the eastern portion of the study area primarily includes industrial, other jurisdiction (Los Angeles County), and public facility uses.

General plan land use in the area of Rail Options 1 and 7 (Wye Connection) primarily includes industrial and business park uses, as designated in the City of Palmdale's general plan., Airport and public facility land uses are located towards the north of the study area, but are beyond the study area limits. In the area of the proposed Wye Connection, industrial and business park land uses are centralized along Sierra Highway, Technology Drive, and Rancho Vista Boulevard. Commercial and residential uses within the study area are less dominant near the proposed Wye Connection, and are spread out along Sierra Highway, mainly in the southern portion of the study area. There are several residences throughout the study area which are located on parcels that are designated with a general plan land use of Industrial or Business Park. As such, no

general plan residential land use was observed within the design variation study area. Although commercial uses are not dominant near the rail connection under both rail options, commercial uses in the vicinity consist of one commercial retail center located at the southwest corner of Sierra Highway and Rancho Vista Boulevard.

General plan land use designations indicate that the land adjacent to the proposed Wye Connection track split is designated for Industrial and Business Park uses. A majority of this land is currently vacant or undeveloped. This area mainly includes the land between Sierra Highway to the west and 10<sup>th</sup> Street East to the east, and Technology Drive to the south and Blackbird Drive to the north. Although a majority of the land in this vicinity is undeveloped, there are existing light manufacturing uses along Rancho Vista Boulevard, between Sierra Highway and 8th Street East, and from 12<sup>th</sup> Street East to 15<sup>th</sup> Street East. According to general plan land use designations, these areas are currently designated as Industrial.

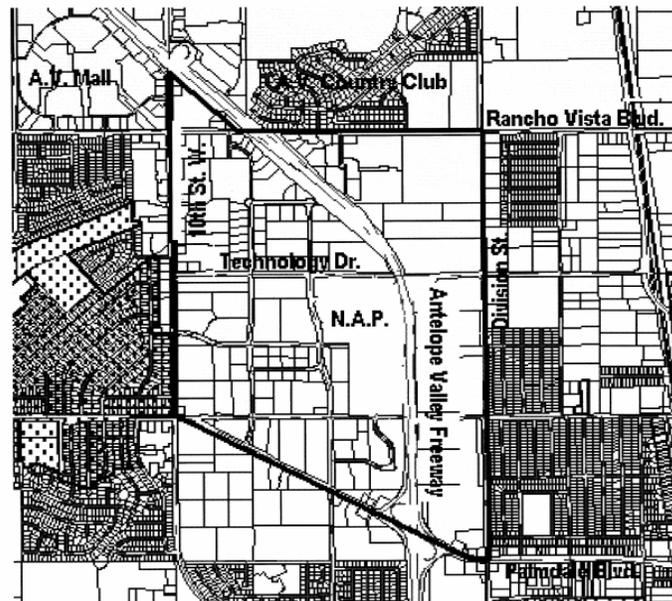
### City of Palmdale Development Plans

According to the Los Angeles County *Draft Preliminary Antelope Valley Area Plan* (2011), land use policies have been developed in order to address the potential of future growth within the Antelope Valley area. Based on the land use policies, the County has called for the redirection of future growth to occur within the cities of Palmdale and Lancaster.

The *Palmdale Trade and Commerce Center Specific Plan*, adopted by the city of Palmdale on May 24, 1990 and amended on August 24, 2010, outlines goals and policies to create a diversified employment center within center of Palmdale. The purpose of the specific plan is to attract job growth within the community and make use of the local diversified workforce within Palmdale and its surrounding community. The specific plan proposes to achieve its goals by including land use designations such as Mixed Use (MU), Mixed Use- Air Installation Compatible Use Zone (AICUZ) Restricted, Planned Development (PD), and Public Facilities (PF). Such land use designations would allow for the development of a wide range of commercial, office, public administration, and light manufacturing jobs. The Palmdale Trade and Commerce Center, as shown in **Figure 2.1.1.B**, is located along SR-14 and is between Rancho Vista Boulevard and Technology Drive. The Palmdale Trade and Commerce Center is within close proximity of the Project area.

Future land use trends and development may be further influenced by the *City of Palmdale Strategic Plan - 2008-2013*. Based on the Strategic Plan, the City of Palmdale has provided a framework that outlines the actions it will take in order to address community needs and objectives. The local communities expressed concerns over future housing, economic growth,

Figure 2.1.1.B – Palmdale Trade and Commerce Center Map



and job creation within the city. According to action item ED.1.6, the city proposes to further maintain Enterprise and Foreign Trade Zones in order to promote businesses relocation to the city center. As defined by the city, properties located within Enterprise and Foreign Trade Zones allow international traders opportunities to take advantage of the amenities provided by the city towards conducting commerce. In addition, to providing financial incentives to relocate to Palmdale, trends towards the future development or relocation of businesses within such zones may occur. In addition, Action item ED.4.3 proposes to complete the construction of a conference center within the City as a way to facilitate further commercial and retail development within the vicinity. In addition, the city provides financial incentives for businesses in order to relocate to such zones within the City of Palmdale.

Also according to the *City of Palmdale Strategic Plan (2008-2013)*, another concern brought forth by the community was the issue of suitable housing for the aging senior population within the city. With the baby boomer generation closely reaching retirement, accommodations such as senior housing are a concern. Through action items S.2.1 and S.2.2, the city has put forth measures towards the proposed future development of senior housing, which includes the construction of a “multifamily rental senior apartment development”. Also under action item S.1.1, the City proposes to review the general plan and zoning ordinance for existing policies, programs, and regulations in order to promote the development of senior housing and to propose amendments if needed. **Table 2.1.1.E** provides a list of current and future development projects within the City of Palmdale.

**Table 2.1.1.E – City of Palmdale Current and Future Development Trends**

<b>Name</b>	<b>Location</b>	<b>Proposed Uses</b>	<b>Status</b>
Commercial Office/Retail Development - 30 <sup>th</sup> Street	30 <sup>th</sup> Street, Palmdale	Development of a 198,435 square feet commercial office and retail center. Located on the Westside of 30 <sup>th</sup> Street.	Completed
Subdivision Tract -	Ave S-8 and 40 <sup>th</sup> Street, Palmdale	Subdivide 9.48 acres into 31 single-family lots including a detention basin. Located on the southeast corner of the intersection.	Completed
Subdivision Tract	Town Center Drive, Palmdale	Subdivide 37.84 acres into 97 single-family lots including 2 detention basins. Located 500 feet south of Town Center Drive.	Approved
Subdivision Tract	70 <sup>th</sup> Street and Avenue M-8, Palmdale	Subdivide 75 acres into 151 single-family residential lots. Located at the northwest corner of the intersection.	Approved
Medical/Retail Use Development	City of Palmdale	Develop 2.32 acres into a medical/retail use consisting of one building totaling 29,922 square feet	Approved
Transit Village Townhomes	Ave Q and 3 <sup>rd</sup> Street east, Palmdale	Development of 156 apartment units and 121 townhomes. Located at on the north side of the intersection.	Approved
Hotel Development	Ave P-4 and Trade Center Drive, Palmdale	Time extension for previously approved development of a 123 unit, 78,972 square foot hotel. Located at the intersection.	Approved
Subdivision Tract	City of Palmdale	Proposal for time extension for previously approved tract subdividing 19.84 acres into 75 single-family lots including 2 detention basins.	Planned
Commercial Retail Building and Carwash	Lowes Drive and Rancho Vista Blvd., Palmdale	Proposal to construct 5 commercial retail buildings and a carwash on 4.9 acres.	Planned
Subdivision Tract	25 <sup>th</sup> Street and Ave Q-12, Palmdale	Proposal to subdivide 6.22 acres into 16 single-family units. Located at the intersection.	Planned
Commercial Retail Development	Rancho Vista Blvd. and Town Center Drive, Palmdale	Proposal to develop four commercial/retail buildings on 9.6 acres totaling 70,801 square feet. Located at the intersection.	Planned
Assisted Living Facility	Rancho Vista Blvd. and Avenida Vista Verde, Palmdale	Proposal for a two year time extension for a previously approved assisted living facility. Located at the intersection.	Planned
Grocery Store	440 E. Palmdale Blvd., Palmdale	Proposal for the development of a full service grocery store totaling 45,000 square feet on 8.48 acres.	Planned
Courson Connection Senior Apartments -Multifamily Rental Senior Apartment Development	East of 10 <sup>th</sup> Street, Palmdale	Consists of the development of 75 units for very low-income senior citizen households.	Planned
Project No. 607 - City of Palmdale Conference Center	City of Palmdale	Proposal to develop a 65,000 square foot conference center with multi-purpose state of the art facilities.	Planned
Subdivision Tract	Rancho Vista Boulevard at Delson Drive, Palmdale	An application to subdivide 37.84 acres into 99 single-family residential lots, including two detention basins, located on the south side of the intersection.	Planned

Source: CEQAnet Database Query, City of Palmdale Development Summary

Figure 2.1.1.C – Palmdale Land Use Map

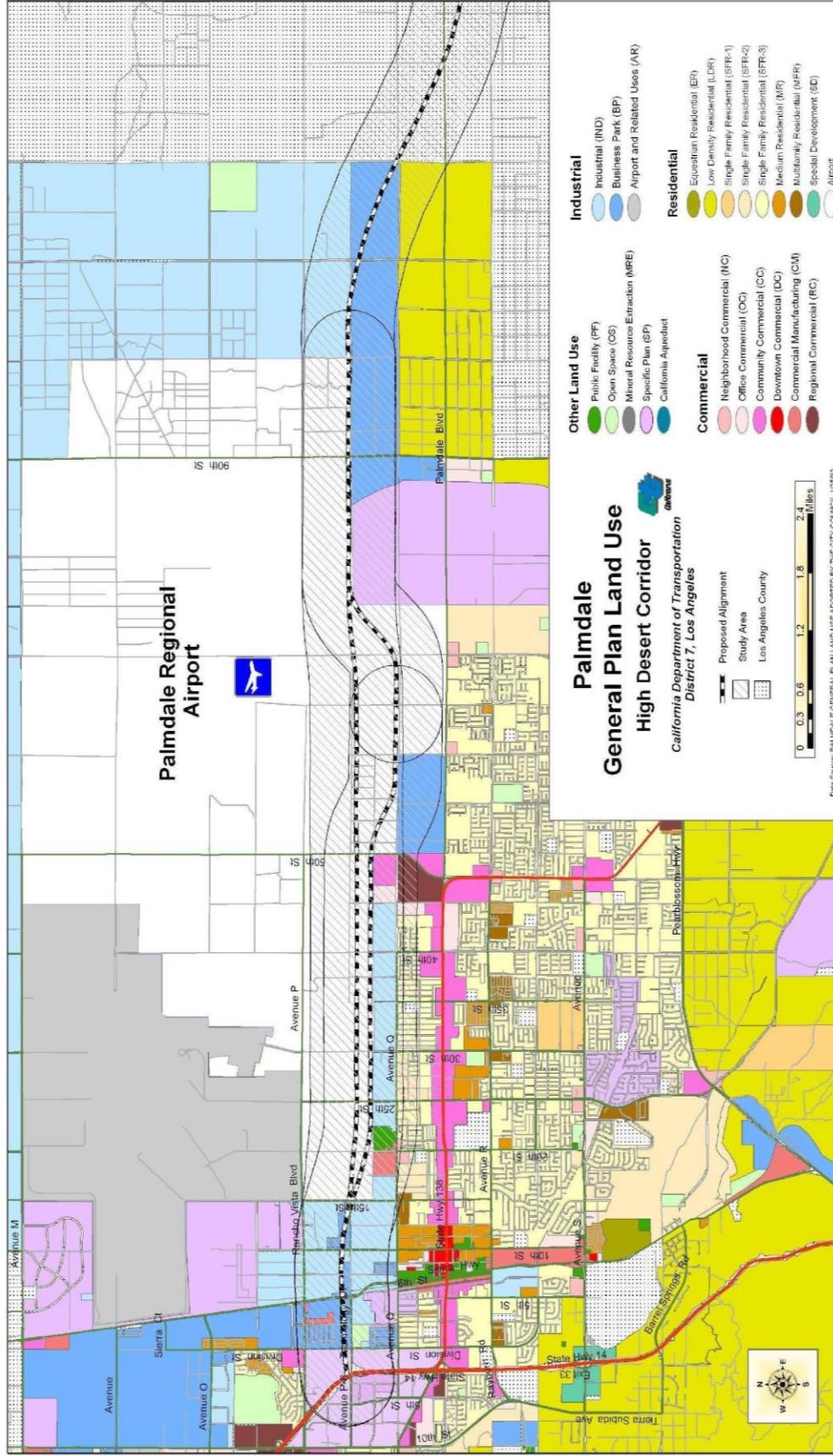


Figure 2.1.1.D – Palmdale Land Use High Speed Rail Option 2 Map

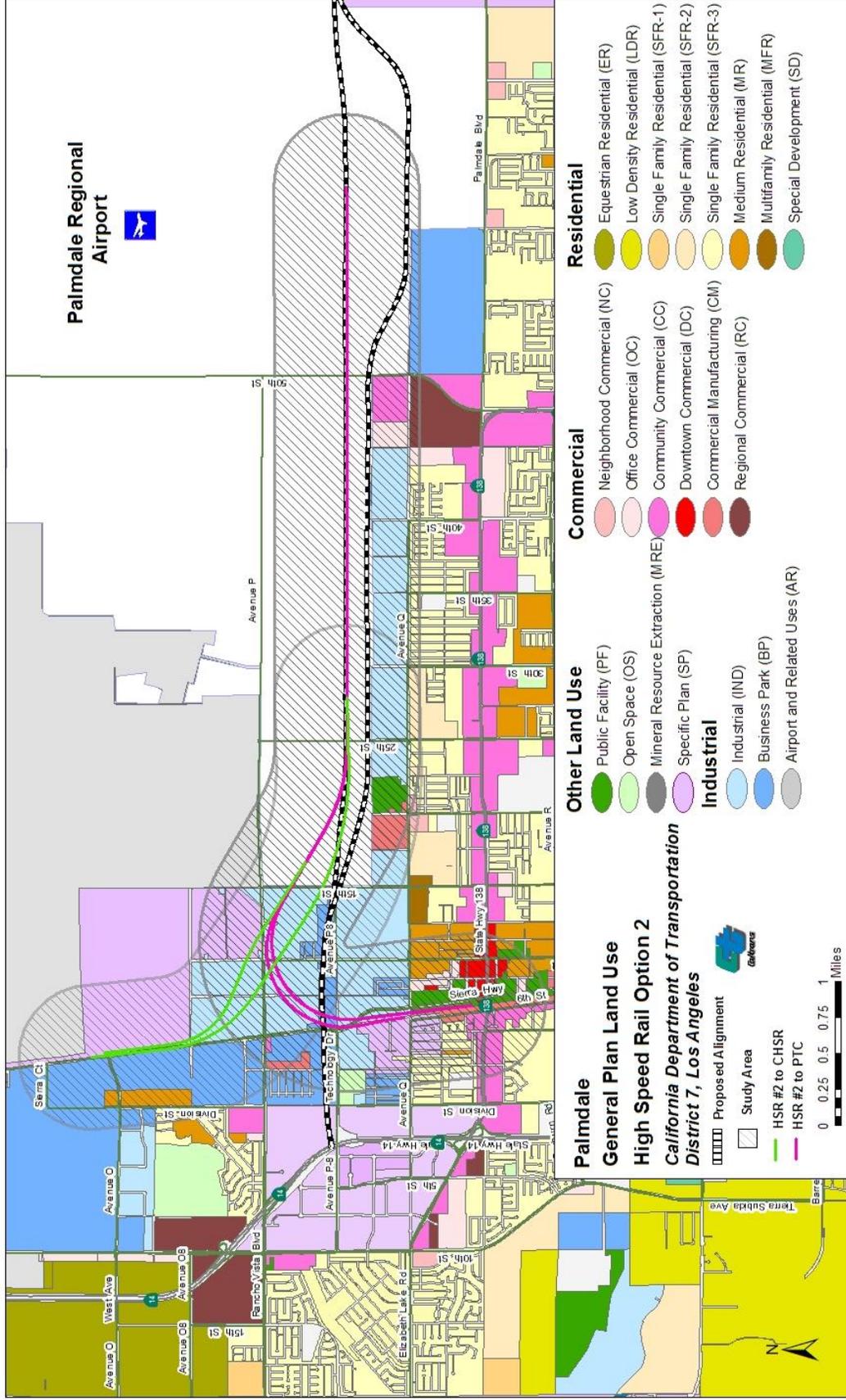


Figure 2.1.1.E – Palmdale Land Use High Speed Rail Option 1 Map

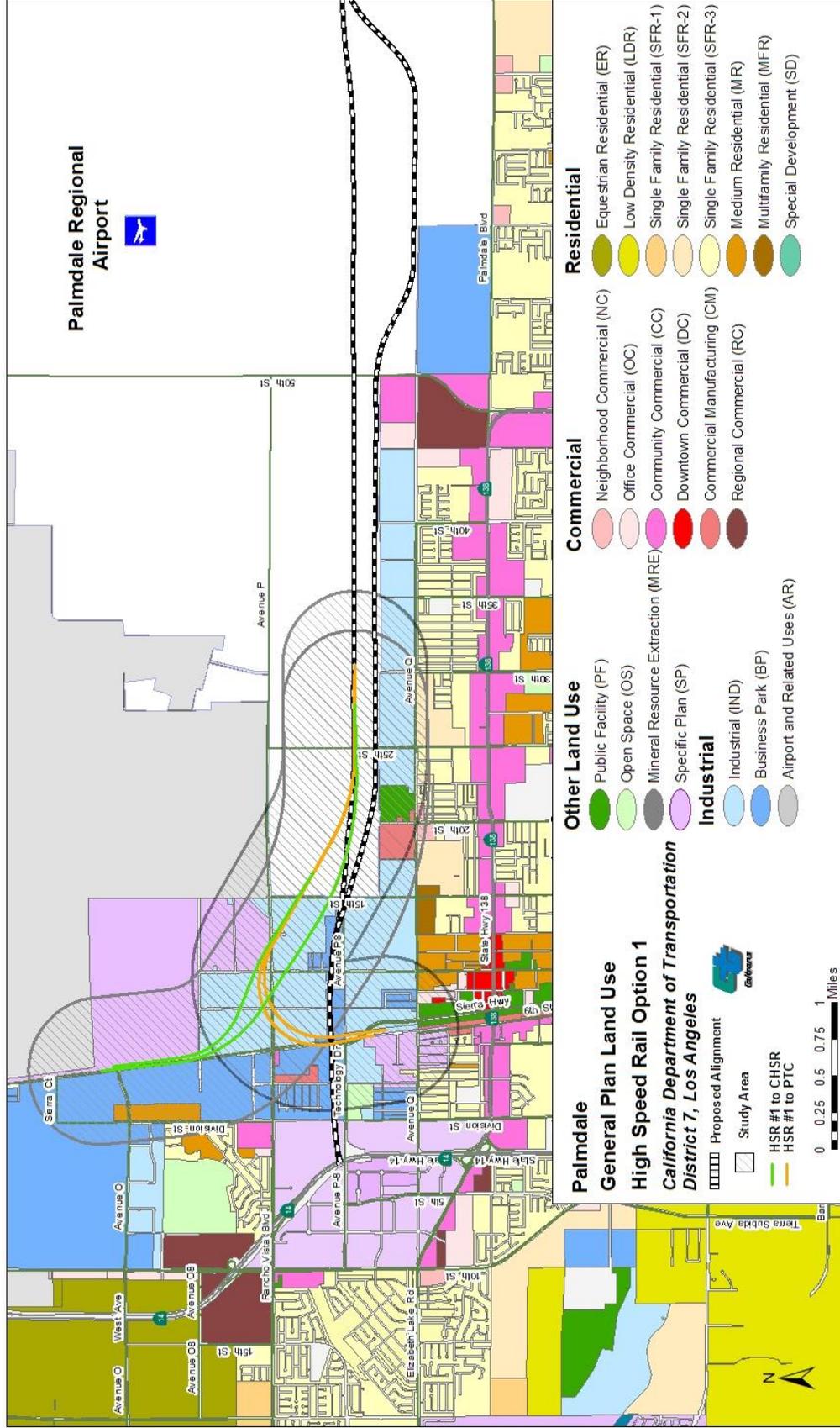
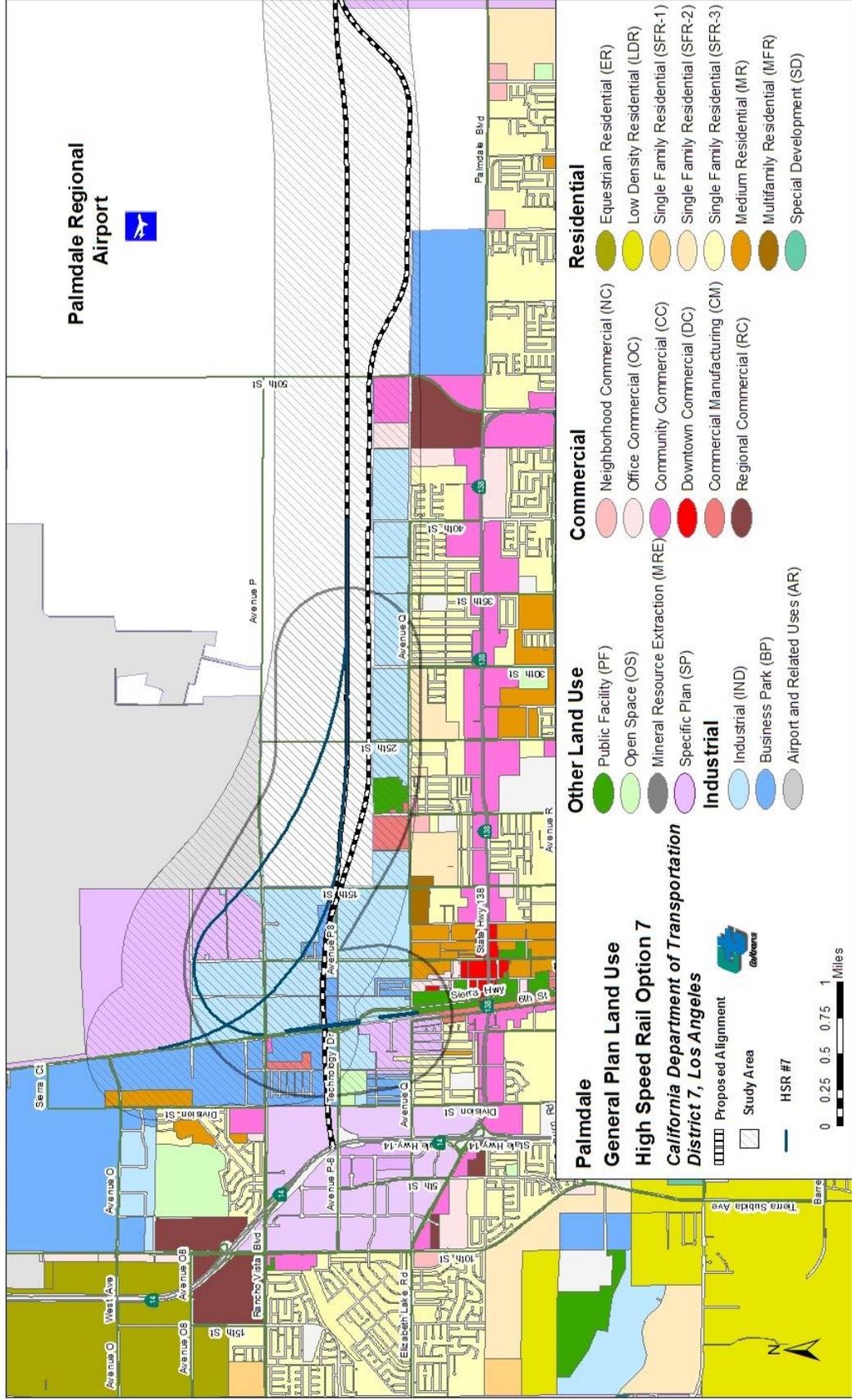


Figure 2.1.1.F - Palmdale Land Use High Speed Rail Option 7 Map



## UNINCORPORATED LOS ANGELES COUNTY

The proposed Project is situated within the Antelope Valley and traverses through unincorporated areas of Los Angeles County. The unincorporated areas are included in the *Los Angeles County "Town and Country" Antelope Valley Area Plan* (June, 2015), which consists of the entire Los Angeles County area within Antelope Valley excluding the cities of Palmdale and Lancaster, with a total area of 1,152,063 acres. The Planning Area also includes the unincorporated communities of Lake Los Angeles, Sun Village, Pearblossom, and Llano. Unincorporated communities potentially affected by the project include Lake Los Angeles and Sun Village. The *Antelope Valley Area Plan* (June 2015), serving as a component of the *Los Angeles County General Plan*, provides countywide goals and policies specific to the Antelope Valley area and provides a blueprint for future development within the area. The *Antelope Valley Area Plan* addresses several key elements such as mobility, land use, conservation and open space, public safety, and community specific land use concepts. However, for this particular section, the land use element and the community specific land use concepts element will serve as a basis towards the analysis of existing land use and future development within the unincorporated communities within the Antelope Valley.

Existing land uses within the Planning Area consists of a mixture between commercial, residential, forest and public facilities use. The majority of land uses within the Planning Area includes forest and vacant use, which accounts for approximately 86 percent of the total land use within the Planning Area. While remaining uses include agriculture, military facility, residential, public facility, water bodies, open space, commercial, and industrial.

**Table 2.1.1.F - Planned Land Use in the Los Angeles County Planning Area**

Existing Land Use	Acres	Percentage
Forest	504,653	43.80%
Vacant	485,332	42.13%
Agriculture	62,772	5.45%
Military Facility	47,758	4.15%
Residential	27,359	2.37%
Public Facility	14,765	1.28%
Water Bodies	4,084	0.35%
Open Space	3,824	0.33%
Commercial	1,016	0.09%
Industrial	500	0.04%
Total	1,152,063	100.00%

Source: *The Los Angeles County Antelope Valley Area Plan, 2015*

### Lake Los Angeles

Lake Los Angeles is situated within close proximity to the project and is north of the Project. Lake Los Angeles is a census designated place (CDP) located within the eastern portion of the Antelope Valley and is approximately 17 miles east of Downtown Palmdale. Similar to other areas within the Antelope Valley, Lake Los Angeles is characterized by low-density development and an open, rural setting. Based on the *Antelope Valley Area Plan*, land use designations within Lake Los Angeles include residential, rural commercial, rural land, and open space parks and recreation.

According to the *Antelope Valley Area Plan*, Lake Los Angeles is structured around a rural town center located along Avenue O between 167<sup>th</sup> Street East and 172<sup>nd</sup> Street East and along 170<sup>th</sup> Street East between Avenue O and Glenfall Avenue. The rural town center serves as a focal point for its community and provides for the daily needs of its citizens, in addition to providing local employment opportunities. The rural town center is designated as rural commercial, to serve the daily needs of residents and provide local employment opportunities.

Some areas outside of the rural town center are also designated as “rural commercial” which provides additional commercial services for the community. Throughout the community there are several rural town areas, designated rural land 1, 2 or 5, which were created to preserve existing density in those areas and promote preservation of the current land divisions. The rural town areas serve to promote the existing rural character within the community. The remaining segments within the community are considered rural preserve areas, which call for very low-density parcels and the preservation of current land divisions.

### Sun Village

Sun Village is an unincorporated community located within the southeastern portion of the Antelope Valley and south of the Project. It is located approximately 8 miles east from Palmdale City Hall. A large portion of the community is either developed or partially developed and provides for a wide range of use ranging from commercial and retail services to local employment opportunities. The remaining areas within the community are largely undeveloped and lack infrastructure.

The community of Sun Village has a rural town center located along Palmdale Boulevard between Little Rock Wash and 95th Street East, and along 90th Street East between Palmdale Boulevard and Avenue Q-14. The rural town center serves as a focal point within the community and provides a connection to the outer rural town areas. The rural town center area is designated

as Rural Commercial and Light Industrial, to serve the daily needs of residents and provide local employment opportunities.

Surrounding the rural town center of Sun Village are several rural town areas located along Avenue Q to the north, Little Rock Wash to the west, Avenue R to the south, and 115th Street East to the east. Land use within rural town areas north of Palmdale Boulevard and west of 105<sup>th</sup> Street has been designated as rural land 1. Areas east of 105<sup>th</sup> Street have been designated as rural land 2. Rural land 1 use allows for a maximum density of 1 residential unit for each 1 gross acre of land, while rural land 2 use allows for a maximum density of 1 residential unit for 2 gross acres of land.

Land uses within rural town areas south of Palmdale Boulevard include rural land 1, rural land 2, residential 2, residential 9, and residential 5. According to the *Antelope Valley Area Plan*, such land use designations are intended to promote the existing densities within the community and aim to avoid further land divisions.

The remaining areas within Sun Village are deemed rural preserve areas and are designated as rural land 10 or rural land 20. Rural land 10 use allows for a maximum density of 1 residential unit per 10 gross acres, while rural land 20 allows for a maximum density of 1 residential unit per 20 gross acres. A large majority of the rural preserve areas are either undeveloped or contains very low-density development with infrastructure constraints. If development were to occur it would consist of single-family residential units on large lots, light and heavy agricultural use, equestrian and animal keeping use, or other uses that are appropriate for the area. According to the *Los Angeles County Antelope Valley Area Plan*, such land use designations are intended to promote the existing rural living conditions and to avoid further land divisions.

#### Unincorporated Los Angeles County Study Area (other than Lake Los Angeles/Sun Village)

Existing land use within the unincorporated Los Angeles County study area, as shown in **Figure 2.1.1.G**, include various Rural Land designations, Open Space, Bureau of Land Management (BLM) Open Space Parks and Recreation, Rural Commercial, and Public – Semi Public. Rural Land designations account for approximately 95 percent of the total land use within the study area for unincorporated Los Angeles County and is primarily characterized by single-family residential developments in combination with equestrian, animal use, and agricultural related activities. Equestrian use can be defined as land uses pertaining to or relating to horse riding.



Future Development Trends

The Antelope Valley Area Plan establishes Economic Opportunity Areas (EOAs) within the Antelope Valley. The East EOA is located within the eastern part of the Antelope Valley, along the proposed route of the High Desert Corridor. It includes the communities of Lake Los Angeles and Sun Village. Further planning activities for the East EOA may be pursued with the development of the High Desert Corridor Project. The EOAs include areas identified as existing Rural Town Centers, or Rural Town Areas. The EOAs also include areas that have the potential to develop as future Rural Town Areas, as well as Non-Preserve Areas that may be used for a variety of rural uses compatible with the surrounding areas, such as residential, agricultural and open-space uses. Wherever appropriate, these EOAs are designated with land use designations that would allow for a balanced mix of residential, commercial, and light industrial uses, while preserving the rural character and ecological resources of the surrounding areas. A job-housing balance is achieved by using medium-density residential, commercial and industrial land use designations in areas appropriate for development, while designating areas with important ecological resources as open space conservation areas.

**Table 2.1.1.G** provides a list of current and future development projects taking place within the unincorporated areas of Los Angeles County.

**Table 2.1.1.G – Unincorporated Los Angeles County Current and Future Development Trends**

Name	Jurisdiction	Proposed Uses	Status
Gray Butte Solar Array/ AES Solar	Los Angeles County	Development of a Photovoltaic Solar Technology Panel as a means of renewable alternative energy.	Currently in Draft EIR

*Source: CEQAnet Database Query, Los Angeles County Planning Department*

**UNINCORPORATED SAN BERNARDINO COUNTY**

Unincorporated San Bernardino County encompasses an area of approximately 771,225 acres. The majority of existing land uses within unincorporated San Bernardino County includes Resource Conservation (about 56 percent) and Rural Living (about 34 percent) of the total area.

The project traverses through various parts of San Bernardino County including segments of unincorporated San Bernardino County, the City of Adelanto, the City of Victorville, and Town of Apple Valley. San Bernardino County is segmented into three planning regions, which include: The Valley Planning Region, The Mountain Planning Region, and the Desert Planning Region. Since the Project alignment is located north of SR-138, based on the San Bernardino County Planning Area map, the project falls within the Desert Planning Region.

According to the *San Bernardino County General Plan (2007)*, the Desert Planning Region is the largest of the planning regions and contains approximately 18,735 square miles or 93 percent of the land within San Bernardino County. The Desert Planning region is defined as all the unincorporated lands located north and east of the Mountain Planning Region. Existing land uses within the Desert Planning Region include rural living, single residential, resource conservation, industrial, service commercial, general commercial, community industrial, floodway, neighborhood commercial, office commercial, and multiple residential. **Table 2.1.1.H** provides a list of existing land uses within San Bernardino County.

**Table 2.1.1.H - Existing Land Use in Unincorporated San Bernardino County**

Land Use Category	Acres	Percentage
<i>Residential</i>		
Single Residential	67,691	3.89%
Multiple Residential	4,986	0.29%
Rural Living	587,535	33.75%
<i>Commercial</i>		
	12,177	0.68%
<i>Industrial</i>		
	21,834	1.21%
Agricultural	41,793	2.32%
Institutional	8,567.5	0.5%
Resource Conservation	1,500	55.98%
Special Development	N/A	N/A
Open Space	N/A	N/A
Floodway	20,281	1.13%
Specific Plan	4,861.4	0.27%
Total	771,225.90	100.00%

Source: *San Bernardino County General Plan, 2007*

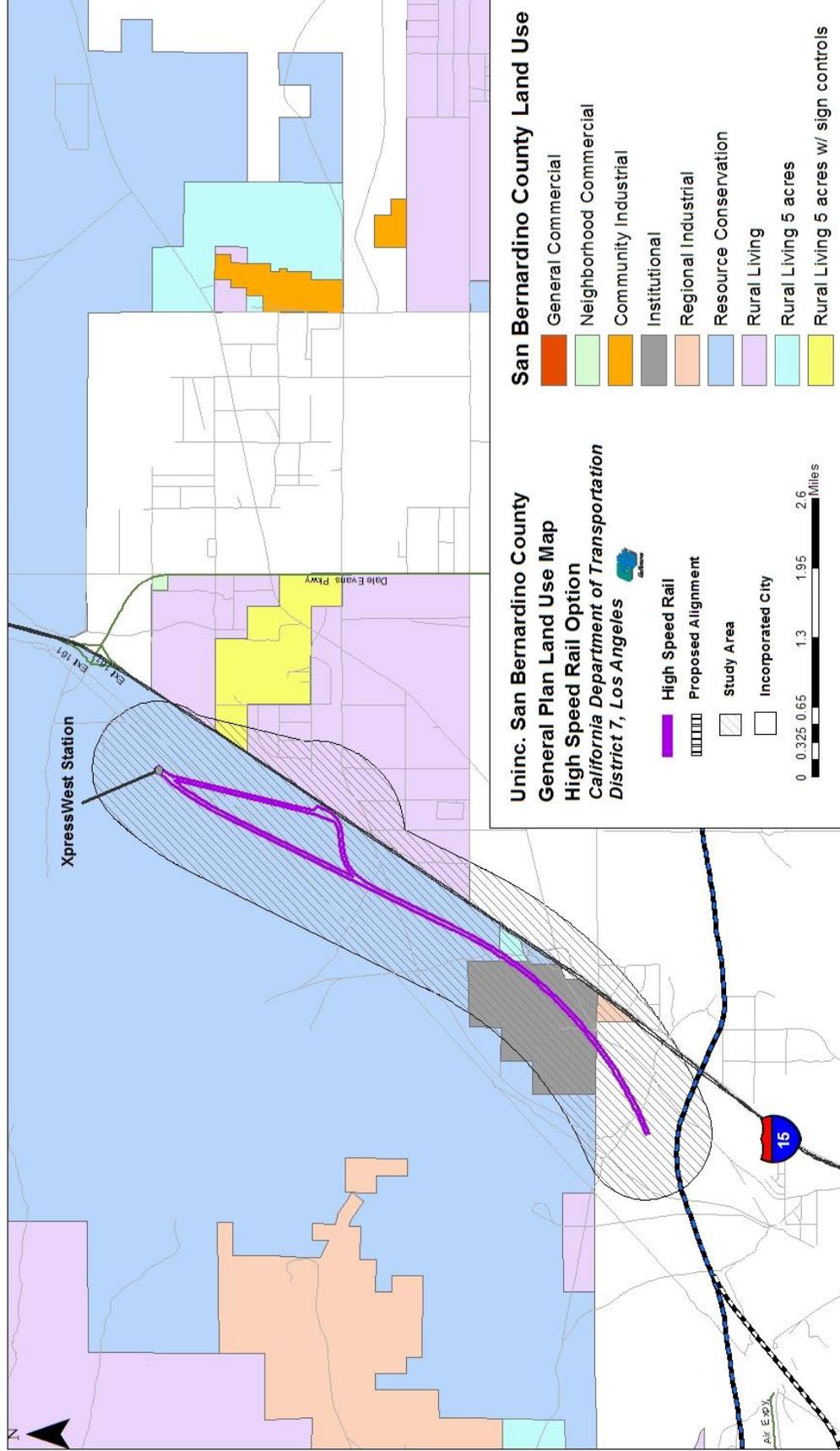
Unincorporated San Bernardino County – Desert Planning Region Study Area (C)

The HDC Project is located within the Desert Planning Region of unincorporated San Bernardino County, and accounts for approximately 27 percent of the land area within the study area. **Figure 2.1.1.H** shows major land uses within the study area, which include rural living, industrial, and general commercial use with a large percentage of the land use for the study area designated as rural living. A small percentage of industrial and general commercial use is located along the eastern and western ends of the study area.

The proposed high-speed rail alignment, which connects to the XpressWest Station at Dale Evans Parkway, traverses through segments of unincorporated land within the County. The rail alignment diverges from the highway alignment beginning at Quarry Road within the City of Victorville and travels northeast towards the XpressWest Station. Existing land uses within this segment of the study area, as shown in **Figure 2.1.1.I**, include general commercial, neighborhood commercial, community industrial, institutional, regional industrial, resource conservation, rural living, rural living 5 acres, and rural living 5 with sign (billboard) control overlay designations.



Figure 2.1.1.1 – Unincorporated San Bernardino County High Speed Rail Land Use Map



Future Development Trends

Future development trends within the unincorporated areas of San Bernardino County are dictated in part by land use policies and goals set forth within the *San Bernardino County General Plan (2007)*. According to the Land Use Element of the General Plan, specific land use goals and policies have been established specifically for the Desert Planning Region.

Goal D/LU 1 states to maintain the land use patterns in the Desert Region that enhance the rural environment and preserve the quality of life of the residents of the region. In response to Goal D/LU 1, policy D/LU 1.1 encourages low-density development by retaining Rural Living (RL) zoning within Community Plan areas that are outside the local municipality’s sphere of influence and are removed from more urbanized community core areas. Through such land use goals and policies, and low density zoning ordinances, high density development within the unincorporated areas may be constrained. With emphasis on maintaining the existing rural environment, future development and growth is expected to be sensitive to the rural nature of the existing environment.

Future commercial development within the unincorporated areas is dictated in part by Goal LU 3 and Policy D/LU 3.2. Goal LU 3 states to ensure that commercial and industrial development within the region is compatible with the rural desert character and meets the needs of local residents. As a result, future trends in commercial development may be limited and/or constrained to low-density commercial development. In addition, Policy LU 3.2 states to avoid strip commercial development along major roadways within the region that would detract from the rural character by encouraging the development or expansion of commercial uses within cores areas. Commercial uses shall be compatible with adjacent land uses and maintain the existing characteristics of the communities within the region. By redirecting development to areas within existing developed areas, commercial development trends would be centered within urbanized areas such as Victorville, Apple Valley, and Adelanto.

**Table 2.1.1.I – Unincorporated San Bernardino County Current and Future Development Trends**

Name	Jurisdiction	Proposed Uses	Status
<i>There are no development projects within proximity of the project alignment.</i>	Not Applicable	Not Applicable	Not Applicable

## ADELANTO

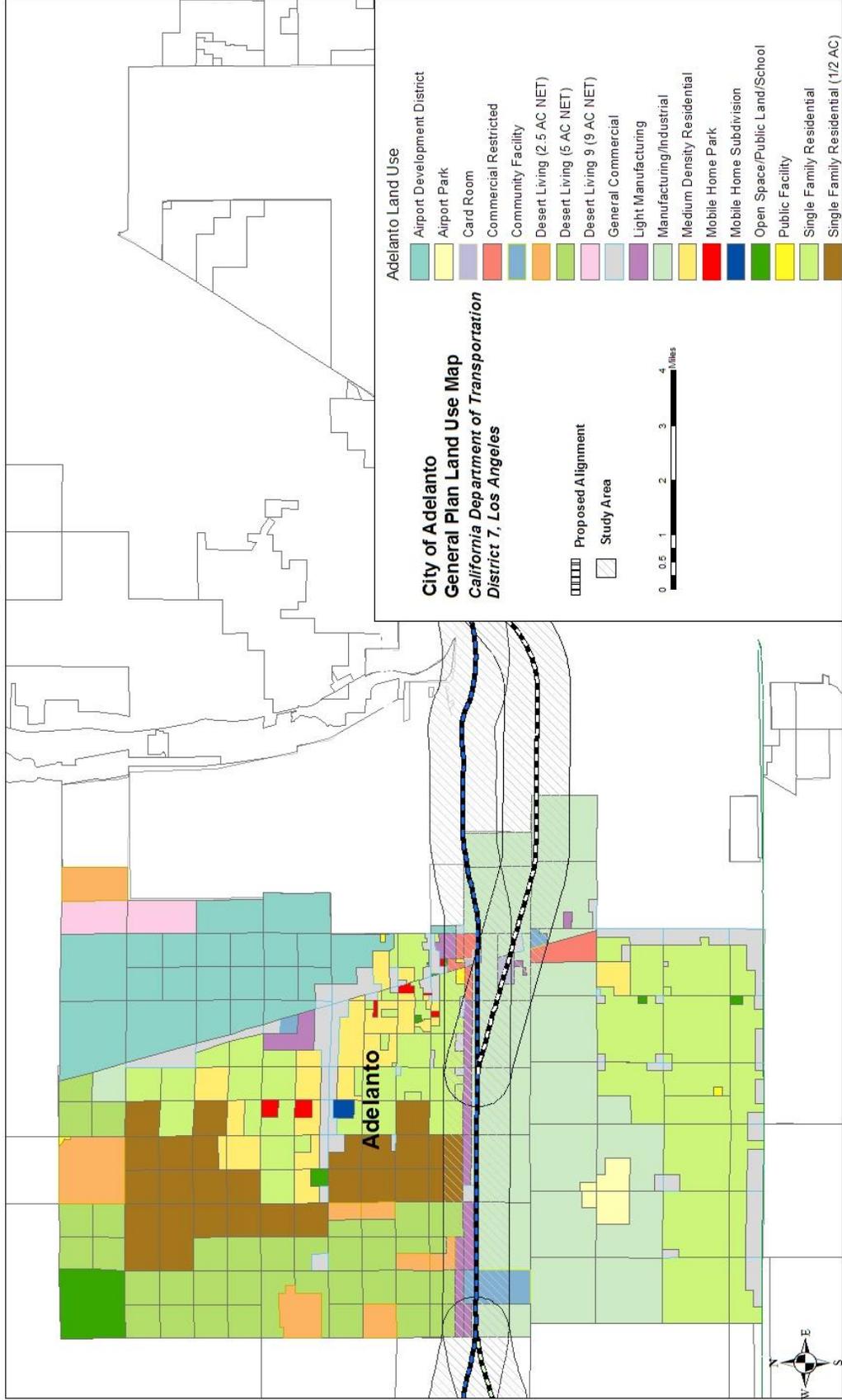
The City of Adelanto is located within San Bernardino County, approximately 43 miles east from Downtown Palmdale and 9 miles northwest from the City of Victorville. The City's boundaries extend to Shadow Mountain Road to the north, Amethyst Road to the east, Palmdale Road to the south, and Lessing Ave towards the west. U.S. Route 395 runs along the western portion of the city.

**Table 2.1.1.J – Existing Land Use in Adelanto**

Land Use Category	Acres	Acres Developed (%)	Acres Vacant (%)	Percentage
<i>Commercial</i>				
Commercial Restricted	360	9.72%	90.28%	1.10%
General Commercial	2036	5.99%	94.01%	6.20%
<i>Industrial</i>				
Manufacturing/Industrial	10333	11.54%	88.46%	31.45%
Light Manufacturing	737	2.31%	97.69%	2.24%
Airport Park	358	28.77%	71.23%	1.09%
<i>Residential</i>				
Single-family Residential	6771	21.73%	78.27%	20.61%
Single-family Residential (1/2 acre)	3891	0.64%	99.36%	11.84%
Medium Density Residential	1905	8.35%	91.65%	5.80%
Desert Living (2.5 Acre)	1036	3.38%	96.62%	3.15%
Desert Living (5 Acre)	1785	0%	100%	5.43%
Desert Living (9 Acre)	658	1.52%	98.48%	2.00%
Mobile Home Subdivision	56	58.93%	41.07%	0.17%
<i>Other</i>				
Airport Development District	2312	3.29%	96.71%	7.04%
Card Room	93	0%	100%	0.28%
Open Space/Public Land/Schools	73	38.36%	61.64%	0.22%
Community Facility	403	14.39%	85.61%	1.23%
Public Facility	51	37.25%	62.75%	0.16%
Total	2932			100%

Source: City of Adelanto

Figure 2.1.1.J – Adelanto Land Use Map



The City of Adelanto's planning area is approximately 81,000 acres. This includes 32,196 acres of incorporated area, 17,196 acres within the city's sphere of influence, 25,600 acres between the northern sphere of influence boundary and Shadow Mountain Road, and 5,719 acres of George Air Force Base. As shown in **Table 2.1.1.J**, existing land uses within the City include desert living, commercial restricted, general commercial, airport development district, card room, manufacturing/industrial, light manufacturing, airport park, single-family residential, multiple family residential, mobile home subdivision, open space/public land/schools, public space/public facility, community facility, and specific plan area. The majority of existing land uses comprises of residential (about 49 percent), industrial (about 35 percent), and commercial (about 7 percent).

Within the southern segment of Adelanto south of Air Expressway, major land uses include manufacturing/industrial, single-family residential, commercial, and airport park designations. Airport park use includes the Adelanto Airport, which is surrounded by manufacturing and industrial uses. The Adelanto Airport is located between Rancho Road and Mojave Drive. Manufacturing and industrial land uses are located primarily between Air Expressway and Mojave Drive, while single-family residential land use is located along the western edge of the City adjacent to commercial and manufacturing land uses. Commercial land use is located along the southern and eastern edges of the city.

Major land uses north of Air Expressway include public facility, medium density residential, single-family residential, desert living, open space, commercial, and airport development district uses. Desert living use is located within the peripheral ends of the City, while single-family and medium-density residential uses are concentrated primarily within the center of the City. Commercial land use is integrated throughout the City and is adjacent to residential land uses in order to better serve the local economy. Major public facility uses are located at the intersection of Air Expressway and Three Flags Highway (U.S. Route 395) and include the Adelanto City Hall and Richardson Park. Open space designations are primarily concentrated along the eastern and western edges of the City, north of Desert Flower Road. Lastly, airport development use is located within the eastern end of the city, adjacent to the Southern California Logistics Airport.

#### Adelanto Study Area (D)

The Adelanto study area covers approximately 13.5 square miles and constitutes about 12 percent of the entire study area. The Adelanto study area is located primarily within the central and southern portions of the City and includes the following land use designations: community facility, manufacturing/industrial, light manufacturing, desert living, single-family residential, medium-density residential, commercial, open space/public lands/schools, and airport development districts. Major land use designations within the study area include manufacturing and industrial use, which are primarily located south of the study area. To the north of the study

area, major land use designations include a mixture of desert living and single-family residential uses. **Figure 2.1.1.J** provides a map of existing land use within the Adelanto study area.

### Future Development Trends

As shown on **Table 2.1.1.K**, future development projects within Adelanto include the various mixed-density residential units, an industrial park, a warehouse/office complex, a correctional facility, and a retail center. Commercial and industrial development is primarily focused within manufacturing/industrial land use areas located north of Holly Road and south of Air Expressway. Future and existing residential developments are concentrated primarily between Air Expressway and Auburn Ave, and north of Palmdale Blvd. The table below provides more information on various proposed, approved, and on-going projects within the City of Adelanto.

**Table 2.1.1.K – Adelanto Current and Future Development Trends**

Project Name	Location	Proposed Uses	Status
Industrial Park	S of Air Expressway, North of Rancho E, East of Adelanto, West of Cobalt	Development of a 16,000,000 square-foot industrial park.	Planned
Warehouse and Office Complex	Southeast corner of Cassia Road and Koala Road	Construction of a 16,100 square-foot warehouse and 5,600 square foot office.	Planned
Adelanto Correctional Facility	NE corner of Rancho Road and Raccoon	Construction of a 2,200 Bed Correctional Facility.	In Construction
Townhome Development Project	SE Corner of Chamberlaine & Verbana	Proposed construction of a 160 unit townhome.	Planned
20 Duplex Townhomes	Auburn Ave, west of Rhode Island	Development of a duplex townhome, which includes 40 residential units	Planned
Retail Store, Car Wash, and Industrial Buildings	SE corner Violet Avenue and Jonathan Street	A proposal to construct 3 light industrial buildings, 2 restaurants and a convenience store with gas station and car wash on 6 parcels of land totaling 6.2 acres.	Planned
Multi-Tenant Industrial Condo's	Southeast corner of Cassia and Adelanto	Construction of 12 industrial buildings totaling 184,000 square feet on an 18.7 acre lot in the Light Manufacturing (LM) Zone.	Planned
Office Building and Warehouse	Adelanto & Air Expressway	3,500 2-story office building and 13,000 square foot warehouse	Planned

Source: CEQAnet Database Query, City of Adelanto 2011

## VICTORVILLE

The City of Victorville is located within the southwestern end of San Bernardino County and is adjacent to the City of Adelanto and the Town of Apple Valley. According to the *City of Victorville's General Plan 2030*, the city's overall planning area is divided into 10 distinct planning areas within its area of jurisdiction. The boundaries for the planning areas are defined by topographic features, man-made features, and land use characteristics. The planning areas include Baldy Mesa, Central City, East Bear Valley, Golden Triangle, North Mojave, Southern California Logistics Airport, Spring Valley Lake, West City, West Bear Valley, and Northern Expansion.

Existing land uses, as shown in **Table 2.1.1.L**, within the City of Victorville include very low density, low density, medium density, high density, mixed density, office professional, commercial, light industrial, heavy industrial, mixed use – high density, public/institutional, open space, and specific plan uses. Major land uses within the City include low and very low-density residential, open space, specific plan, and commercial uses.

**Table 2.1.1.L – Existing Land Use in Victorville**

Land Use Category	Acres	Percentage
<i>Residential</i>		
Very Low Density	8,097	8.2%
Low Density	26,968	27.3%
Medium Density	510	0.5%
High Density	2,255	2.3%
Mixed Density	78	0.1%
<i>Office Professional</i>	393	0.4%
<i>Commercial</i>	6,685	6.8%
<i>Industrial</i>		
Light Industrial	5,220	5.3%
Heavy Industrial	1,501	1.5%
<i>Mixed Use – High Density</i>	609	0.6%
<i>Public Institutional</i>	1,200	1.2%
<i>Open Space</i>	22,348	22.6%
<i>Specific Plan</i>	23,042	23.3%
<b>Total</b>	<b>53,920</b>	<b>100%</b>

Source: City of Victorville

North of Victorville, primary land uses include specific plan use, which includes *the Southern California Logistics Airport Specific Plan, the North Mojave Specific Plan, the Desert Gateway Specific Plan, and the Northern Expansion Area Specific Plan*. With the Mojave River traversing through parts of Victorville, geographical constraints have restricted development for areas

adjacent to the river. As a result, open space land uses have been designated for such areas. Other primary land uses within this area include light industrial, heavy industrial, and commercial use. Towards the center of the city, primary land uses include residential and commercial uses. The majority of commercial uses are located along major arterial roads and freeways such as Interstate 15, Mojave Drive, and Palmdale Road. Primary residential uses include very low and low-density residential land uses, which are located within the central and southern segments of the City.

### Victorville Study Area (E)

The Victorville study area covers approximately 14.38 square miles and makes up about 13 percent of the Project study area. The Victorville study area, as shown in **Figure 2.1.1.K**, is located primarily within the northern and central segments of the city, and includes the following land use designations: community facility, manufacturing/industrial, light manufacturing, desert living, single-family residential, medium density residential, high density residential, office professional, commercial, open space/public lands/schools, specific plan and airport development districts. Major land use designations within the study area include manufacturing/industrial uses, which are primarily located to the south. North of the study area, major land use designations include a mixture of desert living and single-family residential uses.

The proposed high-speed rail alignment traverses through the northern segment of Victorville in which it enters into unincorporated San Bernardino County. As shown in **Figure 2.1.1.L**, existing land use within the study area for Victorville includes specific plan designation. The specific plan designation refers to the area in which the Desert Gateway Project is proposed. *The Desert Gateway Specific Plan (2009)*, calls for a newly proposed community within Victorville. Under this specific plan, the Desert Gateway community will be based upon transit oriented development principles, in which transit will serve as a hub connecting the Town Center with a series of village centers and major employment centers. The Project is referenced within the specific plan, in which the plan suggests that the Project will serve as a catalyst for economic development within the Desert Gateway community.

### Future Development Trends

Future development trends within the City of Victorville include a mixture of residential, commercial, and transportation-related projects. Retail and commercial developments include the Desert Sky Plaza and the Tamarisk Marketplace projects. The Desert Sky Plaza would include 15 commercial buildings to be developed in two phases, Phases A and B. Phase A includes the development of a 138,516 square foot Target retail store, while Phase B proposes the development of 208,400 square feet of additional retail/commercial uses. The Tamarisk

Marketplace project proposes the construction of approximately 214,596 square feet of commercial/retail shopping center uses. Primary facilities include a retail anchor at approximately 184,946 square feet and a mixture of supporting retail and commercial uses totaling approximately 29,650 square feet. Environmental documents are currently being prepared for these ongoing projects. If constructed, over 560,000 square feet of new retail and commercial centers will be developed within the City of Victorville.

Another major development project within Victorville is the Southern California Logistics Airport Redevelopment project, which is currently under Phase I development. Under Phase I development, 2.8 million square feet will be developed for use as a fully dedicated logistics industrial park with airport services. The project overall includes over 6.4 million square feet of industrial space.

The Southern California Logistics Airport will serve as multi-modal hub for the transport of goods throughout the Victor Valley Area, and as well as the greater Southern California region. According to the *Growth Vision Report, June 2004*, prepared by SCAG, the Southern California Logistics Airport will serve as a regionally significant intermodal facility that will allow for greater efficiency in the transport of goods throughout the region.

The Desert Gateway Specific Plan calls for a vision towards the future with the development of a new community centered on transit-oriented development. The Desert Gateway project will be located at the intersection of the proposed High Desert Corridor project and Interstate 15. *The Desert Gateway Specific Plan* has designated 10,203 acres at the northern edge of Victorville towards the development of residential, commercial, industrial, and mixed use land uses centered on various modes of transit. Under this specific plan, there will be greater densities in residential units, in addition to the development of various employment centers. New urbanism ideals such as mixed and transit-oriented development are some core features represented through the Desert Gateway Specific Plan. The Project will be in close proximity of such development which will allow for various modes of transportation for residents within the area.

Residential development projects within Victorville include the development of approximately 270 acres of undeveloped lands into a residential subdivision. When fully developed, this residential subdivision will provide additional stock in single-family homes within the City. However, with the potential of job creation through the redevelopment project of the Southern California Logistics Airport additional housing development within Victorville and the Victor Valley region may occur in the future.

**Table 2.1.1.M – Victorville Current and Future Development Trends**

<b>Project Name</b>	<b>Location</b>	<b>Proposed Uses</b>	<b>Status</b>
Residential Subdivision Tt-05-007/17183 and Tt-05-008/17184	Intersection of Luna Road and Highway 395	The development of 270 acres of undeveloped land into a residential subdivision. The project will result in impacts to desert tortoise and Mohave ground squirrel, state listed threatened species, necessitating issuance of an Incidental Take Permit.	Planned
Desert Sky Plaza	Intersection of Roy Rogers Drive and Armargosa Road	The project proposes the development of approximately 346,916 square feet (sf) of assorted retail/commercial buildings on an approximately 30-acre site.	Planned
Desert Xpress High-Speed Passenger Train	Between the City of Victorville and Las Vegas	The project entails construction and operation of a privately financed, fully-grade separated, dedicated double-track passenger only railroad along an approximately 200-mile corridor.	Planned
Tamarisk Marketplace Project	North side of Bear Valley Road, between Tamarisk Road and Spring Valley Parkway	The project proposes construction of approximately 214,596 square feet of commercial/retail shopping center uses.	Planned
Southern California Logistics Airport Development	Phantom Street Victorville, CA	Under Phase 1, over 2.8 million square feet will be constructed with 6.4 million square feet of industrial space (360 acres) planned in Phase 1. (Southern California Logistics Airport - 43.5 million square feet, Southern California Logistics Centre - 65 million square feet, Southern California Rail Complex - 60 million square feet).	In construction
Desert Gateway	Northwestern edge of I-15	Development project consisting of 26,100 housing units with 82,900 residents. Land uses include a mixture of commercial, mixed use, and industrial.	Planned

Source: CEQANet Database Query, the City of Victorville

Figure 2.1.1.K - Victorville Land Use Map

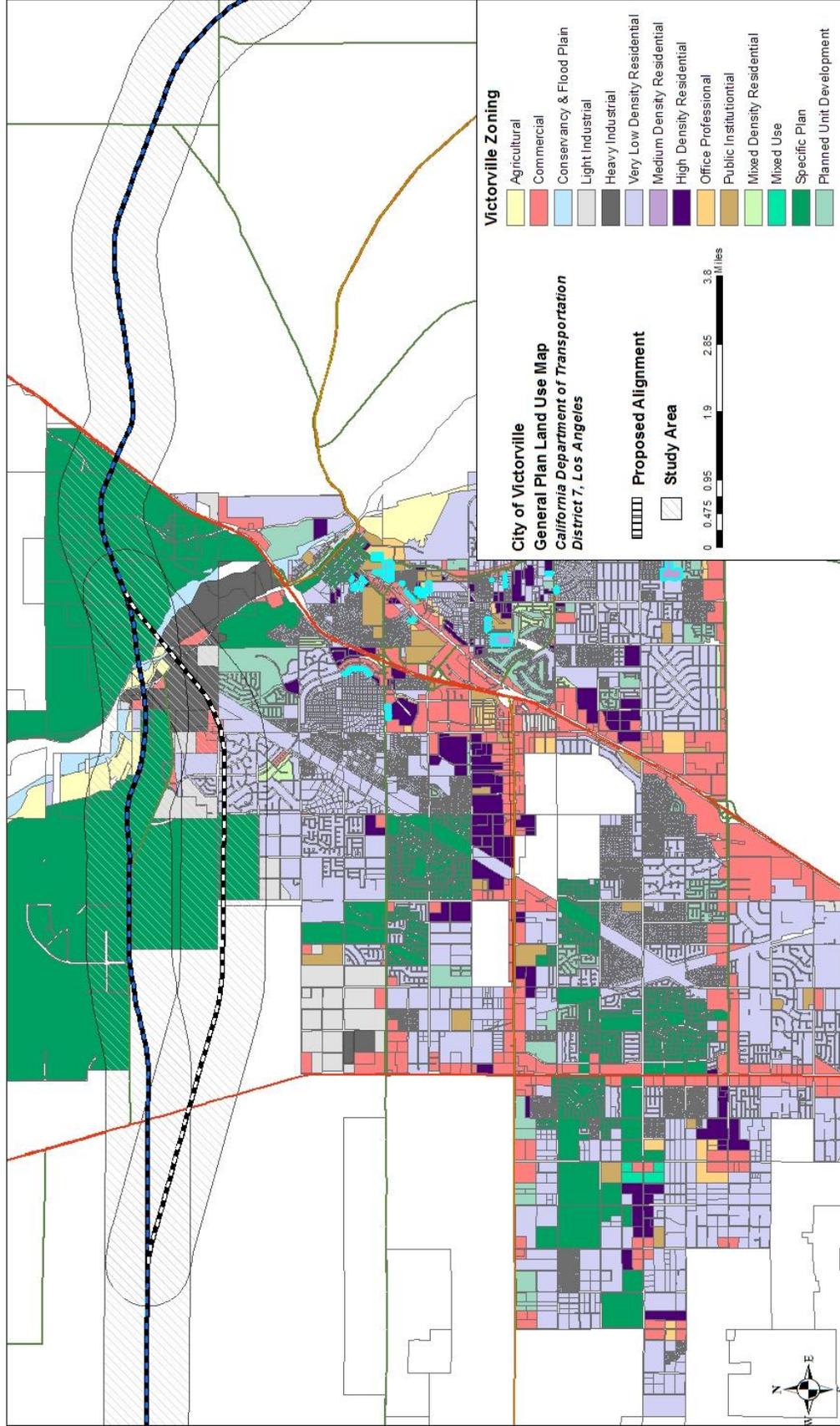
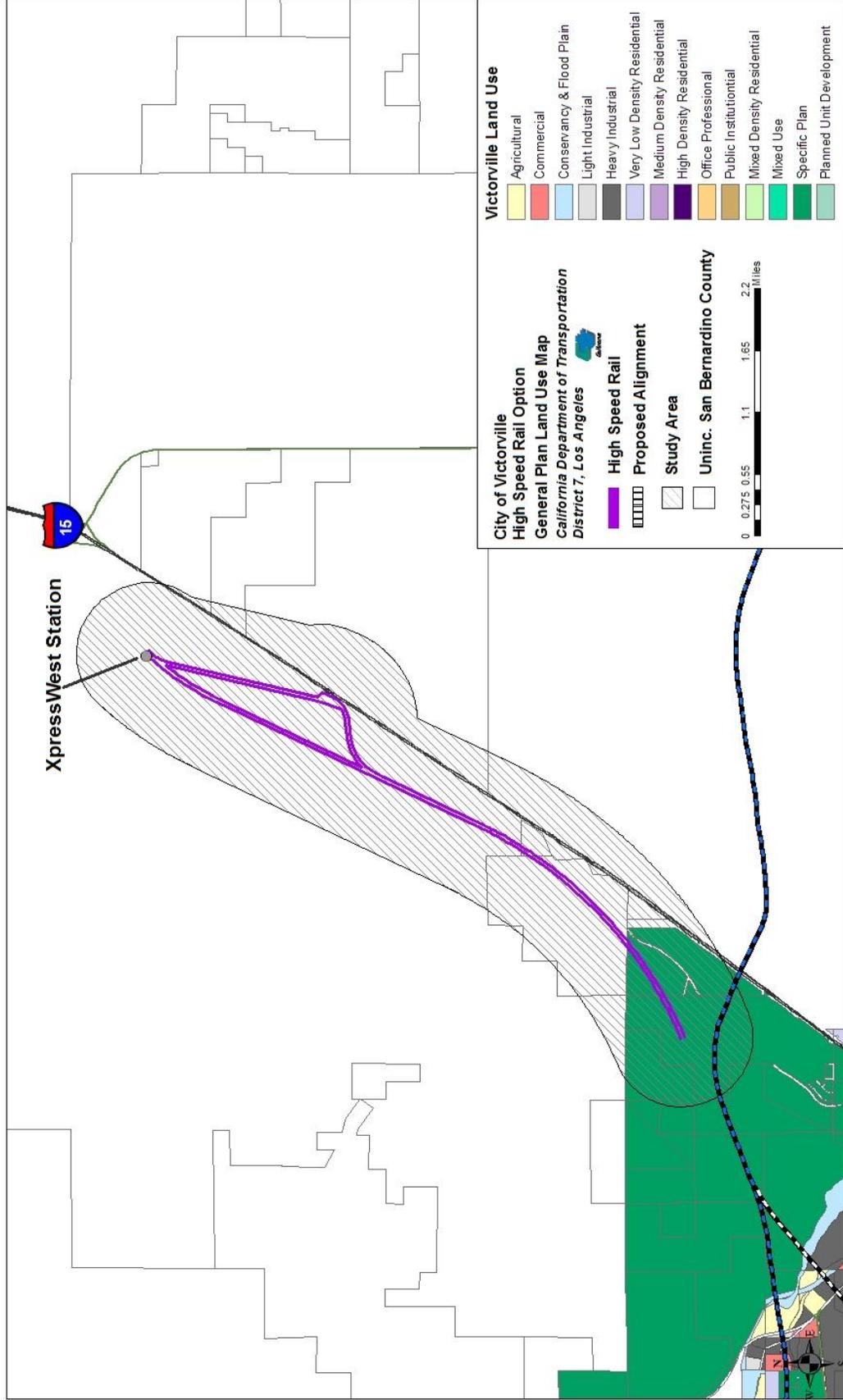


Figure 2.1.1.1.L - Victorville High Speed Rail Land Use Map



## APPLE VALLEY

The Town of Apple Valley, located within the western end of the project limits, is located east of the City of Victorville. According to the *Town of Apple Valley General Plan (2009)*, the planning area for the Town of Apple Valley consists of 50,532 acres, in which 46,948.3 acres are within the Town area. Two annexation areas totaling 3583.2 acres were later added to the planning area. According to the Land Use Element of the *Town of Apple Valley General Plan*, land use categories within the planning area include: very low density and low density residential, estate residential, estate residential  $\frac{3}{4}$ , single-family residential, medium density residential, mobile home park, mixed use, specific plan, general and regional commercial, service commercial, office professional, planned industrial, public facility, open space, mineral resources, and street rights-of-way.

According to **Table 2.1.1.N** below, major land uses within the Town of Apple Valley include single-family residential, specific plan, estate residential, streets right-of-way, low-density residential, very low density residential, and open space.

**Table 2.1.1.N – Existing Land Use in Apple Valley**

Land Use Category	Acres	Acres Developed	Acres Vacant	Percent of Total Land Use
<i>Residential</i>				
Very Low Density Residential (1 du/5 or more gross ac)	1,961.5	212.0	1,749.5	4.18%
Low Density Residential (1 du/2.5 - 5 gross ac)	3,522.4	450.7	3,071.7	7.50%
Estate Residential (1du/1 – 2.5 gross ac)	6,616.3	3,308.2	3,308.0	14.09%
Estate Residential 3/4 (1 du/0.75 – 1 ac)	475.7	26.1	449.6	1.01%
Single-family Residential (1 du/0.4-0.9 ac)	12,581.9	8,811.2	3,770.7	26.80%
Medium Density Residential (4- 20 du/ac)	1,883.1	826.2	1,057.0	4.01%
Mobile Home Park (5-15 du/ac)	180.0	178.5	1.5	0.38%
<i>Mixed Use</i>	320.5	90.8	229.7	0.68%
<i>Specific Plan</i>	7,012.7	1,359.0	5,653.7	14.94%
<i>Commercial</i>				
General Commercial	1,546.8	480.3	1,066.5	3.29%
Regional Commercial	1,303.0	99.6	1,203.3	2.78%
Service Commercial	331.6	152.4	179.2	0.71%
<i>Office Professional</i>	611.3	64.7	546.7	1.30%
<i>Planned Industrial</i>	645.3	21.4	623.9	1.37%
<i>Public Facility</i>	462.2	330.2	132.0	0.98%
<i>Open Space</i>	3,087.5	291.2	2,796.4	6.58%
<i>Mineral Resources</i>	452.5	129.4	323.2	0.96%
<i>Street Rights-of-Way</i>	3,953.9	2,771.1	1,182.8	8.42%
<b>Total</b>	<b>12,394.1</b>	<b>4,340.3.0</b>	<b>8,054</b>	<b>26.39%</b>

Source: Town of Apple Valley General Plan

### Apple Valley Study Area (F)

The Apple Valley study area covers approximately 11.72 square miles and constitutes ten percent of the total land area of the Project study area. The study area, as shown in **Figure 2.1.1.M**, is primarily located within the northern segment of the Town and along the existing State Route 18 and includes the following land use designations: single-family residential, estate residential, open space, low density residential, specific plan, very low density residential, mineral resources, regional commercial, and office professional. Major land uses within the study area consists of specific plan, open space, regional commercial, very low density residential, and mineral resource use.

The proposed high-speed rail alignment connects to the XpressWest Station at Dale Evans Parkway and traverses through segments of unincorporated San Bernardino County and the City of Victorville. As shown in **Figure 2.1.1.N**, the study area for the high-speed rail alignment affects regional, commercial, and mineral resource land uses.

### Future Development Trends

Future development trends within the Town of Apple Valley include a mixture of various commercial development projects, transportation related projects, and redevelopment projects. Between 2000 and 2005, Apple Valley experienced a boom, which resulted in a dramatic increase in residential development, commercial services, and job opportunities within the area.

Future development trends within the Town of Apple Valley are contingent upon many factors. However, policies and goals set forth within the *Town of Apple Valley General Plan* strive to maintain a balance between future growth and the preservation of the Town's desert or rural character and quality of life. According to Program 2.C.2 of the Town of Apple Valley General Plan, the Town shall provide incentives for rehabilitating and remodeling existing development. Through program 2.C.2, infill developments within the existing boundaries of the Town are encouraged. Incentives provided by the Town may further encourage infill development within existing developed areas.

According to Program 6.A.1 of the General Plan, future development of commercial and retail services are to be focused on major roadways such as the State Route 18 corridor, the High Desert Corridor, and Interstate 15. As stated in Program 6.A.1, directing future commercial development along major transportation facilities and improving access to commercial retailers within Apple Valley can be could improve the economic tax base for the Town through increased sales.

Based on Policy 6.C of the General Plan, the Town has set forth a policy to encourage development and redevelopment of the Apple Valley Village Business District. The Apple Valley Village Business District, located along State Route 18 was once a small retail village.

However, over the years, it has now grown into a large business corridor. Through the above mentioned land use policies, the Town has plans to direct future development and redevelopment efforts within the existing Apple Valley Village Business District, resulting in potential future development within this particular area.

Development trends related to major transportation projects include the development and implementation of the Project and the Yucca Loma Road/Yates Road/Greentree Boulevard Transportation Improvement project. According to Policy 2.E of the General Plan, the Town calls for the protection of right-of-way for the Project as planned by Caltrans. With the implementation of the Project, further development may take place along the corridor. **Table 2.1.1.O**, provides a list of current and future development projects within Apple Valley.

**Table 2.1.1.O – Apple Valley Current and Future Development Trends**

Project Name	Location	Proposed Uses	Status
Apple Valley Shopping Center	N of Happy Trail Hwy. (SR-18), at SE corner of Dale Evans Pkwy, & Thunderbird Rd.	The project proposes construction of new commercial/retail uses totaling 246,000 square feet on approximately 30.19 acres of land.	Planned
Yucca Loma Road/Yates Road/Greentree Boulevard Transportation Improvement Project	Apple Valley Rd/Yucca Loma Rd, Yates Rd, Greentree Blvd/Hesperia Rd	The Project will provide a new route across the Mojave River between the Town of Apple Valley and the City of Victorville.	Approved
The High Desert Corridor	Along the Northern fringe of Apple Valley	The Project will provide a new east / west highway corridor between Palmdale and Apple Valley.	Planned – ED in preparation.
Land Use and Zoning Change	North of Bear Valley Road, East of Apple Valley Road, South of Sitting Bull, and West of Deep Creek	Proposal to change land use and zoning from Residential Single-family to Estate Residential.	Pending
Shopping/Retail Development	Northwest corner of Highway 18 and Dale Evans Parkway	Construction of a 4,200 sq. ft. shops building with drive thru. Construction will include the development of the vacant parcel at the corner the intersection.	Approved 12/21/2010
Church/Multi-use Building/Gym	16380 Dale Evans Parkway; West side of Dale Evans Parkways, between Wigwam and Quantico Roads	New construction of 24,253 square foot church/multi-use building and gym on 4.75 acres	Approved 11/4/2009
Apartment Complex	Muni and Apple Valley Roads	Construction of 8-unit apartments	Approved 5/2/2009
Office/Retail Development	20715 Bear Valley Road	41,216 sq. ft. office/retail building on 2.67 acres.	Planned
Apartment Complex Development	Viho and Siskiyou Road	8-unit apartment complexes, ranging from 2 to 3 bedrooms and 1,261 to 1,577 square feet.	Approved 9/9/2008
Subdivision	Sitting Bull and Ivanpah Road	Subdivision of 35 acres into 32 residential lots.	Pending
Subdivision	Located at Geronimo between Deep Creek and Bannock	Subdivision of 3.1 acres into 6 lots.	Approved 7/16/2008

Source: CEQAnet Database Query, Town of Apple Valley

Figure 2.1.1.M – Apple Valley Land Use Map

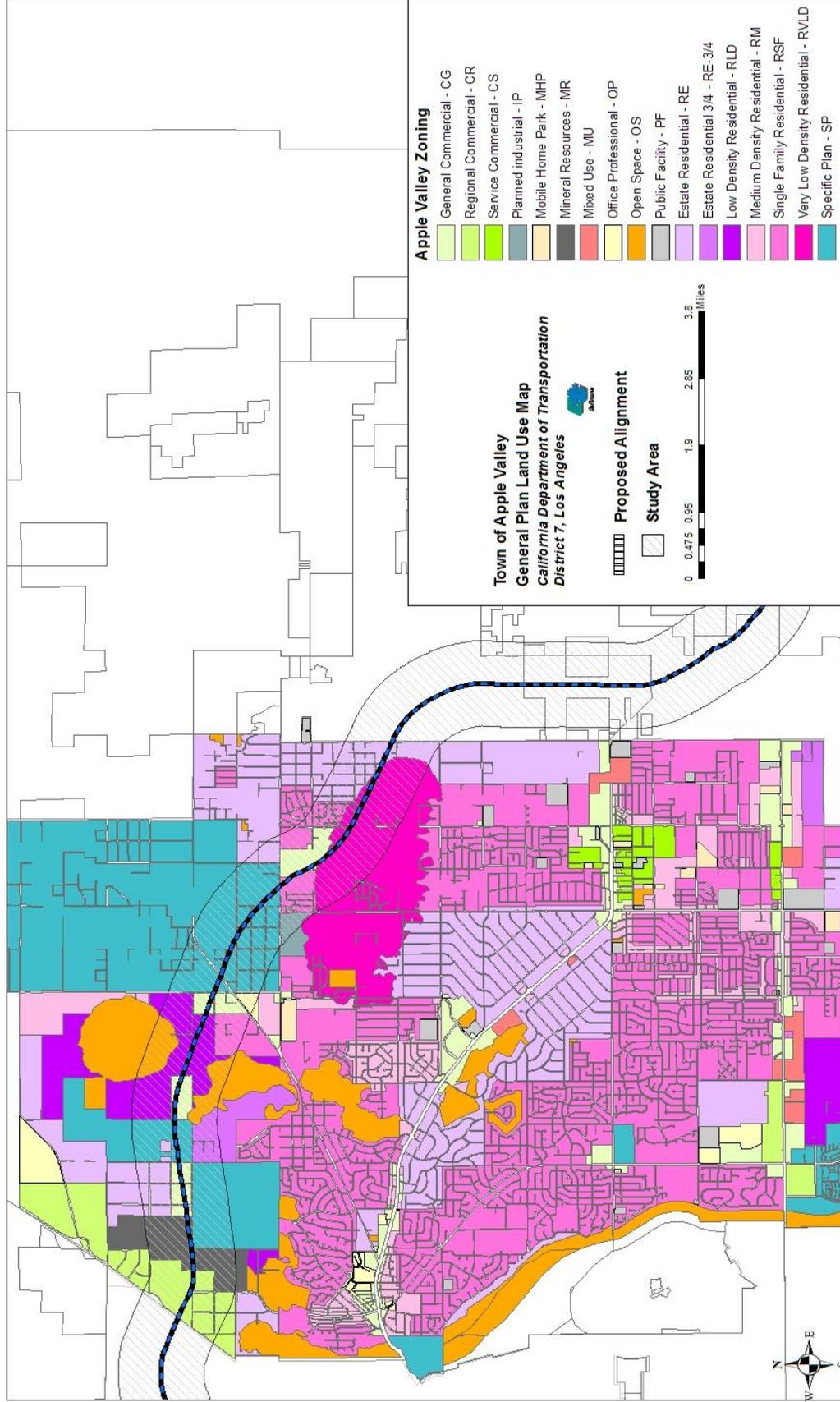
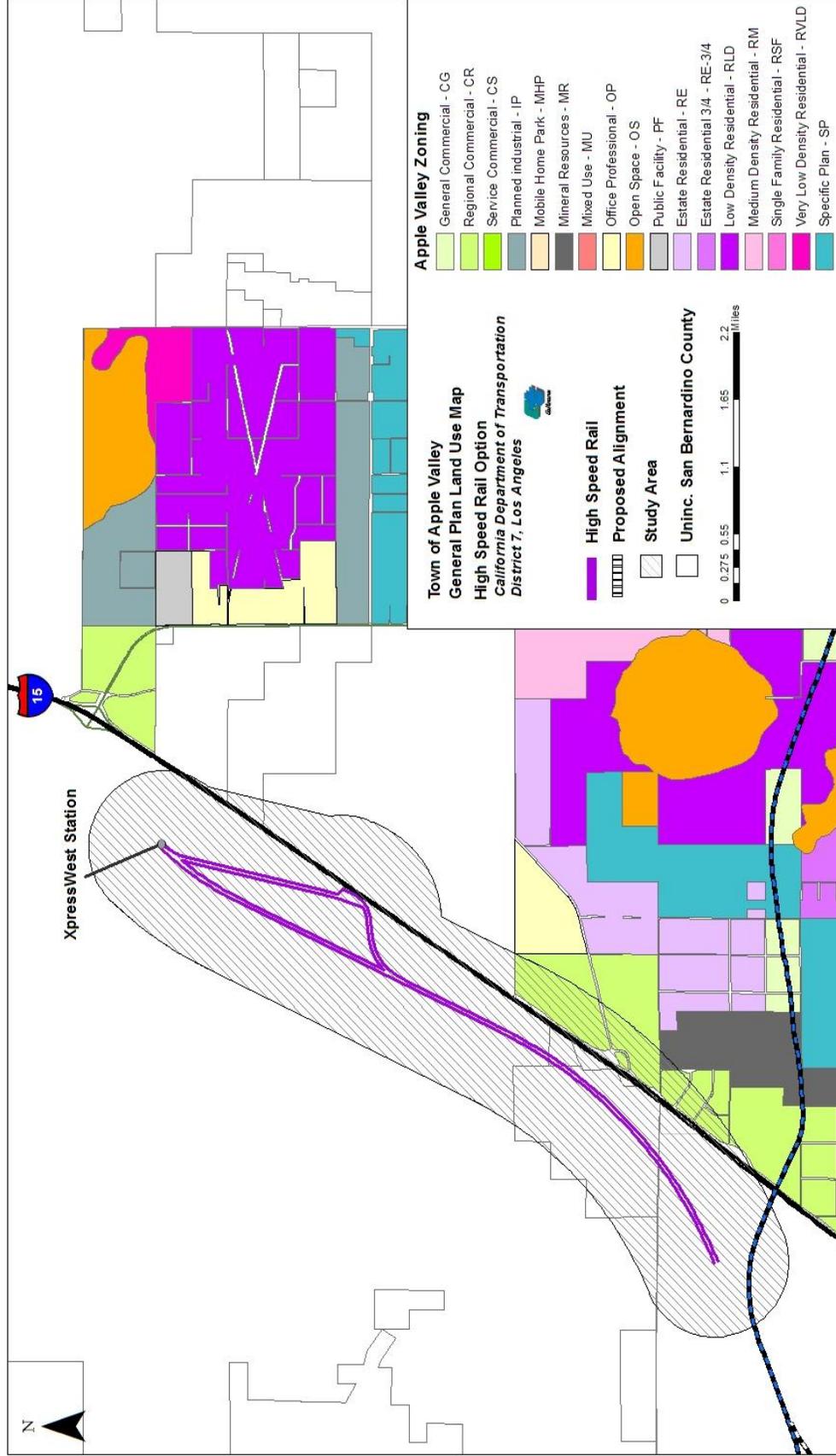


Figure 2.1.1.N – Apple Valley High Speed Rail Land Use Map



### 2.1.2 Environmental Consequences

Potential impacts to land use may occur as a result of the Project. Direct land use impacts would occur through the acquisition of right-of-way required for the construction of the project. Since the Project is a new facility, existing land uses directly within the project footprint would be converted to transportation related use.

Indirect impacts as defined by CEQA are effects that are reasonably foreseeable and caused by a project, but occur at a different time or place. Under NEPA, indirect impacts are defined as effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Indirect land use impacts as a result of the project are most likely to occur within close vicinity of access points to the Project. Access points include points of entry into the facility, which include on and off ramp locations and rail station locations. Over a period of time, adjacent land uses at these locations may potentially see changes from existing use towards commercial, business, and/or residential based land uses. However, development and growth is dependent on market demand.

In addition, shifts in land use are expected to occur along interchanges located within developed areas such as Palmdale, Victorville, Adelanto, and Apple Valley. Interchange locations within unincorporated areas within Los Angeles and San Bernardino County are considered isolated interchange locations in which shifts in existing land use towards commercial, industrial, and residential use are not anticipated as discussed in **Section 3.2.2**. Existing land uses, within a 2-mile radius of on and off ramp locations may experience a potential shift towards commercial and industrial use. While existing land uses within a five-mile radius of on- and off-ramp locations may experience a potential shift towards residential use. **Table 2.1.2.I** provides a list of the on- and off-ramp and freeway interchange locations along the proposed High Desert Corridor.



**Table 2.1.2.I – Interchange Locations**

Locations	Local Interchange (On and Off Ramps)	Freeway-to-Freeway Interchange
SR-14/HDC		X
20 <sup>th</sup> Street E	X	
20 <sup>th</sup> Street E	X	
50 <sup>th</sup> Street E.	X	
90 <sup>th</sup> Street E.	X	
125 <sup>th</sup> Street E	X	
140 <sup>th</sup> Street E	X	
170 <sup>th</sup> Street E.	X	
210 <sup>th</sup> Street E	X	
240 <sup>th</sup> Street E.	X	
Oasis Rd.	X	
Sheep Creek Rd.	X	
Caughlin Rd.	X	
Koala Rd.	X	
U.S. 395	X	
Phantom W. Rd.	X	
Phantom E. Rd.	X	
National Trail Highway	X	
I-15/HDC		X
Chocco Rd.	X	
Dale Evans Parkway	X	

No Build Alternative

Under the No Build Alternative, there will be no direct land use impacts as a result of the project since the project will not be constructed under this alternative. In addition, there are no anticipated impacts of those transportation projects that are already planned and committed to be constructed by or before 2040.

Freeway/Expressway Alternative

Under the Freeway/Expressway Alternative, the acquisition of right-of-way will be required in order to construct the Project alignment. A total of approximately 4,667 acres will be required for the construction of the corridor, mostly designated as grazing land.

The project will directly affect existing land use within the local municipalities, however such changes in land use towards transportation related use may prove to be beneficial by providing infrastructure for surrounding land uses, improved access, and linkages between various residential communities, businesses, and facilities. With the development of infrastructure, the project also has the potential to provide development for local businesses and industries, which may provide local employment opportunities within the community.

In addition, based on **Section 3.2.2** of the growth analysis, it was determined that under this alternative there is a potential for existing land uses located along interchange locations within Victorville and Palmdale to shift towards greater commercial and industrial use. While for the unincorporated areas located centrally within the project area, existing land uses surrounding isolated interchange locations are anticipated to have minor changes. Based on the general plans for the local municipalities, growth and economic development are encouraged within the incorporated cities. For the unincorporated areas, existing land uses characterized by low-density development is desired in order to maintain the existing rural character within the area. Therefore, the Project under this alternative is consistent with existing and future land use designations of the local municipalities and should not pose an adverse effect on existing land uses.

### *Palmdale*

Under this alternative, direct land use impacts within Palmdale includes the acquisition of right-of-way beginning at the proposed SR-14/HDC interchange moving east along Avenue P through 120<sup>th</sup> Street. Within this segment, approximately 653 acres will be acquired to accommodate the 500 foot right-of-way for the construction of the freeway. Existing land uses shown in **Table 2.1.2.A**, would be changed to transportation related use. Indirect impacts affecting existing land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to on and off-ramp locations within existing developed areas. Increased development may lead to an increase in traffic within the area. Specific plan use has also been identified within the study area, in which a trade and commerce center has been designated. The specific plan is entitled, *The Palmdale Trade and Commerce Center Specific Plan* (2004). The conversion of existing land uses towards transportation related land use may prove to be beneficial for the trade and commerce center in which the provided infrastructure through this alternative will allow for greater access for the center.

**Table 2.1.2.A – Palmdale Land Use Impacts**

Location	Land Use Impacts
SR-14/HDC Interchange to 15 <sup>th</sup> Street	Office Commercial
	Business Park
	Industrial
15 <sup>th</sup> Street to 90 <sup>th</sup> Street	Airport
90 <sup>th</sup> to 120 <sup>th</sup> Street	Industrial
	Business Park
<b>Variation A</b>	
15 <sup>th</sup> Street to Little Rock Wash	Airport

Under Variation A, within the City of Palmdale, the freeway/expressway would dip slightly south of the main alignment, approximately between 15<sup>th</sup> Street East and Little Rock Wash. As shown in **Table 2.1.2.A**, a segment of airport land use will be directly impacted as a result of this variation.

*Unincorporated Los Angeles County*

Existing land uses directly located within the proposed right-of-way required for the construction of the project, as shown in **Table 2.1.2.B**, will be altered to transportation related use in order to accommodate for the proposed highway. Indirect impacts affecting land use based on **Section 3.2.2**, are not anticipated since the interchanges are located within isolated areas away from development in which based on land use policies as previously mentioned in the *Preliminary Plan* encourages infill development within existing areas in addition to the preservation of the rural character within unincorporated areas of Los Angeles County. As a result, the surrounding existing land uses within the unincorporated areas would be maintained. Change is anticipated in existing land use within developed areas such as Victorville and Palmdale.

**Table 2.1.1.B – Unincorporated Los Angeles County Land Use Impacts**

Location	Land Use Impacts
120 <sup>th</sup> Street to the county line	Non-Urban 1 (0.5 dwelling units/acre)
	Open Space, Bureau of Land Management
	Public Service Facilities
<b>Variation D</b>	
South of the main alignment, just south of Avenue R approximately between 180 <sup>th</sup> Street East and 230 <sup>th</sup> Street East.	Non-Urban 1 (0.5 dwelling units/acre)

Under Variation D, which begins near the community of Lake Los Angeles, the freeway would dip slightly south of the main alignment. The variation begins just south of Avenue R approximately between 180<sup>th</sup> Street East and 230<sup>th</sup> Street East. Direct impacts to existing land uses include Non-Urban 1, which will be altered towards transportation related use.

*Unincorporated San Bernardino County*

Under this alternative, direct land use impacts within unincorporated areas of San Bernardino County includes the acquisition of right-of-way beginning at the Los Angeles and San Bernardino County line moving east towards Lessing Avenue. Within this segment, approximately 1,074 acres will be acquired for the construction of the freeway alignment. The right-of-way width required for this segment of the project is approximately 300 feet. Land uses directly located within the proposed right-of-way required for the construction of the project is shown in **Table 2.1.1.C**. Segments of rural living and industrial land uses would be converted to transportation related use. Indirect impacts affecting existing land use under this alternative are not anticipated as discussed under **Section 3.2.2** of the Growth analysis.

**Table 2.1.1.C – Unincorporated San Bernardino County Land Use Impacts**

Location	Land Use Impacts
County line to Lessing Avenue	Rural Living
	Industrial
<b>Variation B</b>	
East of the county line, the freeway/expressway would flare out slightly south of the main alignment between Oasis Rd. and Coughlin Rd.	Rural Living
Joshua Rd. to State Route 18 Connector	Rural Living
	Industrial
	General Commercial

Under Variation B, east of the county line, the freeway/expressway alignment would flare out slightly south of the main alignment between Oasis Road and Coughlin Road. Existing land uses that will be converted to transportation related use include rural living, industrial, and general commercial. The proposed alignment under Variation B avoids the acquisition of a dairy farm.

*Adelanto*

Direct land use impacts under this alternative within the City of Adelanto includes the acquisition of right-of-way beginning at Lessing Avenue moving east towards the intersection of Air Expressway and Phantom Street. Within this segment, approximately 875 acres will be acquired for the construction of the freeway alignment. The right-of-way width required for the project is approximately 300 feet. Land uses directly located within the proposed right-of-way required for the construction of the project include industrial and commercial use, as shown in **Table 2.1.1.D**, which will be converted towards transportation related use. The proposed Project will provide greater access to existing areas, which may provide economic benefits for those particular industries. Greater access can be defined as improved connectivity as a result of the new facility and improved interchanges. Indirect impacts affecting existing land use within developed areas of Adelanto include potential shifts towards commercial and industrial use adjacent to interchange locations. The project would support existing land uses.

**Table 2.1.1.D – Adelanto Land Use Impacts**

Location	Land Use Impacts
Lessing Avenue to Intersection of Air Expressway and Phantom Street	Manufacturing/Industrial
	Community Facility
	Light Manufacturing
	Commercial Restricted
	General Commercial
<b>Variation E</b>	
East of the county line, the freeway/expressway would flare out slightly south of the main alignment between Oasis Rd. and Coughlin Rd.	Manufacturing/Industrial
	Desert Living 9
	General Commercial

Due to right-of-way restrictions and to avoid direct impacts on the federal prison, Variation E was established. Under Variation E, near the cities of Adelanto and Victorville, the freeway/expressway alignment would dip south of the federal prison. Existing land uses that will be converted towards transportation related use, as shown in **Table 2.1.1.D**, include manufacturing, industrial, desert living 9, and general commercial.

*Victorville*

Under this alternative, direct land use impacts within the City of Victorville includes the acquisition of right-of-way beginning at the intersection of Air Expressway and Phantom Street moving east towards Interstate 15. Within this segment, approximately 433 acres will be acquired for the construction of the freeway alignment. The right-of-way width required for this segment of the project is approximately 300 feet. Land uses directly located within the acquired right-of-way required for the construction of the project are listed in **Table 2.1.1.E**. Indirect impacts to existing land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to on and off-ramp locations. Increased development within these areas may lead to increased traffic within the area.

**Table 2.1.1.E – Victorville Land Use Impacts**

Location	Land Use Impacts
Intersection of Air Expressway and Phantom Street to Interstate 15.	Specific Plan
	Commercial
	Heavy Industrial
	Agricultural
	Conservancy and Floodplain
<b>Variation E</b>	
East of the county line, the freeway/expressway would flare out slightly south of the main alignment between Oasis Rd. and Coughlin Rd.	Specific Plan
	Very Low Density Residential
	Commercial
	Heavy Industrial
	Conservancy and Floodplain
Agricultural	

Under Variation E, near Adelanto and Victorville, the freeway/expressway would dip south of the federal prison. Direct land use impacts within the proposed right-of-way of Variation E within Victorville includes specific plan, very low-density residential, commercial, heavy industrial, conservancy and floodplain, and agricultural use which will be converted towards transportation related use.

*Apple Valley*

Under this alternative, direct land use impacts within unincorporated areas within Apple Valley includes the acquisition of right-of-way beginning at Interstate 15 moving east towards Joshua Road. Within this segment, approximately 519 acres will be acquired for the construction of the freeway alignment. The right-of-way width required for the project is approximately 300 feet. Existing land uses directly located within the proposed right-of-way required for the construction of the project are shown in **Table 2.1.1.F**, which will be converted towards transportation related use.

**Table 2.1.1.F – Apple Valley Land Use Impacts**

Location	Land Use Impacts
Interstate 15 to Joshua Rd.	Regional Commercial
	Mineral Resources
	Mobile Home Park
	Office Professional
	Specific Plan
	Very Low Density Residential
	Single-family Residential
	Estate Residential

Freeway/Tollway Alternative

This alternative follows the same physical alignment as the Freeway/Expressway Alternative (including Variations A, D, B and E), but with the inclusion of tolled lanes. As a result, land use impacts are similar to those as previously discussed under the Freeway/Expressway Alternative; however, for indirect impacts, based on Section 3.2.2, Growth, the proposed tollway alignment has the potential to shift local traffic to the existing arterial network.

Freeway/Tollway Alternative with High Speed Rail Feeder Service

This alternative follows the same physical alignment as the Freeway/Expressway Alternative (including Variations A, D, B and E), but includes a High Speed Rail (HSR) Feeder Service between Palmdale and Victorville. The HSR is to be constructed within the centerline of the Project alignment, except two areas within the cities of Palmdale and Victorville in which the rail alignment diverges from the Project alignment in order to connect to station locations. As a result, additional right-of-way would be acquired for the construction of the HSR alignment. Under this alternative, **Tables 2.1.2.G** and **2.1.2.H** below displays additional land use impacts for the segments of the HSR within Palmdale, Victorville, and unincorporated areas within San Bernardino County in which segments of existing land uses will be converted towards transportation related use. Land use impacts discussed under the Freeway/Expressway Alternative are also considered under this alternative since the proposed freeway/expressway is part of this alternative.

**Table 2.1.2.G - Palmdale High Speed Rail Options 1 and 7 Land Use Impacts**

Location	Land Use Impacts
Avenue P and Sierra Highway Vicinity	Airport
	Public Facility
	Commercial Manufacturing
	Industrial
	Medium Residential
	Open Space

**Table 2.1.2.H – Victorville and Uninc. San Bernardino County High Speed Rail Options 1 and 7 Land Use Impacts**

Location	Land Use Impacts
Victorville	Specific Plan (Desert Gateway)
Unincorporated San Bernardino County	Neighborhood Commercial
	Institutional
	Resource Conservation

Existing land uses affected include: airport, public facility, manufacturing, industrial, medium residential, and open space. The city of Palmdale has developed a specific plan entitled, *The Draft Palmdale Transit Village Specific Plan*, which calls for transit-oriented development adjacent to the existing Palmdale Transportation Center along Avenue Q, which would provide workforce and affordable housing for low- and moderate-income households by providing a 121-unit townhome development with related amenities and parking, in addition to 156 units of multi-family rental housing with related amenities and parking. The HSR will provide a connection at the Palmdale Transportation Center which will provide for increased connectivity and access. In addition, Palmdale has designated specific plan land uses north of Palmdale Boulevard, in which the HSR alignment would be located directly south of the specific plan land use designated for Lockheed Martin, an aeronautical contractor located within Palmdale.

As discussed in the Freeway/Expressway Alternative, the project could improve surrounding existing land uses by providing infrastructure and improved access and linkages between communities, businesses, and facilities. Additional direct land use impacts within Palmdale would occur under this alternative; however, existing land uses surrounding the Palmdale Station would be benefited by allowing greater access and multimodal transit options for the surrounding area. Indirect impacts affecting land use include the potential shift of existing land uses to higher densities within a ¼-mile vicinity of the Palmdale Station, which will provide for potential infill development, as discussed under **Section 3.2.2** of the Growth Analysis section.

As for Victorville and unincorporated areas within San Bernardino County, direct land use impacts include: specific plan (Desert Gateway), neighborhood commercial, institutional, and

resource conservation use, in which segments of existing land uses will be converted towards transportation related use in order to accommodate the HSR segment. Indirect impacts affecting land use includes shifting existing land uses towards high densities within a ¼-mile vicinity of the Victorville Station. The area surrounding the proposed Victorville Station is largely undeveloped. However, with the planned development of the proposed Desert Gateway project, the Project can provide infrastructure for the proposed community providing greater access and linkages to existing communities.

### *Palmdale Rail Station Study Area*

Potential impacts to land use may occur as a result of implementing the proposed design variation under rail options 1 and 7. Direct land use impacts may occur through the acquisition of right-of-way required for the construction of the project. Since the proposed Wye Connection is a new facility, existing land uses directly within the project footprint would be converted to transportation related use.

Indirect impacts as defined by CEQA are effects that are reasonably foreseeable and caused by a project, but occur at a different time or place. Under NEPA, indirect impacts are defined as effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Indirect land use impacts as a result of the project are most likely to occur within close vicinity of access points to the HDC corridor, such as the proposed Wye Connection. Access points include points of entry into the facility, which include on and off ramp locations and rail station locations. Over a period of time, adjacent land uses at these locations may potentially see changes from existing use towards commercial, business, and/or residential based land uses. However, development and growth are dependent on market demand. Shifts in land use are expected to occur along interchanges and other ingress/egress points located within developed areas. However, a majority of the land adjacent to the proposed Wye Connection and proposed parking location is currently vacant or undeveloped; thereby reducing potential land use impacts through relocation, or permanent land use shifts related to existing uses. As growth and development continues in these areas, vacant land will continue to be in adequate supply within close proximity, and shifts in land use are not anticipated to produce significant land use impacts.

### **Rail Option 1**

Under Rail Option 1, the project would directly affect existing land use within the southern Palmdale rail station study area. Changes in land use towards transportation related use may

prove to be beneficial by providing infrastructure for surrounding land uses, improved access, and linkages between various residential communities, businesses, and facilities. With the development of infrastructure, the project also has the potential to provide development for local businesses and industries, which may provide local employment opportunities within the community.

In addition, under this option there is a potential for existing land uses located along Sierra Highway and the Palmdale Transportation Center to shift towards greater commercial and industrial use – uses which large portions of land are currently designated for, especially industrial use. Based on the general plans for local municipalities, including Palmdale, growth and economic development are encouraged within the incorporated cities that are part of the HDC Project. Therefore, the proposed project under this rail option is consistent with Palmdale’s existing and future general plan land use designations in the project area and should not pose an adverse effect on surrounding existing land uses.

Indirect impacts affecting land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection, proposed parking, and relocated Metrolink rail station platform locations. However, the proposed project under this rail option is generally consistent with existing general land use designations in the vicinity of the project, and is not anticipated to pose an adverse effect on surrounding land uses.

### ***Station Variation A***

Under this station variation, potential direct land use impacts within the southern Palmdale rail station study area includes the acquisition of right-of-way beginning at Technology Drive moving south along Transportation Center Drive through Clock Tower Plaza Drive/6th Street East, to approximately 450 feet north of East Avenue Q.

Within this segment, approximately 96 acres would potentially be acquired to accommodate the right-of-way for the construction of the rail connection, proposed parking, and relocation of the existing Palmdale Transportation Center and Metrolink rail platforms. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would require changing land use from industrial to transportation related use. Furthermore, the relocated Metrolink rail platform would require changing land use from Industrial and Other Jurisdiction (Los Angeles County) to transportation related use.

Existing general plan land uses shown in **Table 2.1.2.I**, would be changed to transportation related use, except for those uses already designated as Transportation right-of-way. Indirect impacts affecting existing land use outside of the affected parcels may occur, in which land use

shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection and Palmdale Transportation Center locations. However, specific plan use designation is also located near the study area for a trade and commerce center entitled, *The Palmdale Trade and Commerce Center Specific Plan (2004)*. As such, it is anticipated that development of commercial and industrial use will continue in the general vicinity of the proposed Wye Connection and Palmdale Transportation Center. Parcels that would require a shift in land use are listed below.

It is anticipated that either a partial of full acquisition would be necessary from the following parcels:

**AIN:** 3006005803, 3006005804, 3006006027, 3006006029, 3006006034, 3006006035, 3006006038, 3006006039, 3006006912, 3006006913, 3006006914, 3022024817, 3006005004, 3006005005, 3022023002, 3022023016, 3022023022, 3022023023, 3006005900, 3006005901, 3006005902, 3006005903, 3022024818, and 3022024904.

**Table 2.1.2.I –High Speed Rail Option 1 Station Variation A Land Use Impacts**

Location	Land Use Impacts
Technology Drive/Transportation Center Drive to Transportation Center Drive/6th Street East	Industrial
	Transportation ROW
	Other Jurisdiction (Los Angeles County)
Transportation Center Drive/6th Street East to 6th Street East/East Avenue Q	Industrial
	Transportation ROW
	Other Jurisdiction (Los Angeles County)
Sierra Highway/Technology Drive	Industrial
	Transportation ROW
	Other Jurisdiction (Los Angeles County)

Additionally, the proposed Wye Connection under Rail Option 1 Station Variation A would need several permanent easements from the parcels listed in below in order to construct the tunnel segment of the proposed Wye Connection.

It is anticipated that a permanent underground easement will be necessary from the following parcels in order to construct the proposed Wye Connection tunnel segment:

**AIN:** 3022001005, 3022001006, 3022001008, 3022001009, 3022001010, 3022001018, 3022001025,3022001027, 3022002005, 3022002023, 3022002916, 3022004002, 3022004003, 3022004004,3022004005, 3022004023, 3022004024, 3022004028, 3022004032, 3022004034, 3022004035,3022004036, 3022004908, 3022005288, 3022005289, 3022005292, 3022005293, 3022005295,3022005296, 3022024815, 3022024816, 3022024903, 3022025002, 3022025003,

3022025004,3022025006, 3022025007, 3022025008, 3022025011, 3022025012, 3022025014, 3022025015,3022025016, 3022026001, 3022026005, 3022026008, 3022026009, 3022026010, 3022026011,3022026012, 3022026013, 3022027017, 3022027911, 3022035801, 3022035901, 3022035902, and 3022035009.

### ***Station Variation B***

Potential land use and relocation impacts would generally be similar to those under Station Variation A, except for slight differences in right-of-way impacts associated with the relocated Metrolink rail platform near 6th Street East and East Avenue Q. The discussion below highlights the potential land use impacts associated with Variation B where it differs from Variation A.

Under Rail Option 1 Station Variation B, potential direct land use impacts within the southern Palmdale rail station study area includes the acquisition of right-of-way beginning at Technology Drive moving south along Transportation Center Drive through Clock Tower Plaza Drive/6th Street East, to immediately north of East Avenue Q3.

Within this segment, approximately 97 acres would potentially be acquired to accommodate the right-of-way for the construction of the rail connection, proposed parking, and relocation of the existing Metrolink rail platforms. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would require changing land use from industrial to transportation related use. Furthermore, the relocated Metrolink rail platform would require changing land use from Industrial, Other Jurisdiction (Los Angeles County), and Public Facility to transportation related use. Uses designated as Transportation right-of-way would remain designated for transportation related uses.

Existing general plan land uses shown in **Table 2.1.2.J**, would be changed to transportation related use, except for those uses already designated as Transportation right-of-way. In general, land use direct impacts are similar to Station Variation A under Rail Option 1, with the exception of several additional parcels that would be affected by potential right-of-way acquisition. Indirect impacts affecting existing land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection and relocated Metrolink rail station platform locations. Therefore, the proposed project under this station variation is generally consistent with the local existing and future land use designations and is not anticipated to pose an adverse effect on surrounding existing land uses. Parcels that would require a shift in land use are listed below.

It is anticipated that either a partial or full acquisition will be necessary from the following parcels:

**AIN:** 3006005004, 3006005005, 3006005803, 3006005804, 3006005900, 3006005901, 3006005902,3006005903, 3006006027, 3006006029, 3006006034, 3006006035, 3006006038, 3006006039,3006006912, 3006006913, 3006006914, 3006008902, 3008029802, 3008029803, 3008029804,3008029805, 3008029900, 3008029901, 3008029919, 3008029920, 3022023002, 3022023016,3022023022, 3022023023, 3022024817, 3022024818, 3022024904, and 3006008904.

**Table 2.1.2.J –High Speed Rail Option 1 Station Variation B Land Use Impacts**

Location	Land Use Impacts
Technology Drive/Transportation Center Drive to Transportation Center Drive/6th Street East	Industrial
	Transportation ROW
	Other Jurisdiction (Los Angeles County)
Transportation Center Drive/6th Street East to 6th Street East/East Avenue Q	Industrial
	Transportation ROW
	Other Jurisdiction (Los Angeles County)
Sierra Highway/Technology Drive	Industrial
	Transportation ROW
	Other Jurisdiction (Los Angeles County)

Similar to Station Variation A, the proposed Wye Connection under Rail Option 1 Station Variation B would need several permanent easements from the parcels listed below in order to construct the tunnel segment of the proposed Wye Connection.

It is anticipated that a permanent underground easement will be necessary from the following parcels in order to construct the proposed Wye Connection tunnel segment:

**AIN:** 3022001005, 3022001006, 3022001008, 3022001009, 3022001010, 3022001018, 3022001025,3022001027, 3022002005, 3022002023, 3022002916, 3022004002, 3022004003, 3022004004,3022004005, 3022004023, 3022004024, 3022004028, 3022004032, 3022004034, 3022004035,3022004036, 3022004908, 3022005288, 3022005289, 3022005292, 3022005293, 3022005295,3022005296, 3022024815, 3022024816, 3022024903, 3022025002, 3022025003, 3022025004,3022025006, 3022025007, 3022025008, 3022025011, 3022025012, 3022025014, 3022025015,3022025016, 3022026001, 3022026005, 3022026008, 3022026009, 3022026010, 3022026011,3022026012, 3022026013, 3022027017, 3022027911, 3022035801, 3022035901, 3022035902, and 3022035009.

**Station Variation C**

Under Rail Option 1 Station Variation C, potential direct land use impacts within the southern Palmdale rail station study area include the acquisition of right-of-way beginning at Technology

Drive moving south along Transportation Center Drive through Clock Tower Plaza Drive/6th Street East, and south along 6th Street East to approximately 500 feet north of East Avenue Q3, where the proposed Metrolink rail station platform is proposed under Station Variation C.

Within this segment, approximately 102 acres would potentially be partially or fully acquired to accommodate the right-of-way for the construction of the HDC to CHSR rail connection, proposed parking, and relocation of the existing Metrolink rail platforms. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would require changing land use on nine (9) parcels from Industrial to transportation related use. Additionally, relocation of the Metrolink rail platform would require changing land use from Commercial Manufacturing across 11 parcels to transportation related use. Similar to Station Variations A and B, the Wye Connection track split portion is proposed under Rail Option 1 as a tunnel segment connecting the HDC to the CHSR, and is therefore not anticipated to result in the permanent acquisition of right-of-way, with the exception of required permanent underground easements, as discussed below.

Existing general plan land uses shown in **Table 2.1.2K**, would be changed to transportation related use, except for uses already designated as Transportation right-of-way. As the location of Station Variation C is located to the west of Station Variations A and B, outside the existing UPRR right-of-way, direct land use impacts would thus differ relative to Station Variations A and B – but primarily consist of relocation impacts also. Parcels that would require a shift in land use are listed below.

It is anticipated that either a partial or full acquisition will be necessary at the following parcels:

**AIN:** 3006006027, 3006006029, 3006006034, 3006006035, 3006006038, 3006006039, 3006006903, 3006006904, 3006006905, 3006006906, 3006006908, 3006006912, 3006006913, 3006006914, 3006007023, 3006007024, 3006007025, 3006007026, 3006007027, 3006007028, 3006007029, 3006007030, 3006007031, 3006007032, 3006007033, 3006007034, 3006008903, 3008011001, 3008011002, 3008011003, 3008011004, 3008011005, 3008011006, 3008011007, 3008011008, 3008011009, 3008011010, 3008011011, and 3006008905.

**Table 2.1.2.K –High Speed Rail Option 1 Station Variation C Land Use Impacts**

Location	Land Use Impacts
Technology Drive/Transportation Center Drive to Transportation Center Drive/6th Street East	Business park
	Industrial
Transportation Center Drive/6th Street East to 6th Street East/East Avenue Q	Business park
	Commercial Manufacturing
	Industrial

Similar to Station Variations A and B, the proposed Wye Connection under Rail Option 1 Station Variation C would need several permanent easements from the parcels listed below in order to construct the tunnel segment of the proposed Wye Connection without permanent right-of-way acquisition resulting in relocation and/or displacement.

It is anticipated that a permanent underground easement will be necessary from the following parcels in order to construct the proposed Wye Connection tunnel segment under Station Variation C:

**AIN:** 3006003036, 3006003039, 3006003040, 3006003041, 3006003044, 3006003049, 3006004002,3006004006, 3006004008, 3006004009, 3006004011, 3006004012, 3006004014, 3006004027,3006004039, 3006004040, 3006004042, 3006004052, 3006004053, 3006027001, 3006027005,3022001011, 3022001012, 3022001013, 3022001014, 3022001015, 3022001016, 3022001017,3022001018, 3022001019, 3022001020, 3022001021, 3022001022, 3022001024, 3022001025,3022001027, 3022002023, 3022004002, 3022004003, 3022004023, 3022004024, 3022004032,3022004034, 3022004035, 3022004036, 3022004908, 3022024001, 3022024002, 3022024809,3022024811, 3022024816, 3022024818, 3022024819, 3022024900, 3022024901, 3022024903,3022024904, 3022024906, 3022024907, 3022025001, 3022025002, 3022025003, 3022025005,3022025006, 3022025007, 3022025008, 3022025009, 3022025011, 3022025012, 3022025013,3022025014, 3022025016, 3022026001, 3022026005, 3022026008, 3022026009, 3022026010,3022026013, 3022027017, and 3022027911.

### **Rail Option 7**

Under Rail Option 7, the project would directly affect existing land use within the southern Palmdale rail station study area. Changes in land use towards transportation related use may prove to be beneficial by providing infrastructure for surrounding land uses, improved access, and linkages between various residential communities, businesses, and facilities. With the development of infrastructure, the project also has the potential to provide development for local businesses and industries, which may provide local employment opportunities within the community.

In addition, under this option there is a potential for existing land uses located along Sierra Highway and the Palmdale Transportation Center to shift towards greater commercial and industrial use – uses which large portions of land are currently designated for, especially industrial use. Based on the general plans for local municipalities, including Palmdale, growth and economic development are encouraged within the incorporated cities that are part of the HDC Project. Therefore, the proposed project under this rail option is consistent with Palmdale’s existing and future general plan land use designations in the project area and should not pose an adverse effect on surrounding existing land uses.

Indirect impacts affecting land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection, proposed parking, and relocated Metrolink rail station platform locations. However, the proposed project under this rail option is generally consistent with existing general land use designations in the vicinity of the project, and is not anticipated to pose an adverse effect on surrounding land uses.

### ***Station Variation A***

Under this station variation, potential direct land use impacts within the southern Palmdale rail station study area includes the acquisition of right-of-way beginning along eastern side of Sierra Highway approximately 1,300 feet north of Technology Drive, moving south along Sierra Highway, and south along Transportation Center Drive through Clock Tower Plaza Drive/6th Street East, to East Avenue Q.

Within this segment, approximately 135 acres would potentially be acquired to accommodate the right-of-way for the construction of the rail connection, proposed parking, and relocation of the existing Palmdale Transportation Center and Metrolink rail platforms. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would require shifting general plan land use from Industrial to transportation related use. Furthermore, the relocated Metrolink rail platform would require changing general plan land use from Industrial and Other Jurisdiction (Los Angeles County) to transportation related use.

Existing general plan land uses shown in **Table 2.1.2.L**, would be changed to transportation related use, except for those uses already designated as Transportation right-of-way according to Palmdale's general plan land use. Indirect impacts affecting existing land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection and Palmdale Transportation Center locations. However, specific plan use designation is also located near the study area for a trade and commerce center entitled, *The Palmdale Trade and Commerce Center Specific Plan* (2004), and for a transit oriented residential village, *The Palmdale Transit Village Specific Plan* (2007). As such, it is anticipated that development of commercial and industrial use will continue in the general vicinity of the proposed Wye Connection and Palmdale Transportation Center. Parcels that would require a shift in land use are listed below.

It is anticipated that either a partial of full acquisition will be necessary from the following parcels:

**AIN:** 3022001008, 3022001009, 3022001010, 3022024815, 3006005803, 3006005804, 3006006027, 3006006029, 3006006034, 3006006035, 3006006038, 3006006039, 3006006912,

3006006913,3006006914, 3022024817, 3022001005, 3022001006, 3006005004, 3006005005, 3022023002,3022023016, 3022023022, 3022023023, 3006005900, 3006005901, 3006005902, 3006005903,3022024818, 3022024904, 3022024816, and 3022024903.

**Table 2.1.2.L –High Speed Rail Option 7 Station Variation A Land Use Impacts**

Location	Land Use Impacts
Sierra Highway/north of Technology Drive to Sierra Highway/East Avenue Q	Business Park
	Industrial
	Other Jurisdiction (Los Angeles County)
	Transportation ROW
Technology Drive/ Transportation Center Drive to Transportation Center Drive/6th Street East	Industrial
Transportation Center Drive/6th Street East to 6th Street East/ East Avenue Q	Industrial
	Transportation ROW

Additionally, the proposed Wye Connection under Rail Option 7 Station Variation A would at least require permanent easements from the parcels listed below in order to construct the aerial and tunnel segments of the proposed Wye Connection.

It is anticipated that permanent aerial easements will be necessary from the following parcels in order to construct the proposed Wye Connection aerial segment:

**AIN:** 3022003001, 3022003003, 3022003004, 3022003005, 3022003006, 3022003013, 3022003014,3022003015, 3022003016, 3022003017, 3022003018, 3022003019, 3022003035, 3022003036,3022004011, 3022004015, 3022004016, 3022004025, 3022004026, 3022002006, 3022002008,3022002011, 3022002012, 3022002023, 3022002916, 3022004007, 3022004010, 3022004908,3022024811, 3022025001, 3022025005, 3022025006, 3022025010, 3022025013, 3022026008,3022026013, 3022035801, 3022035901, 3022035902, and 3022035009.

Additionally, it is anticipated that permanent underground easements will be necessary from the following parcels in order to construct the proposed Wye Connection tunnel segment:

**AIN:** 3022024809, 3022024811, 3022024813, 3022025001, 3022025005, 3022025006, 3022025009, 3022025010, 3022025013, 3022026001, 3022026002, 3022026003, 3022026004, 3022026005, 3022026008, 3022026010, 3022026013, 3022024819, 3022024900, 3022024902, 3022024906, and 3022024908.

***Station Variation B***

Potential land use and relocation impacts would generally be similar to those under Station Variation A, except for slight differences in right-of-way impacts associated with the relocated

Metrolink rail platform near 6th Street East and East Avenue Q. The discussion below highlights the potential land use impacts associated with Variation B where it differs from Variation A.

Under this station variation, potential direct land use impacts within the southern Palmdale rail station study area includes the acquisition of right-of-way beginning along eastern side of Sierra Highway approximately 1,300 feet north of Technology Drive, moving south along Sierra Highway, and south along Transportation Center Drive through Clock Tower Plaza Drive/6th Street East, to approximately 400 feet south of East Avenue Q3.

Within this segment, approximately 126 acres would potentially be acquired to accommodate the right-of-way for the construction of the rail connection, proposed parking, and relocation of the existing Metrolink rail platforms. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would require shifting general plan land use from Industrial to transportation related use. Furthermore, the relocated Metrolink rail platform would require changing general plan land use from Industrial, Other Jurisdiction (Los Angeles County), and Public Facility to transportation related use. Uses with a general plan land use designation of Transportation right-of-way would remain designated for transportation related uses.

Existing general plan land uses shown in **Table 2.1.2.M**, would be changed to transportation related use, except for those uses already designated as Transportation right-of-way according to Palmdale's general plan land use. In general, land use direct impacts are similar to Station Variation A under Rail Option 7, with the exception of several additional parcels between East Avenue Q and East Avenue Q3, which would be affected by potential right-of-way acquisition, and currently have general plan land use designations of Public Facility and Transportation ROW. Indirect impacts affecting existing land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection, proposed parking and relocated Metrolink rail station platform locations. However, specific plan use designation is also located near the study area for a trade and commerce center entitled, *The Palmdale Trade and Commerce Center Specific Plan* (2004), and for a transit oriented residential village, *The Palmdale Transit Village Specific Plan* (2007). As such, it is anticipated that development of commercial and industrial use will continue in the general vicinity of the proposed Wye Connection and Palmdale Transportation Center. Therefore, the proposed project under this station variation is generally consistent with the local existing and future land use designations and is not anticipated to pose an adverse effect on surrounding existing land uses. Parcels that would require a shift in land use are listed below.

It is anticipated that either a partial of full acquisition will be necessary from the following parcels:

**AIN:** 3006005004, 3006005005, 3006005803, 3006005804, 3006005900, 3006005901, 3006005902,3006005903, 3006006027, 3006006029, 3006006034, 3006006035, 3006006038, 3006006039,3006006912, 3006006913, 3006006914, 3022023002, 3022023016, 3022023022, 3022023023,3022024817, 3022024818, 3022024904, 3022001005, 3022001006, 3022001008, 3022001009,3022001010, 3022024815, 3022024816, 3022024903, 3008029802, 3008029803, 3008029804,3008029805, 3008029900, 3008029901, 3008029919, and 3008029920.

Under this station variation, potential direct land use impacts within the southern Palmdale rail station study area includes the acquisition of right-of-way beginning along eastern side of Sierra Highway approximately 1,300 feet north of Technology Drive, moving south along Sierra Highway, and south along Transportation Center Drive through Clock Tower Plaza Drive/6th Street East, to approximately 400 feet south of East Avenue Q3.

**Table 2.1.2.M –High Speed Rail Option 7 Station Variation B Land Use Impacts**

Location	Land Use Impacts
Sierra Highway/north of Technology Drive to Sierra Highway/East Avenue Q	Business Park
	Industrial
	Other Jurisdiction (Los Angeles County)
	Transportation ROW
Technology Drive/ Transportation Center Drive to Transportation Center Drive/6th Street East	Industrial
Transportation Center Drive/6th Street East to 6th Street East/ East Avenue Q	Industrial
	Public Facility
	Transportation ROW

Additionally, the proposed Wye Connection under Rail Option 7 Station Variation B would at least require permanent easements from the parcels listed below in order to construct the aerial and tunnel segments of the proposed Wye Connection. It is noted that potential aerial and underground easement requirements under Rail Option 7 Station Variation B are similar to those under Station Variation A.

As such, it is anticipated that permanent aerial easements will be necessary from the following parcels in order to construct the proposed Wye Connection aerial segment:

**AIN:** 3022003001, 3022003003, 3022003004, 3022003005, 3022003006, 3022003013, 3022003014,3022003015, 3022003016, 3022003017, 3022003018, 3022003019, 3022003035, 3022003036,3022004011, 3022004015, 3022004016, 3022004025, 3022004026, 3022002006, 3022002008,3022002011, 3022002012, 3022002023, 3022002916, 3022004007, 3022004010, 3022004908,3022024811, 3022025001, 3022025005, 3022025006, 3022025010, 3022025013, 3022026008,3022026013, 3022035801, 3022035901, 3022035902, and 3022035009.

Additionally, it is anticipated that permanent underground easements will be necessary from the following parcels in order to construct the proposed Wye Connection tunnel segment:

**AIN:** 3022024809, 3022024811, 3022024813, 3022025001, 3022025005, 3022025006, 3022025009, 3022025010, 3022025013, 3022026001, 3022026002, 3022026003, 3022026004, 3022026005, 3022026008, 3022026010, 3022026013, 3022024819, 3022024900, 3022024902, 3022024906, and 3022024908.

### ***Station Variation C***

Under this station variation, potential direct land use impacts within the southern Palmdale rail station study area include the acquisition of right-of-way beginning at approximately 900 feet north of Technology Drive moving south along Transportation Center Drive through Clock Tower Plaza Drive/6<sup>th</sup> Street East, and south along 6th Street East to approximately to approximately 500 feet north of East Avenue Q3, where the proposed Metrolink rail station platform is proposed under Station Variation C.

Within this segment, approximately 131 acres would potentially be partially or fully acquired to accommodate the right-of-way for the construction of the HDC to CHSR Wye Connection, proposed parking, and relocation of the existing Metrolink rail platforms. Station area parking is proposed at the terminus of 6th Street (UPRR/Sierra Highway) and would require shifting general plan land use on ten (10) parcels from Industrial to transportation related use. Additionally, relocation of the Metrolink rail station platform would require changing general plan land use on 11 parcels from Commercial Manufacturing to transportation related use. Similar to Station Variations A and B, the Wye Connection track split portion is proposed under Rail Option 7 with aerial and tunnel segments connecting the HDC to the CHSR, and is therefore not anticipated to result in the permanent acquisition of right-of-way, with the exception of required permanent aerial and underground easements, as discussed below.

Existing general plan land uses shown in **Table 2.1.2.N**, would be changed to transportation related use, except for uses already designated as Transportation right-of-way according to Palmdale's general plan land use. As the location of Station Variation C is located to the west of Station Variations A and B, outside the existing UPRR right-of-way, direct land use impacts would thus differ relative to Station Variations A and B – but mainly consist of right-of-way impacts as well; primarily between Technology Drive and approximately 500 feet north of East Avenue Q3.

Indirect impacts affecting existing land use outside of the affected parcels may occur, in which land use shifts towards commercial and industrial use may occur within close proximity to the proposed Wye Connection, proposed parking and relocated Metrolink rail station platform

locations. However, specific plan use designation is also located near the study area for a trade and commerce center entitled, *The Palmdale Trade and Commerce Center Specific Plan* (2004), and for a transit oriented residential village, *The Palmdale Transit Village Specific Plan* (2007). As such, it is anticipated that development of commercial and industrial uses will continue in the general vicinity of the proposed Wye Connection and Palmdale Transportation Center. Therefore, the proposed project under this station variation is generally consistent with the local existing and future land use designations and is not anticipated to pose an adverse effect on surrounding existing land uses. Parcels that would require a shift in land use are listed below.

It is anticipated that either a partial or full acquisition will be necessary at the following parcels:

**AIN:** 3006004002, 3006004027, 3006004039, 3006004040, 3006006027, 3006006029, 3006006034, 3006006035, 3006006038, 3006006039, 3006006903, 3006006904, 3006006905, 3006006906, 3006006908, 3006006912, 3006006913, 3006006914, 3006007025, 3006007026, 3006007027, 3006007028, 3006007029, 3006007030, 3006007031, 3006007032, 3006007033, 3006008903, 3008011001, 3008011002, 3008011003, 3008011004, 3008011005, 3008011006, 3008011007, 3008011008, 3008011009, 3008011010, 3008011011, and 3006008905.

**Table 2.1.2.N –High Speed Rail Option 7 Station Variation C Land Use Impacts**

Location	Land Use Impacts
Technology Drive/ Transportation Center Drive to Transportation Center Drive/6th Street East	Business Park
	Industrial
Transportation Center Drive/6th Street East to 6th Street East/ East Avenue Q3	Business Park
	Commercial Manufacturing
	Industrial

Additionally, the proposed Wye Connection, parking, and relocation of Metrolink rail platform under Rail Option 7 Station Variation C would at least require permanent easements from the parcels listed below in order to construct the aerial and tunnel segments of the proposed Wye Connection.

As such, it is anticipated that permanent aerial easements would be required from the following parcels in order to construct the proposed Wye Connection aerial segment:

**AIN:** 3006003036, 3006003039, 3006003040, 3006003041, 3006003044, 3006003049, 3006003050, 3006027005, 3022003025, 3022003026, 3022003027, 3022003028, 3022003037, 3022003038, 3022003039, 3022003040, 3022003041, 3022003042, 3022003043, 3022003044, 3022003045, 3022004011, 3022004015, 3022004016, 3022004018, 3022004025, 3022004026, 3022001013, 3022001014, 3022001015, 3022001020, 3022001021, 3022001022, 3022001023,

3022001025,3022002012, 3022002013, 3022002014, 3022002015, 3022002916, 3022024811, 3022025001,3022025005, 3022025009, 3022024901, and 3022024907.

Additionally, it is anticipated that permanent underground easements would be required from the following parcels in order to construct the proposed Wye Connection tunnel segment:

**AIN:** 3006004006, 3006004008, 3006004009, 3006004011, 3006004012, 3006004014, 3006004052, 3006004053, 3006027001, 3006027005, 3006004041, 3006004042, 3006004047, 3022024811, 3022025001, 3022026005, 3022026006, 3022026007, 3022026008, 3022026009, 3022026010, 3022024901, and 3022024907.

### Freeway/Expressway Alternative with High Speed Rail Feeder Service

This Alternative is the same as the Freeway/Expressway Alternative (including Variations A, D, B and E) and includes a HSR Feeder Service between Palmdale and Victorville. Land use impacts under this alternative are similar to the impacts discussed under the Freeway/Tollway Alternative with High Speed Rail Feeder Service Alternative.

### **2.1.3 Avoidance, Minimization, and Mitigation Measures**

Implementation of the following avoidance and minimization measures would avoid substantial impacts to land use for the build alternatives:

- Coordinate with local municipalities ensuring that amendments and/or land use changes are prepared and incorporated if necessary into the land use element of the general plan for that particular jurisdiction. In addition, ensure that the HDC is incorporated as part of future land use plans for that area
- If physical structures and/or properties are within the proposed acquired right-of-way for the project, Caltrans will provide appropriate Relocation Assistance for those whose property are acquired as part of the project as discussed in Section 4.4 - Relocations
- Once a preferred alternative is selected, Caltrans will notify and coordinate with Los Angeles County towards initiating a comprehensive review of the Antelope Valley Area Plan.
- Coordinate with local municipalities and ensure that the Project is consistent with the future land use within the area.

## 2.2 Consistency with State, Regional, and Local Plans

### 2.2.1 Affected Environment

This section provides an analysis of the consistency of the Project build alternatives with transportation and land use plans and policies included in the general and specific plans for the various jurisdictions within the project limits.

The HDC Project has been included in SCAG’s 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), under Project Identification Number 1C0404. FHWA and Federal Transit Administration adopted the RTP/SCS on April 4, 2012. The project is also in SCAG’s 2013 Federal Transportation Improvement Program, which was federally approved on December 14, 2012 (Project Identification Numbers LA962212, LA0G665, and SB20061702).

The relevant policies, along with an evaluation of project’s consistency with the policies are presented for each jurisdiction in **Tables 2.2.1.A - 2.2.1.F**.

#### *Palmdale*

The City of Palmdale General Plan (2011) relevant policies and goals are identified in the **Table 2.2.1.A** below.

**Table 2.2.1.A –Project Consistency with Policies and Goals (Palmdale)**

<b>The City of Palmdale General Plan – Policies and Goals</b>
<i>Policy L2.3.1: Support the rerouting of State Highway 138 to the vicinity of Avenue P-8, so as to remove regional through traffic from downtown streets.</i>
Consistent. The proposed HDC alignment is along Avenue P-8, north of downtown and south of the Palmdale Regional Airport.
<i>GOAL C1: Establish, maintain and enhance a system of streets and highways, which will provide for the safe and efficient movement of people and goods throughout the Planning Area, while minimizing adverse impacts on the community.</i>
Consistent. One of the purposes of the HDC is to improve regional and local transportation infrastructure and provides for safe and efficient movement of people and goods. At the same time, the project is designed in a manner that avoids and minimized impact to communities within the project area.
<i>Policy C1.1.2: cooperate with Caltrans and other affected jurisdictions to establish and adopt standards for intra-regional expressways.”</i>
<i>Policy C1.2.4: development of regional arterial links within the community where needed to serve existing and future needs. Coordinate with Caltrans and other affected agencies to expedite rerouting of Highway 138 and widening of State Route 14.</i>
<i>Policy C1.8.1: cooperate with other agencies and jurisdictions, including Caltrans, Los Angeles County, and adjacent cities, to evaluate the proposed solutions to regional transportation issues relating to the City of Palmdale.</i>
Consistent. In addition to Caltrans and Metro, which serves as the regional transportation planning agency for Los Angeles County, the project team includes the HDC Joint Powers Authority, which encompasses the City of Palmdale among other local jurisdictions.
<i>Objective C2.2: increase the public transit opportunities available to Palmdale residents in order to reduce traffic impacts on streets and highways and provide travel alternatives.</i>

<b>The City of Palmdale General Plan – Policies and Goals</b>
<i>Policy C2.2.4: development of regional rail transit serving the Palmdale area.</i>
Consistent. The HDC alternatives including the High Speed Rail option will include transit station improvements in Palmdale. The new freeway will improve commuter express or similar Bus Rapid services and carpool or vanpool options. The HDC alternatives would improve access to one Park and Ride facility located near the City of Palmdale.
<i>Policy C5.2.3: Promote and support regional transportation planning for routes serving the airport facility, including State Routes 14 and 138.</i>
Consistent. Implementation of the HDC project will improve access to the airport.
<i>Environmental Resources Element Policy ER2.1.1: Any development permitted in these areas must consider significant environmental resources and preserve environmental resources to the extent feasible.</i>
Consistent. The project complies with environment protection laws and regulation under CEQA and NEPA to the extent feasible.
<i>Policy ER2.1.4: Preserve natural drainage courses and riparian areas where significant concentrations of ecological resources exist.</i>
Consistent. In areas where the new facility must go through such areas, bridge or culverts shall be designed with the smallest project footprint, and will include measures to avoid, minimize and/or mitigate impacts.
<i>Policy ER2.1.5: Preserve and maintain significant Joshua tree woodlands and other significant habitat areas.</i>
<i>Policy ER7.1.3L: That new development protects significant historic, paleontological, or archaeological resources, or provide for other appropriate mitigation.</i>
<i>Implementation Program I (Native Desert Vegetation Ordinance): City Ordinance No. 952, referred to as the Native Desert Vegetation Ordinance, is designed to preserve juniper and Joshua trees which add to community identity, and to encourage the use of native vegetation in new development landscaping.</i>
Consistent. The HDC project will be designed to avoid, protect in place, and/or minimize impact to the resources addressed in the above policies and implementation program to the extent feasible.
<i>Policy PS1.2.5 requires that “infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.”</i>
<i>Policy PS3.1.3 calls to “make use of interim local drainage detention basins to slow storm water runoff, until such time as permanent drainage facilities are constructed.”</i>
<i>Policies PS3.2.1, PS3.2.2, and PS3.2.3 calls to design drainage facilities (such as detention or retention basins) to promote groundwater recharge, enhance riparian habitats, and combine it with opportunities for recreation such as trails and ball fields.</i>
Consistent. The project team will coordinate with city staff regarding storm water and placement of drainage infrastructures. Approximately one detention or retention basin is proposed every one mile along the new facility to capture runoff from the new facility.
<i>Parks, Recreation, and Trails Element Policy PRT3.1.2 calls to “provide for access points into open space areas to encourage passive recreation activities such as hiking and nature study.”</i>
Consistent. The project is consistent with this policy as it improves accessibility in general. In coordination with City staff, additional opportunities could be implemented in support of this policy to the extent feasible. The bike path along the new roadway will encourage hiking and nature study.
<i>Community Design Element Policy CD 1.1.1 calls that “each project should reflect and be integrated with the character and design of the surrounding area.”</i>
<i>Policy CD 2.2.7 calls for “Landscape and grading plans for new development should limit removal of viable mature trees, and provide for replacement of a sufficient number of trees to safeguard the ecological and aesthetic environment.”</i>
<i>Policy CD 4.4.3 requires that “retaining walls exposed to public view shall be of decorative masonry construction.”</i>
Consistent. The project team will coordinate with City staff for opportunities in support of the above policies. Structures proposed will be visually compatible with the surrounding community and architectural detail patterns, color, and materials will match the existing color palette and character of the surrounding area to the extent possible. Native vegetation will be planted in disturbed areas where space and conditions allow.

Source: *The City of Palmdale General Plan, 2011*

*Unincorporated Los Angeles County*

The Preliminary Draft Antelope Valley Area Plan (March 2011) was reviewed to identify land use policies and goals provided in the **Table 2.2.1.B** below.

**Table 2.2.1.B – Project Consistency with Policies and Goals (Unincorporated Los Angeles County)**

<i>Policy M 5.1 of the Mobility Element state the following: "Support development of the High Desert Corridor to provide a route for truck traffic between Interstate 5, State Route 14, and Interstate 15."</i>
<i>Policy M 5.2 through M 5.5 focuses on measures recommended minimizing truck traffic impacts to local community and roads by recommending to designate truck routes with strong pavement sections (i.e., thicker or concrete pavement to withstand heavy trucks), provide rest stop away from residents, prohibit truck traffic on routes, and prohibit trucks parking on local streets.</i>
Consistent. The HDC project will be designed and constructed with standards required to accommodate truck traffic. The HDC will provide an alternative transportation facility that will help reduce the use of local roads for truck traffic. This project does not include construction of rest stops or parking for trucks. The construction and improvement of direct access point to the freeway/expressway improve accessibility to parking and rest facilities without the use of local roads.
<i>Policy M 6.3 supports the development of the HDC to improved interregional transportation connectivity. In addition, Policy M 6.5 supports the development of the California High Speed Rail system.</i>
Consistent. The HDC project is being proposed in line with Policy M 6.3. Two of the HDC Project alternatives include HSR between Victorville and Palmdale, which will be integrated with and complement the California HSR system. Even without the HSR alternatives the HDC project would provide support to the California HSR system.
<i>Policy COS 3.4 of the Conservation and Open Space Element suggests strategic acquisition of open space to preserve natural streams, drainage channels, or wetlands.</i>
Consistent. Permanent impacts to significant ecological areas, as defined by the County of Los Angeles, such as areas near Little and Big Rock Washes, will be mitigated as part of project implementation.
<i>Policy COS 2.3: Require onsite storm water low impact development strategies such as infiltration.</i>
Consistent. Caltrans proposes infiltration basins at approximately one mile intervals within the future facility right-of-way of the HDC to treat and partially contain the on-site pavement runoff of the roadway. Road embankment will be graded to allow sheet flow To the extent feasible, ground and native vegetation disturbance will be minimized during construction by establishing Environmentally Sensitive Area (ESA) and fencing.
<i>Policies COS 4.5 and COS 4.6 discusses protecting wildlife movement and corridors.</i>
Consistent. The HDC will accommodate wildlife crossing and movement into its design. The exact locations will be determined in the biological studies and in consultation with resource agencies with jurisdiction.
<i>Policy COS 5.1 deals with protecting natural scenic resources and vistas.</i>
Consistent. The HDC Visual Impacts Analysis is prepared to identify scenic resources and address avoidance, minimization, and mitigation measures.
<i>Policy COS 6.2 requires design standards that would minimize potential conflicts with adjacent agricultural uses.</i>
Consistent. Caltrans will implement design standards such as Best Management Practices BMPs for storm water and dust control and contract provisions to minimize spread of invasive species to minimize conflicts with agricultural uses to the extent feasible. Additional discussion is available in the "Farmland" section.
<i>Policy COS 9.5 and COS 9.6 encourages the use of alternative fuel vehicles and less polluting equipment to improve air quality.</i>
Consistent. If warranted for the HDC project and based on air quality regional and hotspot analysis, an incentive program could be implemented to replace old model vehicles and diesel trucks (i.e., truck-buy-back program, tax relive or financial assistance) that could be offered to local businesses and frequent regional operators. During construction, diesel trucks and equipment should adhere to best industry standards to reduce emissions. In addition, the new facility will include a green energy corridor supporting renewable (solar) energy production and transmission.
<i>Policy COS 15.3 require replacement of outdated, obtrusive, and inefficient light fixtures with fixtures that meet dark sky and energy efficiency objectives.</i>

Consistent. The HDC project team will address this policy to the extent feasible. Special attention is warranted for new interchanges with new lighting near residential areas. As appropriate, dark sky-compliant lighting should be selected to minimize light pollution cast into the sky while maximizing light cast onto the ground.
<i>Policy COS 16.1 requires new development to minimize removal of native vegetation. Discourage the clear-scraping of land and ensure that a large percentage of land is left in its natural state.</i>
<i>Policy COS 16.2 requires that native vegetation be used in all landscaped areas, provided that vegetation meets all applicable requirements of the Fire Department and the Department of Public Works.</i>
Consistent. The HDC project will minimize impacts to vegetation to the extent feasible. Vegetation removed as the result of the project construction will be replaced with vegetation that complies with all requirements.
<i>Policy COS 18.1 encourage government agencies and conservancies to acquire lands in ecological sensitive areas and preserve them as permanent open space.</i>
Consistent. The HDC Project includes acquisition of land for mitigation of impacts on ecologically sensitive areas.
<i>Policy PS 5.1 of the Public Safety, Services and Facilities Element encourages neighborhood preservation programs, such as graffiti abatement, removal of abandoned or inoperable vehicles, and removal of trash and debris.</i>
Consistent. Caltrans maintenance staff, in coordination with local agencies, will address this policy. Caltrans will implement maintenance BMPs, such as for graffiti abatement and removal of abandoned/inoperable vehicles, trash, and debris.
<i>Policy PS 8.7: Provide trails, bikeways, and bicycle routes for recreational purposes, as directed in the policies of the Mobility Element.</i>
Consistent. A bike facility is one of the components of the HDC Project.
<i>Policy PS 13.4: Support the development of a range of travel options that better connect the Antelope Valley to existing regional trade and employment in other regions, including the High Desert Corridor, as directed in the policies of the Mobility Element.</i>
Consistent. The HDC provides for a multi-modal transportation facility and improves movement of goods and people.

Source: *The Preliminary Draft Antelope Valley Area Plan, 2011*

*Unincorporated San Bernardino County*

*The County of San Bernardino 2007 General Plan (April 2007)* was reviewed to identify transportation and land use goals and policies as related to the HDC project, as shown in **Table 2.2.1.C** below.

**Table 2.2.1.C – Project Consistency with Policies and Goals (San Bernardino County)**

<b>The County of San Bernardino 2007 General Plan – Policies and Goals</b>
<i>General Plan Land Use Element Goal LU 1 calls to “maintain land use patterns in the Desert Region that enhance the rural environment and preserve the quality of life of the residents of the region.”</i>
<i>Transportation and Circulation Element Goals CI 1 and .CI 2 calls for “a safe, functional, and convenient transportation system that enhances the lifestyles of residents and operates at regional, countywide, community, and neighborhood scales.”</i>
<i>Policy CI 2.5 calls to “work with Caltrans on mitigating the impacts of state highway projects on local communities.”</i>
<i>Policy CI 2.10 specifically calls to “identify important long-range transportation corridors, in conjunction with plans of regional transportation agencies (such as SCAG and SANBAG) to protect sufficient right-of-way for the development of long-range corridors.”</i>
Consistent. Implementation of the HDC Project would provide a safe and functional regional multi-modal transportation system. The project is planned in a manner that avoids, minimizes, and mitigates impacts to the local communities to the extent feasible.
<i>Policy CI3.1/Program # 5 calls to “designate existing Park-and-Ride facilities on the General Plan Circulation Maps, work with Caltrans to identify appropriate future Park-and-Ride facilities, and develop a program to acquire and develop sites for such facilities in areas where there is an identified need.”</i>
Consistent. The HDC alternatives would improve access to two park-and-ride facilities located near Adelanto and U.S. Route 395).

<b>The County of San Bernardino 2007 General Plan – Policies and Goals</b>	
<i>Policy CI 4.2 calls to “reduce the dependence on the automobile for local trips, integrate transportation and land use planning at the community and regional levels by promoting transit-oriented development (TOD), where appropriate and feasible.”</i>	Consistent. The HDC provides for alternative modes of transportation with the implementation of bike paths and high speed rails as part of the project. The HDC corridor will improve access to transit and BRT services.
<i>Policy CI 8.1 encourages airports to meet changing needs and demands. Program # 1 specifically calls for coordinating the development of air cargo facilities at the Southern California Logistical Airport, which will be served by the HDC.</i>	Consistent. Implementation of the HDC would improve access to the airport.
<i>GOAL D/CI 1 calls to “ensure a safe and effective transportation system that provides adequate traffic movement while preserving the rural desert character of the region.”</i>	Consistent. The HDC is a multimodal facility subject to State and federal design standards that will provide a safe and effective transportation system. In addition, the project will incorporate context-sensitive solutions and appropriate design of structures and architecture.
<i>D/CI 2.1 calls to “retain the natural channel bottom for all storm water drainage facilities and flood control channels when such facilities are required for a specific development. This protects wildlife corridors and prevents loss of critical habitat in the region.”</i>	To enable flood flows to cross the proposed facility, over 100 cross-culverts along the alignment is proposed at existing flow concentration points, mimicking existing flow conditions. At this preliminary level, culverts were generally assumed to be reinforced concrete box culverts with a minimum height of 4-ft to reduce clogging potential for sediment build-up. However, where flow velocities permit it, soft bottom culverts could be used. The HDC will maintain natural drainages and prevent loss of critical habitat to the extent feasible. The three main drainages in San Bernardino County are proposed to retain natural channel bottom utilizing a bridge design and these are Turner Wash, Ossum Wash and Mojave River. A Geomorphology report had been prepared for the HDC project.
<i>Conservation Element Policy CO 3.1 calls to “identify and protect important archaeological and historic cultural resources in areas of the County that have been determined to have known cultural resource sensitivity.”</i>	Consistent. A full cultural resources study has been conducted as part of the project. Measures have been identified to avoid, minimize, and mitigate impacts to cultural resources within the project area. Coordination with relevant agencies having jurisdiction over cultural resources within the project area is on-going.
<i>GOAL D/CO 1 calls to “preserve the unique environmental features and natural resources of the Desert Region, including native wildlife, vegetation, water and scenic vistas.</i>	
<i>Policy D/CO 1.3 requires retention of existing native Joshua trees for new development projects and encourages on-site relocation if necessary.</i>	
<i>Policy D/CO 1.4 calls to “reduce disturbances to fragile desert soils as much as practicable in order to reduce fugitive dust”</i>	
<i>Policy D/CO 1.11 encourages the retention of specimen sized Joshua Trees unless there are no other reasonable alternative for the development of the land. Specimen size trees are defined as meeting one or more of the following criteria:</i>	
	<ul style="list-style-type: none"> <li>a. Circumference measurement equal to or greater than 50 inches measured at 4 feet from grade.</li> <li>b. Total tree height of 15 feet or greater.</li> <li>c. Trees possessing a bark-like trunk.</li> <li>d. A cluster of ten (10) or more individual trees, of any size, growing in close proximity to each other.</li> </ul>
<i>GOAL D/CO 3 calls to “preserve the dark night sky as a natural resource in the Desert Region communities.”</i>	
	Consistent. A full biological resources study has been conducted as part of the project. Measures have been identified to avoid, minimize, and mitigate impacts to biological resources within the project area. Coordination with relevant agencies having jurisdiction over biological resources within the project area is on-going.
<i>Open Space Element OS 5.1 Policy identifies features that will be considered for designation as scenic resources, including roadways that provides a vista of undisturbed natural areas.</i>	
	Consistent. Town of Apple Valley has identified Desert Preservation within the Open Space and Conservation Element of their General Plan. Key scenic resources identified in the Desert Preservation section include mountains, peaks, ridgelines, knolls, and rock outcroppings. Portions of SR-18 east of the interchange with the HDC proposed facility carry the official designation of “State Scenic Highway”. For a highway to be declared scenic, the government with jurisdiction over abutting land must adopt a “scenic corridor protection program” that limits development, outdoor advertising, and earthmoving, and Caltrans must agree that it meets the criteria.

<b>The County of San Bernardino 2007 General Plan – Policies and Goals</b>
<i>Safety Element Policy S 5.8 calls to “design flood control and drainage measures as part of an overall community improvement program that advances the goals of recreation, resource conservation, preservation of natural riparian vegetation and habitat, and the preservation of the scenic values of the County’s streams and creeks.”</i>
Consistent. The HDC is designed in a manner to avoid, minimize and mitigate for potential impacts on the listed resources.
<i>Economic Development Policy ED 8.3 calls to “identify the best location for a major new multi-modal facility within the County to enhance the concept of an “Inland Port.”</i>
<i>Policy ED 11.1 supports “economic development opportunities in targeted growth areas that meet the County’s economic needs and ensure compatibility with the County’s long-range economic strategy.”</i>
<i>Policy ED 15.2 calls to “facilitate economic development that will improve the overall jobs-housing balance within the major planning regions of the County, including a Mag–Lev/high-speed rail system that links San Bernardino County with other parts of the region.</i>
<i>Policy ED 19.1 calls to “retain and expand trucking, warehousing, and distribution opportunities.”</i>
Consistent. The HDC is consistent with these goals and policies because it provides a multi-modal facility, which will improve people’s mobility and access and goods movement and link the county to other regions. This will allow for the economic development of the region and support plans for improving the job-housing balance.
<i>Policy CI 3.1: Work with regional agencies (SCAG, Caltrans, SANBAG) to develop ridesharing programs, facilities, and various modes of public transit (local and rapid bus, Metrolink, and high-speed trains).</i>
Consistent. The HDC project is designed to support various mode of transportation, including public transits. Park-and-ride facilities are also proposed as part of the Traffic Study, although they would not be built by Caltrans as part of this project.

Source: *The County of San Bernardino 2007 General, 2007*

### Adelanto

*The City of Adelanto General Plan Update* (May 1994) identifies relevant policies and goals, which are identified in the **Table 2.2.1.D** below.

**Table 2.2.1.D – Project Consistency with Policies and Goals (Adelanto)**

<b>The City of Adelanto General Plan Update – Policies and Goals</b>
<i>Policy LU 1.4 promotes “architectural designs that give Adelanto a unique, positive community image as it relates to the desert environment.”</i>
<i>Policy LU 1.5 calls for the protection of sensitive wildlife habitats such as the Mojave River corridor.</i>
<i>Policy LU 2.3 calls to “offers a wide range of development opportunities.” The City encourages “the development of mixed use projects, providing a balance of homes, jobs, and services.”</i>
<i>Policy MI 4.1 encourages the incorporation of transit options into new development. Implementation strategy MI 4.1.1 calls for the retention of right-of-way for super speed train.</i>
<i>Implementation Strategy MI 4.1.1: Retain ROW for super speed train.</i>
<i>Parks and Recreation Element Policy REC 1.18 promotes “the establishment of hiking and bicycle trails.”</i>
<i>Noise Element Policy 1.2 calls to “insure the design and improvement of future master planned roadways in the City are accomplished in a matter which minimizes noise impacts on adjacent educational facilities and adjoining neighborhoods.”</i>
Consistent. The HDC final design will include aesthetic treatments and context sensitive design with input from local stakeholders and City planning staff. The HDC will minimize potential impacts to sensitive wildlife habitats and mitigate for significant impacts. The Project includes proposals for a High Speed Rail and a bike path. Noise impacts will be addressed through State and Federal Traffic Noise Analysis Protocols.

Source: *The City of Adelanto General Plan Update, 1994*

*Victorville*

*The City of Victorville General Plan 2030* (September 2008) was utilized to identify policies and goals related to transportation and land use in the project area as shown in **Table 2.2.1.E** below.

**Table 2.2.1.E – Project Consistency with Policies and Goals (Victorville)**

<b>The City of Victorville General Plan 2030 – Policies and Goals</b>	
<i>Land Use Element Policy 1.1.1 encourages “development that does not conflict with or adversely affect other existing or potential developments.”</i>	Consistent. Caltrans will adopt context sensitive design and solutions and coordinating with HDCJPA and City staff. Adequate compensation will be provided for property acquisitions, including relocation assistance for residents and businesses as required by the law
<i>Policy 1.2.1 calls to “manage development in a manner that does not conflict with the operations of Southern California Logistics Airport (SCLA).”</i>	Consistent. Implementation of the HDC would improve access to SCLA. In addition, the roadway will be designed so it will not conflict with the operation and clearance considerations of the Airport.
<i>Policy 2.1.1 encourages “development of land uses and infrastructure to support growth of businesses and commerce.”</i>	
<i>Circulation Element Policy 1.4.3 calls to “support and participate in regional efforts to improve/expand freight movement via trucks and train services, without increasing conflicts with passenger car traffic and without increasing congestion on the highway and arterial roadway networks.”</i>	Consistent. One of the HDC project purposes is to improve accessibility and improves mobility of goods and passenger car traffic.
<i>Policy 1.5.1 calls to “review and prioritize Transportation Systems Management (TSM) measures and incorporate into Capital Improvement Programming (CIP) as appropriate.”</i>	
<i>Policy 3.1.1 calls for “planning and design of new roadways and expansion/completion of existing roadways shall include consideration of water, sewer, storm drainage, communications, and energy facilities that can be co -located within the road right of way.”</i>	
<i>Policy 3.2.2 calls to “include in the design specifications for public and private streets structural and non-structural techniques to filter storm water runoff prior to conveyance to storm drain inlets.”</i>	
<i>Policy 4.2.1 calls to “generally prohibit private or public development projects or major infrastructure facilities on land within the Mojave River Corridor, where biological surveys have determined there is habitat that supports rare, threatened and/or endangered plants or wildlife. Allow minor encroachments into such habitat, for critical public facilities and recreational trails, where reliable assurances are provided that no loss of sensitive species would occur.”</i>	
<i>Noise Element Policy 1.2.1 calls to “include noise mitigation measures in the design and use of new roadway projects.”</i>	
<i>Safety Element Policy 1.2.1 requires “an adequate assessment of site specific geologic hazards and required mitigation measures prior to granting discretionary approval for a land use plan, development project or public infrastructure plan or project.”</i>	Consistent. The HDC project will be designed and implemented according to the established standards, protocol, best management practices, and in coordination with resource agencies in order to prevent conflict with utility infrastructure and services, and to prevent safety and geologic hazards, and to avoid and minimize impacts to resources.

Source: *The City of Victorville General Plan 2030, 2008*

*Apple Valley*

*The Town of Apple Valley General Plan* adopted on August 11, 2009 identifies relevant policies and goals, which are identified in the **Table 2.2.1.F** below.

**Table 2.2.1.F – Project Consistency with Policies and Goals (Apple Valley)**

<b>The Town of Apple Valley General Plan – Policies and Goals</b>	
<i>Land Use Element Policy 1.A calls for the Town to “require low water use through drought tolerant and native desert plants for landscaping.”</i>	Consistent. The HDC project design will incorporate native and drought tolerant plant species.
<i>Policy 1.B calls for new development to be “designed to minimize grading, and avoid mass grading to the greatest extent possible.”</i>	
<i>Policies 1.C and 1.D calls for natural drainage channels to be “designed with soft bottoms whenever possible” and to protect areas of biological or aesthetic significance.</i>	Consistent. The project will address the above policies to the extent feasible. Where flow velocities permit it, soft bottom culverts could be used. The HDC will be designed to maintain natural drainages and prevent loss of critical habitat to the extent feasible.
<i>Policy 2.C requires “quality design in all development and redevelopment proposals” and encourages “the enhancement of existing development.”</i>	Consistent. The HDC project will be designed to follow established standards, protocol, and best management practices and after consultation with resources agencies and interested parties.
<i>Policy 2.E calls for the Town to “protect right of way for the High Desert Corridor as determined by Caltrans.”</i>	
<i>Program 2.E.1 calls for “New development and redevelopment located in the area of the High Desert Corridor shall be conditioned to reserve right of way for the future roadway.</i>	Consistent. The HDC project is generally consistent with the alignment depicted in the circulation element and land use map.
<i>Program 2.E.2 calls for the town to “encourage Caltrans to notify affected owners as early as feasible.”</i>	Consistent. Caltrans in cooperation with Metro has engaged the public through public meetings and news and website updates. Following Caltrans right-of-way protocols and guidelines, affected owners will be notified as early as feasible.
<i>Policy 5.E indicates that “mixed Use projects which integrate residential land uses and commercial or light industrial land uses are encouraged in The Village, on major roadways, and in close proximity to employment centers.”</i>	Consistent. Availability of the HDC will increase capacity of east-west transportation facilities to accommodate existing and future transportation demand, which in turn accommodate the mixed-used projects.
<i>Policy 1.D calls for “traffic calming devices shall be integrated into all Town streets to the greatest extent possible.”</i>	
<i>Policy 1.I calls for “pedestrian access shall be preserved and enhanced.”</i>	
<i>Policy 1.J calls for the Town to “implement a coordinated and connected bicycle lane network consistent with the Bicycle Lane Map.”</i>	
<i>Policy 2.D calls for the Town to “maintain and expand a comprehensive interconnected recreational trails system for bicycles, equestrians and pedestrians, and provide supporting facilities whenever possible.”</i>	
<i>Policy 1.F calls for the Town to “support, encourage, and facilitate the development of projects that enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle paths and lanes, and community-wide multi-use trails.”</i>	Consistent. The HDC project is a multi-purpose corridor. It will be designed to meet the state highway standards. The project will also incorporate bicycle and green energy components. Pedestrian facilities will also be provided.
<i>Biological Resources Element Policy 2.B calls for the Town to “support and cooperate with other agencies in establishing multiple use corridors that link open space areas through drainage channels and utility easements, thereby encouraging the connectivity of natural communities.”</i>	Consistent. The HDC project team will coordinate with the Town of Apple Valley planning staff to address this policy to the extent feasible. The project will provide a new bike bath that is accessible to pedestrians.
<i>Air Quality Element Policy 1.D call for “all proposals for development activities within the Town shall be reviewed for their potential to adversely impact local and regional air quality and shall be required to mitigate any significant impacts.”</i>	Consistent. The HDC is consistent with this policy. Air quality Assessment had been prepared for this project that evaluated and addressed short term (construction) and long term air quality impacts.

<b>The Town of Apple Valley General Plan – Policies and Goals</b>
<i>Policy 1.F calls for the Town to “support, encourage, and facilitate the development of projects that enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle paths and lanes, and community-wide multi-use trails.”</i>
Consistent. With the incorporation of Class I bike path, proposed park and ride facilities, two alternatives with High Speed Rail and transit station improvements in Victorville and Palmdale, the project is envisioned as a multi-modal facility that will enhance the use of alternative modes of transportation.
<i>Policy 1.D calls for “development review and environmental review process shall require all development proposals within the noise impact area of U.S. I-15, State Route 18, the High Desert Corridor or the railroads to mitigate both noise and vibration to acceptable levels through the preparation of focused studies”.</i>
<i>Program 1.D.1 calls for the Town to “ closely coordinate with Caltrans to encourage the installation of sound walls, rubberized pavement and other noise attenuating measures on roadway improvements for which it is responsible, including U.S. I-15, State Route 18 and the future High Desert Corridor.”</i>
Consistent. A Noise Study Report has been prepared based on the current Traffic Noise Analysis Protocols set forth by FHWA, and the Federal Railroad Administration. Noise abatement in terms of soundwalls is proposed to minimize traffic noise along the corridor where the noise level is predicted to approach or exceed the Noise abatement Criteria.
<i>Hazardous and Toxic Materials Element Policy 1.B calls for the County Sheriff’s Department to work with the Town Engineer, Caltrans, and California Highway Patrol, to regulate the transport of hazardous materials along local roadways, state highways and routes, and interstates in the Town or the vicinity.”</i>
Consistent. All hazardous material transporters will be required to be in compliance with current laws and regulations governing hazardous materials and waste transport.

Source: *The Town of Apple Valley General Plan, 2009*

## **2.2.2 Environmental Consequences**

### No Build Alternative

Under the No Build Alternative, the Project will not be constructed. The No Build alternative consists of those transportation projects that are already planned and committed to be constructed by or before 2040 other than the Project. It is not anticipated that the implementation of these projects would have an impact on consistency with state, regional, and local plans. However, local jurisdictions have provided support for the Project and as such certain local plans and goals have been implemented towards anticipation of the project. Therefore, under the No Build Alternative the Project may not be consistent with certain policies and goals outlined in the various general plans.

### All Build Alternatives

As shown and discussed in the in the tables above, the proposed build alternatives under the HDC are consistent with the various goals and policies within the City of Palmdale General Plan, the Preliminary Draft Antelope Valley Area Plan (Los Angeles County), the County of San Bernardino 2007 General Plan, the City of Adelanto General Plan Update, the City of Victorville General Plan 2030, and the Town of Apple Valley General Plan. In addition, SCAG and local government officials indicated their support to the Project through letters of support and city councils resolutions within various reports and planning documents.

Caltrans, through its Local Development-Intergovernmental Review (LD-IGR), as part of its transportation planning program, reviews and comments on local and tribal land use development proposals and environmental planning documents, as well as general, specific and community plans, with a purpose to assess potential impacts to the State Highway System. The LD-IGR program staff will coordinate with local and other Lead Agencies on implementing mitigation measures designed to protect the State's transportation facilities, operations, and programs. Caltrans is legally responsible for ensuring that transportation impacts to the State Highway System resulting from nearby land use development activities are either eliminated or reduced to a level of insignificance.

### **2.2.3 Avoidance, Minimization, and Mitigation Measures**

Avoidance and minimization measures for the build alternatives include:

- Caltrans will coordinate with local governments to ensure that the Project is constructed in a manner that is consistent with the goals and policies general plans for the various local municipalities.
- Caltrans will coordinate with local governments to ensure that, to the extent possible, future development is compatible with their character and consistent with their general plans and land use policies subject to applicable environmental laws and regulations. The local governments are responsible for carrying out their visions of sustainable and planned growth and development.
- Once the HDC is constructed and becomes part of the State Highway System, the Caltrans Local Development-Intergovernmental Review (LD-IGR) process will insure ongoing statewide effort to avoid, eliminate, and reduce any potential adverse environmental and traffic impacts that would result from local development on or near the state's transportation system.

In addition the following measure listed in Land Use section also applies.

- Coordinate with local municipalities ensuring that amendments and/or land use changes are prepared and incorporated, if necessary, into the land use element of the general plan for that particular jurisdiction. In addition, ensure that the HDC is incorporated as part of future land use plans for that area.

## 2.3 Farmlands/Timberlands

The following section summarizes key laws and regulations for agricultural lands. The Farmland Protection Policy Act (FPPA, 7 U.S.C. Section 4201 et seq.) is intended to protect farmland and requires federal agencies to coordinate with the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), if their activities may irreversibly convert farmland to nonagricultural use, either directly or indirectly. The stated purpose of the FPPA is to “minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses.”

A copy of submittal letter to NRCS with CPA-106 Form is attached to this report under **Appendix A**. The majority of this section is based on *Farmland Impact Assessment Report* (November 2013), which was prepared for this project.

The FPPA requires federal agencies to examine potential direct and indirect effects to farmland of a proposed action and its alternatives before approving any activity that would convert farmland to nonagricultural use. USDA issues regulations to implement the FPPA (7 CFR, Chapter VI Part 658).

For the purpose of FPPA, important farmland includes prime farmland, unique farmland, and farmland of statewide or local importance, as defined by Section 1540(c)(1) of the FPPA. Classification standards differ from state to state; each state may set its own criteria for classification in each category. Federal farmland classification criteria may differ from those developed by the California Department of Conservation (DOC).

The FPPA exempts the following land types:

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

The FPPA applies to projects and programs sponsored or financed in whole or in part by the federal government. FPPA implementing regulations spell out requirements to ensure that federal programs, to the extent practical, are compatible with state, local, and private programs and policies to protect farmland. The FPPA requires a rating of farmland conversion impacts based on land evaluation and site assessment criteria identified in 7 CFR Part 658.5. These criteria are

addressed through completion of a Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) form, which requires input from both the federal agency involved and from the NRCS.

**Taylor Grazing Act of 1934 (43 USC 315)** established grazing districts and created the Department of Interior's Division of Grazing. This division later became the U.S. Grazing Service and in 1946 the Grazing Service was merged with the General Land Office to become the Bureau of Land Management (BLM). The Taylor Grazing Act was intended to manage public grazing lands by preventing overgrazing and soil deterioration and to provide for their orderly use, improvement, and development. The Taylor Grazing Act was pre-empted by the Federal Land Policy and Management Act of 1976 (FLPMA), which was passed to establish policy for managing BLM-administered public lands. FLPMA authorized 10-year grazing permits. The Act also directed grazing advisory boards to guide the BLM in developing allotment management plans.

**California Land Conservation Act of 1965** (California Government Code S.51200-51295) (also known as the Williamson Act), provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses and compatible uses defined in state law and local ordinances. Local government establishes an agricultural preserve defining the boundary within which a city or county will enter into contracts with landowners. Local governments calculate the property tax assessment based on the actual land use instead of the potential land value assuming full development.

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

Since 1998, another option in the Williamson Act Program is a **Farmland Security Zone (FSZ) contract**. An FSZ is an area created within an agricultural preserve by a board of supervisors upon the request of a landowner or group of landowners. FSZ contracts offer landowners greater property tax reductions and have a minimum initial term of 20 years. Like Williamson Act contracts, FSZ contracts renew annually unless an owner files a notice of nonrenewal.

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

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

**The Farmland Mapping and Monitoring Program (FMMP)** is the only statewide land use inventory conducted on a regular basis. DOC administers the FMMP, under which it maintains an automated map and database system to record changes in agricultural land use. “Important Farmland” under the FMMP is listed by category, as described below. The categories are defined according to USDA land inventory and monitoring criteria, as modified for California:

- **Prime Farmland** – Prime Farmland is land with the best combination of physical and chemical features to sustain long-term agricultural crop production. These lands have the soil quality, growing season, and moisture supply necessary to produce sustained high yields. Soil must meet the physical and chemical criteria determined by the NCRS. Prime Farmland must have been used for production of irrigated crops at some time during the 4 years prior to the FMMP’s mapping date.
- **Farmland of Statewide Importance** – Farmland of Statewide Importance is similar to Prime Farmland but with minor differences, such as having greater slopes or soils with a lesser ability to store moisture. Farmland of Statewide Importance must have been used for production of irrigated crops at some time during the 4 years prior to the mapping date.
- **Unique Farmland** – Unique Farmland has lesser quality soils than Prime Farmland or Farmland of Statewide Importance. Unique Farmland is used for producing the state’s leading agricultural crops. These lands usually are irrigated, but may include non-irrigated orchards or vineyards found in some climatic zones. Unique Farmland must have been used for crops at some time during the 4 years prior to the mapping date.
- **Farmland of Local Importance** – Farmland of Local Importance is farmland that is important to the local agricultural community as determined by each county’s board of supervisors and local advisory committees.

**California Farmland Conservancy Program Act (Public Resources Code Sections 10200 to 10277) and the California Farmland Conservancy Program.** This act provides a mechanism for DOC to establish agricultural conservation easements on farmland.

Agricultural conservation easement, or easement, means an interest in land, less than fee simple, which represents the right to prevent the development or improvement of the land for any purpose other than agricultural production. The easement is granted for the California Farmland Conservancy Program (CFCF) by the owner of a fee simple interest in land to a local government, nonprofit organization, resource conservation district, or to a regional park or open-space district or regional park or open-space authority that has the conservation of farmland among its stated purposes or as expressed in the entity's locally adopted policies. It shall be granted in perpetuity as the equivalent of covenants running with the land. The landowner may make a request to the DOC that the easement be reviewed for possible termination 25 or more years from the date of sale of the agricultural conservation easement. CFCF seeks to encourage the long-term, private stewardship of agricultural lands through the voluntary use of agricultural conservation easements.

**Grazing Land and Grassland Protection Act of 2002** designated the Wildlife Conservation Board (WCB) as the lead state agency for carrying out the California Rangeland, Grazing Land and Grassland Protection Program. The purpose of the program is to protect California's rangeland, grazing land and grassland through the use of conservation easements. Pursuant to the provisions of Section 10332, the purpose of the program is to accomplish the following: 1) To prevent the conversion of rangeland, grazing land and grassland to nonagricultural uses; 2) To protect the long-term sustainability of livestock grazing; and 3) To ensure continued wildlife, water quality, watershed and open-space benefits to the State of California from livestock grazing.

**California's Sustainable Communities and Climate Protection Act**, or Senate Bill (SB) 375, requires the Southern California Association of Governments (SCAG) to develop a Sustainable Communities Strategy (SCS) to reduce greenhouse gas (GHG) emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. SCAG reviews projects of regional significance for consistency with regional plans. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy which calls to promote infill, mixed-use, higher density and other sustainable development.

**General Plans.** The most comprehensive land use planning for the Project region is provided by city and county general plans, which local governments are required by State law to prepare as a

guide for future development. All city and county general plans within the Project study area calls for the protection of farmland and open space, preserving native vegetation to the extent possible, and minimizing hydro-modification among other policies. Local Jurisdictions and SCAG support projects, programs, policies, and regulations to protect resources areas, such as natural habitats and farmland, from future development.

**Urban Water Management Plans (UWMPs).** The California Urban Water Planning Act (California Water Code § 10610 et seq.) requires urban water suppliers to describe and evaluate sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs.

The methods for studying and evaluating project impacts include reviewing project plans, online research, site visits, and utilizing geographic information system (GIS) tools and data, in addition to coordination and consultation with resource agencies and farming community.

### **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 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 is 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 agricultural lands, the terms are defined as follows:

- **A negligible impact** would be an impact that would not be measurable by FMMP, which uses a minimum land use mapping unit of 10 acres.
- **A moderate impact** would be a depletion of agricultural land that is measurable by FMMP (i.e., greater than 10 acres) but not a substantial impact (i.e., less than 50 acres).
- **A substantial impact** would be a large conversion of agricultural land resources. Agricultural lands are not replaceable, and therefore any farmland conversion is a permanent depletion of the resource. Within the context of the Victor and Antelope valleys farmland in the project area, a large depletion is defined as more than 50 acres.

### **CEQA Significance Criteria:**

According to CEQA guidelines Appendix G, the project could result in a potential significant impact on agricultural lands if it would result in any of the following:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared for FMMP, to a nonagricultural use.
- Conflict with existing zoning for agricultural use or a Williamson Act contract.
- Involve other changes in the existing environment that would result in conversion of farmland to nonagricultural use because of their location or nature.

Impacts to grazing land were evaluated based on impacts to known BLM or U.S. Forest Service grazing individual allotments and the total grazing impacts and its percentage of total designated grazing land in each county. Grazing Land is an agricultural classification under FMMP, but it is not an “important farmland”. Neither Caltrans nor local jurisdictions have an established “significance thresholds” for impacts to grazing land.

For the above reason, the Santa Barbara County Cattlemen's Association threshold for impacts to grazing land [defined as the “displacement or division of land capable of sustaining between 25 to 30 animal units per year” (*Santa Barbara County Environmental Thresholds and Guidelines Manual, 2008*)] was utilized as a general and acceptable threshold reference. This threshold reflects an operationally viable grazing unit, which size will depend on site conditions and grazing land’s carrying capacity.

Cattle foraging habitat and pastures could range from 2 acres up to 100 acres or more per Animal Unit Month (AUM). An AUM is calculated on the amount of forage cattle consumes in a month. Cattle set the standard at 1000 pounds of forage per month and sheep are calculated to consume approximately 200 pounds of forage per month. Therefore, there are five sheep per AUM. Displacement of grazing land with capacity to sustain 25 cows or 125 sheep could indicate significant impacts.

#### **2.3.1 Affected Environment**

This section describes state and regional farmland statistics and provides general information about farmland and agricultural operations within the project vicinity. Site visits were conducted in the summer of 2011 and through spring of 2012 to survey farming activities and to investigate signs of uncultivated farmland.

The study area for direct effects on agricultural lands encompasses the limits of the 500-foot width of the Project. The “100 feet” federal standards for evaluating livestock noise impacts

around the construction footprint are included within these limits. The construction footprint includes the proposed Project right-of-way and associated facilities. Parcels that the Project alignments could sever or bisect were evaluated as part of this analysis.

The following proposed interchanges are adjacent to or will encroach on farmland: 50<sup>th</sup> Street, 170<sup>th</sup> Street, 240<sup>th</sup> Street, and Old Phelan Road interchanges. These interchanges are considerably wider than the typical 500 feet wide section proposed for the Project.

When originally established, farms in the project vicinity were shaped similarly as the rectangular parcels that followed township and range survey patterns. Farm infrastructure typically includes irrigation and drainage systems, field access roads, storage structures (e.g., silos and barns) power distribution systems, and residences.

### **Regional Agriculture Statistics:**

In 2011, the state produced more than 400 types of agricultural products with a sales value of \$43.5 billion, up from \$38.0 billion in 2010 – a 15 percent increase. The state produces half of U.S.-grown fruits, nuts, and vegetables with several crops produced solely in California. A total of 81,500 farms operated in California representing 3.7 percent of the national total and 11.6 percent of cash farm receipts of the national total. Over 24 percent of California farms produced commodity sales totaling over \$100,000, compared to 18 percent for the U.S. California lands devoted to farming and ranching totaled 25.4 million acres, unchanged from 2010. The California average farm size was 312 acres, while the U.S. average farm size was 420 acres.

Based on 2008 estimates prepared by the DOC, there are approximately 2.65 million acres of agricultural lands in the Southern California Association of Governments (SCAG) region – approximately 1.17 million acres of farmland and 1.48 million acres of rangeland. Based on the 2007 USDA Census of Agriculture, Los Angeles County had 1,734 farms totaling 108,463 acres (average of 63 acres) in 2007 in comparison with 1,543 farms totaling 111,458 acres (average of 72 acres) in 2002. San Bernardino County had 1,405 farms totaling 514,234 acres (average of 366 acres) in 2007 in comparison with 1,386 farms totaling 513,642 acres (average of 371 acres) in 2002.

Based on gross value of agricultural commodities and according to the most recent Census of Agriculture profile information in California (USDA, California Agricultural Statistics Review 2012-2013) [out of 58 counties], Los Angeles County ranked at number 32 and San Bernardino County ranked at number 23 with a gross value of approximately \$173 and \$519 million, respectively. Leading commodities for Los Angeles County included wooden ornamentals,

vegetable and alfalfa, whereas leading commodities for San Bernardino County was milk, chicken, and cattle.

FMMP available spatial data for Los Angeles and San Bernardino counties (2010) identify Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) and Grazing Land. The county assessor's office and California Department of Conservation (DOC) provide spatial data for agricultural lands protected under Williamson Act and FSZ contracts. Together, this information provided the basis for measuring agricultural land use changes. Site visits also provided additional information about current land use conditions.

The Antelope Valley Conservancy (i.e., land trust) provided information about agricultural conservation easements. DOC staff provided a sample of an Interagency Agreement with the California High Speed Rail Authority and a copy of a Stipulated Judgment (with an agreement), dated April 18, 2013, related to the *County of Madera, et al, vs. California High Speed Rail Authority* lawsuit. Both documents include information about loss of important farmlands and mitigation measures. The California Cattlemen's Association, San Bernardino Farm Bureau, San Bernardino County Agricultural Commissioner, The Natural Resources Conservation Service (NRCS), Bureau of Land Management (BLM), and Southern California Association of Governments (SCAG) also provided suggestions and references.

Along the western portion of the Project (within and near Palmdale) there is a mix of residential, commercial, and industrial land uses along with a concentration of isolated pockets of farmland. Towards the middle portion of the Project (within areas of the unincorporated Los Angeles and San Bernardino counties) most of the land is undeveloped and vacant. Land use within the eastern portion of the Project (near and within Adelanto, Victorville, and Apple Valley) primarily includes low-density residential and industrial developments.

Thirty parcels had been identified as farmland, or land that could have been farmed in the past, within the Project direct impact. These parcels were grouped into four segments based on their location and proximity to each other. Tables 2.3.2.B and 2.3.2.C show farmland Assessor's Parcel Numbers, land use designation, ownership, size, and estimated right-of-way impact of the Project base alignment.

**Segment 1:** Starting from Palmdale and heading east, the Project passes through “inactive or uncultivated” grazing land in the vicinity of Littlerock Wash (from 85<sup>th</sup> Street to 95<sup>th</sup> Street). This Segment includes 15 parcels with signs of previous farming activities, but has no active farming. All parcels in this Segment, except three, are designated as “grazing land” and owned by the City of Los Angeles (Los Angeles World Airports). The remaining three parcels are

designated as “other” or “grazing land” according to the California Department of Conservation’s FMMP. In addition, these three parcels are designated as “Vacant” and “Agricultural” by LandVision™ from Digital Map Products – a land acquisition software solution. The general vicinity of this segment had been referenced in an experimental research study (SERG 2001). The research study performed tilling and irrigation to restore an abandoned farmland site with native vegetation and to control dust generation and improve air quality.

**Segment 2:** Further to the east between Big Rock Wash and 180<sup>th</sup> Street, the Project passes through eleven parcels of Important Farmland. Farming is active in this Segment.

**Segment 3:** Further to the east, between 235<sup>th</sup> Street and 255<sup>th</sup> Street, the Project passes through three parcels, all designated as Important Farmland.

**Segment 4 (Former Dairy Farm):** Further to the east, the Project passes through one dairy farm located near Sheep Creek Road and Parkdale Road, which is the only farmland impacted in San Bernardino County.

**Important and Protected Farmlands:**

The 2010 FMMP data (Table 1 and 2) indicates 39,812 acres of Important Farmland in Los Angeles County and 22,761 acres in San Bernardino County. The majority of Important Farmland in Los Angeles County is concentrated in the Antelope Valley area north of Palmdale and West of Lancaster – in close proximity to the California Aqueduct. A small area of Important Farmland is located along State Route 126 near Santa Clara River and west of I-5 near Castaic Creek.

Important Farmland in San Bernardino County is concentrated along the Mojave River near and along Route 66 (National Trails Highway) from Victorville heading north to Hinkley Valley/Barstow and further east near Newberry Springs. Other Important Farmland is concentrated near Chino and along Santa Ana River near Redlands.

Between 2008 and 2010, both counties suffered from a net loss of Important Farmland at approximately 5.5% for Los Angeles County and 11.3% for San Bernardino County. Table 1 and 2 indicate that the net acreage for each land use category had changed. During this period, population growth and the associated urban development pressure drove the loss of Important Farmland; however, losses also can occur if land goes into habitat conservation or confined animal facilities. Gains in Important Farmland can also occur, for example, when grazing land is transferred to crop production.

Approximately 23,000 acres of Important Farmland is concentrated in a 10-mile radius within the Project alignment. The area amounts to about a third of the 62,573 acres of Important Farmland mapped in Los Angeles and San Bernardino counties. The California FMMP designated 902,590 acres of grazing land in San Bernardino County—the largest amount among California counties, in addition to 231,475 acres in Los Angeles County.

No properties under consideration for the Project right-of-way acquisition are under a Williamson Act contract based on Los Angeles and San Bernardino counties assessor offices.

### **Grazing Areas:**

The Stoddard Valley ephemeral sheep allotment was designated in the California Desert Conservation Area (CDCA) Plan of 1980. This allotment is comprised of three separate grazing units: West Stoddard, Middle Stoddard, and East Stoddard. The Bureau of Land Management (BLM) issued a 10-year lease authorizing livestock grazing on the Stoddard Mountain Allotment (Middle Unit) located in rural San Bernardino County near Victorville. This allotment is bordered by I-15 on the east, National Trails Highway on the west, City of Victorville on the south, and the community of Lenwood on the north.

Under the West Mojave Plan of 2006, which amended the CDCA, sheep grazing area within the Middle Stoddard unit was reduced but remained available within non-critical desert tortoise habitat and outside of the Mojave Monkeyflower Conservation Area. The current available grazing area in the Middle Stoddard unit is 16,899 acres. **Water Management and Supplies and Groundwater Overdraft**

Important Farmland relies on water management to provide adequate and dependable water supply often found adjacent to natural surface water and aquifers or near manmade channels and reservoirs. The following section is based on the *Antelope Valley-East Kern Water Agency Urban Water Management Plan 2010* and *Palmdale Water District Strategic Water Resources Plan (Final Program EIR 2012)*:

Groundwater is an important component of water supply in the Antelope Valley. Estimates of average natural annual groundwater recharge range from about 40,000 to 58,000 acre-foot (AF). Pumping in the valley, primarily for agricultural purposes, peaked in the 1950s when production may have exceeded 400,000 AF annually. Increased urban growth in the 1980s resulted in an increase in the demand for water and an increase in groundwater use. Long-term groundwater withdrawals have caused some land subsidence. Severe groundwater overdraft has occurred in portions of the region, including Antelope and Victor Valleys in the South Lahontan Basin. Implementation of the SWP in the 1970s resulted in stabilization of groundwater levels in some

areas of the Antelope Valley, though groundwater levels in general have continued to fall. From the 1990s to present, agricultural uses have significantly increased groundwater production and exacerbated the drop in groundwater levels across the basin. In 1999, agricultural interests filed litigation seeking to determine rights to groundwater. In September 2010, as part of the ongoing adjudication proceedings, Judge Jack Komar determined that the “safe yield” of the basin is 110,000 acre-feet per year (AFY) and that the basin has been in a state of overdraft for over 50 years.

Antelope Valley-East Kern Water Agency (AVEK) is a wholesale supplier of imported water from the State Water Project (SWP) for the Antelope Valley region. AVEK attempts to maximize use of its surface water product by encouraging retail purveyors to utilize surface water instead of pumped groundwater whenever possible and utilize groundwater recharge as a method for banking water during wet years.

Projected water supply from the SWP during a normal year is 87,668 AF (2015-2030) and that represents 62% of the maximum SWP allocation. Demand is expected to grow from 60,675 AF in 2010 to 96,558 AF in 2030 (this accounts for water losses but not groundwater banking). Current and planned supply is 113,120 AF in 2010 and 107,688 AF in 2030 which takes into consideration groundwater banking.

**Table 2.3.1.A - Los Angeles County Farmland Change by Land Use**

Los Angeles County Farmland Change by Land Use						
LAND USE CATEGORY	TOTAL ACREAGE		2008-10 ACREAGE CHANGES			
	INVENTORIED		ACRES LOST	ACRES GAINED	TOTAL ACREAGE CHANGED	NET ACREAGE CHANGED
	2008	2010	(-)	(+)		
Prime Farmland	32,406	30,876	2,422	892	3,314	-1,530
Farmland of Statewide Importance	1,228	952	286	10	296	-276
Unique Farmland	1,177	1,129	101	53	154	-48
Farmland of Local Importance	7,193	6,855	412	74	486	-338
<b>IMPORTANT FARMLAND SUBTOTAL</b>	<b>42,004</b>	<b>39,812</b>	<b>3,221</b>	<b>1,029</b>	<b>4,250</b>	<b>-2,192</b>
Grazing Land	229,474	231,475	1,048	3,049	4,097	2,001
<b>AGRICULTURAL LAND SUBTOTAL</b>	<b>271,478</b>	<b>271,287</b>	<b>4,269</b>	<b>4,078</b>	<b>8,347</b>	<b>-191</b>
Urban and Built-up Land	170,864	174,888	270	4,294	4,564	4,024
Other Land	678,251	674,568	4,550	867	5,417	-3,683
Water Area	3,468	3,318	150	0	150	-150
<b>TOTAL AREA INVENTORIED</b>	<b>1,124,061</b>	<b>1,124,061</b>	<b>9,239</b>	<b>9,239</b>	<b>18,478</b>	<b>0</b>

**Table 2.3.1.B – San Bernardino County Farmland Change by Land Use**

San Bernardino County Farmland Change by Land Use						
LAND USE CATEGORY	TOTAL ACREAGE		2008-10 ACREAGE CHANGES			
	INVENTORIED		ACRES LOST	ACRES GAINED	TOTAL ACREAGE CHANGED	NET ACREAGE CHANGED
	2008	2010	(-)	(+)		
Prime Farmland	14,090	12,848	1,652	410	2,062	-1,242
Farmland of Statewide Importance	6,747	6,242	546	41	587	-505
Unique Farmland	2,661	2,511	263	113	376	-150
Farmland of Local Importance	1,828	1,160	668	0	668	-668
<b>IMPORTANT FARMLAND SUBTOTAL</b>	<b>25,326</b>	<b>22,761</b>	<b>3,129</b>	<b>564</b>	<b>3,693</b>	<b>-2,565</b>
Grazing Land	901,666	902,590	2,121	3,045	5,166	924
<b>AGRICULTURAL LAND SUBTOTAL</b>	<b>926,992</b>	<b>925,351</b>	<b>5,250</b>	<b>3,609</b>	<b>8,859</b>	<b>-1,641</b>
Urban and Built-up Land	275,695	277,875	473	2,653	3,126	2,180
Other Land	246,413	245,813	1,796	1,196	2,992	-600
Water Area	449	510	0	61	61	61
<b>TOTAL AREA INVENTORIED</b>	<b>1,449,549</b>	<b>1,449,549</b>	<b>7,519</b>	<b>7,519</b>	<b>15,038</b>	<b>0</b>

**2.3.2 Environmental Consequences**

The following section describes direct and indirect impacts to agricultural lands that are associated with the Project main alignment and variation B. As previously discussed, thirty parcels had been identified as farmland within the Project footprint and were grouped into four segments listed and described in **Tables 2.3.2.B** and **2.3.2.C**.

To measure direct impacts and conversion of Important Farmland to nonagricultural use, the acreage for the Project footprint (i.e., proposed right-of-way acquisition and its incorporation into a transportation facility) for the base alignment and its variation B was quantified.

In addition, the analysis examined farmland severance on a parcel-by-parcel basis for the two corridors to identify where severance would create two parcels and result in remainder parcel(s) that would be too small to be farmed economically. The full details of the right-of-way requirement and amount/percentage of Important Farmland impact are summarized under Tables 2.3.2.B and 2.3.2.C. In addition to evaluating changes to Important Farmland by using FMMP data, NRCS and Caltrans staff evaluated farmland conversion impacts on agricultural land and resources through completion of Form NRCS-CPA-106, in accordance with FPPA criteria.

NRCS and Caltrans staff completed the land evaluation portion of Form NRCS-CPA-106, considering the extent of converted farmland (as defined by the FPPA). Staff prepared the site assessment by using FPPA criteria (e.g., area of nonurban use, percentage of the Project corridor being farmed, protected farmland, size of farm, creation of non-farmable farmland, availability of farm support services, on-farm investments, and compatibility with existing agricultural uses). Staff combined the scores for both the land evaluation and site assessment portions of Form

NRCS-CPA-106 to arrive at a total score for the base Project alternative and its Variation B. The maximum possible score is 260 points. If the score is less than 160 points, no further evaluation is necessary under the FPPA. Since the score calculated is 180 for the Project base alignment alternative, the FPPA requires consideration of alternatives or measures that avoid or minimize farmland impacts – discussed in the *Avoidance, Minimization, and Mitigation Measures*.

#### No Build Alternative

The No Build alternative consists of those transportation projects that are already planned and committed to be constructed by or before 2040 other than the Project. It is not anticipated that the implementation of these projects would have an impact on farmland.

#### Freeway/Expressway Alternative, Freeway/Tollway Alternative

The Project build alternatives will improve regional connectivity and land use accessibility and contribute to regional economic development. However, the Project will have significant direct impacts, indirect short and long term impacts, and cumulative impacts to farmland and farming operations in the region. The extent of impacts can be described as significant under CEQA and substantial under NEPA.

**Direct Environmental Consequences.** The Project will directly impact farmland by converting approximately 252 acres of Important Farmland and about 2,760 acres of Grazing Land to nonagricultural use. This farmland and grazing lands will be acquired for the new transportation facility right-of-way.

Right-of-way requirements will impact a total of thirty farmland parcels (including 15 Important Farmland parcels). Impact to parcels ranges from as low as 0.6 acre to 79.6 acres for an individual parcel. Right-of-way acquisitions will impact eleven parcels that are 12 acres or more. Right-of-way acquisitions include both partial and full parcel acquisitions. None of the parcels affected by the Project is under a Williamson Act contracts.

Four parcels will be bisected by the project with the potential to render the remainder of these parcels economically unprofitable for agriculture production. Included in these parcels are one nursery and one dairy farm. Farmland irrigation patterns of some of these parcels will also be affected. Current circular irrigation patterns may have to be modified to parallel lines.

The Project main alignment passes through approximately 215 acres of designated grazing land in Los Angeles County and 2,360 acres in San Bernardino County. Most of the Project 35 miles in San Bernardino County (outside Adelanto, Victorville, and Apple Valley) run through FMMP classified “grazing land”. The Project impacts to grazing land were not considered significant

due to abundant availability of grazing land. The project contribution to the incremental loss of grazing land was not considered a potentially significant impact.

The High Speed Rail alignment departs near Victorville to the north from the Project alignment at a point about 1 mile west from I-15, and passes through a designated sheep grazing area in the Stoddard Valley ephemeral sheep allotment (Middle unit). The impact to the sheep grazing area is estimated at about 650 acres, which include 250 acres required for the new tracks and station right-of-way. The remainder 400 acres is an area locked between the proposed rail tracks and the I-15.

With the alternatives that include the High-Speed Rail, the remaining acreage available for grazing will be reduced to 16,249 acres – a reduction by about 4%. An average of one band of sheep per year (i.e., 500 to 1000 ewe-lamb pairs with average size of 800 ewe-lamb pairs) is anticipated to graze when sheep grazing is authorized in the Middle Stoddard unit allotment, which amounts to about 160 AUM. The carrying capacity could be estimated by dividing 16,899 acres by 160 AUM, which amounts to about 105 acres per “5 ewe-lamb pairs”. A reduction of 650 acres of available acreage could potentially reduce the sheep number down by about 30 ewe-lamb pairs (i.e., 6 AUM).

The Project impacts to designated grazing land is not significant, which amounts to about 0.1% of grazing land in Los Angeles County and about 0.3% in San Bernardino. Since impact to Middle Stoddard unit is below 25 AUM, grazing impact is considered insignificant for that particular grazing allotment unit.

East of Lancaster and near the Palmdale Regional Airport, the Project passes adjacent to approximately 15,000 acres of irrigated alfalfa and onion fields without any direct impacts. Heading to the east, the Project base alignment passes adjacent to and through four distinct Farmland Segments (Segment 1 through 4) as described in the *Affected Environment* and as listed in Table 2.3.2.B and 2.3.2.C.

**Segment 1 (Littlerock Wash to 95<sup>th</sup> Street):** The Project will impact a total of 96 acres out of 496 acres of grazing land from 15 parcels. No active farming operation will be impacted. No parcels will be severed.

**Segment 2 (Big Rock Wash to 180<sup>th</sup> Street):** The Project will impact a total of 124 acres of Important Farmland out of 470 acres from 11 parcels. One nursery operation over multiple parcels (ID #20, 21, 22, and 23) will be impacted and two parcels (ID # 20 and 25) will be severed. The remaining severed properties will likely to continue to be farmed.

Due to unknown impacts to local circulation and how it could affect access between bisected properties for Segment 2, farmland owners along either side of the Project at 165<sup>th</sup> Street might be advised to consider the purchase of each other’s property to consolidate properties along the same side of the Project. This might be beneficial to improve farmland management and connectivity if 165<sup>th</sup> Street is permanently closed. Closure of 165<sup>th</sup> Street will likely include rerouting traffic through 170<sup>th</sup> Street.

**Segment 3 (235th Street to 255th Street):** The Project will impact a total of 111.4 acres of Important Farmland out of 720 acres from 3 parcels. All three parcels title is hold by the same owner and are actively farmed. The Project will bisect the largest of the three parcels, potentially impacting the remainder of the parcel due to its current circular irrigation patterns, which may have to be modified to parallel lines. Although right-of-way impact is substantial, the impacts could be lessened if the owner purchases and farm adjacent vacant properties on either side of these properties.

**Segment 4 (Dairy Farm near El Mirage Road intersection with Sheep Creek Road):** The Project main alignment require the acquisition of about 57.5 acres and bisect a former dairy farm into two separate parcels (70 acres and 30 acres out of 158 acres). Within the 57.5 acres proposed right-of-way acquisition area there is about 17 acres of unique farmland. The remaining two parcels include another 57 acres of unique farmland. Due to direct impacts to the dairy farm operations and improvements (including a number of buildings located in the central area of the parcel), the impact to this farm could be potentially significant and could require the full acquisition of the parcel.

*Variation B*

Variation B of the Project shifts the alignment to the base alignment to the south by 500 feet or more (to minimize impacts to buildings and fixed structures). This alignment would minimize impacts to the dairy farm operations—especially when combined with the purchase of a replacement land bordering the dairy farm immediately from the north.

**Table 2.3.2.A Summary of Project Corridor Farmland Impact Acreage**

Summary of Corridor Farmland Impact Acreage			
	No Build	Base Alignment	Variation B
	0	338.9	306.8
<b>Parcels Affected Acreage</b>	0	1,843.5	1,685.9
<b>Important Farmland Impact Acreage</b>	0	252.4	221.8

## 2.3.2.B – Impacted Farmland Parcels and Land Use Designation

Impacted Farmland Parcels and Land Use Designation						
Segment 1 (85 <sup>th</sup> -95 <sup>th</sup> Street)						
ID	APN	FMMP Land Use Status	Signs of Uncultivated Farmland	RW Impacts	Property Owner	LandVision™
1	3028-013-281	Other	Inactive/Furrows*	Partial	City of LA	Public
2	3028-018-001	Other	Inactive/Furrows*	Partial	Kang Lin Trust	Agricultural
3	3028-017-001	Grazing Land	Inactive/Furrows*	Partial	Lawrence Moss	Agricultural
4	3028-017-003	Grazing Land	Inactive/Furrows*	Partial	Moss Trust	Vacant Land
5	3028-019-275	Grazing Land	Inactive/Furrows	Full	City of LA	Public
6	3028-019-271	Grazing Land	Inactive/Furrows	Partial	City of LA	Public
7	3028-019-278	Grazing Land	Inactive/Furrows	Full	City of LA	Public
8	3028-019-290	Grazing Land	Inactive/Furrows	Partial	City of LA	Public
9	3028-019-283	Grazing Land	Inactive/Furrows	Full	City of LA	Public
10	3028-019-282	Grazing Land	Inactive/Furrows	Partial	City of LA	Public
11	3028-019-284	Grazing Land	Inactive/Furrows	Full	City of LA	Public
12	3028-019-285	Grazing Land	Inactive/Furrows	Partial	City of LA	Public
13	3028-019-287	Grazing Land	Inactive/Furrows	Partial	City of LA	Public
14	3028-019-288	Grazing Land	Inactive/Furrows	Full	City of LA	Public
15	3028-019-274	Grazing Land	Inactive/Furrows	Partial	City of LA	Public
Segment 2 (150 <sup>th</sup> -180 <sup>th</sup> Street)						
16	3029-016-002	Prime Farmland	Not Applicable	Partial	Balzer Trust	Vacant Land
17	3029-016-025	Prime Farmland	Inactive	Partial	Ebenkamp Tr.	SFR
18	3029-016-026	Prime Farmland	Inactive	Partial	Ebenkamp Tr.	Vacant Land
19	3029-016-007	Prime Farmland	Inactive	Partial	Ebenkamp Tr.	Agriculture
20	3075-007-001	Unique Farmland	Not Applicable	Bisected	Long Valley Rd	SFR
21	3075-007-010	Unique Farmland	Not Applicable	Full	Long Valley Rd	Agricultural
22	3075-007-002	Unique Farmland	Not Applicable	Partial	Long Valley Rd	Vacant Land
23	3075-007-003	Unique Farmland	Not Applicable	Partial	Long Valley Rd	Vacant Land
24	3075-007-008	Prime Farmland	Inactive	Partial	Ted & Chryl I.	Vacant Land
25	3075-007-007	Prime Farmland	Not Applicable	Bisected	Chang Trust	Triplex
26	3075-011-017	Statewide Import.	Not Applicable	Partial	Bolthouse	Vacant Land
Segment 3 (235 <sup>th</sup> -240 <sup>th</sup> Street)						
27	3091-021-018	Prime Farmland	Not Applicable	Bisected	Bolthouse	SFR
28	3091-020-020	Prime Farmland	Not Applicable	Partial	Bolthouse	Vacant Land
29	3091-020-019	Prime Farmland	Not Applicable	Partial	Bolthouse	Vacant Land
Segment 4 (Sheep Creek Rd.)						
30	0457-16-110-0000	Unique Farmland	Not Applicable	Bisected	Phelan Piñon Hills Community Services District	Former Dairy Farm

\*Parcels ID 1, 2, 3, and 4 could be related to a study completed in 2001 to control dust from disturbed desert habitats involving tilling and irrigation to restore native vegetation (SERG 2001).\*\*FMMP: California Department of Conservation's Farmland Mapping and Monitoring Program. \*\*\*LandVision™, from Digital Map Products, is a land acquisition software solution.

**Table 2.3.2.C –Farmland Parcels Affected**

<b>Farmland Parcels Affected; Assessor Parcel Number (APN) and Right-of-Way Impact (Acres) of Farmland *</b>						
<b>ID</b>	<b>APN</b>	<b>Variation</b>	<b>Location</b>	<b>Parcel Size</b>	<b>R/W Impact</b>	<b>% Impact</b>
1	3028-013-281	Base Alignment	85 <sup>th</sup> -90 <sup>th</sup> Street	307.0	48	15.6%
2	3028-018-001	Base Alignment	85 <sup>th</sup> -90 <sup>th</sup> Street	80.0	12.5	15.6%
3	3028-017-001	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	40.0	10.0	25.0%
4	3028-017-003	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	20.0	1.0	5.0%
5	3028-019-275	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	2.5	Full Impact
6	3028-019-271	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	10.0	4.0	40.0%
7	3028-019-278	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	5.0	5.0	Full Impact
8	3028-019-290	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	1.2	48.0%
9	3028-019-283	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	2.5	Full Impact
10	3028-019-282	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	1.8	72.0%
11	3028-019-284	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	2.5	Full Impact
12	3028-019-285	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	0.6	24.0%
13	3028-019-287	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.5	1.2	48.0%
14	3028-019-288	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	2.1	2.1	Full Impact
15	3028-019-274	Base Alignment	90 <sup>th</sup> -95 <sup>th</sup> Street	14.3	1.1	7.7%
<b>Total</b>				<b>495.9</b>	<b>96.0</b>	
16	3029-016-002	Base Alignment	150 <sup>th</sup> -155 <sup>th</sup> Street	80.0	20.0	25%
17	3029-016-025	Base Alignment	155 <sup>th</sup> -160 <sup>th</sup> Street	20.0	2.0	10%
18	3029-016-026	Base Alignment	155 <sup>th</sup> -160 <sup>th</sup> Street	20.0	2.5	12%
19	3029-016-007	Base Alignment	155 <sup>th</sup> -160 <sup>th</sup> Street	20.0	2.5	12%
20	3075-007-001	Base Alignment	160 <sup>th</sup> -165 <sup>th</sup> Street	80.0	14.8	19.4%
21	3075-007-010	Base Alignment	160 <sup>th</sup> -165 <sup>th</sup> Street	10.0	10.0	Full Impact
22	3075-007-002	Base Alignment	160 <sup>th</sup> -165 <sup>th</sup> Street	10.0	1.2	12.0%
23	3075-007-003	Base Alignment	160 <sup>th</sup> -165 <sup>th</sup> Street	10.0	1.2	12.0%
24	3075-007-008	Base Alignment	160 <sup>th</sup> -165 <sup>th</sup> Street	20.0	2.0	10.0%
25	3075-007-007	Base Alignment	165 <sup>th</sup> -170 <sup>th</sup> Street	160.0	56.3	35.2%
26	3075-011-017	Base Alignment	175 <sup>th</sup> -180 <sup>th</sup> Street	40.0	11.5	28.8%
<b>Total</b>				<b>470.0</b>	<b>124.0</b>	
27	3091-021-018	Base Alignment	240 <sup>th</sup> -250 <sup>th</sup> Street	640.0	79.6	12.4%
28	3091-020-020	Base Alignment	235 <sup>th</sup> -240 <sup>th</sup> Street	40.0	12.8	32.0%
29	3091-020-019	Base Alignment	235 <sup>th</sup> -240 <sup>th</sup> Street	40.0	19.0	47.5%
<b>Total</b>				<b>720.0</b>	<b>111.4</b>	
30	0457-16-110-0000	Base Alignment	Sheep Creek Rd.	157.6	57.5	36.5%

*\*Actual parcel size and impact may change or vary subject to project's alignment changes or corrections to parcel's information based on real estate title reports and right-of-way negotiation process.*

**Table 2.3.2.D** below summarizes the Project direct impacts to Important Farmland (prime, statewide importance, unique or local importance farmland) in Los Angeles and San Bernardino counties.

**Table 2.3.2.D –Important Farmland Impacts**

Important Farmland Impacts (FMMP 2010)			
County	Total Mapped Farmland	HDC Direct Farmland Impact	Percentage %
Los Angeles	39,812 acres	235 acres	0.63
San Bernardino	22,761 acres	17 Acres	0.08

Freeway/Expressway Alternative, Freeway/Tollway Alternative with High Speed Rail Feeder Service

Under this alternative, there will be no additional impacts to farmland as to those discussed under the Freeway/Expressway Alternative and Freeway/Tollway Alternative.

*Indirect Impacts*

Growth-related and accumulative impacts could occur and vary in its geographical reach. Indirect growth impacts could occur due to improved access and desirability of land adjacent to Project alignment and interchanges and its subsequent impacts to open space and natural resources and infrastructures. Future foreseeable project growth impact is within 5-mile radius for residential development and within two-mile radius for industrial and commercial development of the proposed interchanges and access points along the Project alignment. In addition, near the proposed XpressWest High-Speed Rail new rail station in Victorville and the transit station improvements in Palmdale, high-density/mixed-use development is likely to occur within 0.25-mile radius.

Due to improved access and return of investment of developing farmland, farmland could be converted to a higher-value residential and commercial land use. Smaller size farmland properties are more likely to be converted because they are more affordable to purchase and develop. Based on SB 375 and adopted RTP/SCS, future growth is required to be sustainable and context-sensitive (i.e., directed toward protecting open space and agricultural resources). Future conversion of farmland to nonagricultural urban land uses is subject to CEQA process and to the appropriate county and local jurisdiction zoning ordinances and their planning department's review and permitting processes.

In addition, urbanized area encroachment affects agricultural operations indirectly. Residents adjacent to farms may complain of odor and noise from agricultural equipment. This may place constraints on farm activities such as spraying fertilizers and pesticides or reducing operating hours for farm equipment.

Operation of the proposed Project corridor could result in an increase in impervious surface areas, which could potentially increase storm water runoff to adjacent properties and impact farmland. Nevertheless, the project will capture the majority of storm water into catchment and detention basins. Furthermore, potential pollutant sources associated with operation of the Project include motor vehicles, highway maintenance, illegal dumping, and landscaping care.

### *Short-term Construction Impacts*

Short-term construction impacts are attributed to construction activities and traffic detours impacting local circulation network and access and affecting mobility and safety of farm produce, supplies, and workers. If not planned and coordinated properly, construction activities may also disrupt utilities and utility lines. Utility disruptions could jeopardize farm productivity and place some farmland at risk for conversion to nonagricultural use.

Uncontrolled dust and storm water could impact adjacent farmland properties near active construction sites. A hydrological and water quality construction impact would occur if construction activities related to the preferred alternative substantially affected surface water or groundwater quality or altered surface runoff rates, thereby contributing to flooding or erosion hazards.

### **2.3.3 Avoidance, Minimization, and Mitigation Measures**

Variation D originally was designed to start near 150<sup>th</sup> Street but was later shifted to the east from 180<sup>th</sup> Street to minimize impacts to farmland. This shift reduced the net impact to farmland by about 58 acres of prime farmland. As described in the Relocation and Property Acquisition Section, adequate compensation will be provided for property acquisitions, including relocation assistance for residents and businesses as required by the law. Caltrans' ROW agents will work with affected property owners to address issues of concern and negotiate a compensation of their property's fair market value and any temporary loss of production due to the project. The following avoidance, minimization, and mitigation measures are proposed to address potential impacts to farmland and agricultural resources:

- Design and implement the project in a manner that avoids and minimize right-of-way requirement impacts, as follows:
  - The HDC will be aligned to follow property lines, wherever possible.
  - If feasible, utility relocations shall occur within the ROW acquired for the proposed highway rather than on farmland adjacent to the highway.

- In cases where farming is unlikely to continue, the small remainder parcels are to be identified as a farmland conversion, and Caltrans will acquire these property remainders and offer them to adjacent farmland property owners.
- Farmland owners along either side of the HDC near 165<sup>th</sup> Street shall be advised to consider the purchase of each other's property to consolidate properties along the same side of the HDC.
- Caltrans will enter into an agreement with the DOC California Farmland Conservancy Program to preserve farmland – by placing long-term farmland protection tools on Important Farmland or cause the conversion of Grazing Land into Important Farmland. Caltrans will fund the California Farmland Conservancy Program's work to identify suitable agricultural land for mitigation of impacts and to fund the purchase of agricultural conservation easements from willing sellers. The performance standards for this measure are to preserve Important Farmland in an amount commensurate with the quantity and quality of the converted farmlands, within the same agricultural regions as the impacts occur, at a replacement ratio of not less than 2:1. The California Farmland Conservancy Program will work with local, regional, or statewide entities whose purpose includes the acquisition and stewardship of agricultural conservation easements.

Caltrans and the California Farmland Conservancy Program will develop selection criteria to guide the pursuit and purchase of conservation easements. These will include, but are not limited to, provisions to ensure that the easements will conform to the requirements of Public Resources Code Section 10252 and to prioritize the acquisition of willing seller easements on lands that are adjacent to other protected agricultural lands or that would support the establishment of greenbelts and urban separators.

- Impacts to about 2,965 acres of Grazing Land and open space will be mitigated by placing a conservation easement over open space at a replacement ratio of not less than 1:1 in areas where it could meet multiple natural resource conservation objectives, including, but not limited to, wetland protection, wildlife habitat conservation, and scenic open-space preservation. Pursuant to 43 CFR 4100, the livestock owner is given two years prior notice before the lease agreement is modified so that alternate livestock management adjustments can be made, including relocating animals and improvements located in the project footprint. Upon approval of the project, and when sufficient design details are known, Caltrans right of way staff will contact any potentially affected livestock owner to discuss how the HDC Project may affect grazing operations and to address compensation strategies as part of the Relocation Assistance Program. Caltrans will also coordinate with the U.S. Bureau of Land Management, the federal agency responsible for managing livestock grazing on

federal desert lands, and the California Wildlife Conservation Board, which is designated by the California Legislature to protect the grazing lands by promoting the use of conservation easements, to help identify suitable lands.

- Caltrans will fund a research project targeting farmland restoration and reclamation and soil removal and storage. The budget for this activity will be determined at the final design phase of the project after public input is provided.
- Within a 100-foot buffer area from future property lines with farmland, disturbed surface areas will be stabilized utilizing native vegetation and soils clear of invasive plant species. Soil amendments, if used, must comply with the requirements in the California Food and Agricultural Codes. Soil amendment must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth. The construction contract will include provisions to protect against the spread of invasive species. Also see Mitigation BIN-1 to BIN-10 for provisions to prevent the spread of invasive species.
- Infill material to be used in the project shall not be obtained from borrow sites comprised of prime farmland. When selecting sites for wetland mitigation or infiltration basins, the HDC Project will avoid prime farmland to the extent possible. To the extent feasible, infiltration basin sites will also serve wetland mitigation and borrow material purposes to reduce impacts to prime farmland and improve farmland conservation efforts.

## **2.4 Coastal Zone**

Preliminary analysis shows that the Project does not fall within the State of California's Coastal Zone. Therefore, the project will have no adverse impacts on these resources. Consequently, there is no further discussion regarding Coastal Zone resources in this document.

### **2.4.1 Affected Environment**

Not applicable.

### **2.4.2 Environmental Consequences**

Not applicable.

### **2.4.3 Avoidance, Minimization, and Mitigation Measures**

Not applicable.

## **2.5 Wild and Scenic Rivers**

Preliminary analysis shows that nationally designated wild and scenic rivers within the State of California do not fall within the project area. Therefore, the project will have no adverse impacts on these resources. Consequently, there is no further discussion regarding wild and scenic river resources in this document.

### **2.5.1 Affected Environment**

Not applicable.

### **2.5.2 Environmental Consequences**

Not applicable.

### **2.5.3 Avoidance, Minimization, and Mitigation Measures**

Not applicable.

## **2.6 Parks and Recreation**

Parks and recreation is discussed in Chapter 4.3 Community Facilities and Services. Therefore, please refer to Chapter 4.3 for further discussion.

### **2.6.1 Affected Environment**

Please refer to Chapter 4.3

### **2.6.2 Environmental Consequences**

Please refer to Chapter 4.3

### **2.6.3 Avoidance, Minimization, and Mitigation Measures**

Please refer to Chapter 4.3

# Chapter 3 Growth

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## 3.1 Affected Environment

### First-cut Screening

A two-phase approach is used to evaluate growth-related impacts of the Project. The first phase is a “first cut” screening, which estimates the likely growth-potential effect and indicates if further analysis is necessary (which would be addressed in the second phase). The potential for the project to influence growth is based on its improvements to accessibility, type of facility, project location, as well as growth pressure. The first cut screening analysis for build alternatives is presented below

#### **How, if at all, does the project potentially change accessibility?**

The proposed Project would construct a new transportation facility that includes a freeway and an expressway or tollway, with or without a high speed passenger rail component. Several new access points (interchanges and railroad stations) are proposed as part of this project. (See **Figure 2.1.2.A** for location of proposed interchanges and access points) The project would improve connectivity between transportation corridors including existing highways and railroad facilities. The Project would connect in the east with U.S. 395, I-15, and SR-18. In the west, the project would connect with SR-14, which in turn connects with I-5. The passenger rail component would be connected to the California High-Speed Rail (HSR) at a station in the City of Palmdale, and to the privately sponsored XpressWest HSR station planned in the City of Victorville. These connections would potentially vastly change accessibility by improving the mobility of people and products across major economic centers within southern California, and across the state. These projects would connect job centers within the High Desert Region and the Los Angeles Area. The Project would also improve goods movement along several highways and freeways such as I-5, US 395, and I-15.

#### **How, if at all, do the project type, project location, and growth-pressure potentially influence growth?**

The Project would include a new major transportation facility that would be constructed on a mostly new 63-mile-long alignment within the High Desert Region of Los Angeles and San Bernardino Counties. According to Southern California Association of Governments (SCAG’s) 2008 Regional Transportation Plan (RTP) Growth Analysis, this region was one of the fastest growing areas in southern California in the last decades. The population of the region has increased by more than 50 percent from 2000 to 2010. This area also has a high capacity for future growth due to large quantities of vacant affordable land, and proximity to economic centers. Even with the recent recession (2007-2010) and the slowdown of economic growth, it is

anticipated that the area will continue to grow, even if at a lower rate. Improving both mobility and accessibility has the potential to enhance the attractiveness of the area for additional economic and residential development.

This will potentially cause the project area to experience faster growth in employment and population, changes in land use and zoning plans, and a faster pace of land development. This faster growth in employment may assist in reducing the housing/jobs imbalance within the Project region. However, growth would also result in environmental consequences to the various resources of interest within the project area, such as visual resources and aesthetics, community characters, conservation land, water, and natural habitats.

While new right-of-way will be needed for the construction of the Project, the amount needed would not affect the amount of land available for future development. Vacant in-fill areas and new areas are available in abundance, and designated for development along the project alignment.

#### **Determine whether project-related growth is “reasonably foreseeable”**

The area surrounding the project location, except for the urbanized eastern (City of Victorville) and western (City of Palmdale) areas, is mostly open space with sparse development. It is anticipated that there may be some resistance from various groups and residents of the area with an interest in maintaining the existing desert setting. However, the Project has already been adopted as part of the local municipal planning agencies plans. It is “reasonably foreseeable” that the Project would be implemented in a manner that may expedite growth as planned, as well as potentially attract additional growth. Other transportation projects, such as the California High-Speed Rail, XpressWest rail, and airport expansion, that are at various levels of planning stages would cumulatively increase the potential for a “reasonable foreseeable” effect on growth level and patterns within the Project region and communities of the project area.

#### **If there is project-related growth, how, if at all, that will impact resources of concern?**

Resources of concern within the project area that could be impacted as a result of the project’s potential to influence growth include community characteristics, scenic quality, air quality, cultural resources, and natural environment.

Based on the first-cut screening, there is a potential for the project to influence growth, and to impact resources of concern. Therefore, a further analysis of growth related impact was conducted for this project and documented in the Growth-Related, Indirect Impact Analysis Report (2014), which will serve as an attachment to the CIA. The analysis included in the following section is based on this report.

## Study Area Boundaries and Timeframe

The study area boundary is defined by the project's sphere of influence as it is related to growth impacts. The Project is likely to influence residential growth up to five miles from its proposed highway interchanges, and to influence highway commercial and industrial development up to two miles from the interchanges. The passenger rail stations in Palmdale and Victorville are likely to influence higher density mixed use development within walking distance of the stations, up to ¼ and ½ mile away. Indirect impacts are evaluated within the time limits of the project construction and design years. It is anticipated that the project will be open to traffic by 2020, with 2040 as the design year.

## Study Area Communities

The Project is located in the High Desert Region of northern Los Angeles and San Bernardino counties. The area in Los Angeles County is known as the Antelope Valley Region, and the area in San Bernardino County is known as the Victor Valley Region. The project alignment traverses several jurisdictions including the City of Palmdale in the west, and the City of Victorville in the east. Urban clusters in the study area include the Town of Apple Valley and City of Adelanto in San Bernardino County. Unincorporated portions includes the areas in between the urbanized centers (mostly open space), with small communities that represent rural living areas. Some of these communities are located within Los Angeles County and include Lake Los Angeles, Sun Village, Pearblossom, and Llano. **Table 3.1.A** presents the information on population and housing in Cities and Towns of the Project Study Area in the years 1980-2010.

Palmdale represents one of the main cities in the Antelope Valley Region. The City of Palmdale encompasses approximately 95 square miles and an adopted sphere of influence of 174 square miles. Over the years, the City of Palmdale has evolved from a small established agriculture town to a thriving urbanized city. The City of Palmdale has increased in population from 116,670 residents in 2000 to 156,633 in 2010. Lancaster is the eighth largest city in Los Angeles County and the ninth fastest growing city in the United States. The City of Lancaster has grown from 37,000 residents at the time of incorporation in 1977 to 152,750 residents as of the 2010 U.S. Census. Indications are strong that residential growth will continue due in part to the relatively low housing prices when compared to the rest of Los Angeles County.

The majority of Palmdale's growth occurred adjacent to the existing railroad and highway system. Within the area of the proposed Project alignment, the majority of industrial land uses are located near the Los Angeles/Palmdale Regional Airport. Other uses include commercial and residential. Palmdale's major employment source is the aerospace industry and other major

corporations and industries. There is a potential for manufacturing companies to continue locating to Palmdale as a result of land affordability, proximity to transportation hubs, and lower taxes that the City provides to new companies. In addition, the California High Speed Rail Authority has been commissioned to initiate preliminary development work on several north-south corridors including the Antelope Valley with segments proposed from Bakersfield to Palmdale and Palmdale to Los Angeles.

Within the study area, the unincorporated areas of the High Desert Region are located largely between the Palmdale, Adelanto/Victorville, and Apple Valley urbanized areas of Los Angeles and San Bernardino Counties. This area is highly rural in character with a very low density population pattern and sparse employment opportunities. Lake Los Angeles (population 12,328), and Phelan (population 14,304), are the only communities characterized by the 2010 census as “places.” The remaining unincorporated communities generally have fewer than 2,000 residents. Nearly all residents are self-employed or are employed in jobs located in the Antelope and Victor Valley areas. The majority of current employment opportunities are located in the San Bernardino County portion of the unincorporated areas of the High Desert and nearly all future growth is expected to take place there. As part of general plans and specific plans public participation process, residents in these areas expressed the desire to maintain the rural character of their communities and natural setting, with limitations on the type and size of commercial and industrial development.

The Victor Valley increased in population to approximately 306,976 from 1980 to 2010 (**Table 3.1.A**) Municipalities within the study area in this region include Victorville, Adelanto, and the Town of Apple Valley. The City of Victorville increased in population from 64,029 (in 2000) to 115,903 (in 2010). The largest single employment concentration in Victor Valley is the Southern California Logistics Airport (SCLA) in Victorville, which was developed at the site of the former George Air Force Base. The Project alignment is located just south of the airport and the Victorville Federal Correctional Complex. The land use in this area is primarily industrial.

The City of Adelanto is located northwest of Victorville. It is the smallest city in San Bernardino County. Between 2000 and 2010 the City of Adelanto grew from 18,130 residents to 31,765. Between 1990 and 2010, the City of Adelanto almost tripled in population. Adelanto housing prices are significantly low compared with other areas in southern California, which has contributed to the increase in housing sales in the Adelanto area. Land costs in Adelanto are among the lowest in southern California. Adelanto is home to the Adelanto Gateway Logistics Center, which is a 400-acre industrial project across from the SCLA. It is also home to some of the largest manufacturing businesses in the Victor Valley region with five industrial parks that accommodate a variety of business and industrial needs.

**Table 3.1.A - Population and Housing in Cities and Towns of the HDC Study Area, 1980-2010**

Population	Apr 1, 1980	Apr 1, 1990	Apr 1, 2000	Jan 1, 2001	Jan 1, 2002	Jan 1, 2003	Jan 1, 2004	Jan 1, 2005	Jan 1, 2006	Jan 1, 2007	Jan 1, 2008	Jan 1, 2009	2010 Census
<b>Antelope Valley</b>													
Palmdale	12,277	68,842	126,670	119,828	123,615	126,993	130,933	135,743	139,775	143,424	146,209	151,346	156,633
Lancaster	48,027	97,291	118,718	120,760	123,051	125,835	128,853	132,865	137,083	141,737	143,512	145,074	152,750
Total	60,304	166,133	245,388	240,588	246,666	252,828	259,786	268,608	276,858	285,161	289,721	296,420	309,383
<b>Victor Valley</b>													
Victorville	14,220	40,674	64,029	66,904	70,256	73,538	79,081	87,813	96,564	104,218	109,321	112,252	115,903
Apple Valley	0	46,079	54,239	55,269	56,890	58,665	61,005	63,117	66,490	69,127	68,776	68,828	69,135
Hesperia	0	50,418	62,590	63,572	65,704	68,350	70,956	76,548	80,648	86,332	88,356	89,364	90,173
Adelanto	2,164	6,791	18,130	18,512	19,327	20,326	22,528	24,855	26,617	29,181	30,526	31,087	31,765
Total	14,220	143,962	198,988	204,257	212,177	220,879	233,570	252,333	270,319	288,858	296,979	301,531	306,976
<b>Housing Units</b>													
<b>Antelope Valley</b>													
Palmdale	NA	24,439	37,096	37,649	38,360	39,020	39,946	41,312	42,841	44,031	44,907	46,254	42,952
Lancaster	NA	36,221	41,745	41,947	42,350	42,931	43,584	44,781	46,790	48,550	46,973	49,321	46,992
Total	NA	60,660	78,841	79,596	80,710	81,951	83,530	86,093	89,631	92,581	93,880	95,575	89,944
<b>Victor Valley</b>													
Victorville	NA	15,627	22,498	22,781	23,312	24,046	25,495	27,955	30,527	33,040	34,946	35,782	32,558
Apple Valley	NA	16,672	20,163	20,513	20,909	21,448	22,193	22,985	24,425	25,631	25,792	25,962	23,598
Hesperia	NA	17,359	21,352	21,503	21,816	22,390	22,953	24,628	26,030	27,973	28,650	28,949	26,431
Adelanto	NA	2,754	5,547	5,575	5,711	5,912	6,411	7,047	7,722	8,560	8,840	8,952	7,809
Total	NA	52,412	69,560	70,372	71,748	73,796	77,052	82,615	88,704	95,204	98,228	99,645	90,396

Source: State of California Department of Finance. E-1 Population Estimates for Cities, Jan 1, 2008 and 2009, May 2009; and 2010; E-5 Population and Housing for Cities, Counties and the State 2001-2009, with 2000 Benchmark, May 1009; U.S. Census Bureau- HDC Traffic Study Report, 2014  
 Note: NA indicates that no data was available.

The Town of Apple Valley is at the east end of the project limits, next to the City of Victorville. The Town of Apple Valley. Between 2000 and 2010, the Town grew from 54,239 to 69,135. The majority of the Town's new development is near State Route 18 and Bear Valley Road. The largest percentage of developed land is single-family residential. The North Apple Valley Industrial Specific Plan Area is generally flat, vacant and has few constraints making it suitable for a wide range of industrial, commercial, institutional, office, and airport-related uses.

## **3.2 Environmental Consequences**

The following steps were used as guidelines for identifying and assessing growth-related impacts of the Project:

1. Review previous project information and decide on the approach and level of effort needed for the analysis ("right-size" the analysis).
2. Identify the potential for growth for each alternative.
3. Assess the growth-related effects of each alternative to resources of concern.
4. Consider additional opportunities to avoid and minimize growth-related impacts.
5. Compare the results of the analysis for all alternatives.
6. Document the process and findings of the analysis

### **3.2.1 Approach and Study Methodology (Step 1)**

A review of the project information was completed to assess the approach and level of effort needed for the analysis required for this project. A combination of analysis methodologies were employed to assess growth effects of the Project. Analysis of historic effects included research and review of published literature on the region and census information. Geographic Information System (GIS) mapping was obtained or created for the Project Study Area and was used to understand and document conditions. A study was conducted of travel time savings that the project would provide to major job centers. Potential changes in land use were studied with the aid of local and regional plans. SCAG data on growth projections for the area were also considered. A Delphi Expert Panel was established to assist in estimating the locations and quantity of development that may occur as an indirect effect of the project build alternatives. This section contains a summary and description of the methodology and results of the research conducted to obtain this information. The following describes the four methodologies utilized for this analysis:

#### **Commuter Travel Time Analysis**

Commuter travel time to job centers is a key variable of household location. All else being equal, people generally prefer to have shorter commutes to work. The Los Angeles metropolitan area is no exception but limited buildable land and high housing costs have encouraged households to locate at ever-increasing distances from job centers in the Los Angeles Basin. The project area, High Desert

Region is located 60 miles north of downtown Los Angeles on the opposite side of the San Gabriel Mountains. According to US Census Bureau Longitudinal Employer-Household Dynamics (LEHD) datasets, over 50 percent of workers in the project area commute south of the mountains to work whereas only about 1/3 works within the High Desert Region. In light of the LEHD findings, a travel time analysis was performed to compare travel times with and without the Project to not only job centers within the High Desert Region but also to those larger centers in the Los Angeles Basin. This analysis intended to identify areas that might become more attractive to commuters because of the Project. The analysis was conducted for the Freeway/Expressway Alternatives with and without the High-Speed Rail Feeder Service.

### **Freeway/Expressway Alternative**

Travel times by car were measured between selected origin and destination points from proposed the Build alternative alignment. The travel times were calculated for the morning peak period in 2020; the year the Project is expected to open. Origin points were selected from key locations along the alignment that have ample vacant land for potential new development. Destinations were selected by where the Project would intersect other major limited access highways (SR-14 and I-15) and near job centers in the Los Angeles Basin. The travel times were then calculated between the origins and destinations but only for those on the same end of the Project corridor (west or east) under the assumption that commuting between origins and destinations on opposite sides of the corridor would likely be negligible given the distances involved. The travel time analysis results under 2020 Project Freeway/Expressway Build Alternative were compared with travel time along the Project from CORSIM simulation analysis provided in High Desert Corridor Traffic Study Report (February 2013) and Origin-Destination travel time from SCAG (RTP08) Year 2035 traffic model.

Overall, the analysis indicates relatively modest travel time savings to commuter destinations in the Los Angeles Basin; in fact, some trips are shorter not using the Project. In all instances, the travel time savings are less than 15 percent to Basin area destinations. In the case of El Mirage, travel times actually increase slightly, perhaps due to additional traffic near El Mirage accessing the Project. This finding indicates that the Project's highway alternative may spur only very modest housing unit growth from the long-distance commuters to the LA Basin that currently comprise a majority of workers in the region. While time savings to LA Basin destinations are modest, the savings to commuter destinations within the High Desert Region (by proxy the junctions with SR-14 and I-15) are significant. In all cases, savings are at or above 20 percent and, in the case of Adelanto to the Project and I-15 interchange, they are above 50 percent.

### **Freeway/Expressway Alternative with High-Speed Rail Feeder Service**

Since the original analysis was completed, both a Freeway/Expressway Build Alternative with HSR Feeder Service and a Freeway/Tollway Build Alternative with HSR Feeder Service were introduced. On the western end, the HSR Feeder service is assumed to connect with the California High-Speed Rail project in Palmdale, and on the eastern end it is assumed to connect with the XpressWest project in Victorville. No intermediate HSR stations within the Project region are assumed.

The travel time analysis results for the Freeway/Expressway Alternative were based on the traffic model (SCAG RTP08 Year 2020 model) specifically used for *High Desert Corridor Traffic Study Report, 2014*. Since the model used for the previous travel time analysis was not available at the time of this writing and the HSR Feeder Service is not coded in any version of SCAG's 08RTP model, the Project auto travel time analysis for the two build alternatives with HSR Feeder Service were developed based on available CORSIM simulation results obtained from the *High Desert Corridor Traffic Study Report, 2014*.

The review of auto travel times from the available CORSIM simulation results indicates that vehicles will travel at 60 mph or above on the Project facility and travel time savings are minimal under all of the Project build alternatives. Reductions in traffic volume on the Project facility as a result of HSR Feeder Service will have minimal impact to auto travel times from the study origins to HDC/SR-14 interchange and HDC/I-15 interchange. Therefore, the introduction of HSR Feeder Service will have minimal impact on traffic flow on the Project facility and auto travel times, because the Project is forecast to operate at free flow speeds. However, the introduction of HSR Feeder Service may benefit those very few commuters that actually travel between Victorville and Palmdale because of the 25-30 minute travel time savings compared to driving on the Project facility. In between Victorville and Palmdale, there is little benefit because of the lack of intermediate stations.

Mobility and accessibility within the region is expected to increase economic development activities, which in turn will provide more employment opportunities and help address the existing jobs/housing balance within the Project region.

In the long-term, commuters would benefit from travel time savings gained by taking the California High-Speed Rail connection at the Palmdale station to destinations such as the Sylmar/San Fernando Station and LA Union Station. However, they would still need to drive to the Palmdale Station, park and get on the CHSR train. Furthermore, there is not expected to be any travel time savings to Downtown San Bernardino, because no high-speed rail connection is planned to extend south from Victorville.

## **Land Use Plan Review**

A review was conducted of the general plans for the six incorporated towns and the unincorporated parts of the two counties in the project area.<sup>1</sup> The review was conducted in order to understand how the Project is viewed in current land use planning for the area and, specifically, whether its potential growth impacts are accounted for in such plans. The review covered eleven planning topics that are standard concerns in any indirect impact analysis. These include plan's HDC citation, plan's relevance, plan's addressing of future population and employment, plan's support for the Project, related resource displacement and conflicts/synergies, mitigation in the plan, proposed interchange treatment, development capacity, zoning and development readiness, effects from annexations, and value of the documents to the analysis. The land use plan review determined that plans include conditions without growth impacts as they result from the Project. Key finding of the review is that most land use plans in the region do not account for the Project. The review of general plans for the incorporated cities/towns and the unincorporated parts of the two counties in the project area indicated that most of the recent general plans were supportive of the Project due to desirable future impacts on regional growth and mobility. The Town of Apple Valley General Plan (adopted August 2009) specifically addresses the Project in its Land Use Map and Street System Map as part of the policy to protect the right-of-way for the project implementation. Two of the nine plans had land use policies in place either to protect the Project right-of-way or to encourage development to consider potential conflicts with the Project. None of the plans address the interaction between the project and the availability of land for development. While none of the projected future growth and land use change as described in the plans was an explicit result of the proposed Project, the project where referenced, was seen as a positive contribution to economic growth and mobility by local jurisdictions. One exception is the Victorville Special Plan for Desert Gateway in 2009, a new town, which specifically is based on the benefits of a nearby Project interchange and XpressWest HSR station.

## **Regional Growth Forecasts**

Official forecasts of local household and employment growth establish the baseline demographic control for calculating indirect land use impacts. In the High Desert Region, the official forecasts are developed by the SCAG with input from the San Bernardino Association of Governments (SANBAG), Los Angeles County, and local governments.

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<sup>1</sup> The plan review also looked at a preliminary draft plan and supporting technical studies

A fundamental threshold question is whether the forecasts themselves already reflect the accessibility benefits of the project in geographic distributions. If so, then the indirect impacts, in essence, have already been forecasted and the task switches from redistributing the official growth forecasts based on project derived accessibility changes to developing a growth pattern for the No-Build alternative. Interviews with SCAG employees revealed that the forecasts they develop do not account for the accessibility benefits conferred by new highway projects. This finding is consistent with the findings of the local plan review.

The recent housing crisis and recession that started in 2008 have disrupted normal growth trends and caused SCAG to rethink their forecasts. The High Desert Region in particular witnessed a major decline in housing starts compared with the boom years before 2008. As a consequence of the recession, growth forecasts after the recession have generally been lowered. As a result, for the purpose of this analysis, the 2035 projections are assumed for 2040. **Table 3.2.A** and **Table 3.2.B** present the 2008-2035 population, household, and employment projections for cities in the High Desert Region, within the project area.

**Table 3.2.A - SCAG Adopted 2008 Growth Forecasts for Palmdale and Lancaster**

Population	2003	2005	2010	2010 Census	2015	2020	2025	2030	2035
Palmdale	127,548	135,672	160,650	156,633	181,493	202,406	222,761	242,523	261,501
Lancaster	129,181	138,423	182,663	152,750	220,121	248,545	293,971	329,321	363,252
Total	256,729	274,095	343,313	309,383	401,612	459,951	516,732	571,844	624,753
Household									
Palmdale	36,491	38,893	49,143	42,952	58,710	68,791	76,661	84,262	90,516
Lancaster	39,609	41,924	49,331	46,992	56,245	63,532	69,220	74,713	76,233
Total	76,100	80,817	98,474	89,944	114,955	132,323	145,881	158,975	169,749
Employment									
Palmdale	31,132	31,229	35,059	N/A	38,103	40,047	42,332	44,772	47,108
Lancaster	41,112	41,593	49,280	N/A	55,390	59,291	63,878	68,775	73,463
Total	72,244	72,822	84,339	N/A	93,493	99,338	106,210	113,547	120,571

Sources: Southern California Association of Governments, Adopted 2008 RTP Growth Forecast by City, 2010 Census-HDC Traffic Study Report, 2014

**Table 3.2.B - SCAG Adopted 2008 Growth Forecasts for Adelanto, Apple Valley, Hesperia, and Victorville**

Population	2003	2005	2010	2010 Census	2015	2020	2025	2030	2035
Adelanto	20,380	24,156	40,742	31,765	56,674	71,877	86,629	100,814	114,398
Apple Valley	60,255	65,760	71,630	69,135	77,115	82,005	86,749	91,311	95,681
Hesperia	69,249	78,284	102,895	90,173	126,456	148,751	170,384	191,186	211,108
Victorville	75,259	90,913	106,649	115,903	122,205	138,023	153,376	168,134	182,275
Total	225,143	259,113	321,916	306,976	382,450	440,656	497,138	551,445	603,462
Household									
Adelanto	5,132	6,107	10,755	7,809	16,487	20,726	24,798	28,606	32,192
Apple Valley	19,749	21,277	23,692	23,598	26,742	29,088	31,343	33,455	35,441
Hesperia	21,164	23,621	28,869	26,431	36,348	43,240	49,859	56,055	61,887
Victorville	22,975	27,108	32,392	32,558	38,919	43,766	48,421	52,775	56,875
Total	69,026	78,113	95,708	90,396	118,495	136,820	154,421	170,381	186,395
Employment									
Adelanto	4,643	5,125	8,022	N/A	10,501	12,682	15,232	17,982	20,884
Apple Valley	11,417	12,488	14,623	N/A	16,243	17,283	18,500	19,972	23,662
Hesperia	13,554	14,934	21,051	N/A	25,706	28,959	32,787	37,275	47,998
Victorville	28,527	31,425	41,280	N/A	49,131	55,044	61,972	69,861	84,335
Total	58,141	63,972	84,976	N/A	101,581	113,968	128,491	145,090	176,879

Source: Southern California Association of Governments, Adopted 2008 RTP Growth Forecast by City; 2010 Census-HDC Traffic Study Report, 2014

Most land use plans in the region do not account for the Project nor are the accessibility benefits of the Project included in SCAG’s growth forecasts. Both of these findings indicate that projections of population, households, and employment do not forecast the impact of the project on their growth, or its unplanned environmental impacts.

**Delphi Panel Process**

The Delphi Panel process was used to obtain opinions from experts in fields that are relevant to growth impact analysis. The purpose of this process is to use information from the panel to assist in identifying the potential land use and economic development impacts resulting from the project’s alternatives. Eight members volunteered to serve on the panel with expertise in areas of regional planning and community studies, advising on real estate development, land use and environmental laws and regulation, as well as real estate and trucking businesses in the High Desert Region. The Panel was asked to evaluate two main project alternatives, one that includes only highway/freeway

facility, and another that included a highway/freeway with a high-speed passenger rail component. The panel provided their input through a structured and anonymous process using worksheets that were given to them. Each of the panel members were given information in order to help in gaining a unified understanding of the Project. The information included project description and location maps, latest project purpose and need, project alternatives, a review of the general plans for jurisdictions within the project study area, and a travel time analysis that was prepared for the project. Two worksheets were used to obtain the information from the panel; the first is short and addresses general factors that affect population and commercial growth, and the second includes eight questions (with 27 sub-sections) concerning the project impacts on future growth patterns, both in terms of location and amount. The questions address impacts on residential as well as commercial development (retail, office, industrial, or other commercial endeavors). The results are incorporated in the following analysis.

### **3.2.2 Potential for Growth for Each Alternative (Step 2)**

#### No Build Alternative

The review of general plans and SCAG's growth projections indicate that existing plans represent a baseline land use context without the Project's potential impacts assumed to be in place. While the plans vary in age, none of the projected future growth and land use change was an explicit result of the proposed Project. Most land use plans in the region do not account for the Project nor are the accessibility benefits of the Project included in SCAG's growth forecasts. Based on SCAG 2008 projections, the population in the Project region is expected to more than double between 2009 and 2035 (or 2040 for the purpose of this study), to over 1.2 million, up from 598,000. This is a robust growth rate of approximately 4.4 percent a year, faster than in the previous 29 years since 1980, which averaged only 3 percent a year. Similarly, the Project region is projected to see major employment growth between 2003 and 2035, based on the SCAG 2008 projections. Employment is expected to grow 128 percent during this 32-year period to over approximately 297,000, up from approximately 130,000. This is a steady growth rate of approximately 3 percent a year. The No Build Alternative will not change current development patterns or pace of development. Future development will continue the present spread out pattern, which consists of primarily low density residential subdivisions on developable land with utilities. Commercial uses would continue along major highways and arterial streets and in a few planned community and regional level shopping centers. Industrial development will continue along major highways, normally in planned office/industrial parks, as well as near the Palmdale and Southern California Logistics Airports. The development pattern is heavily oriented to automobile and truck access, and is not expected to change. In general, the future pattern will tend to respond to market demand and be controlled by current comprehensive land use plans and zoning of municipalities and of the unincorporated areas of counties in the High Desert Region to the extent that decision makers adhere to them.

### Freeway/Expressway Alternative

Based on the findings of the research and studies conducted for the analysis of the project growth related impact, the Project, by itself, is not expected to influence growth more than the baseline that officially forecasted by SCAG. Most of this growth is expected at the eastern and western termini of the Project in Victor and Antelope Valleys, respectively, slightly more growth in the former. It is anticipated that the Freeway/Expressway Alternative will tend more to shift some future highway oriented development toward the major project interchanges with US, State, and Interstate highways than create additional development.

The findings indicated that the Project will have relatively modest travel time savings to commuter destinations in the Los Angeles Basin given the high levels of congestion in the urbanized area south of SR 14/HDC. The primary travel time savings are projected to be between origins and destinations within the Project between SR-14 and I-15, and less so to the LA Basin or to Downtown San Bernardino and Ontario. As employment is added to the High Desert Region in the decades ahead, there is clearly a potential for the Project to alter the housing locations of these additional workers. However, since only approximately 1/3 of current workers living in the High Desert Region work within the region; if this percentage continues to hold in the future among new residents, the travel time analysis indicates that 2/3 of households may continue choosing their housing locations with limited regard to the accessibility benefits of the Project. Thus, this analysis shows the impact of the Project highway alternative on overall regional household growth, while not insignificant, may not spark dramatic shifts in growth.

Most of the Delphi Panelists thought that the Project would shift residential growth within the region and not be limited to shifting growth toward the interchanges and rail stations. Most panelists felt that the Project would stimulate residential development in eastern Palmdale and western Victorville. As for the Project impact on land use, most panelists thought that there is a high likelihood that the City of Palmdale and the City of Victorville will face pressure to change land use to higher densities near station and interchange. All eight of the panelists agreed or strongly agreed that the project will influence the location of development and attract additional commercial growth to the region. However, the Delphi Expert Panel ranked availability of public utilities, market, and cost of housing higher as factors affecting population growth. They also ranked market as the highest factor affecting employment growth, followed closely by business climate, industry and availability of public utilities. Generally, depending on market demand, availability of developable land and utilities and appropriate planning permission, highway commercial and industrial would tend to locate within two miles of a new project interchange and residential development would tend to locate within five miles of the interchange. Isolated interchanges in the center of the alignment, in the primarily undeveloped desert areas, are not expected to attract development. While some

development would tend to shift some development toward the interchanges, future development will continue the present spread out low-density pattern, similar to the No Build Alternative.

It is also anticipated that the future development pattern will continue to follow current and or revised land use plans and zoning of municipalities and of the unincorporated areas of counties in the High Desert Region. The municipal general plans in the Project region expect and encourage growth, while the smaller municipalities wish to preserve their rural setting. The two urbanized areas at either end of the Project, namely Palmdale in the Antelope Valley and Victorville in the Victor Valley, plan to expand but also infill within their municipal boundaries. The Los Angeles and San Bernardino County plans call for limited to no growth in the rural desert and unincorporated areas between these two urbanized valleys. Planned growth around the two major airports, Palmdale Regional and the Southern California Logistics Airports, is encouraged as both airports have master plans that call for substantial increase of operations and jobs.

This build alternative includes several alignment variations that avoid some residential and commercial developments, as well as some environmental resources. It is not anticipated that these variations would have different growth patterns.

#### Freeway/Tollway Alternative

The Freeway/Tollway Alternative will tend to attract future highway oriented development near the major project interchanges with US and State highways, similar to the Freeway/Expressway Alternative. Generally, depending on market demand, availability of developable land and utilities and appropriate planning permission, highway commercial and industrial would tend to locate within two miles of the new interchange and residential development would tend to be located within five miles of the interchange. Isolated interchanges in the center of the alignment, in the primarily undeveloped desert areas, are not expected to attract development. While the interchanges would tend to shift some development toward them the future development will continue the present spread out low density pattern, similar to the No Build Alternative, because of the project's orientation to motor vehicles including large trucks. In general, the future pattern will tend to follow current and or revised comprehensive land use plans and zoning of municipalities and of the unincorporated areas of counties in the High Desert Region. The alternative variations would not change these patterns. However, since some automobile traffic will be diverted from the tolled facility to the existing untolled roadway network, the amount of residential development maybe somewhat more spread out following the existing non-tolled roadway network. However, for business reasons (such as faster travel time despite the expense of a toll), fewer trucks would be diverted to the existing free roadway network than private automobiles so commercial and industrial development near the main interchanges would be expected.

### Freeway/Expressway Alternative with High-Speed Rail Feeder Service

The High-Speed Rail Feeder Service element of this alternative will tend to attract future development near the passenger rail stations in Palmdale and Victorville, in addition to attracting development to the major project interchanges. However, the introduction of high-speed rail, a new development pattern could evolve such as moderate to higher density and even mixed use development near station areas to take advantage of the new rail service. Depending on market demand, in general, the future development pattern will tend to follow current and or revised land use plans and zoning of municipalities and of the unincorporated areas of counties in the High Desert Region. Palmdale and Victorville would most likely revise their planning and zoning at the rail stations to encourage transit oriented development (TOD) to realize among other benefits increased walk-in ridership and conversion of less open land for development. Victorville has already acted with its 2009 Special Plan for Desert Gateway new town, which is based on new access provided by the Project. Such TOD would be transformational for this region because it emphasizes higher densities, mixed uses, pedestrian and bicycle use, feeder bus service and reduced parking, not evident at present. Moreover, TOD impacts would be expected to be quite concentrated between ¼- to ½-mile from station areas, i.e., easy walking distance.

This alternative with the rail component is not anticipated to impact growth significantly. The Delphi Panel members felt that travel time savings (above 15 percent faster) within the project limits, and improved highway access were more important growth influencers than the availability of rail transit. However, cumulatively a new type of urban form may develop in the region as a result of the rail component of this alternative. The California High-Speed Rail Authority (HSR) 2012 Business Plan would extend the line south to Palmdale and the San Fernando Valley in 2022 and to Los Angeles (LA) Union Station in 2029. Trip duration on CA HSR between Palmdale and LA Union Station would be approximately 20 minutes (compared to almost two hours on the existing Metrolink). This travel time savings would be a transformational growth influencer on the High Desert region. Moreover, the privately proposed XpressWest (HSR) from Las Vegas would end at a new Victorville station initially, and eventually extend west to Palmdale in the future. Should both these HSR projects be realized by 2040, their impact on the Project region would be transformational. These two HSR projects would greatly affect growth trends in the High Desert region. The HSR service would make it possible to work in the higher paying Los Angeles Basin and live in the less expensive Project region with an easy commute. Moreover, Palmdale and Victorville may consider increasing development densities around the station areas to yield among other environmental benefits increased walk-in rail ridership. The principles of transit oriented development could be followed to initiate a more compact form of mixed use pedestrian-oriented development not now evident in the region. Transit oriented development at the existing Palmdale station and the proposed Victorville station(s) could result in multi-use, high density, pedestrian

oriented working and living environments. This could reduce impacts on the natural environment, as even a slight increase in densities in residential subdivisions, for example, would result in a more compact arrangement of single-family homes, the predominant market preference, and use less open space and agricultural land. The City of Victorville has already considered a proposal for a mixed use, higher density new community around the future site of its new rail station called Desert Gateway.

#### Freeway/Tollway Alternative with High-Speed Rail Feeder Service

This build alternative will have similar consequences as the Freeway/Tollway Alternative and the Freeway/Expressway Alternative with High-Speed Rail Feeder Service.

### **3.2.3 Growth-Related Effects to Resources of Concern (Step 3)**

#### No Build Alternative

The No Build Alternative is not expected to have an impact on areas of environmental concern. This is largely because of the spread out development pattern that is likely to occur over time, despite the applicable comprehensive plans, which state the goal of concentrating development within municipal boundaries. The plans foster single-family low-density development patterns and highway oriented commercial and industrial development patterns, which is unlikely to change from that allowed at present. However, these plans also protect parklands, stream valleys, wetlands and other open areas from new development.

#### Freeway/Expressway Alternative

The build alternative alignments and variations affect the following environmental features: two large Los Angeles County Agricultural Resource Areas near 170<sup>th</sup> E and 240<sup>th</sup> E Streets in eastern Palmdale; the Southwestern Willow Flycatcher habitat south of Southern California Logistics Airport and two areas in eastern Victorville; three Los Angeles County Significant Ecological Areas in eastern Palmdale; several Palmdale Creek Areas, Waterways and Flood Zones in both Palmdale and Victorville areas; and open space areas east of Victorville.

Indirect growth related impacts of the Freeway /Expressway Alternative is not expected to have significant additional impacts on areas of environmental concern. This is largely because of the spread out development pattern that is likely to occur over time, despite the applicable comprehensive plans, which state the goal of concentrating development within municipal boundaries, with or without the project. Some new highway oriented development will tend to concentrate along the new Project interchanges, especially in eastern Palmdale and western Victorville and adjacent Adelanto. These general plans include goals and policies to protect

parklands, stream valleys (even if dry most of the year in the desert region), wetlands and other opens areas from new development, even as they foster single-family low density development patterns and highway oriented commercial and industrial development patterns. With the implementation of avoidance, minimization, and mitigation measures, it is anticipated that growth would not have adverse impact on the natural resources.

#### Freeway/Tollway Alternative

The Freeway/Tollway Alternative is not expected to have an impact on areas of environmental concern. This is largely because of the spread out development pattern that is likely to occur over time, despite the applicable comprehensive plans, which state the goal of infill development and concentrating development within municipal boundaries. Residential development is likely to develop alongside the Project but also convert developable open areas along the existing toll-free roadway network. These comprehensive plans also protect parklands, stream valleys (even if dry most of the year in the desert region), wetlands and other opens areas from new development. However, they also foster single-family low-density development patterns and highway oriented commercial and industrial development patterns.

#### Freeway/Expressway Alternative with High-Speed Rail Feeder Service

Even though, the Freeway /Expressway Alternative with High-Speed Rail Feeder Service may affect the growth pattern in the region, it is expected to have a minimal impact on areas of environmental concern. This is largely because the Project is expected to shift some future highway development toward the interchanges, and rail stations. The spread out low-density development pattern is likely to occur over time, despite the applicable general plans which state the goal of concentrating development within municipal boundaries. If these plans are revised, however, to include TOD principles, less open land will be converted to urban uses due to the increased densities. These plans also include goals and policies to protect parklands, stream valleys (even if dry most of the year in the desert region), wetlands and other opens areas from new development

#### Freeway/Tollway Alternative with High-Speed Rail Feeder Service

This Alternative is not expected to have an impact on environmental resources of concern. This is largely because the Project is expected to shift future development (especially commercial and industrial) toward the interchanges. However, the spread out low-density development pattern is likely to occur over time, despite the applicable general plans, which state the goal of concentrating development within municipal boundaries. This is because the existing toll-free roadway network is also expected to attract development due to diverted automobile traffic. If these plans are revised, however, to include TOD principles, less open land will be converted to

urban uses do to the new accessibility of the station areas in Palmdale and Victorville. These plans also protect parklands, stream valleys (even if dry most of the year in the desert region), wetlands and other opens areas from new development.

### **Comparative Analysis and Conclusion (Step 5)**

The High Desert Corridor Project will tend to shift some future development toward the new interchanges in Palmdale and Victorville/Adelanto. The Alternatives with high-speed rail will tend to change current low density development patterns to higher density and mixed uses near the rail stations in Palmdale and Victorville. The tolled Alternatives will tend to spread some residential development along the toll-free highway network but will still attract commercial and industrial development near the interchanges in the eastern and western ends of the project. Conversely, it is not expected to shift development to the central and somewhat isolated interchanges in the rural desert, largely due to the lack of utilities, market demand nor supportive public land use policies.

The separate State-sponsored transit project that would extend the proposed California high-speed rail (HSR) from the north of the High Desert Region to Palmdale and to the south to Los Angeles Union Station would have a transformational effect, much greater than the impact of the Project. The HSR project would make the High Desert Region, especially Palmdale, easily accessible; within less than half an hour travel time on the HSR compared to over one hour by car and nearly two hours by Metrolink. This increased accessibility coupled with lower housing prices than in the Los Angeles Basin would attract new residents who would have much easier commutes to jobs in the Los Angeles Basin and San Fernando Valley. The extension of the privately proposed XpressWest HSR project from Las Vegas to Victorville, and then to Palmdale, will only add to the transformational effect on development. The cumulative impacts of new growth stimulated by the Project and both HSR projects would be significant in the High Desert Region, much more than the Project alone. The Project is expected to influence the location of new commuter destinations because of the improvements to mobility and accessibility that would result from the project. This would help improve the jobs/housing balance within the Project region.

### **3.3 Avoidance, Minimization, and Mitigation Measures (Step 4)**

Indirect impacts are identified, evaluated, and documented in relation to all other impacts so decision makers have pertinent information on hand to make decisions. This type of comprehensive evaluation of the full range of impacts to environmental, cultural, social, and economic resources is required under NEPA before state highway agencies (Caltrans), FHWA, and permitting agencies can make project decisions. Consideration of indirect impact is one factor that is considered in this process.

A multi-disciplinary team evaluated and compared the potential impacts of corridors in an iterative process that continually focused on reducing project impacts, including cumulative impacts. The Project was advanced over other preliminary corridor concepts that would have had greater direct impacts on community and natural resources. Consideration has also been given to the interchanges and access points along the corridor to avoid adverse localized impacts. It is through these decisions that many of the potential development related impacts associated with the Project have been reduced. As a result, the alignment of the Project including all alternatives, were developed and refined to avoid, minimize, or mitigate adverse effects to environmental, regional, and local facilities such as:

- The Los Angeles World Airport (LAWA) in Palmdale;
- The former dairy facility, associated agricultural plots and dairy cattle holding pens in North San Bernardino County; the amount of community (residential impacts) and farmland impacts between approximately 190th Street east and 230th Street east; and
- The Victorville Federal Correctional Facility, as well as to be consistent with the land use zoning designation for Southern California Logistics Airport Specific Plan and with Victorville's General Plan.

Because the proposed project would not individually result in significant impacts due to growth, no avoidance, minimization, and/or mitigation measures are proposed.

### **3.4 Documentation (Step 6)**

A separate report (titled Growth-Related, Indirect Impact Analysis Report, 2014) was prepared to document the process, analysis, and findings of the indirect-growth related impacts for this project.



## Chapter 4 Community Character

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Per the Volume 4 of the Caltrans Environmental Handbook - Community Impact Assessment, population and housing characteristics was used to provide a descriptive account of the physical and social characteristics of the affected communities. Community profiles was developed for the various communities within the project area and compared to the greater region in which it exists. Demographic information for the communities included population, ethnicity/race, age, and income data. Housing characteristics included housing density and household size.

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

The stability index is solely a rough indicator of community cohesiveness, in which the premise behind the index is that the longer in which people live within a community the more committed they become to it and the more cohesive the community. However, there are other means to measure cohesiveness, however given the magnitude and scale of the project, utilizing census data and spatial analysis was the most appropriate approach.

### 4.1 Community Cohesion

The project is situated within Los Angeles and San Bernardino County and traverses the communities of Palmdale, Lake Los Angeles (located within unincorporated Los Angeles County), unincorporated areas of San Bernardino County, Adelanto, Victorville, and Apple Valley. Population and housing characteristics for the communities mentioned above will be discussed in this section.

#### 4.1.1 Affected Environment

##### Regional Population Characteristics

SCAG serves as the designated metropolitan planning organization within Southern California and represents 6 counties and 191 cities, including Los Angeles and San Bernardino counties. As part of the greater SCAG region, the project traverses both Los Angeles and San Bernardino Counties, and is situated within the Antelope Valley area. The western most segment of the project is located within Los Angeles County beginning at SR-14 in the City of Palmdale and up to the county line at approximately 240th St, while the eastern most segment of the project is

located within San Bernardino County, beginning at Sheep Creek Rd. and ending within the city limits of Apple Valley.

According to SCAG, Southern California has seen a steady increase in its population. According to Census data, the region has grown from a population of 16,516,006 in 2000 to 18,051,534 in 2010, at a rate of 9 percent. Within Los Angeles County, the City of Lancaster, which is located within Northern Antelope Valley, experienced the highest rate of growth.

As shown in **Table 4.1.1.B**, according to the 2010 Census, the SCAG region had a population of 18,051,534. The Los Angeles County population was approximately 9,818,605, which accounts for 54.39 percent of the total population of the SCAG region. San Bernardino County's population was approximately 2,035,210, which accounts for 11.27 percent of the total population of the SCAG region. When compared to the 2000 Census, the Los Angeles County population grew by approximately 299,267 persons, at a growth rate of about 3 percent. In comparison, San Bernardino County's population increased by 325,776 persons, with a growth rate of about 19 percent.

As shown in **Table 4.1.1.B**, according to 2010 Census, the largest ethnic group within the SCAG region was Hispanic with 8,169,102 persons, or 45.25 percent of the total SCAG region population. The second largest ethnic group consisted of Non-Hispanic Whites, followed by Non-Hispanic Blacks. Non-Hispanic Asians & Pacific Islanders, Non-Hispanic American Indians, and Non-Hispanic Others make up the remaining of the population within the SCAG region.

In Los Angeles County, Hispanic populations were the majority ethnic group, with a population of 4,687,889. Similarly, within San Bernardino County, the Hispanic population comprised the majority ethnic group.

Housing units, as defined by the U.S. Census, are structures in which people live and include houses, apartments, mobile homes/trailers, a group of rooms, or a single room occupied as a separate living quarters. Within the SCAG region, there were approximately 6,332,089 housing units as of the 2010 Census. When compared to 2000, the SCAG region showed an increase of 610,050 housing units, with a growth rate of 10.7 percent. Los Angeles County experienced a growth rate of 5.30 percent in the number of housing units, while in San Bernardino County the growth rate was 16.30 percent for housing units.

Households, as defined by the U.S. Census, refer to the people living in a household and include all the people who occupy a housing unit as their usual place of residence. As shown in **Table 4.1.1.B**, the number of households, within the SCAG region was approximately 5,847,909 in

2010, with a growth rate of 8.6 percent since 2000. Los Angeles County experienced a growth rate of 3.4 percent in households, while in San Bernardino County the growth rate was 15.7 percent.

According to SCAG's Integrated Growth Forecast (See **Table 4.1.1.D**), the population within the region is expected to grow to 20,591,188 by the year 2020, while by 2035 the population is estimated to grow to 23,005,159. As shown in Table 4.2, Los Angeles County is expected to grow to 10,944,751 by 2020, while by 2035 the estimated population is estimated to be 11,889,867. While in San Bernardino County, the population is estimated to be 2,367,202 by the year 2020, and to 2,838,320 by the year 2035. As described in the *HDC Traffic Study*, 2035 growth estimates will be assumed for the year 2040.

#### Community Character/Population/Housing

The Caltrans Environmental Handbook Volume 4 Community Impact Assessment (Handbook) defines a community as “a population rooted in one place, where the daily life of each member involves contact with, and dependence on other members.” The handbook indicates that physical barriers such as highways, waterways, open spaces, activity centers, sharply different average home values, selected demographic characteristics, and resident perceptions can delineate communities or neighborhoods. In addition, local planning agency maps and reports define community and neighborhood boundaries. See discussion in **Section 4.3.1** for an inventory of existing community facilities within study area.

#### PALMDALE

The City of Palmdale can be delineated into two areas with SR-14 serving as a dividing point between West and East Palmdale. The community of East Palmdale is bordered by SR-14 to the west, and extends east towards 120<sup>th</sup> Street While West Palmdale is bordered by SR-14 to the east and extends west towards 90<sup>th</sup> Street West within west Palmdale, there are several suburban neighborhoods including Anaverde, Belle Vista, and Rancho Vista West, while suburban neighborhoods within East Palmdale include the Vineyards located in southeast Palmdale.

According to the City of Palmdale's General Plan (1993) there are several communities identified within Palmdale's planning area sphere of influence. The first community located to the east is Little Rock Wash, which forms a natural boundary that separates urban residential development in Palmdale and rural residential use in the unincorporated areas of Little Rock. This community has an established town council, recognized by Los Angeles County, which represents residents on development issues.

**Table 4.1.1.A – SCAG Census 2000 Data**

	SCAG	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
<b>Population</b>	16,516,006	142,361	9,519,338	2,846,289	1,545,387	1,709,434	753,197
<b>Hispanic</b>	6,701,305	102,817	4,242,213	875,579	559,575	669,387	251,734
<b>Non-Hispanic White</b>	6,415,862	28,768	2,959,614	1,458,978	788,831	752,222	427,449
<b>Non-Hispanic Black</b>	1,205,353	5,148	901,472	42,639	92,403	150,201	13,490
<b>Non-Hispanic Asian&amp;PI</b>	1,724,106	2,521	1,147,834	391,896	58,483	82,541	40,831
<b>Non-Hispanic Am. Indian</b>	58,875	1,736	25,609	8,414	10,135	9,804	3,177
<b>Non-Hispanic Others</b>	410,505	1,371	242,596	68,783	35,960	45,279	16,516
<b>Housing Units</b>	5,722,039	43,891	3,270,909	969,484	584,674	601,369	251,712
<b>Household</b>	5,386,491	39,384	3,133,774	935,287	506,218	528,594	243,234

Source: The Southern California Association of Governments

**Table 4.1.1.B – SCAG Census 2010 Data**

	SCAG	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
<b>Population</b>	18,051,534	174,528	9,818,605	3,010,232	2,189,641	2,035,210	823,318
<b>Hispanic</b>	8,169,102	140,271	4,687,889	1,012,973	995,257	1,001,145	331,567
<b>Non-Hispanic White</b>	6,028,281	23,927	2,728,321	1,328,499	869,068	677,598	400,868
<b>Non-Hispanic Black</b>	1,178,805	5,114	815,086	44,000	130,823	170,700	13,082
<b>Non-Hispanic Asian&amp;PI</b>	2,208,302	2,288	1,348,135	540,834	131,770	129,823	55,452
<b>Non-Hispanic Am. Indian</b>	48,587	1,642	18,886	6,216	10,931	8,523	2,389
<b>Non-Hispanic Others</b>	418,457	1,286	220,288	77,710	51,792	47,421	19,960
<b>Housing Units</b>	6,332,089	56,067	3,445,076	1,048,907	800,707	699,637	281,695
<b>Household</b>	5,847,909	49,126	3,241,204	992,781	686,260	611,618	266,920

Source: The Southern California Association of Governments

**Table 4.1.1.C – SCAG Growth 2000 – 2010**

	SCAG	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
Population	1,535,528	32,167	299,267	163,943	644,254	325,776	70,121
Hispanic	1,467,797	37,454	445,676	137,394	435,682	331,758	79,833
Non-Hispanic White	-387,581	-4,841	-231,293	-130,479	80,237	-74,624	-26,581
Non-Hispanic Black	-26,548	-34	-86,386	1,361	38,420	20,499	-408
Non-Hispanic Asian&PI	484,196	-233	200,301	148,938	73,287	47,282	14,621
Non-Hispanic Am. Indian	-10,288	-94	-6,723	-2,198	796	-1,281	-788
Non-Hispanic Others	7,952	-85	-22,308	8,927	15,832	2,142	3,444
Housing Units	610,050	12,176	174,167	79,423	216,033	98,268	29,983
Household	461,418	9,742	107,430	57,494	180,042	83,024	23,686

Source: The Southern California Association of Governments

**Table 4.1.1.D – SCAG Growth 2000 - 2010 (%)**

	SCAG	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura
Population	9.30%	22.60%	3.10%	5.80%	41.70%	19.10%	9.30%
Hispanic	21.90%	36.40%	10.50%	15.70%	77.90%	49.60%	31.70%
Non-Hispanic White	-6.00%	-16.80%	-7.80%	-8.90%	10.20%	-9.90%	-6.20%
Non-Hispanic Black	-2.20%	-0.70%	-9.60%	3.20%	41.60%	13.60%	-3.00%
Non-Hispanic Asian&PI	28.10%	-9.20%	17.50%	38.00%	125.30%	57.30%	35.80%
Non-Hispanic Am. Indian	-17.50%	-5.40%	-26.30%	-26.10%	7.90%	-13.10%	-24.80%
Non-Hispanic Others	1.90%	-6.20%	-9.20%	13.00%	44.00%	4.70%	20.90%
Housing Units	10.70%	27.70%	5.30%	8.20%	36.90%	16.30%	11.90%
Household	8.60%	24.70%	3.40%	6.10%	35.60%	15.70%	9.70%

Source: The Southern California Association of Governments

**Table 4.1.1.E – SCAG Integrated Growth Forecast  
Years 2008, 2020, 2035**

County	Population in 2008	Estimated Population in 2020	Estimated Population in 2035
Imperial	177,441	258,709	303,136
Los Angeles	10,347,644	10,944,751	11,889,867
Orange	3,123,253	3,427,488	3,576,235
Riverside	2,093,135	2,682,710	3,418,623
San Bernardino	2,052,929	2,367,202	2,838,320
Ventura	831,676	910,328	978,978
SCAG (The sum of six counties)	18,626,078	20,591,188	23,005,159

Source: The Southern California Association of Governments

To the south of the planning area is the rural community of Acton and to the west is the community of Leona Valley. Both communities are represented by town councils, and have adopted or in are in the process of adopting rural standards for development within their areas.

Two other established rural neighborhoods are located within the planning area, one of which is located south of Pearblossom Highway between 32<sup>nd</sup> Street East and Cheseboro Road, while the second rural neighborhood is located between Avenues M and O-12 and 10<sup>th</sup> and 30<sup>th</sup> Street West both neighborhoods are part of a homeowner's association, with approved memorandums of understanding with the City of Palmdale regarding future development within the neighborhood areas. Based on the General Plan, Palmdale has noted its intent to remain consistent with the current land use designations currently set for area.

Also within the planning area are several unincorporated territories, which are surrounded by the City and are essentially “islands” under the jurisdiction of the County. Most of the islands were developed as single-family residential tracts. The tracts were developed in the 1950's and 60's under the county's rural standards that did not require curbs, gutters, sidewalks, streetlights, and permitted septic tanks. Cost of rehabilitation of the tracts areas has gradually increased with time. The City of Palmdale has plans for annexing the area that includes eleven of the subdivisions in an effort to improve conditions within these neighborhoods.

#### The City of Palmdale Population and Age

According to the 2010 Census, the City of Palmdale has a population of 152,750 and accounts for 1.6 percent of the total population in Los Angeles County. Since 2000, the City of Palmdale has experienced an increase in its population by 30.9 percent over the ten-year period.

Palmdale's growth rate is approximately ten times greater in comparison to the Los Angeles County growth rate of 3.1 percent over the same period. According to *SCAG's Integrated Growth Forecast*, Palmdale's population is projected to be 179,717 by the year 2020, and 206,586 by 2035.

The median age in Palmdale, as of the 2010 is 29.8, which is lower when compared to Los Angeles County's median age of 34.8. As shown in **Table 4.1.2.B**, Palmdale population age groups consist of the following categories: Persons Under the Age of 19, Persons between 20 to 64 Years of Age, and Persons Over 65 Years of Age. Palmdale's distribution of population by age, when compared to Los Angeles County, displays a greater percentage amongst individuals under the age of 19. While amongst individuals between the ages of 20 to 64 years of age, Palmdale displays a lower percentage when compared to Los Angeles County. For individuals over the age of 65, Palmdale has a lower percentage of individuals over the age of 65 when compared to Los Angeles County.

### The Palmdale Study Area Population and Age

As shown in **Figure 4.1.2.A**, the Palmdale project area is composed of block groups that fall within the delineated study area. **Table 4.1.2.A** below provides a list of block groups within the Palmdale study area.

**Table 4.1.2.A – Palmdale Study Area Block Groups**

Block Groups within the Palmdale Study Area	
9102.01 Block Group 2	9800.04 Block Group 1
9105.02 Block Group 1	9106.01 Block Group 1
9106.01 Block Group 2	9106.01 Block Group 3
9101.01 Block Group 1	9100.01 Block Group 1
9102.01 Block Group 1	

Based on the 2010 Census, the total population within the Palmdale study area is approximately 16,482, which is roughly 11 percent of the total population of the City of Palmdale. The population growth rate within the study area is 4.5 percent, which is slightly higher when compared to the City of Palmdale’s average annual growth rate of 3.1 percent, as shown in **Table 4.1.2.B**. As shown in **Figure 4.1.2.B**, the distribution of population within Palmdale is dispersed throughout the city. However, population densities are greatest due south of the study area, in which the Project alignment avoids bisecting concentrated communities.

According to the 2010 Census, the median age is 29 in the Palmdale study area, which is within close range of the median age for the City of Palmdale. **Table 4.1.2.B** shows that the population distribution by age within the project study area is representative of the City of Palmdale as a whole.

**Table 4.1.2.B – Palmdale Population and Age Demographics Table**

Category	Palmdale Study Area	The City of Palmdale	Los Angeles County
2000 Total Population	11,367	116,670	9,519,331
2010 Total Population	<b>16,482</b>	152,750	9,818,605
Net Change	(+) 5,115	(+) 36,080	(+) 299,274
Population Growth Rate (2000-2010)	45%	31%	3.1%
Average Annual Growth Rate	4.5%	3.1%	0.3%
2010 Median Age	29.0	29.8	34.8
19 Years and Under	38%	37%	28%
20 to 64 Years	54%	56%	62%
65 Years and Over	8%	7%	11%

Category	Palmdale Study Area	The City of Palmdale	Los Angeles County
<b>Ethnicity and Race</b>			
Hispanic	63.4%	54.4%	47.7%
White	20.9%	24.5%	27.8%
Asian	2.01%	4.1%	13.5%
Black	11.2%	14.1%	8.3%
American Indian and Alaska Native *	0.4%	0.3%	0.2%
Native Hawaiian and Other Pacific Islander *	0.1%	0.1%	0.2%
Some Other Race	0.1%	0.3%	0.3%
Two or More Races	1.6%	2.2%	2.0%
<b>Total Minority</b>	<b>77.3%</b>	<b>73%</b>	<b>69.9%</b>

Source: U.S. Census, Southern California Association of Governments

\*"Minority individuals" as defined by the Council on Environmental Quality.

### The City of Palmdale Ethnicity and Race

Similar to SCAG's regional population characteristics, the ethnic composition within Palmdale is composed of a majority Hispanic population (54.4%), followed by Non-Hispanic White (24.5%), Some Other Race (0.3%), Non-Hispanic Black (14.1%), Two or More Races (2.2%), Asian (4.1%), American Indian and Alaska (0.3%), and Native Hawaiian Other Pacific Islander (0.1%). (See **Table 4.1.2.B**)

Between 2000 and 2010, the Hispanic population share increased from 37.7 percent to 54.4 percent, while the Non-Hispanic White population experienced a decline in population share from 41 percent to 24.5 percent (SCAG). For the Non-Hispanic Asian population, there was an increase in population share from 3.7 percent to 4.1 percent. The Non-Hispanic Black population share remained the same at 14.1 percent. Conversely, the population share of Non-Hispanic American Indians decreased from 0.5 percent to 0.3 percent. Individuals within the "Non-Hispanic All Other" category also experienced a decrease in population share from 3.0 percent to 2.6 percent.

When compared to Los Angeles County, as shown in **Table 4.1.2.B**, the City of Palmdale has a lower percentage of Hispanic population. While for the Non-Hispanic White population and the Non-Hispanic Black population, the City of Palmdale displays a higher percentage than the County. The City has a lower percentage of Non-Hispanic Asians, while it has slightly higher percentage of Individuals classified as Non-Hispanic American Indians and of "Non-Hispanic All Other" population when compared to the County.

Figure 4.1.2.A – Palmdale Block Group Map

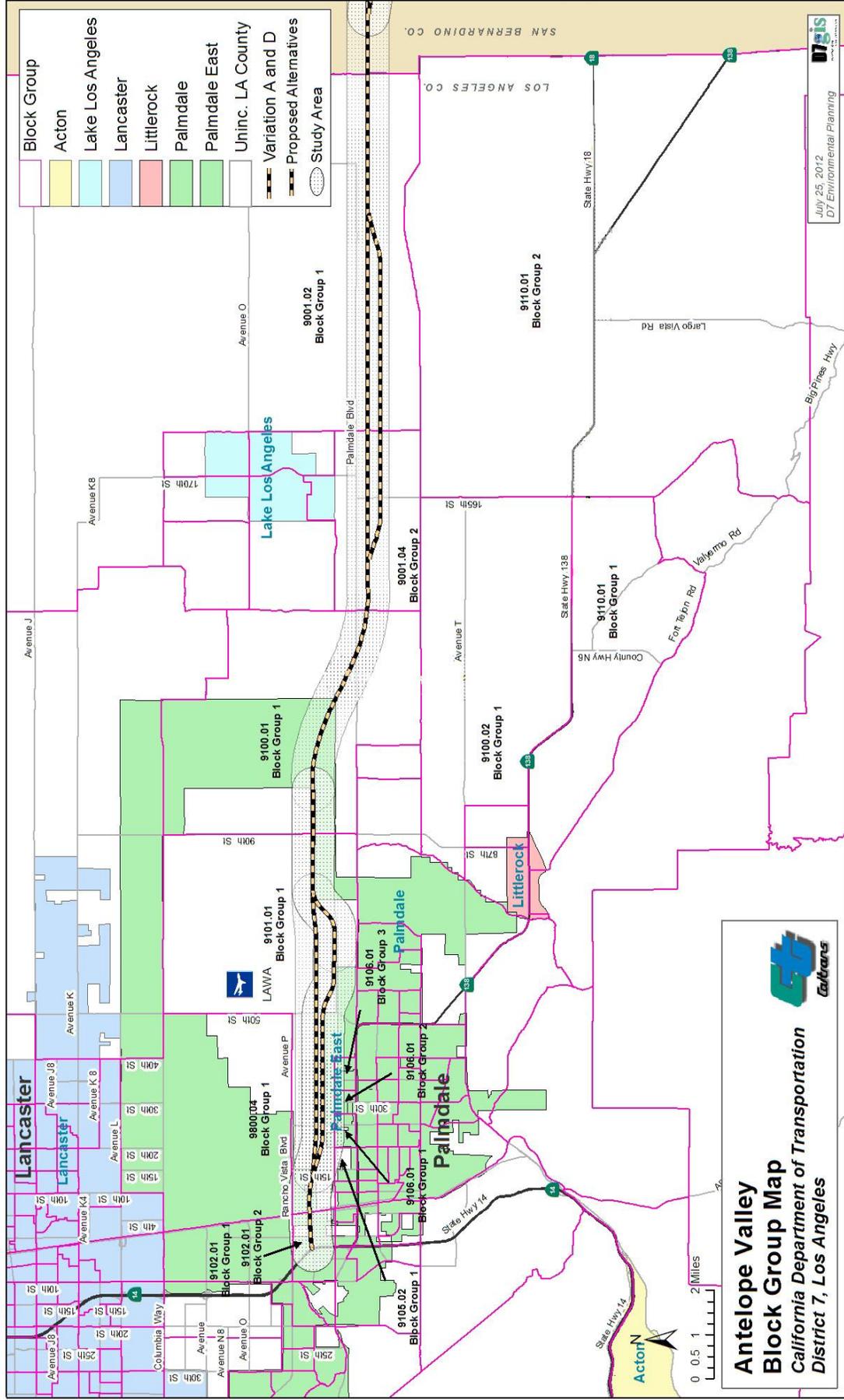
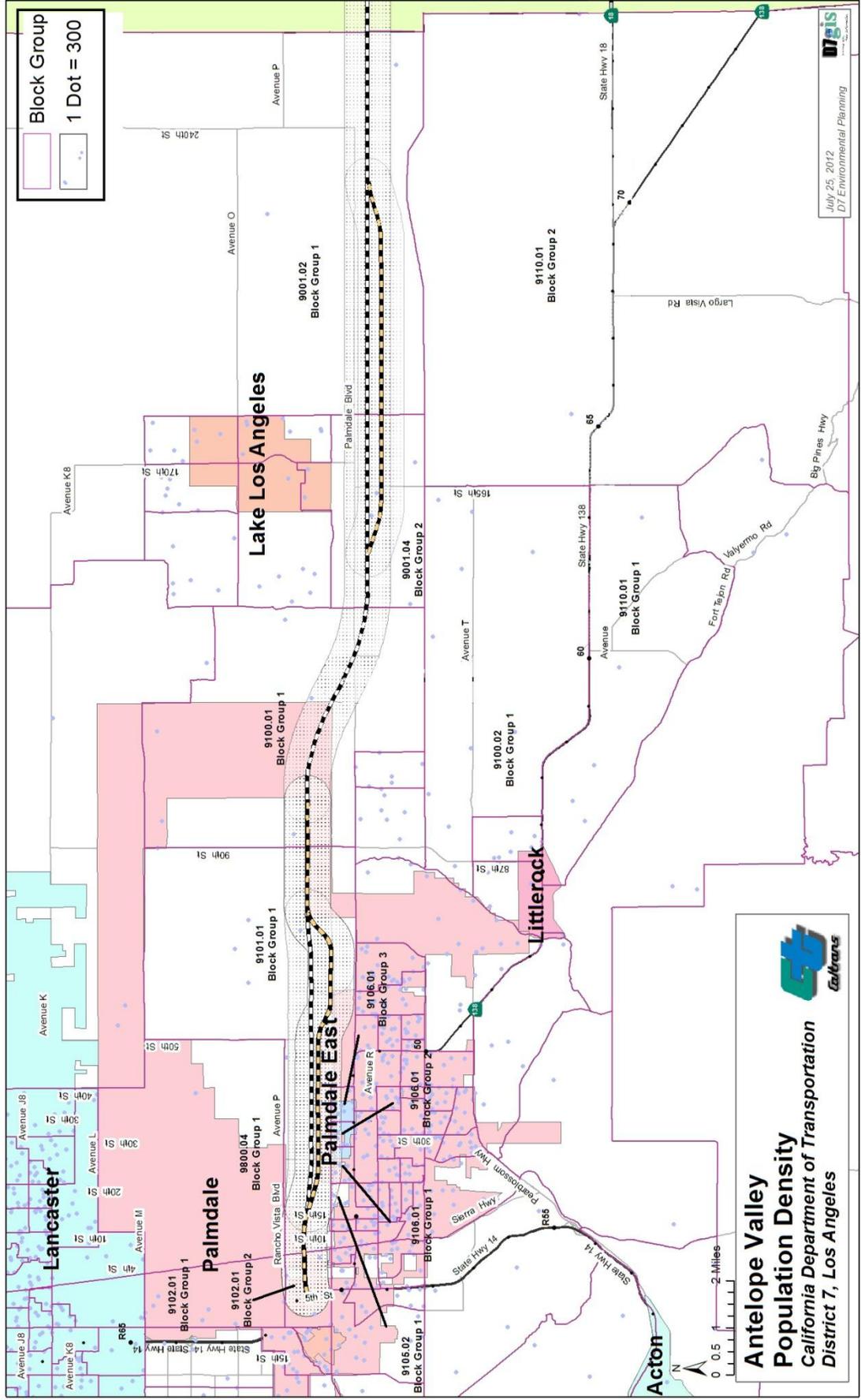


Figure 4.1.2.B – Palmdale Population Density Map



### The City of Palmdale Study Area Ethnicity and Race

The Hispanic population is the majority and accounts for 63.4 percent of the population within the study area. When compared to the City of Palmdale, there is a higher percentage of Hispanic population within the study area. The Non-Hispanic Asian population account for 2.2 percent of the population within the study area, which is a slightly lower than the City of Palmdale. Similarly, the Non-Hispanic Black population is lower when compared to the City, while it is unchanged for Non-Hispanic American Indians. Lastly for “Non-Hispanic All Others”, there is a decrease in population within the study area when compared to the city.

The Council on Environmental Quality has established definitions for NEPA analysis, in which “minority individuals” are defined as members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black; or Hispanic. For the study area, the total minority population is approximately 77.3% (11,791).

### The City of Palmdale Income

The average income level within Palmdale, as of 2009, was \$37,287 per year. This is a 14.3 percent increase from 2003, in which the income level was approximately \$32,628 per year. Sectors that provided the highest paid salaries include Construction, Public Administration, Professional Management, Education-Health, and Wholesale, with average income levels above \$40,000 per year. Sectors with the lowest paid average salaries include Leisure-Hospitality, Agriculture, Manufacturing, and Retail, with average salaries ranging between \$15,000 and \$27,000 per year. Overall, Palmdale’s income level is lower, when compared to Los Angeles County’s average income of \$45,880.

As defined by the U.S. Census, poverty status include individuals who fall below meet certain monetary threshold levels, which vary by family size and composition as shown in **Figure 4.1.2** (U.S. Census, 2010). This constitutes about 19.4 percent of the total population within the city. As shown in **Table 4.1.2.E**, the City of Palmdale has a lower percentage of persons with poverty level when compared to the county as a whole. More notable is the higher percentage in poverty levels for individuals under the age of 18.

### The City of Palmdale Study Area Income

Information regarding income levels was not available from the 2010 U.S. Census at the block group level for the study area. As a result, income information at the census tract level was obtained from the 2010 American Community Survey (ACS). As shown in **Table 4.1.2.C**, the following census tracts fall within the delineated study area.

Figure 4.1.2 - Poverty Thresholds for 2010 by Size of Family and Number of Related Children Under 18 Years

Size of family unit	Weighted average thresholds	Related children under 18 years											
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more			
One person (unrelated individual)	11,139												
Under 65 years	11,344	11,344											
65 years and over	10,458	10,458											
Two people	14,218												
Householder under 65 years	14,676	14,602	15,030										
Householder 65 years and over	13,194	13,180	14,973										
Three people	17,374	17,057	17,552	17,568									
Four people	22,314	22,491	22,859	22,113	22,190								
Five people	26,439	27,123	27,518	26,675	26,023	25,625							
Six people	29,897	31,197	31,320	30,675	30,056	29,137	28,591						
Seven people	34,009	35,896	36,120	35,347	34,809	33,805	32,635	31,351					
Eight people	37,934	40,146	40,501	39,772	39,133	38,227	37,076	35,879	35,575				
Nine people or more	45,220	48,293	48,527	47,882	47,340	46,451	45,227	44,120	43,845	42,156			

Source: U.S. Census Bureau.

**Table 4.1.2.C – Palmdale Study Area Census Tracts**

Census Tracts within the Palmdale Study Area	
9102.01	9800.04
9101.01	9105.02
9100.01	9106.01

Source: U.S. Census

The median household income level within the study area census tracts range from \$20,686 up to 70,077 per household, with an overall median household income level of \$35,299. In comparison to Los Angeles County median household income level of \$55,811, the study area exhibits a lower average household income level.

**Table 4.1.2.D – Palmdale Income Levels**

Category	Palmdale Study Area	The City of Palmdale	Los Angeles County
Median Household Income Level	\$35,299	\$61,076	\$55,811
Total Population (Persons)	20,767	152,750	9,818,605
Percentage of Population Determined as Poverty Status	6,033 (29.1%)	29,163 (19.4%)	1,697,465 (17.5%)
Poverty Status (%) - Under 18 Years	3,106 (51.4%)	11,953 (40.9%)	579,151 (34.1%)
Poverty Status (%) - 18 to 64 Years	2,763 (45.7%)	16,069 (55.1%)	982,660 (57.8%)
Poverty Status (%) - 65 Years and Over	164 (2.7%)	1,141 (3.9%)	135,654 (7.9%)

Source: U.S. Census

Within the project study area, there are approximately 6,033 persons considered to have a low-income status, which constitutes about 29.1 percent of the total population within the study area. The highest percentage was among individuals under 18 years of age, followed by individuals within the age group of 18 and 64. The lowest proportion classified as poverty status was among individuals at age 65 and above.

#### The City of Palmdale Study Area Community Cohesion

As shown in **Table 4.1.2.E**, 70.2 percent of the total housing units within Palmdale are owner occupied. Single-family homes, which are classified as 1-unit detached structures, make up 79 percent of the total housing units. While for household members who have lived within the same housing unit prior to the year 2000 consists of 33.4 percent of the total households. Although the percentage of owner occupied housing units and single-family homes are relatively high within the City of Palmdale, the average number of long term residents who lived within their current households for ten years or less is relatively low.

Within the study area there is a greater percentage of owner occupied housing units, and household members in the same housing unit prior to 2000. However, the percentage of single-family homes is lower. Similar to the City of Palmdale, two of the three indicators for community cohesion are somewhat high which may indicate high community cohesion. See **Figure 4.1.3.A** for a distribution of housing units within the Antelope Valley area.

**Table 4.1.2.E – Palmdale Stability Index**

Indicators	Palmdale	Palmdale Study Area
Percent of Owner Occupied Housing Units	70.2%	80.2%
Percent of Single-family Homes	79%	63.9%
Percent of Household Members in Same Housing Unit (Prior to Year 2000)	33.4%	39%

Source: U.S. Census

### The City of Palmdale Housing

As of the 2010 U.S. Census, the median home value within Palmdale was approximately \$277,700. In comparison to Los Angeles County’s median home value of \$508,800, Palmdale’s median home value is almost half of that value. Between 2000 and 2010, the number of households within the City of Palmdale increased by 25.3 percent, from 34,285 to 42,952. Also as of 2010, the average Household size within Palmdale was 3.5 persons, which is an increase from the 2000 average household size of 3.3 persons (See **Table 4.1.2.F**).

The number of housing units within the City of Palmdale as of the 2010 U.S. Census is 46,544 units. Of the total number of housing units, 92.3 percent (42,952) are occupied housing units while 7.7 percent (3,592) are vacant housing units. Under tenure, of the 42,952 occupied housing units, 67.9 percent (29,167) are owner occupied while the remaining 32.1 percent (13,785) are renter occupied housing units. The total number of households within the city is 42,952. Of that number, 82.3 percent (35,338) are considered family households while the remaining 17.7 percent (7,614) are non-family households. **Figure 4.1.2.C**, provides a map of the distribution of housing units within the Antelope Valley including Palmdale.

As shown in **Figure 4.1.2.B**, the majority of the population within Palmdale is located in the southern part of the project study area, more specifically south of Palmdale Boulevard. In addition, the land use for the study area is primarily composed of a mixture of industrial, business park, airport, and low-density residential use.

### The City of Palmdale Study Area Housing

See **Table 4.1.2.B**, for a list of block groups, which comprise the Palmdale study area. 2010 U.S. Census data for median home values was not available at the block group data level for the study

area. Therefore, median home values were calculated by utilizing zip codes that fall within the delineated study area. The following zip codes are within the study area: 93550 and 93552, in which the median home value for the study area was determined by averaging the two zip codes. Median home values were obtained from [www.city-data.com](http://www.city-data.com). The average median home value for the study area is \$209,218.

In comparison to Los Angeles County's median home value of \$508,800, the median home value within the study area is almost half of that value. As of the 2010, the number of households within the study area is approximately 4,183, with an average household size of 3.6 persons.

The number of housing units within the study area as of the 2010 is 4,668 units. Of the total number of housing units, 89.6 percent (4,182) are occupied housing units while 10.4 percent (486) are vacant housing units. Under tenure, of the 4,182 occupied housing units, 57.9 percent (2,421) are owner occupied while the remaining 42.1 percent (1,761) are renter occupied housing units. The total number of households within the study area is 4,183. Of that number, 78.9 percent (3,300) are considered family households while the remaining 21.1 percent (883) are non-family households (See **Table 4.1.2.F**).

**Table 4.1.2.F – Regional and Local Housing Characteristics for the City of Palmdale**

Category	Palmdale Study Area	City of Palmdale	Los Angeles County
# of Housing Units	4,668	46,544	3,445,076
# of Households	4,183	42,952	3,241,204
Family Households (%)	78.9	82.3	67.7
Non-Family Households (%)	21.1	17.7	32.3
Average Household Size	3.6	3.5	2.9
Vacancy Rate (%)	10.4	7.7	5.9
Tenure (owner vs. renter)	--	--	--
- Owner Occupied (%)	57.9	67.9	47.7
- Renter Occupied (%)	42.1	32.1	52.3
Median Home Value	\$209,218	\$277,700	\$508,800



## UNINCORPORATED LOS ANGELES COUNTY

Unincorporated areas within Los Angeles County set within the Antelope Valley are under the jurisdiction of the county. The historic development of the Antelope Valley began in 1867 with the construction of the Southern Pacific Railroad line from San Francisco to Los Angeles via the Antelope Valley. Many communities began to develop including Lancaster, Palmdale, Littlerock, and Rio del Llano, all dependent upon stock raising, dry farming, and fruit orchards. During the World War II years, the Edwards Air Force base was developed which resulted in a doubling of the Antelope Valley population. Industries specializing in military defense expanded in the 1950's, in which Palmdale Airport emerged as a national center for jet testing. Towards the end of the decade, the country overall experienced an economic decline which resulted in the reduction of military investments in Antelope Valley projects.

According to the *Preliminary Draft Antelope Valley Area Plan* (2011), towards the final decades of the 20<sup>th</sup> century, the Antelope Valley saw an emergence in major new housing developments as large acreages were subdivided for affordable housing. Lancaster and Palmdale incorporated as independent cities, while rural communities continued to develop. Agriculture and/or farming began to take its place as the major source of employment for the region. However, the area continued to develop without balancing the growth in housing, jobs, and infrastructure. As a result, many of residents that live in the Antelope Valley commute to jobs within other parts of the Los Angeles region. With the recent emergence of the Blue Ribbon Committee (BRC), the current *Preliminary Draft Antelope Valley Area Plan* will be re-envisioned in which the one of the main objectives of the BRC is to provide a balance of jobs and housing with approximately equal distribution within predefined Economic Opportunity Areas (EOC). Through the proposed EOC's opportunities for local commercial centers, further jobs, entertainment, and shopping opportunities may be provided for the local residents.

As shown previously in **Figure 2.1.1.G**, the following communities are located within the project area for the unincorporated areas of Los Angeles County:

#### *Lake Los Angeles*

Lake Los Angeles is a census designated place (CDP) located within the eastern portion of the Antelope Valley and is due approximately 17 miles east from Downtown Palmdale. Similar to other areas within the Antelope Valley, Lake Los Angeles is characterized by low-density development with an open and rural setting. According to the *Preliminary Draft Antelope Valley Area Plan* (2011), Lake Los Angeles has a rural town center located along Avenue O between 167<sup>th</sup> Street East and 172<sup>nd</sup> Street East, and along 170<sup>th</sup> Street East between Avenue

O and Glenfall Avenue. The rural town center provides various services and employment opportunities such as the Lake Los Angeles Library, Saddleback Market, the Living Springs Foursquare Church, and the Saddleback True Value Hardware for its residents. Residents residing within Lake Los Angeles have expressed their desire to maintain the existing rural character that currently characterizes their community.

### *Sun Village*

Sun Village is an unincorporated community located within the southeastern portion of the Antelope Valley. It is located approximately 8 miles east from Palmdale City Hall. A large portion of the community is either developed or partially developed and provides for a wide range of use ranging from commercial and retail services to local employment opportunities. The remaining areas within the community are largely undeveloped and lacking appropriate infrastructure. According to the *Preliminary Draft Antelope Valley Area Plan* (2011), Sun Village has a rural town center area located along Palmdale Boulevard between Little Rock Wash and 95<sup>th</sup> Street East, and along 90<sup>th</sup> Street East between Palmdale Boulevard and Avenue Q-14. Jack Robinson Park, St. John AME Church, and Intel Car Wash Consulting are within close proximity of the rural town center.

### Unincorporated Los Angeles County Population and Age

Unincorporated areas within Los Angeles County, as of the 2010 Census, had a population of 1,057,426, which accounts for 10.8 percent of the total population within Los Angeles County. Since 2000, the unincorporated areas within Los Angeles County have experienced an increase in population with an annual average growth rate of 7.8 percent over a ten-year period. When compared to Los Angeles County, the growth rate is approximately two times greater in comparison to the county's growth rate of 3.1 percent. According to *SCAG's Integrated Growth Forecast* (2012), populations within unincorporated areas within Los Angeles County are expected to grow to 1,159,100 by the year 2020, and to 1,399,500 by 2035.

The median age in Los Angeles County, as of the 2010 Census is 34.8. As shown in **Table 4.1.2.F**, Los Angeles County's population displays a greater percentage amongst individuals between 20 and 64 years of age. While among individuals between the ages 19 years and under, the county displays a lower percentage than the unincorporated areas. For individuals over the age of 65, the county displays an even lower percentage.

Unincorporated Los Angeles County Study Area Population and Age

As shown in **Table 4.1.2.E**, the unincorporated Los Angeles study area is composed of block groups that fall within the study area. The table below provides a list of block groups within the study area.

**Table 4.1.2.E – Unincorporated Los Angeles County Study Area Block Groups**

Block Groups within the Unincorporated Los Angeles County Study Area	
9001.04 Block Group 2	9001.02 Block Group 1

**Table 4.1.2.F – Unincorporated Los Angeles County Population Demographics Table**

Category	Unincorporated Los Angeles County Study Area	Los Angeles County
2000 Total Population	NA	9,519,331
2010 Total Population	1,970	9,818,605
Net Change	NA	(+) 299,274
Population Growth Rate (2000-2010)	NA	3.1%
Annual Average Growth Rate	NA	0.3%
2010 Median Age	36.3	34.8
19 Years and Under	717 (36%)	2,711,958 (28%)
20 to 64 Years	1,093 (56%)	6,040,948 (62%)
65 Years and Over	160 (8%)	1,065,699 (11%)
<b>Ethnicity and Race</b>		
Hispanic *	56.5%	47.7%
White	30.5%	27.8%
Asian *	0.3%	13.5%
Black *	9.6%	8.3%
American Indian and Alaska Native *	0.5%	0.2%
Native Hawaiian and Other Pacific Islander *	0.1%	0.2%
Some Other Race	.05%	0.3%
Two or More Races	2.3%	2.0%
Total Minority	68.8%	69.9%

Source: U.S. Census

\*"Minority individuals" as defined by the Council on Environmental Quality.

Based on the 2010 U.S. Census, the total population within the unincorporated Los Angeles study area is approximately 1,970, which is roughly 0.02 percent of the total population of Los Angeles County. For the unincorporated Los Angeles County study area, as of the 2010 Census, the median age is 36.3. When compared to Los Angeles County, the median age is greater by approximately two years. **Table 4.1.2.F** provides information on population for the different age groups in the unincorporated areas in comparison to Los Angeles County. According to the table, the study area has a greater percentage in population of individuals who are 65 years and over compared to the rest of Los Angeles County.

#### Unincorporated Los Angeles County Study Area Ethnicity and Race

For the study area the Hispanic population is the majority ethnic group and accounts for 56.5 percent of the population, as shown in **Table 4.1.2.F**. When compared to Los Angeles County, there is a higher percentage of the Hispanic Population within the study area. The White population has a lower percentage when compared to the county. The Asian population accounts for 0.3 percent of the population within the study area, which is lower in percentage when compared to the county. As for the Black population, there is a marginal increase in percentage within this ethnic group in comparison to the county. While the population percentage of the American Indian/Alaska Native is marginally higher than the county. Native Hawaiian and Other Pacific Islander populations account for 0.1 percent, which is similar in percentage when compared to the county. Populations of Two or More Races account for 2.3 percent, when compared to the county it is marginally higher. While populations of Some Other Race account for 0.05 percent, which is a similar to the county. The total minority population within the study area is approximately 68.8 percent, which is comparable to the county's total minority percentage of approximately 69.9 percent.

#### Unincorporated Los Angeles County Income

Census information for the average household income level for unincorporated Los Angeles, as of 2009 was not available. However, sectors that provided the highest paid salaries within unincorporated Los Angeles County include Information (IT), Professional Management, Agriculture, Public Administration, Construction, and Wholesale with average salary levels above \$50,000 per year. Sectors with the lowest paid average salaries include Leisure-Hospitality, Manufacturing, and Retail, with average salaries beginning at \$32,000 per year and below.

U.S. Census information in regards to population and poverty status for areas within unincorporated Los Angeles County was not available and as a result, values could not be obtained for poverty status for the overall unincorporated Los Angeles County area.

### Unincorporated Los Angeles County Study Area Income

The median household income level for the study area is \$54,995. The study area median household income level is similar to the Los Angeles County median household income of \$55,811. 2010 U.S. Census information in regards to income levels was not available at the block group level for the study area. As a result, income information at the census tract level was available and obtained from the 2010 American Community Survey (ACS). **Table 4.1.2.G** lists the census tracts that fall within the study area for unincorporated areas within Los Angeles County.

**Table 4.1.2.G - Census Tracts within Unincorporated Los Angeles County Study Area**

Census Tracts within Unincorporated Los Angeles County Study Area	
9001.04	9001.02

**Table 4.1.2.H – Unincorporated Los Angeles County Income Levels**

Category	Unincorporated Los Angeles County Study Area	Unincorporated Los Angeles County	Los Angeles County
Annual Median Household Income Level	\$54,995	N/A	\$55,811
Total Population (Persons)	7,540*	N/A	9,818,605
Percentage of Population Determined as Poverty Status	1,885 (25%)	N/A	1,697,465 (17%)
Poverty Status - Under 18 Years	1,012	N/A	579,151
Poverty Status - 18 to 64 Years	769	N/A	982,660
Poverty Status - 65 Years and Over	104	N/A	135,654

Source: U.S. Census

\*Data was not available at the block group level, therefore census tracts 9001.04 and 9001.02 were utilized to serve as an estimate for the study area.

Within the study area, there are approximately 1,885 persons considered to be of low-income or poverty status, which constitutes for about 25 percent of the total population within the study area. The highest percentage was amongst individuals under 18 years of age, followed by individuals 18 to 64 years of age. The lowest proportion classified as poverty status was amongst individuals 65 years and above (See **Table 4.1.2.H**).

### Unincorporated Los Angeles County Community Cohesion

As shown in **Table 4.1.2.I**, 48.2 percent of the total housing units within Los Angeles County are owner occupied. Single-family homes, which are classified as 1-unit detached structures, make up 49.9 percent of the total housing units. While for households who have lived within the same housing unit prior to the year 2000 consists of 41.9 percent of the total households.

Within the study area there is a greater percentage of owner occupied housing units, households in the same housing unit prior to 2000, and percentage of single-family homes. Two of the three indicators for community cohesion are somewhat high which may indicate a high sense of community cohesion, which may be indicative of the community of Lake Los Angeles located within the study area.

**Table 4.1.2.I – Los Angeles County Stability Index**

Indicators	Los Angeles County	Unincorporated Los Angeles County Study Area
Percent of Owner Occupied Housing Units	48.2%	73.5%
Percent of Single-family Homes	49.9%	97.1%
Percent of Households in Same Housing Unit (Prior to Year 2000)	41.9%	45.6%

Source: U.S. Census

### Unincorporated Los Angeles County Housing

As of the 2010, unincorporated Los Angeles County has a total of 316,888 housing units and a total household population of 299,488. Of the 316,888 housing units, under tenure, 63.5 percent are owner occupied while the remaining 36.5 percent are renter occupied units. Data pertaining to percentage of family versus non-family households was not available for unincorporated Los Angeles County. The average household size within unincorporated Los Angeles County is approximately 3.6 persons. Median home values are approximately \$403,130. Vacancy rates for unincorporated Los Angeles County were also not available via the latest 2010 U.S. Census.

See **Figure 4.1.2.C** for a distribution of housing units within the Antelope Valley area.

### Unincorporated Los Angeles County Study Area Housing

2010 U.S. Census data for median home values was not available at the block group data level for the study area. Therefore, median home values were calculated by utilizing zip codes that fall within the delineated study areas. The following zip code: 93591 is within the study area. The median home values for the study area was determined by taking the average of the zip code. Median home values were obtained from *www.city-data.com*. The average median home value for the study area is approximately \$232,995.

In comparison to Los Angeles County’s median home value of \$508,800, the median home value within the study area is almost half of that value. As of 2010, the number of households within the study area is approximately 918, while the average household size is 3.2 persons.

The owner-occupied housing in the study area accounts for about 68 percent compared to 64 percent in unincorporated Los Angeles County and 48 percent in Los Angeles County. An

average home value in the study area is \$232,995, compared to \$277,700 and \$508,800 in Palmdale and Los Angeles County as a whole, respectively. The average household size within the study area is 3.2 persons.

The number of housing units within the study area as of the 2010 U.S. Census is 1,127 units. Of the total number of housing units, 81.5 percent are occupied housing units while 18.5 percent are vacant housing units. Under tenure, of the 919 occupied housing units, approximately 68 percent are owner occupied while the remaining 32 percent are renter occupied housing units. The total number of households within the study area is 918. Of that number, 70.9 percent are considered family households while the remaining 29.1 percent are non-family households.

**Table 4.1.2.J – Regional and Local Housing Characteristics for Unincorporated Los Angeles County Study Area**

Category	Study Area	Unincorporated Los Angeles County	Los Angeles County
# of Housing Units	1,127	316,888	3,445,076
# of Households	918	299,448	3,241,204
Family Households (%)	70.9	-	67.7
Non-Family Households (%)	29.1	-	32.3
Average Household Size	3.2	3.6	2.9
Vacancy Rate (%)	18.5	-	5.9
Tenure (owner vs. renter)	--		--
- Owner Occupied (%)	68.0	63.5	47.7
- Renter Occupied (%)	32.0	36.5	52.3
Median Home Value	\$232,995	\$403,130	\$508,800

Source: U.S. Census, [www.city-data.com](http://www.city-data.com)

## SAN BERNARDINO COUNTY

In 1853, a bill was passed which segmented off the eastern portion of Los Angeles County into a separate county. The result of this was the creation of San Bernardino County. San Bernardino was first inducted as a county on April 26, 1853, in which the county was formed from parts of Los Angeles, San Diego, and Mariposa counties. San Bernardino County, for the current and future decades is forecasted to experience population growth similar to that of Orange County during the 1950's through the 1970's. SCAG study of growth trends over the last few decades have shown a continued decentralization of population, in which growth has now shifted towards San Bernardino and Riverside Counties.

The project traverses through various segments within San Bernardino County, including unincorporated areas of San Bernardino County, Adelanto, Victorville, and Apple Valley. Based on aerial photos and conducted field visits, there appears to be a lack of a concentrated

population gathering or defined community within the study area for the unincorporated areas of San Bernardino County, in which most of the communities are located within the developed areas of Adelanto, Victorville, and Apple Valley. In addition, the majority of housing units are located within the above-mentioned developed areas.

Based on census tract maps, the boundaries established for census tracts and block groups within San Bernardino County are not delineated by jurisdictional boundaries, but encompass multiple jurisdictions. As a result, classifying each block group by jurisdiction was not possible, since many of the boundaries crossover into other jurisdictions. For the purpose of population and housing analysis in San Bernardino County Jurisdictions, block groups will be combined into a single project study area called the Victor Valley Study Area. **Table 4.1.2.K** on the following page displays the block groups within the Victor Valley study area.

**Table 4.1.2.K – Victor Valley Study Area Block Groups**

Block Groups within the Victor Valley Study Area	
91.10 Block Group 2	97.14 Block Group 1
91.14 Block Group 1	99.05 Block Group 2
91.16 Block Group 4	117 Block Group 1
91.17 Block Group 2	121.01 Block Group 2
97.08 Block Group 1	121.04 Block Group 2
97.12 Block Group 2	97.13 Block Group 2
97.13 Block Group 1	91.17 Block Group 1
9802 Block Group 1	121.01 Block Group 3

## ADELANTO

City of Adelanto was first founded as a city in 1915 by E.H. Richardson, who was the inventor of the Hotpoint Electric Oven. E.H. Richardson sold his patent, which provided the income needed to purchase land, in which he sought to develop one of the first master planned communities in Southern California. Although Richardson’s dream never fully actualized, it was through his efforts that set the foundation for the City of Adelanto.

Adelanto’s planning area is approximately 81,000 acres in size, and includes all lands contained within its city boundaries, sphere of influence, the George Air Force Base, and lands north to Shadow Mountain. Based on the City of Adelanto Land Use zoning map, there are currently two distinct residential communities within in the city, one of which is located just north of Air Expressway while the second community is located just south of Holly Road. Both communities include a high concentration of residential land uses, along with general commercial uses.





The area located north of Air Expressway includes various community facilities, such as government buildings, community centers, parks, and schools that serve as local hubs for community activities. The community south of Holly Road is served by several commercial developments located south and east of the community.

#### The City of Adelanto Population and Age

The City of Adelanto, as of the 2010, has a population of 31,765 persons and accounts for 1.6 percent of the total population in San Bernardino County. Since 2000, the City of Adelanto has experienced a vast increase in its population with a growth rate of 75.2 percent. When compared to San Bernardino County, Adelanto's growth rate of 75.2 percent was roughly four times greater than the county's growth rate of 19.0 percent. (See **Table 4.1.2.L**)

According to *SCAG's Integrated Growth Forecast*, Adelanto's population is projected to be 45,967 by 2020, and 68,252 by 2035. The City of Adelanto, along with similar areas within the high desert region, is expected to continue its current trend in population growth throughout the coming years (SCAG).

The median age in Adelanto, as of the 2010 Census is 27.9, which is lower when compared to San Bernardino County's median age of 31.2. As shown in **Table 4.1.2.L**, Adelanto's population by age consists of the following: Persons Under the Age of 19 (41.1%), Persons between 20 to 64 Years of Age (47.6%), Persons Over 65 Years of Age (4.4%). Adelanto's age distribution is similar to San Bernardino County age distribution with individuals between 20 to 64 years of age serving as the majority population followed by persons 19 years and under, and by persons 65 years and above. This age distribution is (with the majority of population in the age group 20-64) is typical of most communities.

#### Victor Valley Study Area Population and Age

As shown in **Table 4.1.2.L**, the Victor Valley study area is composed of block groups that fall within the delineated half-mile buffer from the centerline of the project alignment. Based on the 2010 Census, the total population within the study area is approximately 45,481 persons, which is approximately one and half times greater than the total population in the City of Adelanto. The annual growth rate within the study area is 3.1 percent, which is lower when compared to the City of Adelanto's overall growth rate of 7.5 percent. As shown in **Figure 4.1.2.E**, the distribution of population within Adelanto is concentrated north of State Route 18 along Mojave Drive, in addition to areas south of El Mirage Road. The Project alignment is situated along Air Expressway, in which the population density is not as dense in comparison to other areas within the city.

For the study area, as of the 2010 census, the median age is 37.5 years of age. When compared to the City of Adelanto, the median age is greater by 9 years. As shown in **Table 4.1.2.L**, the study area includes a higher population between the ages of 20 and 64 (61%), when compared to the City of Adelanto and San Bernardino County. The study area has a lower percentage of individuals under the age of 19 (30.7%), followed by individuals who are 65 years of age and above (8.3%) in comparison to the City of Adelanto. The age distribution within the study is similar to San Bernardino County for these two age groups.

**Table 4.1.2.L – Adelanto Population Demographics Table**

Category	Victor Valley Study Area	The City of Adelanto	San Bernardino County
2000 Total Population	34,602	18,130	1,709,434
2010 Total Population	45,481	31,765	2,035,210
Net Change	(+) 10,879	(+) 13,635	(+) 325,776
Population Growth Rate (2000-2010)	31.4%	75.2%	19.0%
Annual Average Growth Rate	3.1%	7.5%	1.9%
Total Population (Persons)	45,481	31,765	2,035,210
2010 Median Age (Years)	37.5	27.9	31.2
19 Years and Under	13,967 (30.7%)	13,056 (41.1%)	664,577 (32.7%)
20 to 64 Years	27,754 (61%)	15,105 (47.6%)	1,189,285 (58.4%)
65 Years and Over	3,760 (8.3%)	1,397 (4.4%)	181,348 (8.9%)
Total Population (Persons)	45,481	31,765	2,035,210
<b>Ethnicity and Race</b>			
Hispanic *	18,736 (41%)	18,513 (58%)	1,001,145 (49%)
White	16,649 (37%)	5,395 (17%)	677,598 (33%)
Asian *	1,949 (4%)	522 (2%)	123,978 (6%)
Black *	6,251 (14%)	6,196 (20%)	170,700 (8%)
American Indian and Alaska Native *	422 (1%)	101 (0.3%)	8,523 (0.4%)
Native Hawaiian and Other Pacific Islander *	192 (0.4%)	177 (1%)	5,845 (0.3%)
Some Other Race	124 (0.3%)	105 (0.3%)	4,055 (0.2%)
Two or More Races	1,158 (3%)	756 (2%)	43,366 (2%)
Total Minority	27,550 (61%)	25,509 (80%)	1,310,191 (64%)

Source: SCAG, U.S. Census

### City of Adelanto Ethnicity and Race

Adelanto is composed of a majority Hispanic population (58.3%), followed by Non-Hispanic Black (19.5%), Non-Hispanic White (17%), Non-Hispanic All-Other (0.3%), Non-Hispanic

Asian (1.6%), and Non-Hispanic American Indian (0.3%). **Table 4.1.2.L** provides a comparison of ethnicity and race within the City of Adelanto to the study area and the greater San Bernardino region.

Between 2000 and 2010, the Hispanic population share in the City of Adelanto increased from 45.8 percent to 58.3 percent, while the Non-Hispanic White population experienced a decline in population share from 36.5 percent to 17 percent (SCAG). For the Non-Hispanic Asian population, there was an increase in population share from 1.5 percent to 1.6 percent. In addition, there was an increase of Non-Hispanic Black population from 12.7 percent to 19.5 percent. Conversely, the population share of Non-Hispanic American Indian population decreased from 0.7 percent to 0.3 percent. Individuals within the “Non-Hispanic All Other” category experienced an increase in population share from 2.8 percent to 3.3 percent.

When compared to San Bernardino County, as shown in **Table 4.1.2.L**, the City of Adelanto has a greater percentage of Hispanic Population. The Non-Hispanic White population in the City of Adelanto displays a lower percentage when compared to the County. For Non-Hispanic Asians, the City has a lower percentage and for the Non-Hispanic Black population, the City has a greater percentage. Non-Hispanic American Indians have a slightly lower percentage in population when compared to the County, while Non-Hispanic and Other Race Category shows a slightly higher percentage in population. The greatest differences within ethnicity groups within Adelanto and the County are among the Non-Hispanic White and Non-Hispanic Black populations.

#### Victor Valley Study Area Ethnicity and Race

For the study area, the Hispanic population accounts for 41 percent of the total population. When compared to the City of Adelanto, there is a lower percentage of the Hispanic Population within the study area. As for the Non-Hispanic White population, there is a greater share in population in the study area. Non-Hispanic Asians account for 4 percent of the population within the study area, which is slightly higher than that of the city within this category. The Non-Hispanic Black population is lower when compared to the city. While for Non-Hispanic American Indians, the percentage is marginally higher in the study area. The total minority population in the study area is approximately 61 percent.

#### The City of Adelanto Income

The average yearly salary per job in 2009 within the City of Adelanto is \$36,411. This is a 7.3 percent increase from 2003, in which the average salary was approximately \$33,948 per year (SCAG). The sectors that provided the highest paid salaries include Professional Management, Wholesale, Public Administration, Information, and Manufacturing with average salaries above

\$40,000 per year. While sectors with the lowest paid, average salaries include Leisure-Hospitality, Non-Classified, Other Services Other Services, and Retail with average salaries below \$30,000 per year. Overall, Adelanto’s average salary is lower, when compared to the average salary of \$38,445 in San Bernardino County.

2010 U.S. Census information in regards to income levels was not available at the block group level for the study area. As a result, income information at the census tract level was obtained from the 2010 American Community Survey (ACS). **Table 4.1.2.M** shows census tracts that fall within the delineated Victor Valley Study Area.

**Table 4.1.2.M - Census Tracts within Victor Valley Study Area**

Census Tracts within the Victor Valley Study Area	
91.10	97.14
91.14	99.05
91.16	117
97.08	91.17
97.12	9802
97.13	121.04
121.01	

**Table 4.1.2.N – Adelanto Income Levels**

Category	Victor Valley Study Area	City of Adelanto	San Bernardino County
Annual Median Household Income Level (\$)	N/A	41,113	54,750
Total Population (Persons)	75,392	27,631	1,961,244
Percentage of Population Determined as Poverty Status	16,867 (22.4%)	7,080 (25.6%)	291,020 (14.8%)
Poverty Status (%) - Under 18 Years	7,441	11,423	120,971
Poverty Status (%) - 18 to 64 Years	8,781	15,040	154,049
Poverty Status (%) -65 Years and Over	654	1,168	16,000

Source: U.S. Census

\*Data was not available at the block group level, therefore census tracts were utilized to serve as an estimate for the study area.

### Victor Valley Study Area Income

Within the study area, there are approximately 16,867 persons considered to be of low-income or have poverty status. This number comprises about 22 percent of the total population within the study area. The highest percentage was among individuals between the ages of 18 and 64, followed by individuals under age 18. The lowest proportion classified as poverty status was amongst individuals 65 years and above. Please refer to **Table 4.5.A** for exact threshold figures.

### The City of Adelanto Community Cohesion

As shown in **Table 4.1.2.O**, 61.2 percent of the total housing units within Adelanto are owner occupied. Single-family homes, which are classified as 1-unit detached structures, make up 79.1 percent of the total housing units. While for households who have lived within the same housing unit prior to the year 2000 consists of 24.6 percent of the total households.

Within the study area there is a greater percentage of owner occupied housing units in addition to the households in the same housing unit prior to 2000. However, the percentage of single-family homes is lower. One of three indicators for community cohesion is somewhat high which may indicate a moderate sense of community cohesion. See **Figure 4.1.3.B** for a distribution of housing units within the Victor Valley area.

**Table 4.1.2.O – Adelanto Stability Index**

Indicators	Adelanto	Victor Valley Study Area
Percent of Owner Occupied Housing Units	61.2%	69.2%
Percent of Single-family Homes	79.1%	77.9%
Percent of Households in Same Housing Unit (Prior to Year 2000)	24.6%	32.3%

Source: U.S. Census

### The City of Adelanto Housing

The City of Adelanto, as with most of the general areas within the High Desert, has experienced a steady growth in population over the last two decades. In order to address the steady growth in population, Adelanto has updated its Housing Element to provide a plan for future housing within the city. According to the *City of Adelanto 2008-2014 Housing Element* (2010), housing in Adelanto continues to be more affordable than in other Southern California communities, which has fueled steady population growth.

According to 2010 U.S. Census, the median home value within Adelanto was approximately \$170,500. In comparison to San Bernardino County's median home value of \$155,000, the

median home value in Adelanto is greater by approximately \$15,000. Between 2000 and 2010, the number of households within the City of Adelanto increased by 65.7 percent, from 4,714 to 7,809. Also as of 2010, the average household size within Adelanto is 3.7 persons, which is a 4.8 percent increase from the 2000 average household size of 3.5 persons.

As shown in **Table 4.1.2.P**, the number of housing units within Adelanto as of the 2010 U.S. Census is 9,086 units. Of the total number of housing units, 85.9 percent (7,804) are occupied housing units, while 14.1 percent (1,282) are vacant. Under tenure, of the 7,804 occupied housing units, 61.2 percent (4,776) are owner occupied while the remaining 38.8 percent (3,028) are renter occupied housing units. The total number of households within the city is 7,809. Of that number, 84.2 percent (6,575) are considered family households while the remaining 15.8 percent (1,234) are non-family households.

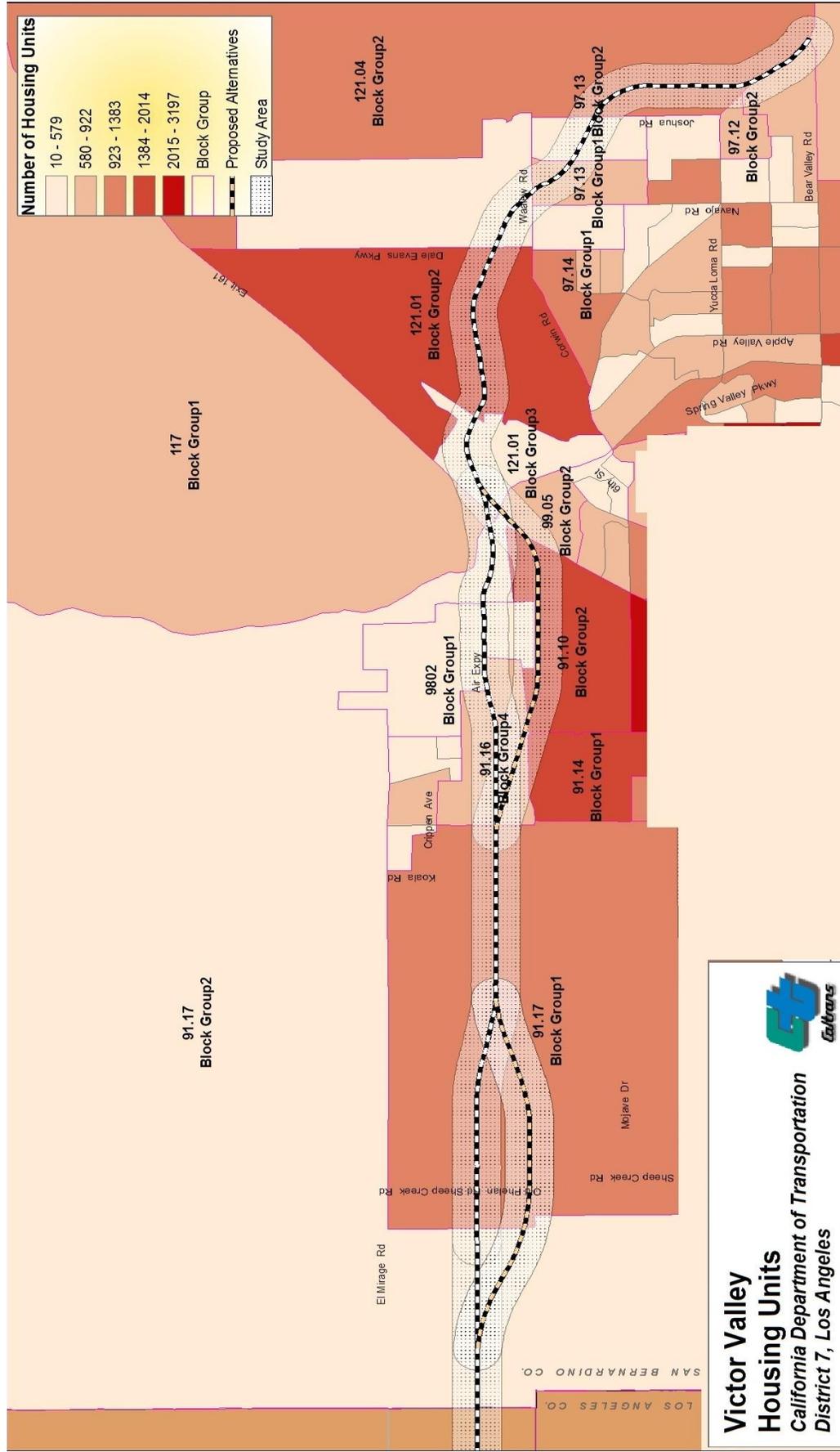
As shown in **Figure 4.1.2.E**, the population within Adelanto is dispersed with larger concentrations located within residential land use areas located within the northern and southern segments of the city. Based on the land use map, high residential land uses are located between Air Expressway and Desert Flower Road. Towards the north of the city are high acreage residential land uses, while towards the south are pockets of single-family residential units.

**Table 4.1.2.P – Regional and Local Housing Characteristics for the City of Adelanto Study Area**

Category	Victor Valley Study Area	City of Adelanto	San Bernardino County
# of Housing Units	13,636	9,086	699,637
# of Households	11,971	7,809	611,618
Family Households (%)	78.8	84.2	76.9
Non-Family Households (%)	21.2	15.8	23.1
Average Household Size	3.2	3.7	3.2
Vacancy Rate (%)	12.2	14.1	12.6
Tenure (owner vs. renter)	--	--	--
- Owner Occupied (%)	67.6	61.2	62.7
- Renter Occupied (%)	32.4	38.8	37.3
Median Home Value	\$186,933	\$170,500	\$155,000

Source: U.S. Census, [www.city-data.com](http://www.city-data.com)

Figure 4.1.2.F – Victor Valley Housing Map



### Victor Valley Study Area Housing

2010 U.S. Census data for median home values was not available at the block group data level for the Victor Valley study areas. Therefore, median home values were calculated by utilizing zip codes that fall within the delineated study areas. The following zip codes are within the study area: 92301, 92394, 92307, 92308, and 92368. The median home values for the study area were determined by averaging the zip codes. Median home values were obtained from *www.city-data.com* (month, year). The average median home value for the Victor Valley study area is approximately \$186,933.

In comparison to San Bernardino County's median home value of \$155,000, the median home value within the study area is greater by approximately 15 percent. As of the 2010 U.S. Census, the number of households within the study area is approximately 11,971, while the average household size is 3.2 persons.

The number of housing units within the study area as of the 2010 U.S. Census is 13,636 units. Of the total number of housing units, 87.8 percent are occupied housing units while 12.2 percent are vacant housing units. Under tenure, of the 11,972 occupied housing units, 67.6 percent are owner occupied while the remaining 32.4 percent are renter occupied housing units. The total number of households within the study area is 11,971. Of that number, 78.8 percent are considered family households while the remaining 21.2 percent are non-family households.

### VICTORVILLE

The community of Victorville was first incorporated as a city on September 21, 1962 in which it had an initial population of approximately 8,110 and an area of 9.7 square miles. Victorville has grown substantially over the years. In 2007, the city had a population of approximately 99,395 and an area of 74.16 square miles.

Victorville was named after Jacob Nash Victor, a construction superintendent for the California Southern Railroad. The town was established through the development of the railroad station located approximately one mile northwest of the narrows of the Mojave River. On January 18, 1886, the Plan of the Town of Victor was established, and a street grid pattern was created for the town. With an abundance of water and land availability, industries such as agriculture began to develop. However, it was near the turn of the century with the discovery of limestone and granite, that the cement manufacturing emerged and has been the one of the most important industries for the region.

According to the *City of Victorville's General Plan 2030*, the city's jurisdiction is divided into ten distinct planning areas. The boundaries for the planning area are defined using topographic features, man-made features, and land use characteristics. The identified planning areas can serve as a means to distinguish between the various communities within the city. The planning areas include the following: Baldy Mesa, Central City, East Bear Valley, Golden Triangle, North Mojave, Southern California Logistics Airport, Spring Valley Lake, West City, West Bear Valley, and Northern Expansion.

Baldy Mesa is located west of U.S. Highway 395 and south of Palmdale Road. It consists primarily of low and very low-density residential land uses, along with some commercial land uses.

Central City is located east of Interstate 15, north of Yates Road/Green Tree Boulevard, west of Burlington, Northern and Santa Fe railroad line, and south of the Mojave River. The community is primarily composed of low density residential with open space and moderate commercial land use.

East Bear Valley is located east of Interstate 15, north of Bear Valley Road, west of the Ridgecrest Road, and south of Yates Road/Green Tree Boulevard. This area is primarily composed of an even mix of low-density residential and commercial land uses.

Golden Triangle is the most southern community and is located north of California Aqueduct, south of Bear Valley Road, east of U.S. Highway 395, and west of Interstate 15. This community is composed largely of low density residential, along with moderate commercial land use.

North Mojave is located northeast of the National Trails Highway and northwest of Interstate 15, with a portion of the planning area extending southeast of Interstate 15 and northeast of Mojave River. This area has a designated specific land use plan and is composed of open space and heavy industrial uses.

The Southern California Logistics Airport is located within the former George Air Force Base and includes areas north of the existing City boundary. It also includes all lands east towards the Mojave River and along the north side of Air Expressway of the former base. The planned Global Access Victorville multimodal freight transportation hub is located within this planning area, which serves as a major transportation goods movement facilities for the greater Antelope Valley. This area has a specific land use plan, specific to the Southern California Logistics Airport.

Spring Valley Lake Planning Area is located in southeast Victorville and is north of Bear Valley Road, south of and west of the Mojave River and east of Ridgecrest Road and Atchison, Topeka, and Santa Fe Railroad line. This area is primarily composed of open space, with moderate low density residential land uses.

West City is located in central part of the City and is south of Rancho Road, east of U.S. Highway 395, and west of El Evado Road. This community is comprised with a high concentration of residents along with a mix of commercial uses serving the community.

West Bear Valley is located south of Palmdale Road, east of U.S. Highway 395, and west of Interstate 15 and Amargosa Road. This area is composed of a high concentration of residents, with a variety of low density and very low-density land uses. Moderate commercial uses are also included within this community.

The Northern Expansion planning area is located in the northernmost region of the City and includes the greatest concentration of low-density residential use within the City. This area is also comprised with a vast majority of open space, with moderate industrial and commercial uses.

#### City of Victorville Population and Age

The City of Victorville, as of the 2010, had a population of 115,903 and accounts for 5.7 percent of the total population in San Bernardino County. Since 2000, the City of Victorville has experienced a vast increase in its population with a growth rate of 81.0 percent. When compared to San Bernardino County, Victorville's growth rate of 81.0 percent was roughly four times greater than the county's growth rate of 19.0 percent.

According to *SCAG's Integrated Growth Forecast*, Victorville's population is projected to grow to 138,023 by 2020, and 182,275 by 2035. The City of Victorville, along with similar areas within the high desert region, is projected to continue its current trend in population growth throughout the coming years.

The median age in the City of Victorville, as of the 2010 was 29.5, which is lower than San Bernardino County's median age of 31.2. As shown in **Table 4.1.2.Q**, Victorville's population percentage by age consists of the following: Persons Under the Age of 19 (36.1%), Persons between 20 to 64 Years of Age (55.8%), Persons Over 65 Years of Age (8.1%). The City of Victorville, as compared to San Bernardino County, displays a greater percentage among individuals under the age of 19, while it displays lower percentage among individuals between

the ages of 20 to 64. For individuals over the age of 65, Victorville displays a lower percentage comparing to San Bernardino County.

#### Victor Valley Study Area Population and Age

As shown in **Table 4.1.2.M**, the Victor Valley study area is composed of block groups that fall within the delineated half-mile buffer from the centerline of the project alignment. Based on the 2010 Census, the total population within the study area is 45,481 persons, which is approximately half the total population of the City of Victorville. The annual growth rate within the study area is 3.1 percent is lower than the City of Victorville's overall growth rate of 8.1 percent. As shown in **Figure 4.1.2.E**, the majority of the population is located south of the study area based on the proposed alignment. The alignment is predominately situated within undeveloped lands away from major densely populated areas.

According to 2010 Census, the median age in the study area is 37.5. When compared to the City of Victorville, the median age is greater by approximately 8 years. As shown in **Table 4.1.2.Q**, the distribution in population by age within the study area shows a higher population between the ages of 20 and 64 (61%), while a lower population of individuals under the age of 19 (30.7%), followed by individuals who are 65 years of age and above (8.3%). The age distribution within the study is also quite similar to that of San Bernardino County and is typical of most communities.

**Table 4.1.2.Q – Victorville Population Demographics Table**

Category	Victor Valley Study Area	The City of Victorville	San Bernardino County
2000 Total Population	34,602	64,029	1,709,434
2010 Total Population	45,481	115,903	2,035,210
Net Change	(+) 10,879	(+) 51,874	(+) 325,776
Population Growth Rate (2000-2010)	31%	81%	19%
Annual Average Growth Rate	3.1%	8.1%	1.9%
Total Population (Persons)	45,481	115,903	2,035,210
2010 Median Age (Years)	37.5	29.5	31.2
19 Years and Under	13,967 (30.7%)	41,880 (36.1%)	664,577 (32.7%)
20 to 64 Years	27,754 (61%)	64,611 (55.8%)	1,189,285 (58.4%)
65 Years and Over	3,760 (8.3%)	9,412 (8.1%)	181,348 (8.9%)

Category	Victor Valley Study Area	The City of Victorville	San Bernardino County
<b>Ethnicity and Race</b>			
Hispanic *	18,736 (41%)	55,359 (47%)	1,001,145 (49%)
White	16,649 (37%)	32,804 (28%)	677,598 (33%)
Asian *	1,949 (4%)	4,341 (3%)	123,978 (6%)
Black *	6,251 (14%)	18,579 (16%)	170,700 (8%)
American Indian and Alaska Native*	422 (1%)	754 (0.7%)	8,523 (0.4%)
Native Hawaiian and Other Pacific Islander*	192 (0.4%)	390 (0.3%)	5,845 (0.3%)
Some Other Race	124 (0.3%)	283 (0.2%)	4,055 (0.2%)
Two or More Races	1,158 (3%)	3,393 (2%)	43,366 (2%)
Total Minority	27,550 (61%)	79,423 (68%)	1,310,191 (64%)

Source: SCAG, U.S. Census

### The City of Victorville Ethnicity and Race

The ethnic composition in Victorville consists largely of a Hispanic population (47.8%) followed by Non-Hispanic White (28.3%), Non-Hispanic Black (16.0%), Non-Hispanic Asian (3.7%), Two or More Races (2.9%), Non-Hispanic American Indian (0.7%), Native Hawaiian and Other Pacific Islander (0.3%), and Some Other Race (0.2%) (See **Table 4.1.2.Q**).

Between 2000 and 2010, the Hispanic population share increased from 33.5 percent to 47.8 percent, while the Non-Hispanic White population experienced a decline in population share from 47.5 percent to 28.3 percent (SCAG). For the Non-Hispanic Asian population, there was an increase in population share from 3.3 percent to 3.7 percent, while for the Non-Hispanic Black population there was an increase in population from 11.6 percent to 16.0 percent. Conversely, the population share of Non-Hispanic American Indians decreased from 0.6 percent to 0.7 percent, and the “Non-Hispanic All Other” category experienced a decrease in population share from 3.5 percent to 3.6 percent.

When compared to San Bernardino County, as shown in **Table 4.1.2.Q**, the City has a lower percentage of Hispanic population, while for the Non-Hispanic White population; the City of Victorville displays a lower percentage. Non-Hispanic Asian population percentage is lower in the City, but the percentage almost is double for the Non-Hispanic Black population. The greatest difference in ethnic groups between Victorville and the County of San Bernardino is among the Non-Hispanic Asian and Non-Hispanic Black populations.

### Victor Valley Study Area Ethnicity and Race

The Hispanic population accounts for 41 percent of the project study area population. When compared to the city, there is a lower percentage of Hispanic population within the study area. As for the Non-Hispanic White population, there is a greater share in population when compared to the city. Non-Hispanic Asian population accounts for four percent of the population within the study, which is slightly higher than the city Non-Hispanic Asian population. The Non-Hispanic Black population is slightly lower when compared to the city. The Non-Hispanic American Indian Population is marginally higher in the study area than the city. For the study area, the total minority population is approximately 61% (27,550).

### The City of Victorville Income

The average salary per job within Victorville, as of 2009 was \$35,970 per year, which is a 22.6 percent increase from the annual salary of \$33,948 per year in 2003. Sectors that provided the highest paid salaries include Information, Wholesale, Professional Management, and Public Administration with average salaries above \$45,000 per year. Sectors with the lowest paid average salaries include Leisure-Hospitality, Non-Classified, Other Services, and Retail with average salaries below \$30,000 per year. Overall, Victorville's average salary is lower, when compared to the average salary of \$38,445 in San Bernardino County.

The City of Victorville in comparison to San Bernardino County has a 19.4 higher percentage of low-income individuals. However, when compared to the study areas, the City of Victorville has a slightly lower rate. The majority of low-income population is individuals age 18 and below, followed by individuals age 18 to 64, then individuals 65 years and above. The distribution by age amongst low-income individuals is quite uniform within the study areas and respective jurisdictions, in which the major changes include shifts in majority amongst individuals 18 years and below and individuals 19 to 64 years of age (See **Table 4.1.2.R**).

**Table 4.1.2.R – Victorville Income Levels**

Category	Victor Valley Study Area	The City of Victorville	San Bernardino County
Annual Median Household Income Level (\$)	N/A	52,165	54,750
Total Population (Persons)	75,392	104,099	1,961,244
Percentage of Population Determined as Poverty Status	16,867 (22.4%)	20,219 (19.4%)	291,020 (14.8%)
Poverty Status (%) - Under 18 Years	7,441 (44.1%)	9,851 (48.7%)	120,971 (41.5%)
Poverty Status (%) - 18 to 64 Years	8,781 (52%)	9,533 (47.1%)	154,049 (52.9%)
Poverty Status (%) -65 Years and Over	654 (3.9%)	835 (4.1%)	16,000 (5.4%)

(Source: U.S. Census)

### Victor Valley Study Area Income

Within the study area, there are approximately 16,867 persons considered to be of low-income or at poverty level, which constitutes for about 22 percent of the total population. The highest percentage was among individuals 18 to 64 years of age, followed by individuals under 18 years of age. The lowest level of poverty was among individuals 65 years and above.

### The City of Victorville Community Cohesion

As shown in **Table 4.1.2.S**, 64.9 percent of the total housing units within Victorville are owner occupied. Single-family homes, which are classified as 1-unit detached structures, make up 79.4 percent of the total housing units. While for households who have lived within the same housing unit prior to the year 2000 consists of 28.5 percent of the total households.

Within the study area there is a greater percentage of owner occupied housing units in addition to the households in the same housing unit prior to 2000. However, the percentage of single-family homes is lower. Two of three indicators for community cohesion are somewhat high which may indicate a moderate sense of community cohesion. See **Figure 4.1.2.F** for a distribution of housing units within the Victor Valley area.

**Table 4.1.2.S – Victorville Stability Index**

Indicators	Victorville	Victor Valley Study Area
Percent of Owner Occupied Housing Units	64.9%	69.2%
Percent of Single-family Homes	79.4%	77.9%
Percent of Households in Same Housing Unit (Prior to Year 2000)	28.5%	32.3%

Source: U.S. Census

### The City of Victorville Housing

According to the *2008 Update of the Housing Element of the General Plan* (2010), the City of Victorville has experienced rapid growth between 2000 and 2007. In addition, Victorville's growth was almost double in comparison to its closest neighbor. In order to address such growth, the City of Victorville has updated its housing element to plan for future housing needs within its city. The city has also implemented several programs in its efforts to address affordable housing within its jurisdiction.

As shown on **Table 4.1.2.T**, as of the 2010 U.S. Census, the median home value within Victorville was approximately \$227,300. In comparison to San Bernardino County's median home value of \$155,000, the median home value in Victorville is greater by approximately

\$70,000. Between 2000 and 2010, the number of households within the Victorville increased by 55.8 percent, from 20,893 to 32,558. Also as of 2010, the average household size within Victorville is 3.4 persons.

The number of housing units within Victorville, as of the 2010 U.S. Census, is 36,655 units. Of the total number of housing units, 88.8 percent (32,549) are occupied housing units, while 11.2 percent (4,106) are vacant. Under tenure, of the 32,549 occupied housing units, 61.8 percent (20,115) are owner occupied while the remaining 38.2 percent (12,434) are renter occupied housing units. The total number of households within the city is 32,558. Of that number, 79.6 percent (25,916) are considered family households while the remaining 20.4 percent (6,642) are non-family households (See **Table 4.1.2.T**).

As shown in **Figure 4.1.2.D**, the population within Victorville is dispersed proportionately with larger concentrations located south of the proposed alignment. Land use designations within the study area include manufacturing/industrial uses, which are primarily located south of the study area. While to the north of the study area, major land use designations include a mix between desert living and single-family residential uses. Housing densities are localized within residential land use areas, in this case north of the study area.

**Table 4.1.2.T – Regional and Local Housing Characteristics for the City of Victorville**

Category	Victor Valley Study Area	City of Victorville	San Bernardino County
# of Housing Units	13,636	36,655	699,637
# of Households	11,971	32,558	611,618
Family Households (%)	78.8	79.6	76.9
Non-Family Households (%)	21.2	20.4	23.1
Average Household Size	3.2	3.4	3.2
Vacancy Rate (%)	12.2	11.2	12.6
Tenure (owner vs. renter)	--	--	--
- Owner Occupied (%)	67.6	61.8	62.7
- Renter Occupied (%)	32.4	38.2	37.3
Median Home Value	\$186,933	\$227,300	\$155,000

Source: U.S. Census, [www.city-data.com](http://www.city-data.com)

### Victor Valley Study Area Housing

Please refer to the Victor Valley Study Area section under the *City of Adelanto Housing* section for housing demographics.

The Victor Valley Study Area has the lowest number of housing units in comparison to the City of Victorville and the overall San Bernardino County. Similar to the number of housing units, the number of households is also the lowest within the study area. While the percentage of family and non-family households within the study, in comparison to Victorville and the county at large is quite similar in range. Household sizes within the study area again are quite similar to the city and county overall. Vacancy rates are slightly higher in comparison to Victorville, but are marginally less when compared to the county. The study area has the highest percentage of owner-occupied housing units in comparison to the city and county.

### APPLE VALLEY

Newton T. Bass and B.J. “Bud” Westlund, who were partners in the oil and gas industry in the City of Long Beach, CA, founded the Town of Apple Valley. In 1946, Newton and B.J. formed the Apple Valley Ranchos Land Company, in which they marketed the area as a destination resort as the “The Golden Land of Apple Valley.” Together they built the Apple Valley Inn and the Hilltop House, and invited Hollywood’s finest to enjoy what Apple Valley had to offer. Over the coming years, banks, churches, schools, a hospital, and 180 businesses were developed within the town. The Town of Apple Valley was incorporated on November 14, 1988.

Serrano, Paiute, Vanyume, Chemeheve, and Shoshonean tribes, who were attracted to the natural resources within the area, inhabited Apple Valley for centuries. The name Apple Valley according to the local town historian was derived from the abundance of apple orchards that existed during the 1920’s. However, with the Great Depression and the costs associated with irrigation, apple orchards began to diminish. With the ideal desert climate and availability of land, ranches were to develop. Such ranches provided also relaxation and western lifestyle for city dwellers, and rest and relaxation for individuals suffering from ailments.

### The Town of Apple Valley Population and Age

The Town of Apple Valley, as of the 2010 Census, has a population of 69,135 and accounts for 3.4 percent of the total population in San Bernardino County. Since 2000, the Town of Apple Valley, similar to its surrounding communities has experienced an increase in its population with a growth rate of 27.5 percent. Although the growth rate was not as substantial when compared to other communities within the high desert region, Apple Valley continues to strive to

accommodate for future growth and looks to maintain and enhance its existing neighborhoods and community. When compared to San Bernardino County, Apple Valley's growth rate of 27.5 percent was marginally higher when compared to the County's growth rate of 19.0 percent.

According to *SCAG's Integrated Growth Forecast*, Apple Valley's population is expected to grow to 82,005 by the year 2020, while by 2035 the population is estimated to grow to 95,681. The Town of Apple Valley, along with similar areas within the high desert region, is projected to continue its current trend in population growth throughout the coming years.

The median age in Apple Valley, as of the 2010, was 37.0, which is higher when compared to San Bernardino County's median age of 31.2. As shown in **Table 4.1.2.U**, Apple Valley's population by age consists of the following: Persons Under the Age of 19 (31.1%), Persons between 20 to 64 Years of Age (53.4%), Persons Over 65 Years of Age (15.4%). Apple Valley's distribution of population by age, when compared to San Bernardino County displays a greater percentage amongst individuals 65 years of age and above. While among individuals 19 years of age and below and individuals between the ages of 20 to 64 years of age, Apple Valley displays a lower percentage when compared to San Bernardino County.

#### Victor Valley Study Area Population and Age

Based on the 2010 Census, the total population within the study area is approximately 45,481 persons. The annual growth rate within the study area is 3.1 percent, which is higher when compared to the Town of Apple Valley's overall growth rate of 2.8 percent, as shown in **Table 4.1.2.U**.

For the study area as of the 2010, the median age is 37.5. When compared to the Town of Apple Valley, the study area is slightly higher by 0.5 years of age. As shown in **Table 4.1.2.U**, the distribution in population by age within the study area includes a higher population of individuals between the ages of 20 and 64 (61%), with a lower population of individuals under the age of 19 (30.7%), followed by individuals of age 65 years and above (8.3%). The age distribution within the study is also quite similar to that of San Bernardino County.

**Table 4.1.2.U – Apple Valley Population Demographics Table**

Category	Victor Valley Study Area	Town of Apple Valley	San Bernardino County
2000 Total Population	34,602	54,239	1,709,434
2010 Total Population	45,481	69,135	2,035,210
Net Change	(+) 10,879	(+) 14,896	(+) 325,776
Population Growth Rate (2000-2010)	31%	27.5%	19%
Annual Average Growth Rate	3.1%	2.8%	1.9%
Total Population (Persons)	45,481	69,135	2,035,210
2010 Median Age (Years)	37.5	37	31.2
19 Years and Under	13,967 (30.7%)	21,535 (31.1%)	664,577 (32.7%)
20 to 64 Years	27,754 (61%)	17,772 (53.4%)	1,189,285 (58.4%)
65 Years and Over	3,760 (8.3%)	4,839 (15.4%)	181,348 (8.9%)
Total Population (Persons)	45,481	69,135	2,035,210
<b>Ethnicity and Race</b>			
Hispanic *	18,736 (41%)	20,156 (29%)	1,001,145 (49%)
White	16,649 (37%)	38,374 (55%)	677,598 (33%)
Asian *	1,949 (4%)	1,934 (3%)	123,978 (6%)
Black *	6,251 (14%)	5,967 (9%)	170,700 (8%)
American Indian and Alaska Native *	422 (1%)	363 (0.5%)	8,523 (0.4%)
Native Hawaiian and Other Pacific Islander *	192 (0.4%)	265 (0.3%)	5,845 (0.3%)
Some Other Race	124 (0.3%)	124 (0.2%)	4,055 (0.2%)
Two or More Races	1,158 (3%)	1,952 (3%)	43,366 (2%)
Total Minority	27,550 (61%)	28,685 (41%)	1,310,191 (64%)

Source: SCAG, U.S. Census

### The Town of Apple Valley Ethnicity and Race

The ethnic composition in Apple Valley consists of a largely Non-Hispanic White population (55.5%), followed by the Hispanic population (29.2%), Non-Hispanic Black (8.6%), Non-Hispanic Asian (2.8%), Non-Hispanic All-Other (3.4%), and Non-Hispanic American Indian (0.5%) population (See **Table 4.1.2.U**).

Between 2000 and 2010, the Non-Hispanic White population share decreased from 67.7 percent to 55.5 percent, while the Hispanic population experienced an increase in population share from

18.6 percent to 29.2 percent. For the Non-Hispanic Asian population, there was an increase in population share from percent 2.2 percent to 2.8 percent. While for the Non-Hispanic Black population there was an increase in population from 7.6 percent to 8.6 percent. Conversely, the population share of Non-Hispanic American Indians decreased from 0.7 percent to 0.5 percent. While individuals within the “Non-Hispanic All Other” category experienced a slight increase in population share from 3.3 percent to 3.4 percent. The most notable population changes were amongst the Non-Hispanic White and Hispanic populations.

When compared to San Bernardino County, as shown in **Table 4.1.2.U**, the town has a lower percentage of Hispanics. While for the Non-Hispanic Whites, the town displays a higher percentage when compared to the County. For the Non-Hispanic Asian population there was a decline in population share. For the remaining the ethnic groups, the differences in population share are quite marginal. When compared to the County the most notable differences are amongst the Hispanic and Non-Hispanic White population.

#### Victor Valley Study Area Ethnicity and Race

The Hispanic population accounts for 41 percent of the population within the study area. When compared to the town, there is a higher percentage of Hispanics within the study area. As for the Non-Hispanic White population, there is a lower share in population when compared to the town. Non-Hispanic Asians account for four percent of the population within the study, and when compared to the town there is a slight increase in population. As for the Non-Hispanic Black population, there is a slight increase in population when compared to the town. While for Non-Hispanic American Indians, there is a marginal increase in percentage between the study area and the town. Lastly, for Non-Hispanic Some Other, there is a marginal increase within the study area compared to the town. As for individuals of two or more races, there is no net change in percentage when compared to the town. For the study area, the total minority population is approximately 61 percent (See **Table 4.1.2.U**).

#### The Town of Apple Valley Income

The average salary within Apple Valley, as of 2009 was \$35,434 per year, which is a 15.9 percent increase from the annual salary of \$30,584 per year in 2003. The sectors, which provided the highest paid salaries, include Information, Education-Health Wholesale, and Public Administration with average salaries above \$45,000 per year. While sectors with the lowest paid average salaries include Leisure-Hospitality, Manufacturing, Non-Classified, Other Services, and Retail with average salaries below \$30,000 per year. Overall, Apple Valley’s average salary is lower, when compared to the average salary of \$38,445 in San Bernardino County.

**Table 4.1.2.V – Apple Valley Income Levels**

Category	Victor Valley Study Area	Town of Apple Valley	San Bernardino County
Annual Median Household Income Level (\$)	N/A	48,491	54,750
Total Population (Persons)	75,392	67,075	1,961,244
Percentage of Population Determined as Poverty Status	16,867 (22.4%)	12,021 (17.9%)	291,020 (14.8%)
Poverty Status (%) - Under 18 Years	7,441 (44.1%)	4,969 (41.3%)	120,971 (41.5%)
Poverty Status (%) - 18 to 64 Years	8,781 (52%)	6,363 (52.9%)	154,049 (52.9%)
Poverty Status (%) - 65 Years and Over	654 (3.9%)	689 (5.7%)	16,000 (5.4%)

Source: U.S. Census

The Town of Apple Valley in comparison to San Bernardino County has a higher percentage of individuals classified as low-income with a rate of 17.9 percent. However, when compared to the study areas, Apple Valley has an overall lower rate. The majority group classified as low income is amongst individuals 18 to 64 years of age, followed by individuals 18 years of age and below, and by individuals 65 years and above. The distribution by age amongst low-income individuals is quite uniform within the study areas and respective jurisdictions, in which the major changes include shifts in majority amongst individuals 18 years and below and individuals 19 to 64 years of age.

#### Victor Valley Study Area Income

Within the study area, there are approximately 16,867 persons considered to be of low-income or poverty status, which constitutes about 22 percent of the total population. The highest percentage was among individuals 18 to 64 years of age, followed by individuals under 18 years of age. The lowest proportion of population with poverty status was among individuals 65 years and above.

#### The Town of Apple Valley Community Cohesion

As shown in **Table 4.1.2.W**, 70.7 percent of the total housing units within Apple Valley are owner occupied. Single-family homes, which are classified as 1-unit detached structures, make up 76.2 percent of the total housing units. While for households who have lived within the same housing unit prior to the year 2000 consists of 36 percent of the total households.

Within the study area there is a smaller percentage of owner occupied housing units in addition to the households in the same housing unit prior to 2000. However, the percentage of single-family homes is greater. Two of three indicators for community cohesion are somewhat high which may indicate a moderate sense of community cohesion. See **Figure 4.1.2.F** for a

distribution of housing units within the Victor Valley area. However, within the study area, the Town of Apple Valley shows the greatest percentage in households in the same housing unit since year 2000.

**Table 4.1.2.W – Apple Valley Stability Index**

Indicators	Apple Valley	Victor Valley Study Area
Percent of Owner Occupied Housing Units	70.7%	69.2%
Percent of Single-family Homes	76.2%	77.9%
Percent of Households in Same Housing Unit (Prior to Year 2000)	36%	32.3%

Source: U.S. Census

### The Town of Apple Valley Housing

Based on the *Town of Apple Valley 2009 General Plan – Housing Element* (2009), Apple Valley has set forth a plan to accommodate for current housing needs and future needs as well. Based on the Housing Element of the general plan and the *Town’s Regional Housing Needs Assessment for 2006 – 2014* (2009), an estimate of 3,887 housing units are to be constructed within Apple Valley. Of the 3,887 housing units, 1,539 will be developed as housing for low and/or very low-income residents.

As shown in **Table 4.1.2.X**, as of the 2010 U.S. Census, the median home value within Apple Valley was approximately \$262,100. In comparison to San Bernardino County’s median home value of \$155,000, the median home value in Apple Valley is greater by approximately \$107,000. Between 2000 and 2010, the number of households within the Apple Valley increased by 27.2 percent, from 18,557 to 23,598. Also as of 2010, the average household size within Apple Valley is 2.9 persons.

The number of housing units within Apple Valley, as of the 2010 U.S. Census, is 26,117 units. Of the total number of housing units, 90.4 percent (23,609) are occupied housing units, while 9.6 percent (2,508) are vacant. Under tenure, of the 23,609 occupied housing units, 69.1 percent (16,313) are owner occupied while the remaining 30.9 percent (7,296) are renter occupied housing units. The total number of households within the town is 23,598. Of that number, 75.0 percent (17,698) are considered family households while the remaining 25.0 percent (5,900) are non-family households (See **Table 4.1.2.X**).

As shown in **Figure 4.1.2.F**, higher densities in housing are located north of Corwin Road and west of Dale Evans Parkway, with medium to lower densities located throughout the town. The study area is primarily located within the northern fringe of the town and along the existing State

Route 18 and includes the following land use designations: single-family residential, estate residential, open space, low density residential, specific plan, very low density residential, mineral resources, regional commercial, and office professional. While major land uses within the study area include specific plan, open space, regional commercial, very low density residential, and mineral resource use. Housing units within the study area, based on land use designations are typically characterized as low density, rural style type housing units.

**Table 4.1.2.X – Regional and Local Housing Characteristics for the Town of Apple Valley Study Area (2010)**

Category	Victor Valley Study Area	Town of Apple Valley	San Bernardino County
# of Housing Units	13,636	26,117	699,637
# of Households	11,971	23,598	611,618
Family Households (%)	78.8	75.0	76.9
Non-Family Households (%)	21.2	25.0	23.1
Average Household Size	3.2	2.9	3.2
Vacancy Rate (%)	12.2	9.6	12.6
Tenure (owner vs. renter)	--	--	--
- Owner Occupied (%)	67.6	69.1	62.7
- Renter Occupied (%)	32.4	30.9	37.3
Median Home Value	\$186,933	\$262,100	\$155,000

Source: U.S. Census, [www.city-data.com](http://www.city-data.com)

### Victor Valley Study Area Housing

Please refer to the Victor Valley Study Area section under the *City of Adelanto Housing (YEAR)* section for housing demographics.

As mentioned earlier, the Victor Valley Study Area has the lowest number of housing units in comparison to the Town of Apple Valley and the overall San Bernardino County. The study area in comparison to the Town of Apple Valley and San Bernardino County overall is quite representative in terms of demographics with no apparent major outliers when compared to the other areas of study.

## **4.1.2 Environmental Consequences**

### ***Regional Population Characteristics***

The regional population within Los Angeles and San Bernardino County has historically experienced a steady growth rate throughout the years. Such growth projections as designated by

the *SCAG Integrated Growth Forecast* (2007) which calls for a 14.9 percent increase in population in Los Angeles County between 2008 and 2035, while a 38.25 percent increase in population within San Bernardino County. Under the build alternatives, the regional population characteristics will either maintain the current growth trend within the region and/or play a factor towards increased growth.

#### No Build Alternative

The No Build alternative consists of those transportation projects that are already planned and committed to be constructed by or before 2040 other than the Project. It is not anticipated that the implementation of these projects would have an impact on regional population characteristics.

#### Freeway/Expressway Alternative and Freeway/Tollway Alternative

Under the Freeway/Expressway and Freeway/Tollway Alternatives and variations, based on the *Growth-Related, Indirect Impact Analysis Report* (2014), population growth will maintain its current trend as forecasted by SCAG. Therefore, alternative impacts on the population will be minimal. Additional growth as a result of these three build alternatives will be minimal and should not alter the existing regional population characteristics within the area.

#### Freeway/Expressway Alternative w/ High Speed Rail, Freeway/Tollway Alternative w/ High Speed Rail

Under these build alternatives and their variations, it was determined under the *Growth-Related, Indirect Impact Analysis Report* (2014) that with the inclusion of the High-Speed Rail feeder service, population growth within the region would be affected on a regional level. Indirect impacts to the regional population may occur as a result. Through reduction in travel times between the high desert region and larger destinations such as the greater Los Angeles basin through the future construction of the High-Speed Rail, may spur further development within the region. This alternative will mostly affect growth patterns and the location of development. Rail Service encourages more housing density and mixed uses. Moreover, development tends to shift towards rail stations and new access points (interchanges).

### **Community Character/Population/Housing**

#### No Build Alternative

The No Build alternative consists of those transportation projects that are already planned and committed to be constructed by or before 2040 other than the Project. It is not anticipated that the implementation of these projects would have impacts on community character, population, or housing.

### Freeway/Expressway and Freeway/Tollway Alternatives

The Freeway/Expressway and Freeway/Tollway Alternatives share the same physical alignment and, as a result, both alternatives share the same impacts which are discussed below.

*Note that the acquisition data presented in this section of the report is based on the information presented in the Draft Relocation Impact Report (DRIR, 2014), which analyzed ROW impacts to residential and non-residential properties on all alternative alignments, and the Final Relocation Impact Report (FRIR, 2015), which focused on the impacts of the Preferred Alternative (see more detailed information in section 3.1.4.2 Relocation and Property Acquisition subsection).*

#### *Palmdale*

The proposed Freeway/Expressway and Freeway/Tollway Alternative project alignment is located within the fringe of Palmdale and is located within semi-developed areas. Palmdale, in relation to other nearby communities within the study area, is generally more developed and urbanized in character. The majority of the population within the Palmdale study area is concentrated south of the proposed project within more developed areas. Direct impacts that may affect community character are not likely to occur. The proposed project alignment has been designed in a manner such to avoid negative effects on existing neighborhoods and communities within the project area. The proposed project alignment was designed in a manner that is sensitive to the existing communities and as a result avoids bisecting existing developed neighborhoods.

Both the Freeway/Expressway and Freeway/Tollway Alternative alignments would have notable impacts on three Palmdale School District properties located within the right-of-way (ROW) of the main alignment. Notable impacts are those that might require significant lead time and substantial financial allocations. Based on the Draft Relocation Impact Report (DRIR, 2014), it was determined that the acquisition and relocation of the Palmdale School District facilities would require considerable lead time and resources. Caltrans would have to provide adequate replacement properties for the displaced Palmdale School District facilities. The functional replacement process may take up to 8 years to complete; temporary facilities may be utilized in the interim.

A full acquisition of a property is required when all or a substantial portion of a property is needed for ROW purposes and the current use can no longer operate on that site. A partial acquisition would occur when a smaller portion of a property is to be acquired, but full use of the property and its structures can remain. Generally, partial acquisitions consist of portions of a back, side, or front yard, landscaping, or parking (but not in numbers sufficient to subvert building code requirements). Additionally, when a project would result in a severe loss of access

that would reduce the useful operation of the property, a full acquisition of the parcel may be required. Another form of a partial acquisition is a temporary construction easement, which is the occupancy of a portion of a property only during project construction, typically needed for construction staging or equipment and materials storage use.

Construction of the proposed main alignment would require partial and full acquisition of residential and non-residential properties as presented under Section 1.3.4.2, Relocation and Property Acquisition. The affected residential properties consist of single-family houses built between the mid 1950s and mid 1980s and range in condition from fair to good. However, the draft relocation study indicated that there is adequate replacement housing within the area for those displaced, and the relocation of residents would not pose an impact on the community. Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

Under the Freeway/Expressway and Freeway/Tollway Alternatives indirect impacts as a result of the project may include changes to existing access and circulation, increased urbanization, growth, and a change in quality of life. Based on the preliminary engineering design, four freeway interchanges will be constructed within the city of Palmdale and are located at the intersection of SR-14 and the proposed HDC, 20<sup>th</sup> St. East, 50<sup>th</sup> St. East, and 90<sup>th</sup> Street East. Access points to the proposed HDC from local arterial streets will provide for increased circulation. In addition, as discussed in the growth analysis, increased development of commercial/industrial units may take place along areas adjacent to interchange locations.

Proposed community enhancements under the Freeway/Expressway and Freeway/Tollway Alternatives include construction of a bike path/lane adjacent to the HDC, which would provide the community with additional mobility options. The proposed bike lane/path would begin at the Palmdale Metrolink Station and would continue east towards San Bernardino County. The bike path/lane would provide a link for communities within Los Angeles and San Bernardino counties. The bike path would promote community character by improving connectivity within the community and allow for the greater use of active transportation for community members as a means of transportation within the local community. In addition, as previously discussed under Chapter 2, a multi-use interpretive pull out for use by bicyclists, pedestrians, and motorists will also be constructed. The multi-use interpretive pull out will provide a resting point for bicyclists and pedestrians.

## Variation A

Under the Freeway/Expressway and Freeway/Tollway Alternatives the alignment would dip slightly south of the main alignment, approximately between 15th Street East and Little Rock Wash. Under Variation A, the proposed alignment would be shifted slightly south of the main alignment in which will affect an industrial property (APN # 3022012029) which has been identified as a salvage yard. Based on the revised FRIR (2015) this will result in an acquisition, and represents a notable relocation in that it may be a bit more difficult to relocate to a new location. All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended

### *Unincorporated Los Angeles County*

The proposed Freeway/Expressway and Freeway/Tollway Alternative alignments are located within rural and undeveloped areas of Los Angeles County within close proximity to the existing community of Lake Los Angeles. The proposed alignment is approximately 2 miles south of Lake Los Angeles and does not bisect the community; however, the community of Lake Los Angeles is characterized by a more rural environment and lifestyle compared to other communities within the study area. As a result, the community character of Lake Los Angeles may be indirectly affected by the project.

The project would result in greater access and mobility towards previously isolated areas; however, based on the existing low-density land use designations as identified in the within the study area, growth may be limited (*Preliminary Draft Antelope Valley Area Plan*, 2011).

Construction of the proposed main alignment would require partial and full acquisition of residential and non-residential properties as presented under Section 1.3.4.2, Relocation and Property Acquisition. The affected residential properties consist of single-family homes built in the 1950s, in which the condition of the homes ranges from fair to good. It was determined that there is adequate replacement housing within the area for those displaced, and the relocation of residents would not have an impact on the community.

In addition, the proposed Freeway/Expressway and Freeway/Tollway Alternative alignments will impact a local former dairy farm, located at the northwest intersection of Sheep Creek Road and Parkdale Road. However, it has been confirmed that the dairy farm is no longer in operation as a business.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of

1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

Proposed community enhancements as a result of the project include construction of a bike path/lane adjacent to the HDC, which would provide the communities within unincorporated Los Angeles additional mobility options. The proposed bike lane/path which begins at the Palmdale Metrolink and continues east towards San Bernardino County will provide greater connectivity for residences within unincorporated Los Angeles and encourages the use of active transportation modes within the area. The bike path/lane would also provide a link for communities within the unincorporated Los Angeles to cities of Palmdale and Adelanto.

Indirect impacts as a result of the Freeway/Expressway and Freeway/Tollway Alternative may affect existing circulation, access and quality of life issues. Under the proposed Freeway/Expressway and Freeway/Tollway Alternative, five freeway interchanges will be constructed within the unincorporated areas of Los Angeles County and are located at the intersection between 170<sup>th</sup> St. East and the proposed HDC, 210<sup>th</sup> St. East, 240<sup>th</sup> St. East, Oasis Road, and Sheep Creek Road. Access points to the proposed HDC from local arterial streets will provide for increased circulation and access. As discussed in the growth analysis, development within the unincorporated areas within Los Angeles County will be composed of low density developments in order to maintain the rural character of the area (Preliminary Draft Antelope Valley Area Plan (2011)). The community of Lake Los Angeles has voiced concerns over construction of the HDC and its impact on their quality of life. In addition, concerns were expressed during a community meeting over light and glare from the project. Caltrans will implement measures to offset indirect impacts as a result of light glare on the rural communities within unincorporated areas within Los Angeles County.

#### **Variation D**

Variation D, developed in part by public outreach efforts and community input, would reduce potential impacts to the community of Lake Los Angeles by realigning the proposed alignment farther south away from the community. Variation D poses less of an impact on the community character of Lake Los Angeles because the associated noise, lighting, and other proximity effects from the new facility would become more distant. The community of Lake Los Angeles is a small rural town by nature, in which by realigning the freeway further away from the community, the rural character of community can be preserved. Indirect impacts may include changes to existing access and circulation, and quality of life. Light glare which has been voiced by the community as a concern may be further offset under Variation D by creating a greater distance between the Freeway/Expressway and Freeway/Tollway facility and the community.

*Victor Valley (Unincorporated San Bernardino County, Adelanto, Victorville, Apple Valley)*

The majority of population within the study area is mainly concentrated south of the proposed Freeway/Expressway and Freeway/Tollway Alternative alignment and is located within incorporated areas (i.e., Adelanto, Victorville, and Apple Valley). Based on the proposed alignment, established communities would not be bisected as a result of the project.

**Variation B**

Under Variation B, the proposed alignment would be shifted south of the main alignment to avoid the acquisition of the former Meadowbrook Dairy Farm at the northwest corner of the Sheep Creek Road/Parkdale Road intersection. However, the dairy farm is no longer in business at this time.

*Adelanto*

Within Adelanto, the major concentrations of populations are located within the northern and southern segments of the city. The area in between is largely undeveloped, with mostly scattered developments and vacant land. The proposed Freeway/Expressway and Freeway/Tollway Alternative alignment is situated within this particular area. As a result, the proposed alignment under the Freeway/Expressway and Freeway/Tollway Alternative will not bisect densely populated areas.

Construction of the proposed Freeway/Expressway and Freeway/Tollway Alternative alignment would require partial and full acquisition of residential and non-residential properties as presented under Section 1.3.4.2, Relocation and Property Acquisition. As indicated in the FRIR (2015) there is adequate replacement housing within the area for those displaced, and the relocation of residents would not pose an impact on the community.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

The proposed Freeway/Expressway and Freeway/Tollway Alternative includes a proposed bike lane/path adjacent to the HDC that begins at the Palmdale Metrolink Station and continues east towards San Bernardino County. The bike path/lane would provide a link for communities within Adelanto to other communities located within Los Angeles and San Bernardino counties.

Mobility within the community would be enhanced as a result of the proposed bike path/lane in which the incorporation of a bike path would provide the community with additional mobility

options. In addition, the project would provide safer transportation routes and greater accessibility to jobs and activities for the communities within the proposed lane limits.

Indirect impacts as a result of the Freeway/Expressway and Freeway/Tollway Alternative may affect existing circulation and access, increased urbanization, growth, and quality of life. Under the proposed Freeway/Expressway and Freeway/Tollway Alternative three freeway interchanges will be constructed within the city of Adelanto and are located at the intersection between Caughlin Road and the proposed HDC, Koala Road, and U.S. 395. Access points to the proposed HDC from local arterial streets will provide for increased circulation. In addition, as discussed in the growth analysis, increased development of commercial/industrial units may take place along areas adjacent to interchange locations.

#### *Victorville*

The proposed Freeway/Expressway and Freeway/Tollway Alternative alignment is within the northern fringe of the city. Based on the study area for this particular area, the area is largely undeveloped and vacant, and it is situated away from established communities. Within the study area within Victorville is a community of homes located on the Southern California Logistics Airport that were part of military family housing on the former George Air Force Base. Based on field visits, the units are uninhabited, in disrepair, and have been left unattended for years. As a result, community character would not be directly affected as a result of the project. According to the U.S. Environmental Protection Agency (EPA), George Air Force Base is listed as a superfund site. A superfund site as defined as by the EPA is an uncontrolled or abandoned place where hazardous waste is located, possibly affecting local ecosystems or people. Cleanup efforts are currently ongoing.

Under the proposed Freeway/Expressway and Freeway/Tollway Alternative the proposed alignment will be cutting off an access/entrance point to the prison facility located on Phantom Road East. As a result, Caltrans will provide an alternative access point by relocating the entrance point to the eastern segment of the federal prison facility.

The proposed Freeway/Expressway and Freeway/Tollway Alternative alignment would require partial and full acquisition of residential and non-residential properties as presented under Section 1.3.4.2, Relocation and Property Acquisition. The affected residential properties consist of former military family housing located on the SCLA and are in disrepair. According to a source from SCLA, the units have been closed since 1992. All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Proposed community enhancements as a result of the project include construction of a bike path/lane adjacent to the HDC, which would provide the residents within Victorville with additional mobility options. The proposed bike lane/path would begin at the Palmdale Metrolink Station and would continue east towards San Bernardino County. The bike path/lane would provide a link for residents within Victorville to other communities in Los Angeles and San Bernardino counties.

Indirect impacts as a result of the Freeway/Expressway and Freeway/Tollway Alternative may affect existing circulation and access, increased urbanization, growth, and quality of life. Under the proposed Freeway/Expressway and Freeway/Tollway Alternative three freeway interchanges will be constructed within the city of Victorville and are located at the intersection between Phantom Road East, Phantom Road West, National Trails Highway and the proposed HDC. Access points to the proposed HDC from local arterial streets will provide for increased circulation and access for motorists. In addition, as discussed in the growth analysis, increased development of commercial/industrial units may take place along areas adjacent to interchange locations.

### **Variation E**

Under Variation E, the proposed alignment would be shifted south of the main alignment to provide greater distance from the federal prison. However, based on the FRIR (2015), as a result of the shift in alignment, it was determined that the acquisition and relocation of ten industrial/manufacturing properties would be required. The industrial/manufacturing properties affected are located along Rancho Road and Violet Road and include the USA Company Inc., USA Services Inc., Robertson Ready Mix Co., Apex Bulk Commodities, Holliday Rock Co., Cal-Silica, and Northwest Pipe Company. Based on the FRIR (2015) significant lead time and resources will be required to relocate many of such properties.

All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

### *Apple Valley*

The proposed Freeway/Expressway and Freeway/Tollway Alternative alignment is within the northern fringe of Apple Valley. Based on the study area for this particular area, the area is largely undeveloped and vacant. As a result, direct impacts on the community character of Apple Valley are not anticipated.

Construction of the proposed Freeway/Expressway and Freeway/Tollway Alternative alignment would require partial and full acquisition of residential and non-residential properties as

presented under Section 1.3.4.2, Relocation and Property Acquisition. The affected residential properties consist of single-family houses built between the 1940s and mid 1950s. The condition of the most units is fair. Based on the FRIR (2015), it was determined that there is adequate replacement housing within the area for those displaced, and the relocation of residents would not have an impact on the community. All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Proposed community enhancements as a result of the project include construction of a bike path/lane adjacent to the HDC, which would provide the residents of Apple Valley with additional mobility options. The proposed bike lane/path would begin at the Palmdale Metrolink Station and would continue east towards San Bernardino County. The bike path/lane would provide a link for Apple Valley residents to adjacent communities within Los Angeles and San Bernardino counties. In addition, two vista points will be constructed in Apple Valley located along the Chocco Road and Bear Road off ramps. Vista points are informal pullouts where motorists can safely view scenery or park and relax, but do not have restrooms. The vista point at Chocco Road will provide a scenic view overseeing the Town of Apple Valley, while the vista point located at Bear Road will provide a scenic view of Dead Mans Point.

Indirect impacts as a result of the Freeway/Expressway and Freeway/Tollway Alternative may affect existing circulation and access, increased urbanization, and growth. Under the proposed Freeway/Expressway and Freeway/Tollway Alternative two freeway interchanges will be constructed within the Town of Apple Valley and are located at the intersection between Chocco Road, Dale Evans Parkway, and the proposed HDC. Access points to the proposed HDC from local arterial streets will provide for increased circulation and access for motorists. In addition, as discussed in the growth analysis, increased development of commercial/industrial units may take place along areas adjacent to interchange locations.

#### Freeway/Expressway and Freeway/Tollway Alternatives with High-Speed Rail

Under the proposed Freeway/Expressway and Freeway/Tollway with HSR, the HSR alignment is to be constructed within the centerline of the main HDC alignment, with exclusions within Palmdale and Victorville in which the rail alignment diverges from the main HDC alignment to connect to station locations in Palmdale and Victorville. As a result, additional ROW would be acquired for construction of the HSR alignment within Palmdale and Victorville. The impacts as previously discussed under the Freeway/Expressway and Freeway/Tollway Alternative will be included under the Freeway/Expressway and Freeway/Tollway with HSR.

### *Palmdale*

Under the proposed Freeway/Expressway and Freeway/Tollway with HSR within Palmdale, a station location would be developed as part of this project. The existing Palmdale Metrolink station would be expanded to accommodate for future HSR patrons. Additional parking would also be provided. The proposed station location will provide transit connections to the existing Palmdale Transit Center, and will allow for greater transit options for Palmdale residences in addition to a greater sense of connectivity within the region. Please see Appendix I for a list of the parcels proposed for partial and full acquisitions associated with the Preferred Alternative and a map depicting the affected parcels.

The HSR alignment has the potential to affect community character, in which increased development and growth may occur through transit oriented development (TOD). Based on the growth analysis Palmdale would most likely revise their planning and zoning at the rail stations to encourage TOD to realize among other benefits increased walk-in ridership and conversion of less open land for development. Such TOD would be transformational for this region because it emphasizes higher densities, mixed uses, pedestrian and bicycle use, feeder bus service and reduced parking, not evident at present. Moreover, TOD impacts would be expected to be quite concentrated between ¼- to ½-mile from station areas, i.e., easy walking distance.

### *Palmdale Rail Option 1 – Variation A*

Rail Option 1, Variation A would result in full and partial acquisition of non-residential properties within Palmdale and unincorporated Los Angeles County as presented under Section 1.3.4.2, Relocation and Property Acquisition. The affected nonresidential properties include various commercial businesses ranging from auto repair to storage facilities and industrial companies. The government parcel facilities to be impacted include the Lockheed Martin facility located at a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the Lockheed Martin facility, will involve a relocation of its parking lot.

Non-residential properties subject to acquisition include Allen Recycling, Lusk Machine Products, and three other industrial buildings structures, and 8-10 mid-size businesses, which include auto repairs and warehouses. Heavy machinery and equipment associated with such facilities will require a substantial amount of time and costs.

As stated in the FRIR (2015), though there is an adequate supply of replacement business properties, relocations of businesses are more complex in comparison to residential relocations. Since businesses serve a particular clientele, which is specific to particular area potential

relocations of businesses may disrupt services received by that particular clientele. In addition, business may suffer from economic impacts due to a potential loss of clientele as a result of the relocation.

Although direct impacts to residential parcels could be avoided, indirect impacts, such as noise and visual impacts, could impact the quality of life. Mitigation measures would be implemented to minimize these indirect impacts to area residents.

During the public review period of the Draft EIR/EIS prepared for this project, the EPA raised a concern about the “island effect” on some area residences. Rail Option 1, Variation A would not cause an “island effect,” or potential isolation, on the residences located along 10th Street East in Palmdale or anywhere along the proposed corridor because the rail connection would use a tunnel configuration. In addition, neither 10th Street East nor Avenue Q would be closed or obstructed.

All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

#### *Palmdale Rail Option 1 – Variation B*

Rail Option 1, Variation B would result in full and partial acquisition of non-residential properties within Palmdale and unincorporated Los Angeles County as presented under Section 1.3.4.2, Relocation and Property Acquisition. The affected non-residential properties include various commercial businesses ranging from auto repair to storage facilities and industrial companies. The affected government parcel facilities would include the Lockheed Martin facility located at a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the Lockheed Martin facility would involve a relocation of its parking lot.

Non-residential properties subject to acquisition include Allen Recycling, Lusk Machine Products, and three other industrial buildings structures, and 8-10 mid-size businesses, which include auto repairs and warehouses. Heavy machinery and equipment associated with such facilities would require a substantial amount of time and cost to relocate.

As stated in the FRIR (2015), though there is an adequate supply of replacement business properties, relocations of businesses are more complex in comparison to residential relocations. Since businesses serve a particular clientele, which are specific to a particular area, potential relocations of businesses may disrupt services received by that particular clientele. In addition,

individual businesses may suffer from economic impacts due to a potential loss of clientele as a result of the relocation.

Although direct impacts to residential parcels could be avoided, indirect impacts, such as noise and visual impacts, could impact quality of life. Mitigation measures would be implemented to minimize these indirect impacts to area residents.

Similar to Rail Option 1, Variation A, Variation B would not cause an “island effect,” or potential isolation, on the residences located along 10th Street East in Palmdale or anywhere along the proposed corridor because the rail connection would use a tunnel configuration. In addition, neither 10th Street East nor Avenue Q would be closed or obstructed.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

#### *Palmdale Rail Option 1 – Variation C*

Implementation of Rail Option 1, Variation C (Preferred Alternative) would result in full and partial acquisition of both residential and non-residential properties within Palmdale and unincorporated Los Angeles County as presented under Section 1.3.4.2, Relocation and Property Acquisition. Please see Appendix I for a list of the parcels proposed for partial and full acquisitions associated with the Preferred Alternative and a map depicting the affected parcels.

The majority of residential properties subject to acquisition include single-family homes and multi-unit duplex. Non-residential properties subject to acquisition include various commercial businesses ranging from auto repair to storage facilities and industrial companies. There would be 5 industrial warehouses located south of Rancho Vista Boulevard relocated and 14 industrial warehouses located south of East Avenue Q and west of Sierra Highway relocated. Additionally, 12 commercial properties located south of East Avenue Q and west of Sierra Highway would be impacted. Heavy machinery and equipment associated with such facilities will require a substantial amount of time and cost to relocate.

As stated in the FRIR (2015), though there is an adequate supply of replacement business properties, relocations of businesses are more complex in comparison to residential relocations. Since businesses serve a particular clientele, which are specific to a particular area, potential relocations of businesses may disrupt services received by that particular clientele. In addition,

an individual business may suffer from economic impacts due to a potential loss of clientele as a result of the relocation.

Although direct impacts to residential parcels could be avoided, indirect impacts, such as noise and visual impacts, could impact quality of life. Mitigation measures would be implemented to minimize these indirect impacts to area residents.

Similar to Rail Option 1, Variations A and B, Variation C would not cause an “island effect” for the residences located along 10<sup>th</sup> Street East in Palmdale or anywhere along the proposed corridor.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

#### *Palmdale Rail Option 7 – Variation A*

Rail Option 7, Variation A would require full acquisition of 5 residential properties and 14 non-residential properties, and partial acquisition of 12 residential a properties and 87 non-residential properties. Residential properties subject to acquisition include single-family homes and multi-unit duplex. As mentioned in the FRIR (2015), there is a sufficient supply of replacement residential and non-residential properties within the replacement area. All displacees would be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Non-residential properties subject to acquisition include industrial, warehouse, commercial, auto repair, and government facilities. Under Option 7, Variation A, the following facilities would be impacted: a water test center/utility owned by the City of Palmdale, located at the corner of Rancho Vista Boulevard (Avenue P) and 20<sup>th</sup> Street, the Lockheed Martin facility located on a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the Lockheed Martin facility would involve a relocation of its parking lot.

#### *Palmdale Rail Option 7 – Variation B*

Palmdale Rail Option 7, Variation B would require full and partial acquisition of both residential and non-residential properties within Palmdale and unincorporated Los Angeles County as

presented under Section 1.3.4.2, Relocation and Property Acquisition. The majority of residential properties subject to acquisition include single-family homes and a multi-unit duplex.

Non-residential properties subject to acquisition include industrial, warehouse, commercial, auto repair, and government facilities. Under Option 7, Variation B, the following facilities would be impacted: a water test center/utility owned by the City of Palmdale, located at the corner of Rancho Vista Boulevard (Ave P) and 20<sup>th</sup> Street, the Lockheed Martin facility located at a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the Lockheed Martin facility would involve a relocation of its parking lot.

#### *Palmdale Rail Option 7 – Station Option C*

Palmdale Rail Option 7, Variation C would require full and partial acquisition of both residential and non-residential properties within Palmdale and unincorporated Los Angeles County as presented under Section 1.3.4.2, Relocation and Property Acquisition. The majority of residential properties subject to acquisition include single-family homes and multi-unit duplex. As mentioned in the FRIR (2015) there is a sufficient supply of replacement of residential and non-residential properties within the replacement area. Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

Non-residential properties subject to acquisition include industrial, warehouse, commercial, auto repair, and government facilities. Under Option 7, Variation C, the following facilities would be impacted: a water test center/utility owned by the City of Palmdale, located at the corner of Rancho Vista Boulevard (Ave P) and 20<sup>th</sup> Street, the Lockheed Martin facility located at a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the Lockheed Martin facility would involve a relocation of its parking lot.

#### *Victorville*

Under the proposed Freeway/Expressway and Freeway/Tollway with HSR, the HSR alignment diverges from the main alignment to connect with the proposed Victorville Xpress West Station in the city of Victorville. It would be located immediately west of I-15, at Dale Evans Parkway.

This station would be constructed in conjunction with the XpressWest HSR service between Las Vegas and Victorville as currently planned. The construction of this station is not a part of the HDC Project. The proposed HSR alignment in Victorville would be located in an undeveloped, vacant area away from nearby existing communities. The Victorville XpressWest rail connection both Main line and Variation E would require full and partial acquisitions of both residential and non-residential properties as presented under Section 1.3.4.2, Relocation and Property Acquisition.

As mentioned in the FRIR (2015) there is a sufficient supply of replacement of residential and non-residential properties within the replacement area. Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

### **Avoidance, Minimization, and Mitigation Measures**

Avoidance and minimization measures include:

- The project will be designed to be sensitive to the existing environment in which it is constructed. Early coordination with local jurisdictions and community members will be conducted throughout the design of the project to ensure that the project is constructed in a manner that is acceptable for the community in which it is located.
- The project will be designed in conformance with local general and specific plans.
- The project will be designed in a manner which will reduce light glare within rural areas, more specifically in compliance with the Rural Outdoor Lighting District Ordinance set forth by Los Angeles County.

## **4.2 Economic Conditions**

The High Desert Corridor is located in the northern portion of Los Angeles and San Bernardino counties, known as the “High Desert”, which is surrounded by the Greater Antelope Valley and Victor Valley. Because many residents in the Greater Antelope Valley do not live within boundaries of incorporated cities, information for these areas can be difficult to quantify. The study area for the Greater Antelope Valley (Antelope Valley Area) therefore includes Interstate 14, State Highway 58, and State Highway 138 and includes the communities located within or adjacent to these roadways with available census information. The regional study area includes the Antelope Valley Area and Victor Valley Area and the communities within these areas.

**Figure 4.2.A** shows the regional study area for the economic analysis.

The project study area includes all census tracts located within 0.5- mile from the centerline of the project alignment and is located between the Antelope Valley Area and the Victor Valley Area. The High Desert Corridor alignment will be a direct east/west connection between the two areas starting at the western end of the project alignment in the Antelope Valley Area. The High Desert Corridor begins in the City of Palmdale in Los Angeles County and moves west into the Victor Valley Area through the incorporated cities of Adelanto, Victorville, and the Town of Apple Valley within San Bernardino County. The unincorporated areas from east to west include Sun Village and Lake Los Angeles in the Antelope Valley Area and El Mirage near the City of Adelanto in the Victor Valley Area.

**Table 4.2.A** identifies the census tracts that define the project study area for the years 1990, 2000 and 2010.

**Table 4.2.A - List of Study Area Census Tracts, 1990-2010**

1990	2000	2010
<b>Los Angeles</b>		
9001	9001.01	9001.02
9100	9001.02	9001.04
9101	9100	9100.01
9102	9101	9101.01
9105	9102.01	9102.01
9106	9105.02	9105.02
	9106.01	9106.01
		9800.04
<b>San Bernardino</b>		
91.02	91.02	91.10
91.04	91.04	91.14
97.04	97.08	91.16
97.05	97.12	91.17
97.06	97.13	97.08
99.01	97.14	97.12
117	99.01	97.13
121	117	97.14
	121	99.05
		117
		121.01
		121.04
		9802

Source: U.S. Bureau of the Census, 1990, 2000 and 2010

Figure 4.2.A – Economic Analysis Study Area

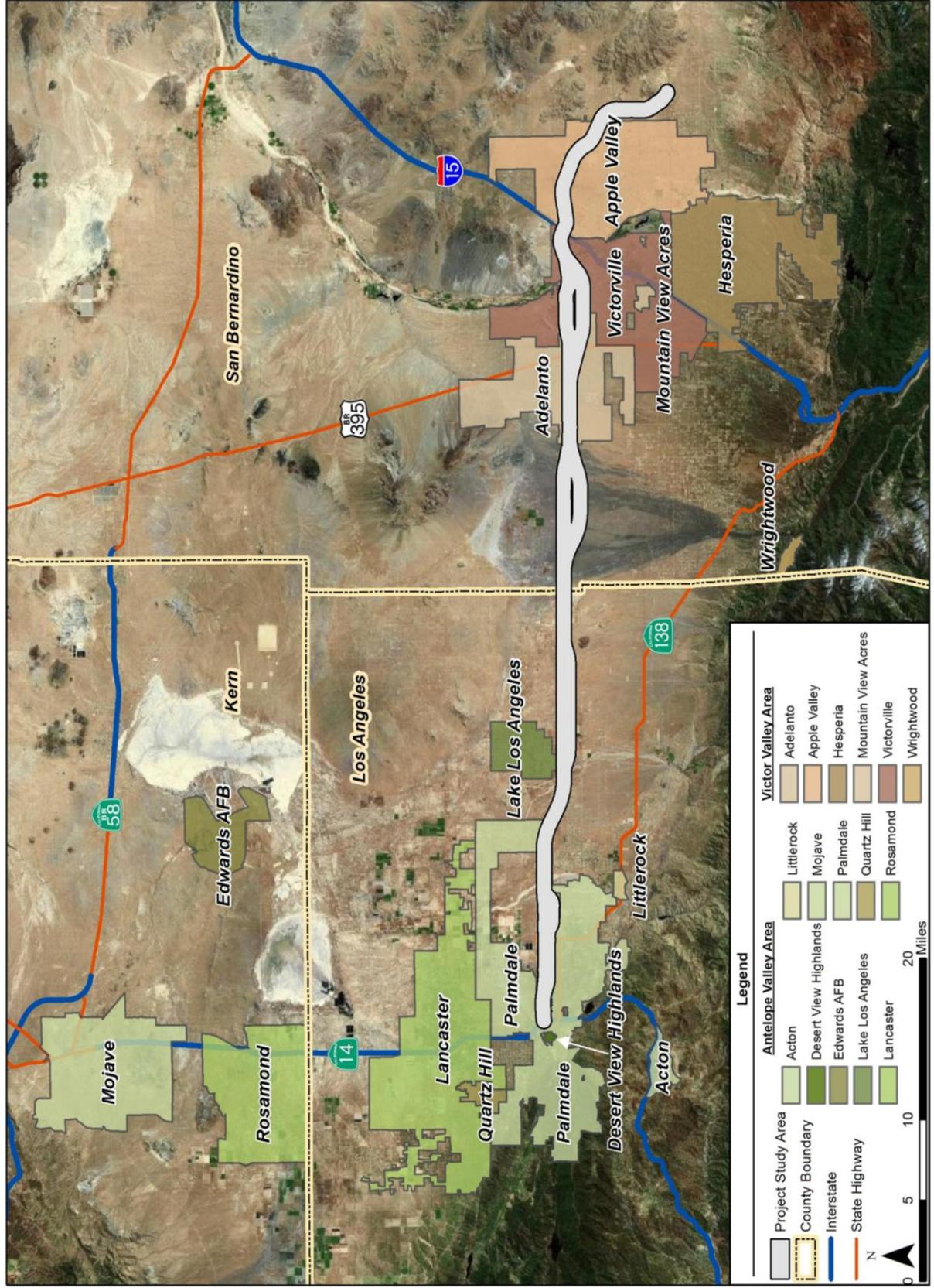
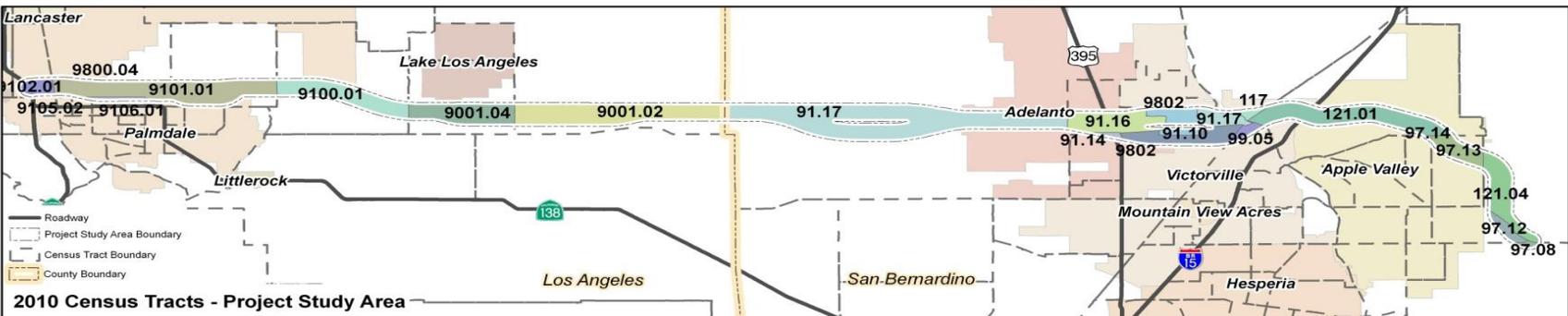
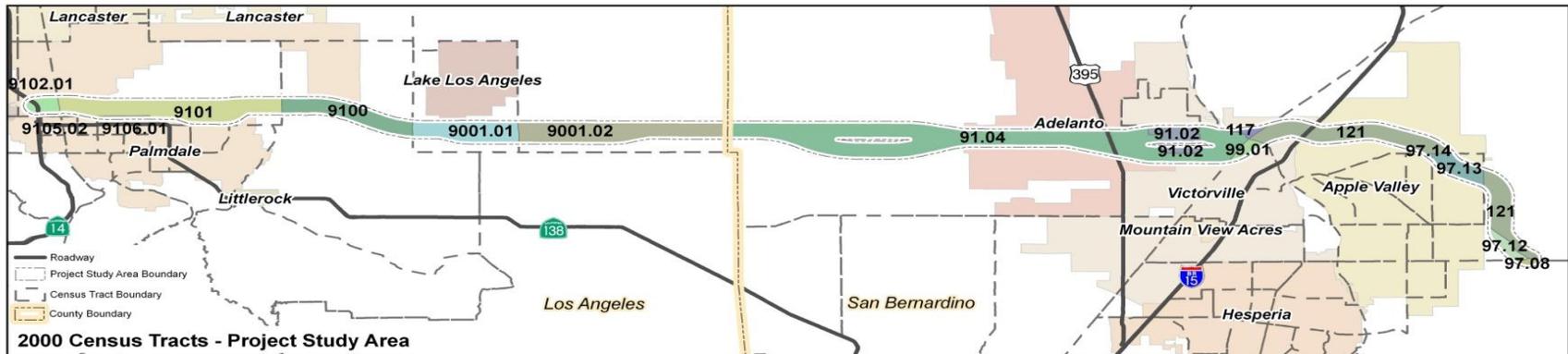
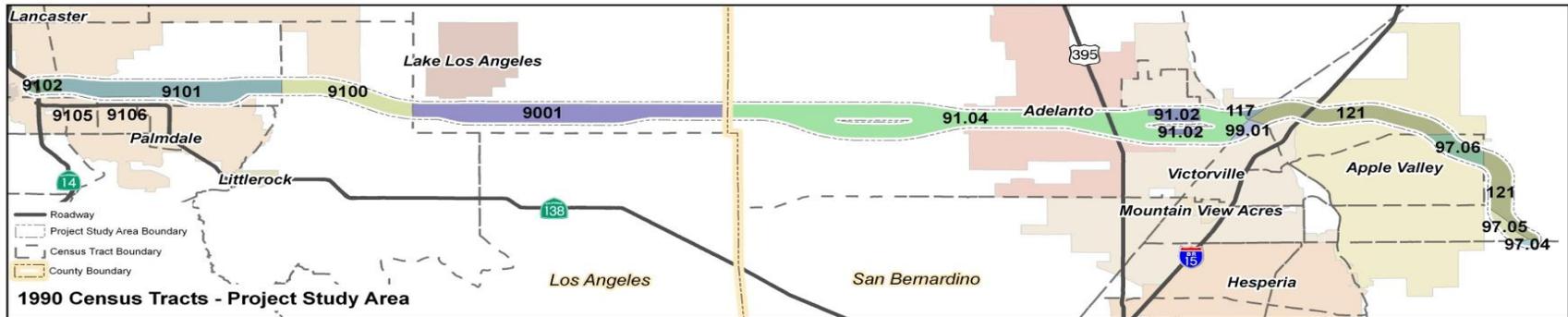


Figure 4.2.B – Economic Analysis Census Tracts (1990 – 2010)



## 4.2.1 Affected Environment

### *Antelope Valley Area*

The Greater Antelope Valley is approximately 2,500 square-miles according to the Economic Roundtable Report (2011) prepared by the Greater Antelope Valley Economic Alliance. In 2010, the entire Greater Antelope Valley area had an estimated 486,1412 residents. Approximately 368,407 or 76 percent of the total population resides within the Antelope Valley Area, primarily in the cities of Palmdale and Lancaster. Other communities within the Antelope Valley include Lake Los Angeles, Sun Village, Pearblossom, and Llano. Approximately 56 percent of the Antelope Valley Area population has a high school diploma while 27 percent have a higher degree. Almost half of the Antelope Valley Area labor force works in manufacturing, retail trade, educational services, and health care/social assistance positions. The average mean commute time is approximately 35 minutes. A large majority of the labor force travels to Lancaster and Palmdale. Commuters traveling to the greater Los Angeles area for employment have a commute time of over an hour. According to SCAG's Profile Reports that were prepared for the SCAG districts, the average commute time to work is presented in **Table 4.2.1.A** below.

**Table 4.2.1.A - Average Commute Time for Workers in the Project Area (year 2010)**

City/Community	Commute Time (minutes)
Victorville	34
Adelanto	38
Apple Valley	32
Lancaster	33
Palmdale	46
Unincorporated area of LA County	N/A
Unincorporated area of San Bernardino County	N/A

Source: Profiles for the cities of Victorville, Adelanto, Apple Valley, Lancaster, and Palmdale. Southern California Association of Governments' (SCAG) Regional Council, 2010

Commute patterns include travel north/south on State Highway 14 toward greater Los Angeles, and east/west on State Highway 138 and 58. These highways connect to the Inland Empire and California's Central Valley. The Antelope Valley regional economy is also served by two airports; the General William J. Fox Airfield located in Lancaster and the Palmdale Airport in the City of Palmdale.

The unemployment rate in the Antelope Valley Area has increased since 2007, from 6.1 percent to 13.7 percent in 2010, which is higher than the State of California's average of 12.4 percent for August 2010 (California Employment Development Department, 2010). The high unemployment

<sup>2</sup> Based on zip code areas as seen in the Antelope Valley Labor Market Study (2010)

rate for the Antelope Valley Area is primarily due to a recession in construction-related industries and a drop in local retail sales. An increase in the work force population has led to a federally designated Labor Surplus Area for many portions of the Antelope Valley Area.

### *Victor Valley Area*

The Victor Valley Area includes the cities of Adelanto and Victorville, the Town of Apple Valley, City of Hesperia, and the community of Mountain View Acres. The 2010 Victor Valley Area population was 314,631, with Victorville being the largest city with approximately 115,903 residents, or 37 percent of the Victor Valley Area population. The Victor Valley Area population has increased by 53 percent from 2000 to 2010. The cities of Victorville and Adelanto contributed the largest population increase with an 81 percent and 75 percent change in population respectively.

In 2000, approximately 77 percent of the Victor Valley Area population had a high school diploma and 19 percent held a higher degree. Similar to the Antelope Valley Area, almost half of the Victor Valley Area labor force works in manufacturing, retail trade, educational services, and health care/social assistance positions. Most of the Victor Valley Area residents work in the area, resulting in an average commute time of approximately 36 minutes. Commuters travel north/south on Interstate 15 and State Highway 395 through the Victor Valley Area and east/west on Palmdale Road, which connects to State Highway 138.

The Victor Valley Area is also considered a prime regional area for growth in logistics and solar manufacturing. The Southern California Logistics Airport is part of Global Access, a public/private partnership with Stirling and the City of Victorville to develop an 8,500-acre multimodal freight transportation hub. Global Access will be the largest fully integrated commercial development in the region and is planned to include three divisions, the Logistics Airport, the Southern California Logistics Centre, and Southern California Rail Complex. Besides the Southern California Logistics Airport located in the City of Victorville, there is also the Apple Valley Municipal Airport located in the Town of Apple Valley.

### *Project Study Area*

The largest incorporated cities within one-half mile from the centerline of the project study area include the City of Palmdale in the Antelope Valley Area followed by the City of Victorville in the Victor Valley Area. The 2010 census populations for the cities of Palmdale and Victorville are 152,750 and 115,903 respectively. The majority of development in the project study area is centered towards the western and eastern ends of the project alignment, with more rural development between the cities of Palmdale and Adelanto. The average commute time for the

project study area residents is approximately 38 minutes. Commuters travel north/south on State Highway 18 and 138. The primary east/west route in proximity to the project alignment is Pearblossom Highway, which eventually turns into Palmdale Road. This roadway is located approximately 4 miles south from the centerline of the proposed High Desert Corridor alignment. The Southern California Logistics Airport, two golf courses, manufacturing and industrial services, as well as small retail and auto dealerships, are located within the project study area.

## Employment and Income

### *Employment*

For the Antelope Valley Area the major employment centers are the Antelope Valley Mall, Air Force Plant 42, and Edwards Air Force Base. Together these centers employ 29,644 employees or 25 percent of the Antelope Valley Area labor force population. The aerospace industry is represented by Scaled Composites, Boeing, Lockheed Martin, and Northrop Grumman. Two military bases are within the Greater Antelope Valley; the Edwards Air Force Base located north of Lancaster near the border of Kern and Los Angeles County, and the China Lake Naval Reserve near Ridgecrest Street. Edwards Air Force base is located within this regional study area and has slightly over 10,610 employees of which 80 percent are civilians. Lancaster and Palmdale also have several business and industrial parks including Fox Field Industrial Corridor (5,000 acres) in Lancaster and Palmdale Trade & Commerce Center (746 acres) in the City of Palmdale.

For the Victor Valley Area the major employment centers are the Southern California Logistics Airport (located on the former George Air Force Base), the Wal-Mart Distribution Center, and Apple Valley Unified School District. There is also a large industrial base in Victor Valley due to the availability and relatively affordable prices for land. The Southern California Logistics Airport employs 2,073 people, the Apple Valley Unified School District employs 1,705 people, and the Wal-Mart distribution center employs 1,100 people. Together these employment centers account for 6 percent of the labor force population.

Based on the California Employment Development Department, **Table 4.2.1.B** shows that the unemployment rate for both areas has increased significantly over the past four years with the largest increase occurring since 2000. The 2010 unemployment rates for both the Antelope Valley Area (15.0 percent) and Victor Valley Area (13.9 percent) are higher than the State of California's (12.4 percent). Los Angeles County and San Bernardino County have 2010 unemployment rates of 12.6 and 14.2 percent respectively. For the Antelope Valley Area the community with the lowest unemployment rate has historically been Acton with the highest being Lake Los Angeles. For the Victor Valley Area the community of Mountain View Acres

has historically had the lowest unemployment rate with Adelanto being the highest. The California Employment Development Department does not have unemployment information at the census tract level and unemployment rates can only be summarized for the Antelope Valley and Victor Valley Areas accordingly.

**Table 4.2.1.B - Annual Unemployment Rate**

Jurisdiction	Year 2000	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Average
Antelope Valley Area	6.9%	6.4%	6.8%	9.3%	14.0%	15.0%	9.7%
Victor Valley Area	5.0%	5.0%	5.8%	8.3%	13.3%	13.9%	8.6%
Project Study Area	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: EDD 2011, <http://www.labormarketinfo.edd.ca.gov/>

### *Median Household Income*

The U.S. Census Bureau defines median household income as the amount of income in the middle of the overall income distribution, based on all households in the geographical area. A household is comprised of everyone occupying a housing unit regardless of relationship. For the United States the median household income was \$42,148 in 2000. **Table 4.2.1.C** represents the range of median household incomes for the regional study area and project study area based on the 1990 and 2000 U.S. Census information. 2010 U.S. Census Information for median household income has not yet been released for all census tracts located in the project study area. The Antelope Valley Area has a larger range for median household income compared to the Victor Valley Area, which could be due to the larger geographical area and the larger population. For the Antelope Valley Area, the highest median household income is found in the community of Acton and the lowest is in the community of Mojave for 2000. For the Victor Valley Area, the highest median household income is found in the community of Wrightwood and the lowest is in Adelanto for 2000. **Table 4.2.1.C** below shows the distribution of median household income within the regional and project study areas. The project study area distribution is based on the census tracts located within a half mile of the project alignment.

**Table 4.2.1.C - Median Household Income**

	Regional Study Area		Project Study Area
	<i>Antelope Valley Area</i>	<i>Victor Valley Area</i>	
<b>2000</b>			
Median Household Income	\$24,761-\$63,156	\$31,594-\$50,338	\$26,905-\$51,583
<b>1990</b>			
Median Household Income	\$25,500-\$52,416	\$18,835-\$43,882	\$18,350-\$51,346

Source: U.S. Census Bureau, Census 1990 and 2000, Summary File 3

As shown in **Figure 4.2.1.A**, the census tract with the highest income is found in Los Angeles County. The majority of the study area census tracts fall within the \$30,000-\$39,000 range for median household income, there are three census tracts above that range and four census tracts below.

### *Per Capita Income*

The U.S. Census Bureau derives per capita income by dividing the total income of all people 15 years old and over in a geographic area by the total population in the area, including people less than 15 years of age. Per capita income is typically reported in units of currency per year and is often used as a measurement to determine the wealth of a selected population. The per capita income for the United States in 2000 was \$21,893.

**Table 4.2.1.D** represents the per capita income for the regional and project study areas based on the 1990 and 2000 U.S. Census information. 2010 U.S. Census Information for per capita income has not yet been released for the census tracts located in the project study area.

For the Antelope Valley Area, in 2000, the community of Acton had the highest per capita income at \$26,810 and the community of Mojave had the lowest at \$12,477. The two largest cities, Palmdale and Lancaster, had per capita incomes of \$16,384 and \$16,935 respectively. For the Victor Valley Area the community of Wrightwood had the highest per capita income at \$22,902 and the City of Adelanto had the lowest at \$10,053.

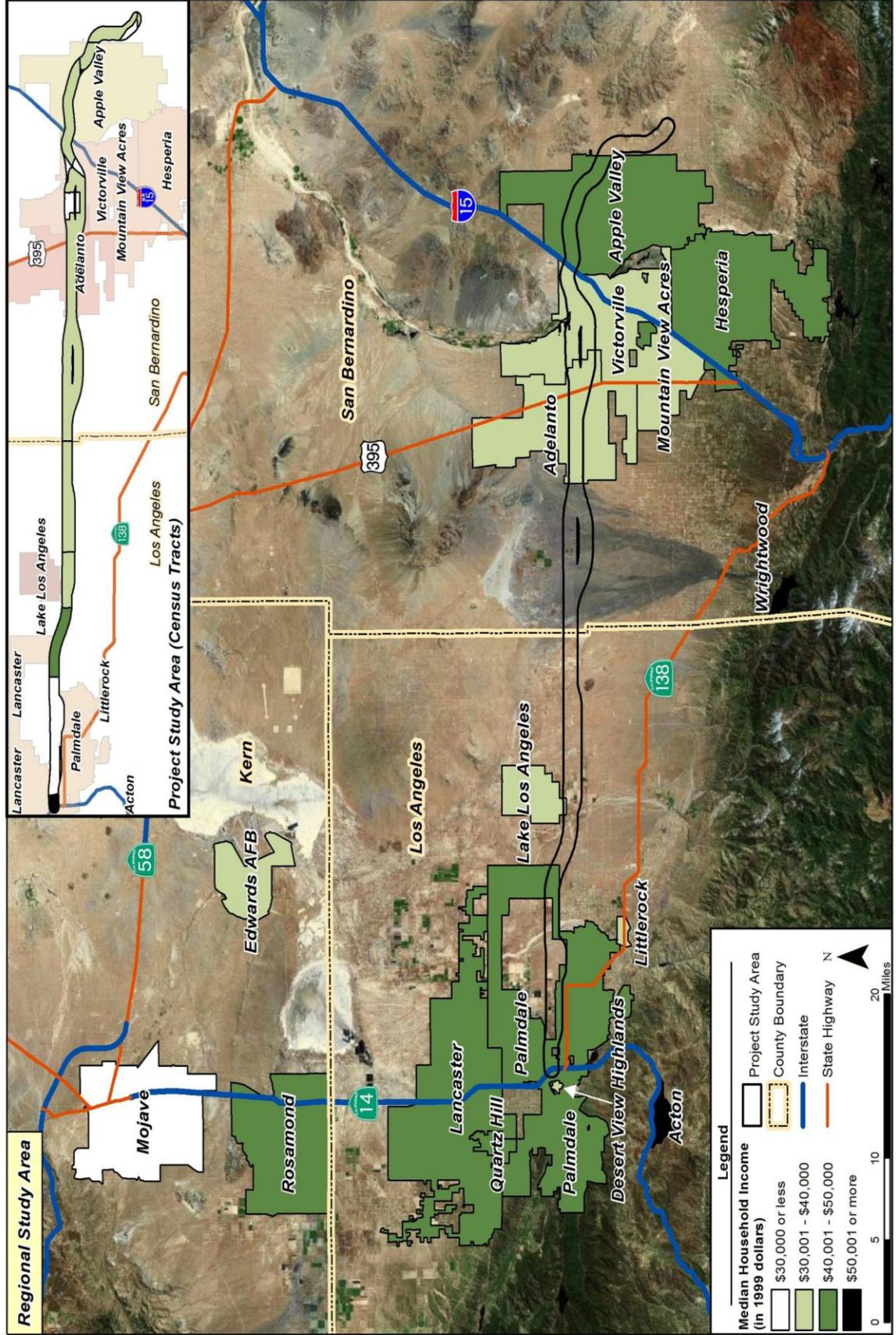
**Table 4.2.1.D - Per Capita Income**

Subject	Regional Study Area		Project Study Area
	Antelope Valley Area	Victor Valley Area	
<b>2000</b>			
Per Capita Income	\$16,879	\$16,162	\$15,501
<b>1990</b>			
Per Capita Income	\$13,804	\$12,911	\$11,610

*Source: U.S. Census Bureau, Census 2000 and 1990, Summary File 3*

The per capita income is also distributed somewhat evenly throughout the study area with high and low per capita incomes reported for census tracts in both Los Angeles and San Bernardino County. In 2000, the census tract with the highest per capita income was tract 9102.01 in Los Angeles County at \$25,385 followed by tract 91.02 in San Bernardino County at \$22,521. The lowest per capita incomes were Los Angeles County census tract 9105.02 at \$10,485 and San Bernardino County census tract 91.04 at \$10,906.

Figure 4.2.1.A - Median Household Income for the Regional and Project Study Areas



*Labor Force Characteristics*

Information from the 2010 U.S. Census Information for labor force characteristics has not yet been released for the census tracts located in the project study area. According to the 2000 census, the Antelope Valley Area had a population of 290,406 with a labor force of 119,608 persons, which was approximately 67 percent larger than the Victor Valley Area (See **Table 4.2.1.E**).

**Table 4.2.1.E - Labor Force Characteristics - 2000 U.S. Census**

Subject	Regional Study Area		Project Study Area
	Antelope Valley Area	Victor Valley Area	
<b>EMPLOYMENT STATUS</b>			
Population 16 years and over	100% (196,215)	100% (144,075)	100% (70,347)
In labor force	61% (119,608)	56% (80,574)	55% (38,347)
Civilian labor force	60% (116,749)	56% (80,376)	54% (38,219)
Employed	53% (104,601)	50% (72,475)	47% (33,380)
Unemployed	6% (12,254)	5% (7,901)	7% (4,839)
Percent of civilian labor force	10%	8%	13%
Armed Forces	1 (2,859)	0.1% (198)	0.2% (128)
Not in labor force	39% (76,607)	44% (63,501)	45% (32,000)
<b>OCCUPATION</b>			
Management, professional, and related occupations	30%	26%	23%
Service occupations	17%	16%	17%
Sales and office occupations	27%	26%	25%
Farming, fishing, and forestry occupations	0%	0%	0.6%
Construction, extraction, and maintenance occupations	12%	14%	16%
Production, transportation, and material moving occupations	14%	18%	18%
<b>INDUSTRY</b>			
Agriculture, forestry, fishing and hunting, and mining	1%	1%	2%
Construction	7%	8%	8%
Manufacturing	14%	10%	12%
Wholesale Trade	2%	3%	3%
Retail Trade	13%	14%	13%
Transportation and warehousing, and utilities	6%	9%	8%
Information	4%	2%	3%
Finance, insurance, real estate, and rental and leasing	5%	5%	5%
Professional, scientific, management, administrative, and waste management services	8%	6%	8%
Educational, health and social services	21%	22%	20%
Arts, entertainment, recreation, accommodation and food services	8%	7%	7%
Other services (except Public Administration)	5%	6%	7%
Public Administration	7%	6%	5%
<b>CLASS OF WORKER</b>			
Private wage and salary workers	73%	72%	73%
Government workers	21%	19%	18%
Self-employed workers in own not incorporated business	6%	8%	8%
Unpaid family workers	0%	0%	0%

Source: U.S. Census Bureau, Census 2000, Summary File 3

## Business Activity and Fiscal Conditions

As described in the land use section, a variety of residential, industrial, agricultural and commercial land uses are found within the project study area. Businesses are primarily concentrated at the west and east ends of the project study area, with few business located in the center portion. In the City of Palmdale there are several establishments, smaller businesses, and retail shops located within the project study area near the intersections of State Highway 14/Technology Drive and 30th Street/Avenue Q, and along Palmdale Boulevard. Near the eastern portion of the project study area, a majority of business activity occurs along State Route 18 within the limits of the City of Victorville and the Town of Apple Valley. Other major businesses exist around the California Logistics Airport located in the City of Victorville, as well as along State Route 395 and Air Expressway.

According to the U.S. Census Bureau Economic data for 2007, the highest concentration of business establishments, with the highest sales and employees, is in the areas of retail trades for the cities of Lancaster, Palmdale, and Victorville. The highest concentration for the City of Adelanto is in the area of manufacturing. The City of Palmdale has the highest concentration of manufacturing establishments followed by the City of Victorville. Healthcare and social assistance employment has the highest concentration in the City of Lancaster followed by the City of Victorville. The City of Lancaster has by far the highest concentration of wholesale trade.

**Table 4.2.1.F - City of Lancaster Economic Census-Types of Business (2007)**

Business Type	Number of establishments	Sales, shipments, receipts (\$1,000)	Annual Payroll (\$1,000)	Number of Employees
Manufacturing	56	258,596	50,217	1,192
Wholesale trade	65	928,561	40,083	905
Retail trade	343	1,754,369	156,492	6,023
Information	29	N/A	14,790	407
Real estate, rental & leasing	116	114,772	17,774	654
Professional, scientific, & technical services	146	85,508	31,331	943
Administrative, support, waste management & remediation services	100	94,833	47,424	1,992
Educational services	21	17,632	8,150	324
Health care & social assistance	410	1,033,585	357,113	8,845
Arts, entertainment & recreation	20	Info withheld	Info withheld	100 - 249
Accommodation & food services	222	178,112	45,912	3,733
Other services (except public administration)	171	88,906	23,468	987

Source: U.S. Bureau of the Census, 2007 Economic Census

**Table 4.2.1.G - City of Palmdale Economic Census-Types of Business (2007)**

Business Type	Number of establishments	Sales, shipments, receipts(\$1,000)	Annual Payroll (\$1,000)	Number of Employees
Manufacturing	44	1,277,866	342,463	5,026
Wholesale trade	34	51,252	8,051	259
Retail trade	314	1,670,400	163,176	7,319
Information	26	N/A	26,337	631
Real estate, rental & leasing	119	65,984	10,526	591
Professional, scientific, & technical services	109	171,506	53,732	1,048
Administrative, support, waste management & remediation services	76	106,056	28,478	877
Educational services	17	8,300	2,198	214
Health care & social assistance	177	147,223	54,326	1,550
Arts, entertainment & recreation	15	13,833	4,524	306
Accommodation & food services	177	181,925	50,523	3,649
Other services (except public administration)	117	50,538	12,786	656

Source: U.S. Bureau of the Census, 2007 Economic Census

**Table 4.2.1.H - City of Adelanto Economic Census-Types of Business (2007)**

Business Type	Number of establishments	Sales, shipments, receipts (\$1,000)	Annual Payroll (\$1,000)	Number of Employees
Manufacturing	43	385,847	71,887	1,829
Wholesale trade	5	25,219	2,299	48
Retail trade	13	52,183	5,031	205
Information	2	N/A	Info withheld	0 - 19
Real estate, rental & leasing	10	2,002	313	21
Professional, scientific, & technical services	5	4,695	1,569	46
Administrative, support, waste management & remediation services	5	26,031	5,792	158
Educational services	5	Info withheld	Info withheld	20 - 99
Health care & social assistance	4	Info withheld	Info withheld	20 - 99
Arts, entertainment, & recreation	16	8,924	2,190	143
Accommodation & food services	7	Info withheld	Info withheld	20 -99
Other services (except public administration)	43	385,847	71,887	1,829

Source: U.S. Bureau of the Census, 2007 Economic Census

**Table 4.2.1.I - City of Victorville Economic Census-Types of Business (2007)**

Business Type	Number of establishments	Sales, shipments, receipts(\$1,000)	Annual Payroll (\$1,000)	Number of Employees
Manufacturing	31	501,830	60,341	1,272
Wholesale trade	39	169,866	10,997	217
Retail trade	372	1,939,517	173,102	7,457
Information	39	N/A	61,311	1,637
Real estate, rental & leasing	93	92,848	19,935	711
Professional, scientific, & technical services	105	Info withheld	Info withheld	500 - 999
Administrative, support, waste management & remediation services	74	97,892	44,552	1,718
Educational services	10	3,315	1,262	93
Health care & social assistance	192	418,196	148,683	4110
Arts, entertainment & recreation	15	Info withheld	Info withheld	100 - 249
Accommodation & food services	199	181,981	49,864	3,777
Other services (except public administration)	118	98,988	20,084	799

Source: U.S. Bureau of the Census, 2007 Economic Census

**Table 4.2.1.J** presents information on the area's actual or projected property and sales taxes for the fiscal years 2011-2012, and 2012-2013. The information indicates that property tax has dropped in fiscal year 2012-2013 in all the study areas except in the City of Adelanto and Town of Apple Valley. However, Table 4.2.1.K indicates that the median home sale price in fiscal year 2009-2010 shifted direction to increase at various rates in all of the cities within the project area except for the City of Lancaster. The trend for home sale prices, as presented in the SCAG's profile reports for cities and communities within the study area, shows that prices reached a level that is equivalent to the early 2000s in 2009-2010.

**Table 4.2.1.J - Project Area Property and Sales Taxes**

Area	Palmdale	Adelanto	Victorville	Apple Valley	Los Angeles County	San Bernardino County
Property Taxes 2011-2012	\$14,730,451	\$163,602 6/30/2011 (Actual)	\$14,155,987 (Actual)	\$2,049,373 (Actual 2010-2011)	\$3.856 Billion (Actual)	\$437,229,797 (Final Budget)
Sales Taxes 2011-2012	\$5,233,894	\$1,108,034 6/30/2011 (Actual)	\$11,426,814 (Actual)	\$3,819,221 (Actual 2010-2011)	\$38.798 Million	\$21,987,645 (Actual)
Property Taxes 2012-2013	\$14,139,470 (Projected)	\$190,000 (Budget)	\$14,237,500 (Budget)	\$2,300,000 (Adopted)	\$3.872 Billion (adopted)	\$432,797,066 (adopted)
Sales Taxes 2012-2013	\$15,812,000 (Projected)	\$1,144,459 (Budget)	\$13,127,909 (Budget)	\$4,068,000 (Adopted)	\$36.225 Million (adopted)	\$19,546,685 (adopted)
Property Tax % Change	-4.01%	+16.14%	-.58%	+12.23%	-6.63%	-1.01%

Source:

City of Adelanto Finance Department. FY2012-2013 Annual Budget. Adelanto, California. June 13, 2012.

City of Victorville. Annual Budget Fiscal Year 2012-2013. Victorville, California. September 18, 2012.

City of Palmdale. Revenue 2012-2013 Annual Budget. Palmdale, California. July 18, 2012.

County of Los Angeles. 2013-2013 Final Budget. Los Angeles, California. June 26, 2012.

County of San Bernardino. Adopted Budget 2012-2013. San Bernardino County, California. June 2012.

Town of Apple Valley. Adopted Budget Fiscal Year July 1, 2012 - June 30, 2013. Apple Valley, California. June 12, 2012.

**Table 4.2.1.K - Median Existing Home Sale Priced and Price Change for Cities in the Project Area**

	2010 Median Existing Home Sales Price (\$)	2009 - 2010 Median Home Sales Price Change
Town of Apple Valley	116,000	5.5%
City of Victorville	121,000	3.4%
City of Lancaster	130,000	-38.1%
City of Palmdale	150,000	11.1%
City of Adelanto	88,000	3.5%

*Source: Profile Reports, Southern California Association of Governments, May 2011*

## 4.2.2 Environmental Consequences

### No Build Alternative

The No Build alternative includes projects that are planned and included in the current Regional Transportation Plan. These projects consist of improvements of the existing facilities, and most likely will not affect access, or cause any change to the regional and local economic conditions as of such impacts under the No Build Alternative are not anticipated.

### **Regional Economy**

#### Freeway/Expressway Alternative

This alternative would improve mobility at the local and regional levels, and provide safer travel conditions. Several new interchanges will be constructed as part of this alternative. The interchanges will maintain access points of the present roadway system; however, the proposed interchanges would provide improved facilities that enhance mobility and connectivity along the corridor. The improved mobility, connectivity, and safety conditions are expected to have a positive impact on the overall economic conditions at the local and regional levels. Specifically, access between the Palmdale Regional Airport on one side, and the Southern California Logistics Airport and Interstate 15 in Victorville on the other side, would be improved by providing a direct connection between the two areas which may be considered beneficial because it will improve mobility and connectivity between the two airport facilities.

Design variations to this alternative avoid and minimize impacts to various businesses, including the airport facilities and land designated for future airport facility development. The variations also avoid and minimize impacts to farmland and associated businesses. According to the FRIR (2015), several commercial, industrial and agricultural establishments will be acquired to provide the needed right-of-way for the construction of the project (See Section 4.4 Relocation, for additional details). The report indicates that a sufficient number of properties are available for

lease; purchase and development are available within similar locations in the communities where these businesses are located. These impacted businesses will be provided with compensation and relocation assistance as required by law. As a result, it is not anticipated that the relocation of businesses would have negative impacts on the regional economy. Furthermore, the construction related employment and procurement associated with the Project would have a positive incremental gain to the local and regional economy.

#### Freeway/Tollway Alternative

This alternative follows the same physical alignment as that of Freeway/Expressway Alternative, including variations. Under this alternative, sections of the facility that are outside the limits of the Cities of Palmdale and Victorville would operate as a tollway. Details of this operating feature are still being evaluated as part of the ongoing Public-Private Partnership analysis. The incorporation of green energy technologies and a bike path will also be considered as part of this alternative. Direct impacts on business development may vary depending on the operational features of the tollway, but variations from the main alignment are not expected to be substantial. It is anticipated that this alternative would have similar impacts on the economy at the local and regional levels as those of the Freeway/Expressway Alternative.

#### Freeway/Expressway Alternative with High Speed Rail Feeder Service

This alternative includes an HSR element with one new rail stations at Palmdale. Rail service would contribute further to the regional and interregional connectivity. The HSR within the project area would eventually connect the project area with the northern and southern regions of the state, and with Las Vegas and Nevada through the XpressWest. Major transportation centers would be constructed in Palmdale and Victorville to accommodate highway and HSR travel, as well as transit and nonmotorized travel. This alternative would create opportunities for growth of the local and regional economy through the potential jobs which may create as a result with the increased development and growth which may occur with increased mobility and connectivity.

#### Freeway/Tollway Alternative with High Speed Rail Feeder Service

It is anticipated that this alternative would have similar effects on the local and regional economy as the Freeway/Expressway Alternative with High Speed Rail Feeder Service alternative.

### **Employment and Income**

#### All Build Alternatives

Major employers in the region include several military bases, aerospace industries, logistic airports and distribution centers, and other business and industrial parks. All project alternatives

would improve mobility and goods movement, and would increase the viability of the project area as a base for such economic activities. All of the build alternatives include an element of the freeway/expressway, freeway/tollway, and/or HSR, in which either one these elements per the purpose and need of the project will improve access and connectivity between transportation systems. The HDC Project build alternatives would construct freeway-to-freeway “system” interchanges at I-15 and SR-14, local “service” interchanges at north–south crossings of arterial streets, grade separations (i.e., overcrossings or undercrossings) of local streets having no freeway access, and at-grade, traffic signal-controlled intersections along the expressway portion of the project east of Dale Evans Parkway. The locations of the interchanges, grade separations proposed for initial construction, and at-grade signalized intersections currently proposed as part of the HDC build alternatives are illustrated in Figure 3.1.6-5 in Chapter 2 (Project Alternatives).

Construction of the HDC Freeway/Expressway or Freeway/Tollway, with or without High Speed Rail in the median, would potentially sever many primarily north–south running local roads that are planned for future development. Some of these restrictions may temporarily slow development of vacant parcel sites or hamper access to current industrial and other business operations, and hence employment opportunities, but this appears to be unlikely the case. For the most part, these severed roads are “paper streets,” appearing on tract maps and which are located in relatively undeveloped areas between Palmdale and Victorville. Local roads running parallel to the HDC would provide access to north–south roads identified for interchanges or grade separations. A controlled-access Freeway/Tollway would have fewer access points with the local roadway network. The HDC would include interchanges to service local access needs will be located at intervals of 1 to 5 miles between SR-14 in Los Angeles County and approximately 3 miles east of I-15 in San Bernardino County. As roundabouts have become more popular with communities as a context sensitive solution, Caltrans would reserve the future right of way to design and build roundabouts at a number of on-off ramp interchange locations, including Longview Road/140<sup>th</sup> Street; 170<sup>th</sup> Street; 210<sup>th</sup> Street; 240<sup>th</sup> Street; Oasis Road; Sheep Creek Road; Caughlin Road; Koala Road; and Choco Road.

If the Freeway/Tollway Alternative were to be implemented, some redistribution of traffic is anticipated to occur, though that traffic would be expected to go on the closest east-west major parallel arterial rather than into more circuitous routes into neighborhoods.

Final designs would be optimized after extensive community involvement with the objective of providing the appropriate access points throughout the Freeway/Tollway segment, while maintaining the overall integrity of the system. Input from the affected communities will also be used to assist in identifying other specific mitigation measures.

## **Business Activity and Fiscal Conditions**

### Freeway/Expressway Alternative and Freeway/Tollway Alternative

According to this alternative, the Project alignment is located approximately 1-2 miles north of Palmdale Boulevard in the City of Palmdale, and State Route 18 in the City of Victorville and Town of Apple Valley. Several small businesses such as restaurants, gas stations convenience stores, and offices are located along these two major local roads. There is the potential that a change in traffic patterns as a result of the construction of the new facility would affect businesses along these local roadways by reducing proximity and visibility to users. Such potential traffic pattern changes may include a reduction in the use of local arterials as result of the construction of the new facility. Impacts associated with a reduction in pass-by vehicular traffic can vary according to the type of business involved. A destination business is often unaffected or in some cases even positively affected by reduced through traffic, whereas a convenience or impulse business relies to a greater degree on pass-by traffic (i.e., drivers stopping at a business on their way to another primary destination); therefore, it may be more adversely affected. For example, according to the Institute of Transportation Engineers, *Trip Generation Handbook*, pass-by traffic generates, on average, only 36 percent of business activity of a supermarket, while a fast-food restaurant with a drive-up window may derive up to almost half of its business from pass-by traffic. In contrast, a tire store draws only about 25 percent of its customers from pass-by traffic. In other words, some purchases are made somewhat on impulse and others are more deliberate; therefore, some types of businesses are more likely to be impacted by changes in proximity and visibility. The potential loss of business from pass-by drivers who are less likely to patronize a particular establishment, because it is no longer as easy a stopping point or is no longer visible, cannot be precisely quantified in advance; however, sufficient studies have been conducted to allow for some generalizations.

Businesses that largely cater to nearby residents, such as drug store pharmacies, banks, and grocery stores, are generally not impacted by a diversion of traffic and, in fact, some studies indicate for some such businesses, economic activity may even improve. This would also generally be true of medical services, legal services, and industrial and warehouse operations.

The potential impact is not expected to be substantial because the additional 1 to 2 miles to the businesses from the proposed HDC would not be so great an inconvenience for travelers needing to access various available services. In addition, the project would improve and maintain accessibility to these businesses by the construction of several interchanges that are directly connected to the existing roadway system. Improving traffic circulation and level of service on the local roads by providing an alternative route for intra-regional and long-distance travelers, including trucks, would also encourage nearby residents to utilize the local roads for their

business trips because of reduced congestion and improved traffic conditions. Additional measures, such as placing informational signs at strategic locations on the new facilities, would encourage non-local traffic to utilize local businesses. Such businesses could include hotels/motels, restaurants, gas stations, and convenience stores.

For the Freeway/Tollway Alternative, the middle sections of the facility that are outside the city limits of Palmdale and Victorville would operate as a tollway. Depending on the operational features of the tollway, direct impact on business development of the Freeway/Tollway Alternative may vary slightly. Details of the operating features are still being evaluated as part of the ongoing public-private partnership (PPP) analysis but variations from the main alignment are not expected to be substantial. It is not highly likely that a business enterprise will make a decision on where to place its facilities solely on the presence or absence of a tollway, but as one report found, “Simply the savings in travel time for the on-the-clock employees (e.g., sales people, truck drivers, delivery people, etc.) along with the decreased use of expensive fuel clearly provide bottom-line benefits for businesses, particularly small businesses” (Law and Economics Consulting Group, 2006); nor are most employees likely to eschew an employment opportunity if it meant a tollway was part of the transportation corridor route needed to get to their job.

One effect of instituting a tollway system may be a diversion of passenger car and truck traffic off of the roadway prior to entering the tolled facility and onto the nearby local roadway system to avoid paying tolls. This would have the potential effect of creating more pass-by traffic for local businesses. A tollway may also impact business access by physically preventing vehicles from getting off (or on) at certain locations because of the need to limit the entrance/exit points of the facility to maintain efficiencies. Research studies sponsored by FHWA have shown the overall levels of retail sales in a community were not significantly affected by introduction of a new transportation corridor, nor did businesses which depend on local customers or repeat customers tend to experience a drop off in economic activity. It is anticipated therefore that the Freeway/Tollway Alternative would have similar impacts overall on the economy at the local and regional levels as those of the Freeway/Expressway Alternative.

Implementation of the project alternatives is estimated to relocate 48 commercial, industrial, nonprofit, and agricultural business establishments. Proposed Variation E to the project alignment, which is located near Victorville, is planned to avoid Victorville Federal Correctional Facility. This alignment variation would impact 14 business establishments. It is estimated that this project would affect almost 18 percent of agricultural land use in the project area. Other southern variations of this alternative are proposed to avoid impacts to existing businesses, including airports in Palmdale and Victorville and associated land uses, as well as some agricultural business and dairy facilities. Impacts due to partial acquisition that affects business

parking and other facilities would be compensated by providing replacement properties adequate for the intended use.

Direct impacts to businesses would be addressed by providing relocation and compensation benefits as required by law. (See Appendix A for Business Relocation Benefits). Under this alternative, according to the FRIR (2015) there are sufficient available replacement locations within the cities limits for commercial, industrial, and agricultural properties affected by right-of-way requirements for all alternatives. Therefore, no direct loss of business and tax revenue generation to the cities within the project study area cities or Los Angeles and San Bernardino Counties would be expected as a result of the project. A *National Business Relocation Study* sponsored by FHWA (2002), found that about 18 percent of business properties in California were not re-established after displacement due to a perceived financial hardship and another 22 percent of those businesses that were relocated closed within the first two years of operation, though the cause was not always clearly established. Relocation impacts, particularly financial impacts, tend to be more of a concern for small family-owned businesses, or businesses that cater to a specific clientele within the study area and usually not the larger industrial enterprises such as the ones more likely to be affected by the High Desert Corridor project. Therefore, though the FRIR (2015) indicated an adequate supply of comparable commercial and industrial properties is available for lease and purchase in the displacement/replacement area, one can conclude it is likely that some percentage of the properties will likely not be contributing to the local tax base following HDC project implementation. Impacts due to partial acquisition that affect business parking and other facilities will be compensated by providing replacement properties adequate for the intended use.

It is not anticipated under any of the alternatives that the displacement and relocation of businesses would have substantial impacts on the tax base and fiscal conditions for communities within the project area.

When properties are permanently acquired for new ROW, the property tax base is reduced. The removal of residences and business operations and the acquisition of ROW for the proposed action under any of the build alternatives would result in the loss of property tax revenue for the affected cities and two counties. These are considered minor in the context of overall revenue collection. As every displaced residential property will be accommodated through the Relocation Assistance Program, and residents will be provided decent, safe and sanitary and comparable housing, it is not anticipated there would be any permanent loss of property taxes to state or local county government revenue from residential displacements. However, though adequate housing stock exists in each community, prospective displacees could move from one city jurisdiction to another.

The fiscal impacts due to full acquisitions of nonresidential properties to Palmdale, Los Angeles County, and the Town of Apple Valley in San Bernardino County would be adverse, but small, based on the relatively minor amounts of full acquisitions of nonresidential properties and the wide distribution of revenue efforts among agencies. Based on the current assessed value of the private properties that would likely be fully acquired under the Freeway/Expressway Alternative, assessed valuations would be reduced by \$7.6 million in Palmdale, and \$350,000 in Apple Valley. These reductions in assessed valuation would result in a total loss of \$324,000 in annual combined property tax revenue. These numbers are preliminary and individual property appraisals will be conducted by Caltrans Right of Way once a preferred alignment is chosen. These are a worst case scenario, as most properties are expected to be re-established within their respective city or unincorporated county area.

It is anticipated that the proposed Variations to the main corridor of the Freeway/Expressway and Freeway/Tollway alternatives would result in some different impacts on businesses and fiscal conditions. Variation A would necessitate acquisition of a salvage yard at 2235 E Avenue in Palmdale. Variation E would involve full acquisitions of five additional industrial properties located in Adelanto: USA Services, Inc., Robertson Ready Mix Co., Apex Bulk Commodities, Holliday Rock Co., and Cal-Silica. Based on the estimated assessed value of the properties, Variation E would reduce assessed valuations by about \$3 million, and would result in the total loss of approximately \$8,000 in tax revenue for Adelanto were these businesses not to be re-established.

#### *Freeway/Expressway and Freeway/Tollway Alternatives with HSR Alternatives*

Fiscal impacts from the alternatives with HSR in general would be similar to the alternatives without HSR as described above, with some additional economic impacts arising from the proposed rail connection in Palmdale (including Option 1 and Option 7) and Victorville, as discussed below.

#### *Rail Connection Option 1*

Under HSR Option 11A, 1B, and 1C, there would be 5, 19, or 34 nonresidential relocations, respectively, including various commercial businesses, ranging from auto repair to storage facilities and industrial companies, including Allen Recycling, Lusk Machine Products, and 3 other industrial buildings and structures in Palmdale.

### *Rail Connection Option 7*

Option 7A, 7B, and 7C would involve relocation of 16, 14, and 35 nonresidential properties, respectively. This would include a full right of way acquisition from United Refrigeration in Palmdale.

It is anticipated that the HSR element associated with this alternative, as well as the two new stations in Palmdale and Victorville, would create opportunities for the establishment of additional businesses that would serve users of the two station facilities. These businesses would be developed in addition to the existing businesses and are not anticipated to replace any existing businesses. Rail stations generate substantial traffic and parking demand independent of surrounding land uses because they serve as transportation hubs for the greater region. Research studies sponsored by the Transportation Research Board and American Public Transportation Association, conducted on other major rail infrastructure projects seem to indicate that this project would be a catalyst for additional private development investment and increased economic opportunity and market demand as the areas around station locations become attractive for development. Visitor-serving uses, including facilities for lodging and restaurant establishments, as well as retail and commercial space for shops, are expected to be generated in areas close to new stations. The two station areas in Palmdale and Victorville would have a positive overall effect on property values and tax revenue.

### *Common to All Alternatives*

All of the Build Alternatives (main alignment, common area) would also affect sales tax revenues received by the City of Palmdale and Los Angeles County, although these effects are expected to be negligible and most of the nonresidential parcels that would be affected by the High Desert Corridor project are not involved in direct (taxable) sales. The proposed improvements in the main alignment would require the relocation of three commercial properties in Palmdale: a fast food restaurant, a florist shop and a bingo supply wholesaler. Of the three properties, only the fast food restaurant (Tommy Burger) in Palmdale would appear to generate substantial sales tax revenue from direct sales of goods and services. Based on average sales by limited-service eating places as reported in the 2012 U.S. Economic Census, the sales tax lost to the City of Palmdale through the displacement of this business would probably not exceed \$12,000. In addition, the florist shop likely does not contribute more than \$2,500 in sales tax. It is not known how much the bingo supplier is likely to contribute in local sales tax. A propane supplier in the Town of Apple Valley, also likely contributes less than \$10,000 in local sales tax.

As a result, though the tax rolls would see a reduction, and in certain jurisdictions as discussed above, there would be some further revenues lost to jurisdictions due to sales tax loss, the total

amount of anticipated combined assessed value loss associated with any of the build alternatives would be imperceptible on local government revenues.

Improving mobility and accessibility, however, would advance conditions for growth of existing businesses and foster the establishment of new businesses by allowing greater access to such establishments, which would in turn improve the tax base and overall fiscal conditions. In addition, it is anticipated that overall property values would be increased as a result of the improved economic conditions in general, but specifically the increase would occur within the economic sphere of influence or in close proximity of the proposed interchanges. The sphere of influence is considered to be within 2 miles for commercial developments and 5 miles for residential developments (see Section 3.1.2, Growth). It is anticipated that by improving mobility and overall regional economic viability of the region, overall impacts on businesses and fiscal conditions in the area would be positive as a result of this alternative.

### **Temporary Construction Effects**

Since a majority of the project would be constructed on a new alignment, it is anticipated that the project would have limited construction impacts on businesses within the populated areas. Construction activities may have impacts on business activities as a result of noise and air quality resulting from construction activities. Impact on circulation, access, and emergency services may result in the case of road closures or detours. These impacts are temporary, and can be minimized and avoided with the implementation of measures below.

### **4.2.3 Avoidance, Minimization, and Mitigation Measures**

Measures necessary to avoid and minimize impacts on business activities include the following:

- Involve low-income and minority status populations, through public outreach efforts, throughout the various phases of the project to address their concerns and needs.
- Prepare staging plan that will ensure that access to homes and businesses, in addition to parking spaces, is available at all times with minimum disruption of traffic flow and increase in delays.
- Design a public campaign through which the public is well advised of construction plans that may have impacts on traffic.
- Coordinate with the affected utility companies during the final design phase of the project to ensure that services to homes, community facilities, and businesses are not interrupted.
- Prepare a Comprehensive Transportation Management Plan (TMP) to minimize traffic inconveniences due to construction activities.
- Conform to all Caltrans construction required measures for dust control and air pollution control.
- Implement sound-control measures to minimize noise impacts during construction.

- Provide business information signage at appropriate locations on the new facility, if found necessary.

In addition, the following measure previously listed is also applicable.

- Provide relocation assistance and counseling to displaced persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation for displaced persons and businesses. All eligible displacees will be provided moving expenses. All benefits and services will be provided equitably to all relocatees without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964.

## **4.3 Community Facilities and Services**

### **4.3.1 Affected Environment**

#### **Community Facilities**

##### **Schools, Libraries and other community centers**

Community facilities along the project's proposed alignment are shown in **Figures 4.3.1.A to 4.3.1.F**, and are described below according to their location within the various communities within the project limits.

#### *City of Palmdale and Unincorporated Areas of Los Angeles County – Lake Los Angeles and Sun Village*

Two school districts provide public education for grades K through 8 and one provides education for K through 12 to the City of Palmdale and the unincorporated areas of Los Angeles County. Palmdale and Westside School Districts provide education for grades K through 8. The Antelope Valley Joint Union High School District provides high school level education. Also, within the City of Palmdale, there are two K through 12 charter schools. One public school is located within a half mile of the Project. Manzanita Elementary School is located, approximately one half mile south of the Project, at the northwest corner of East Avenue Q-4 and 35<sup>th</sup> Street East. While under the HSR alignment, R. Rex Paris High School is located within one half mile of the proposed HSR alignment, which is also a part of the Antelope Valley Union High School District.

(See **Figure 4.3.1.A**, **Figure 4.3.1.B**, **Figure 4.3.1.C**)

One library is located within the city of Palmdale, Palmdale City Library. The library is located approximately 1.0 mile south of the Project.

Three religious centers, Community Baptist Church, Church of Christ and Unity Church-Antelope Valley, were found to be within a half mile of the Project. Unity Church-Antelope Valley is the only religious center that is located within the study area of the Project. This religious center is located at the southwest corner of East Avenue P-8 and 8<sup>th</sup> Street East.

#### *City of Adelanto and Unincorporated San Bernardino County*

The Adelanto Unified School District provides public education for grades K through 12 to the City of Adelanto and the surrounding unincorporated areas of San Bernardino County. Currently, the District's facilities include six elementary schools and two middle schools. Also, there are two magnet schools within the city. One school, Adelanto Elementary, is located within a half mile of the Project.

The Adelanto Branch Library is located on the southwest corner of Bartlett Avenue and Delicious Street. The library is approximately three quarters of a mile north of the Project.

Two religious centers, Adelanto First Baptist Church and Adelanto Foursquare Church, were found to be within a half mile of the Project. Adelanto First Baptist Church is the closest to the Project. It is located approximately one-quarter mile north of the Project.

#### *City of Victorville*

Five school districts provide public education for grades K through 12 to the City of Victorville. Currently, the Districts' facilities include 10 elementary, four middle schools and three high schools. Also within the city, there are thirteen preparatory and private schools serving grades K through 12, as well as two community colleges. Two schools are located within a half mile of the Project. (See **Figure 4.3.1.D** and **Figure 4.3.1.E**)

Two libraries, Victorville Public Library and San Bernardino County Law Library, are located in the City of Victorville. Both are located approximately 3.5 miles south of the Project.

#### *Town of Apple Valley*

The Apple Valley Unified School District provides public education for grades K through 12 for the Town of Apple Valley. Currently, the District's facilities include nine elementary schools, three middle schools, two high schools and a continuation school. There is one magnet school, one charter school with two campuses, and an alternative education center, which also hosts an adult education program. None of these schools are located within a half mile of the Project. (See **Figure 4.3.1.F**).

One library, San Bernardino County Library-Apple Valley, is located within the Town of Apple Valley and is located approximately 3.0 miles south of the Project.

Figure 4.3.1.A - Community Facilities

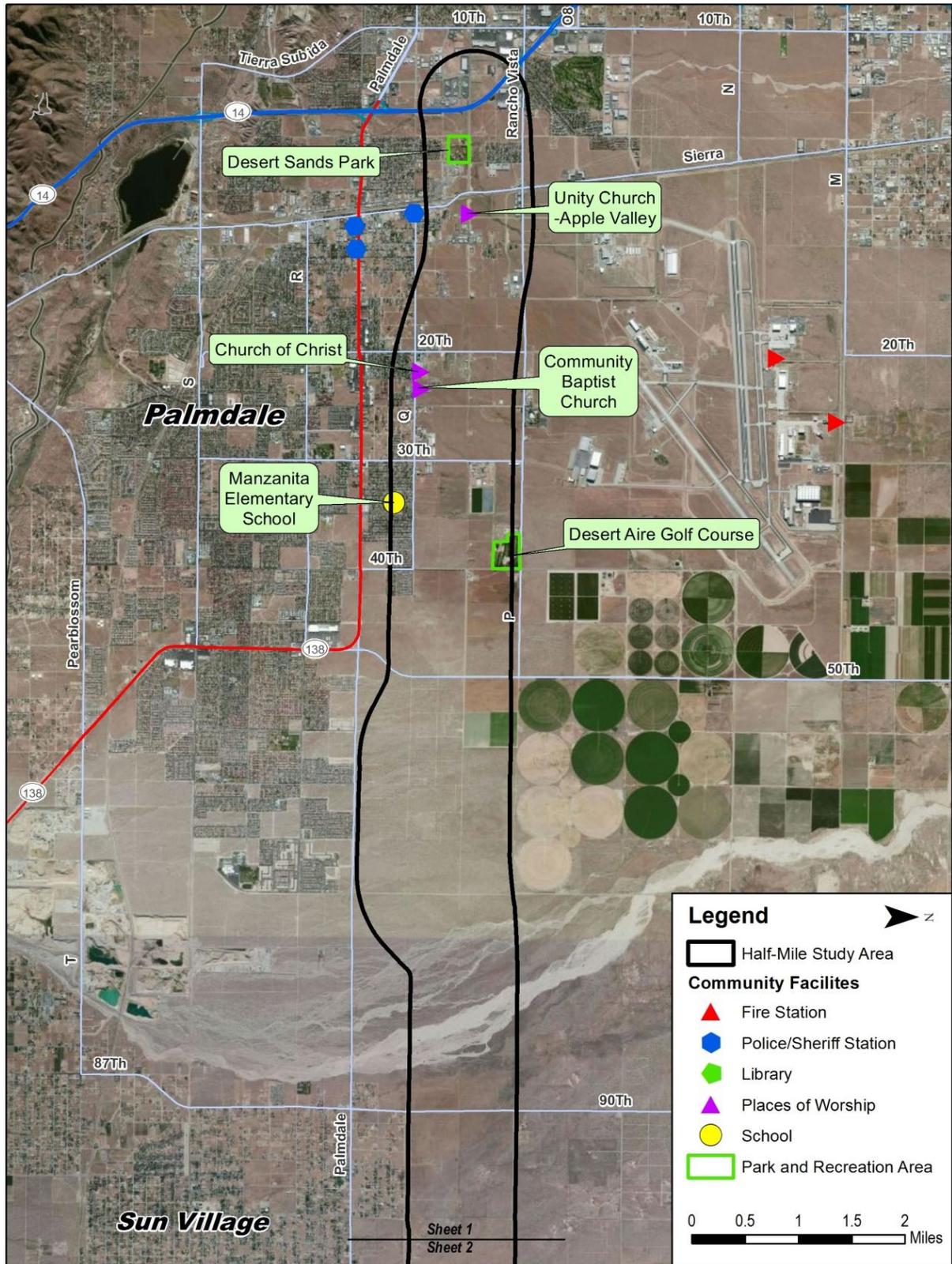


Figure 4.3.1.B - Community Facilities

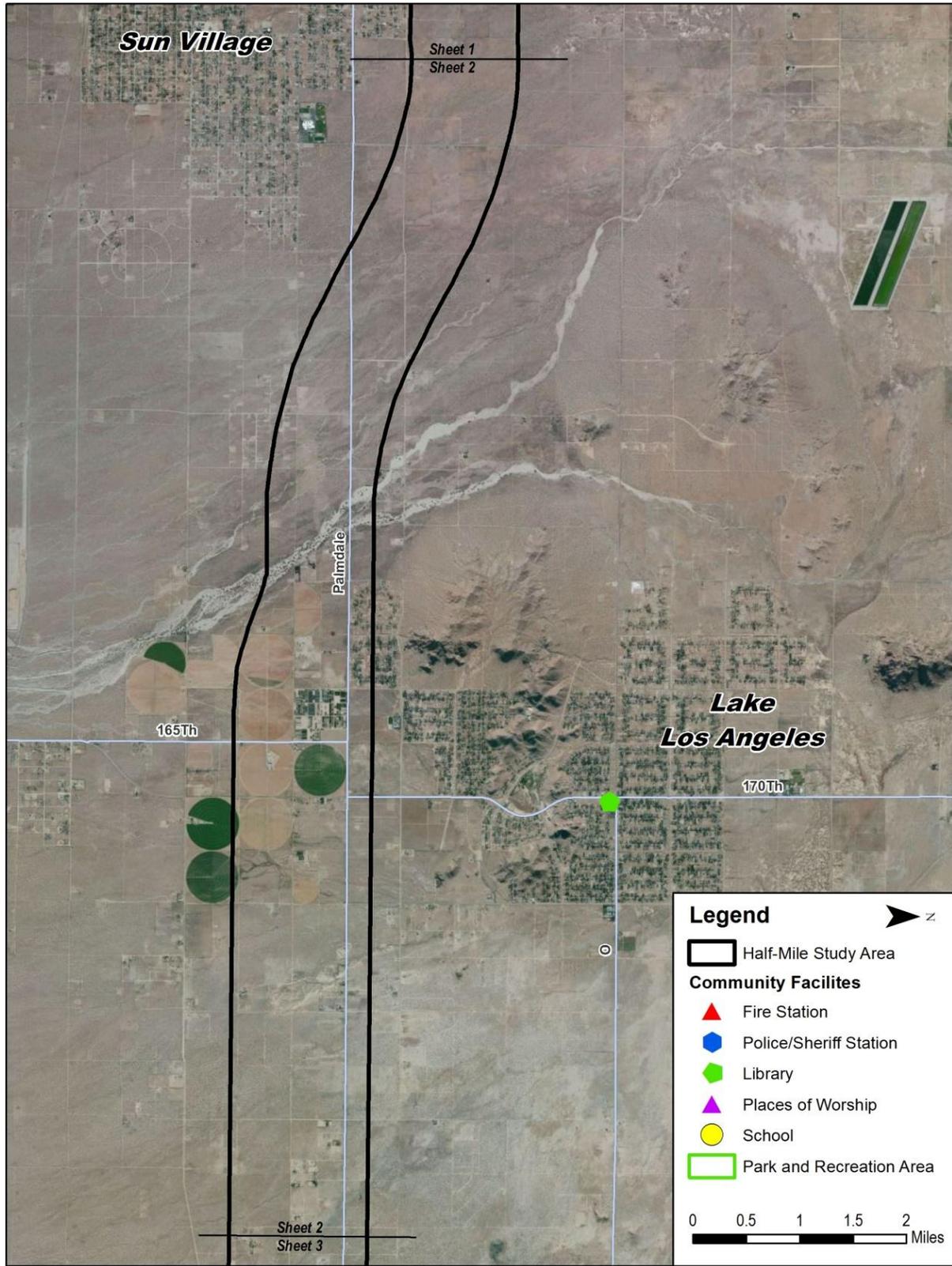


Figure 4.3.1.C - Community Facilities

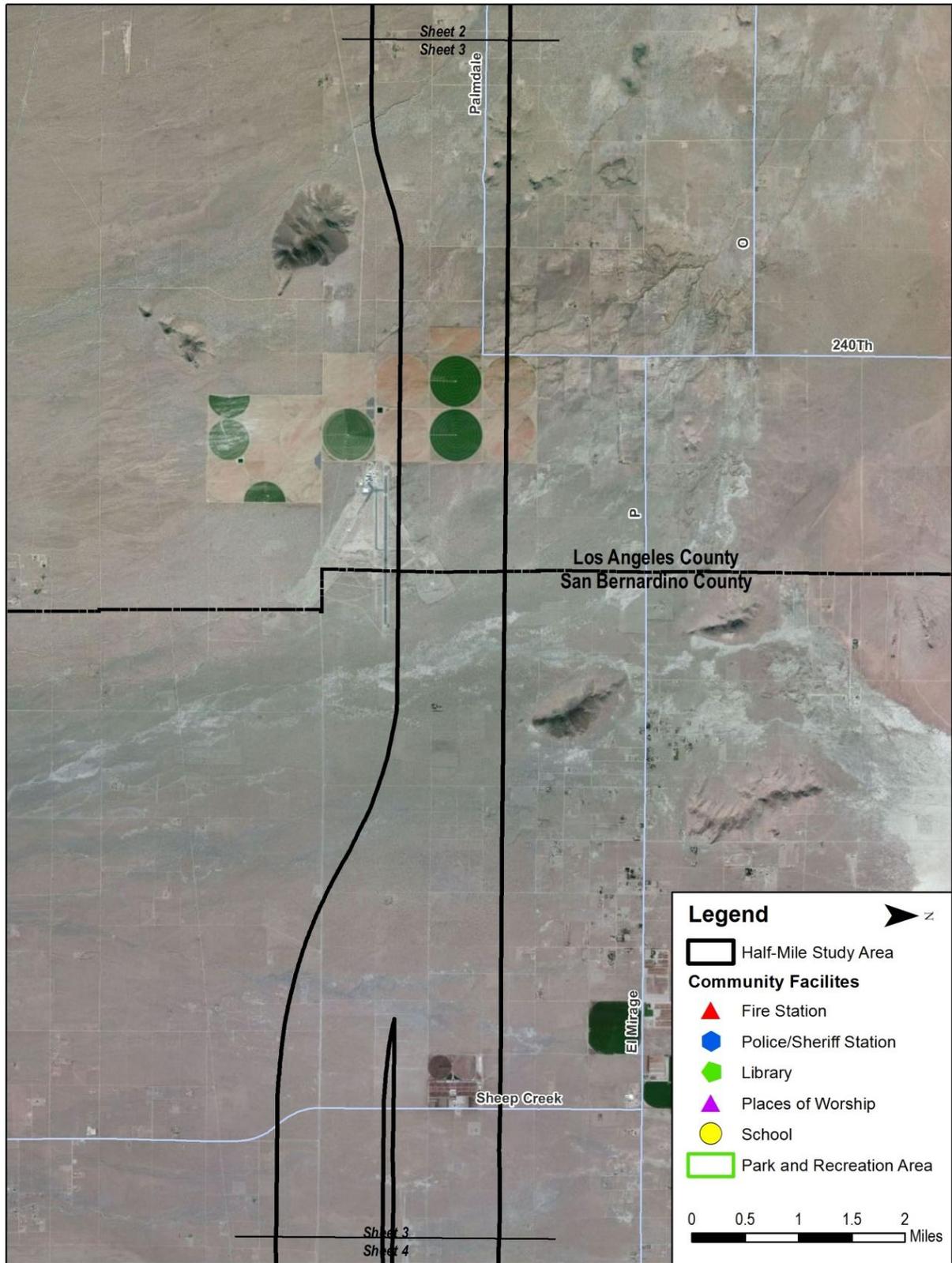


Figure 4.3.1.D - Community Facilities

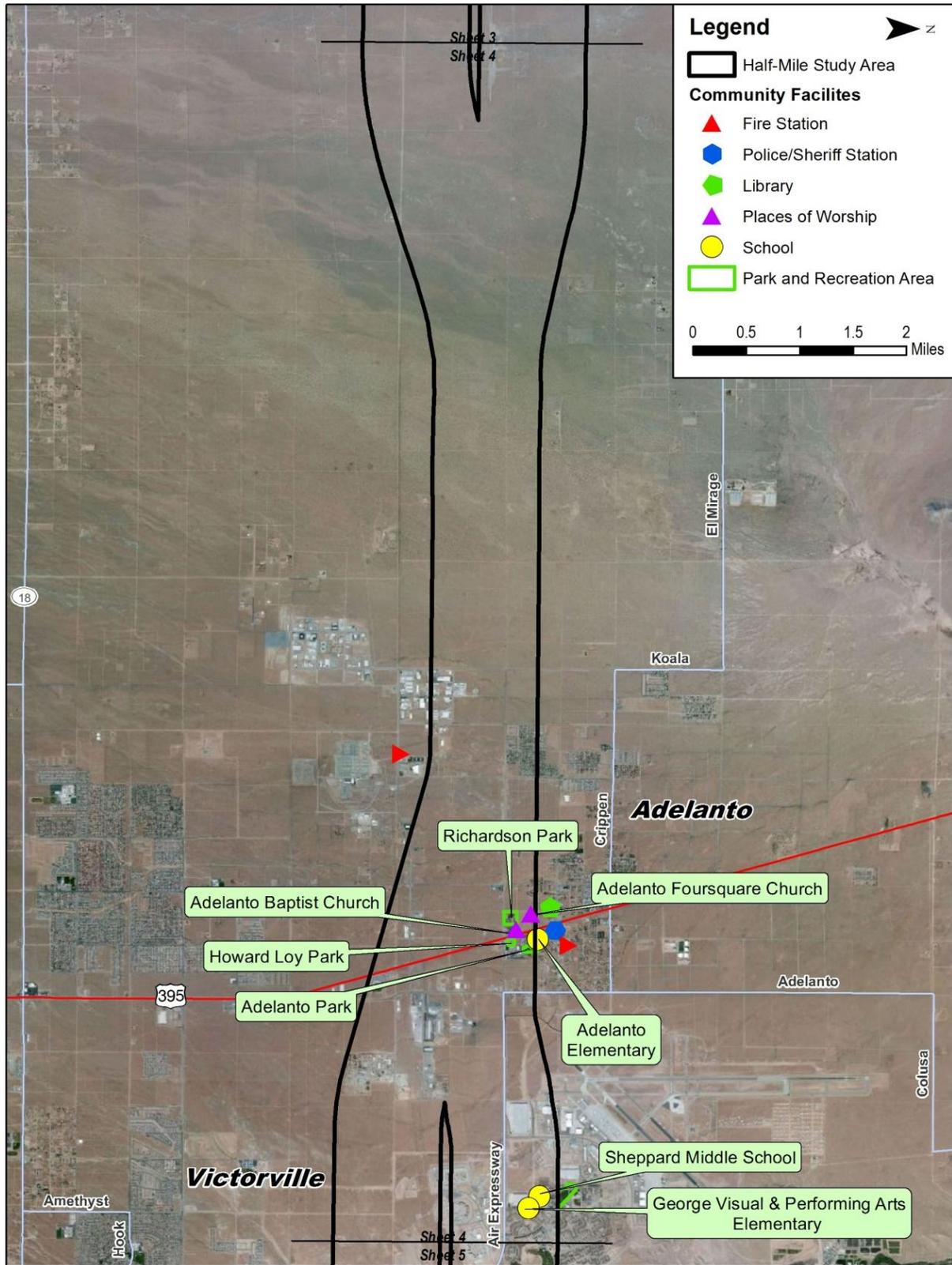


Figure 4.3.1.E - Community Facilities

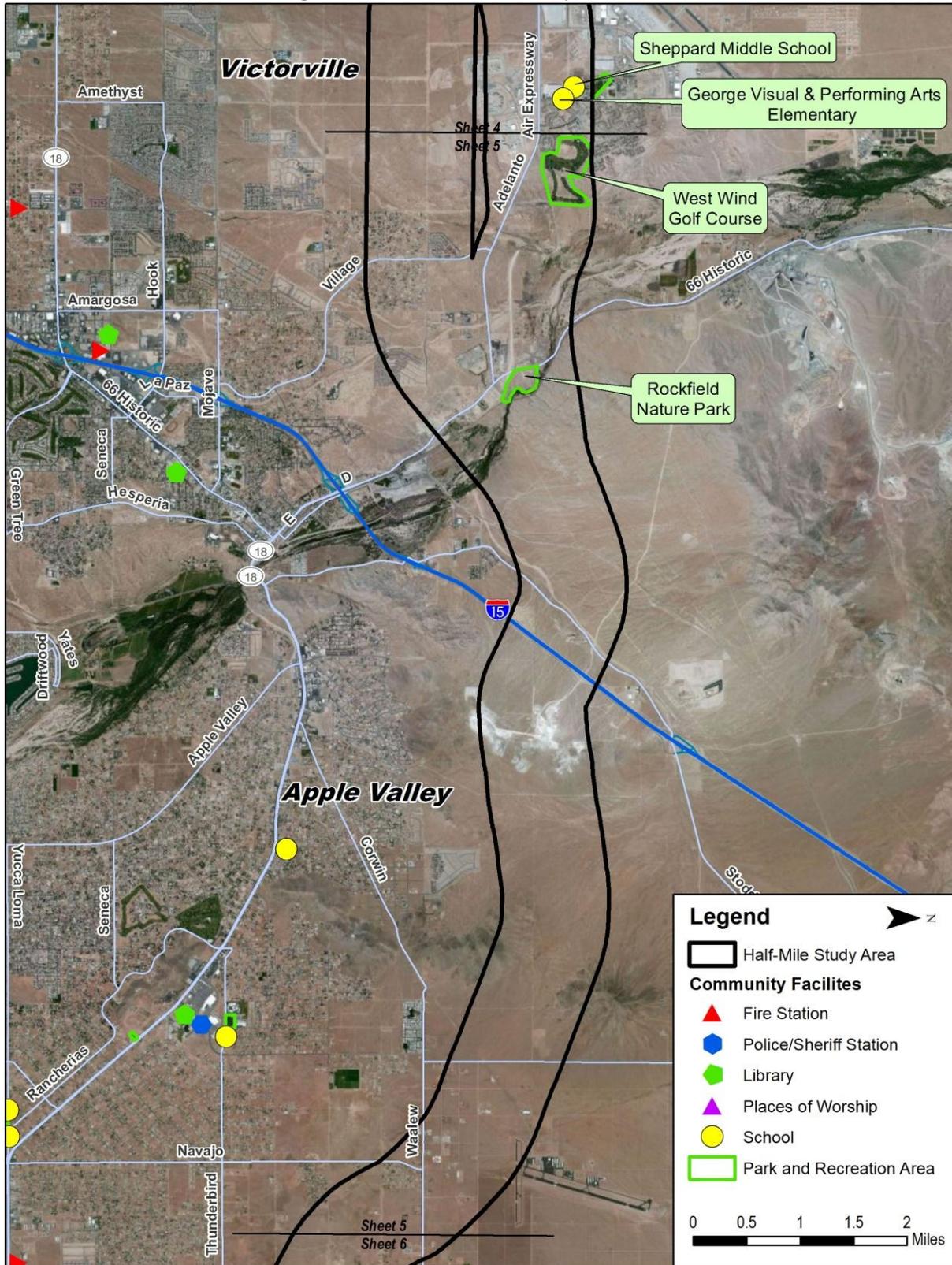
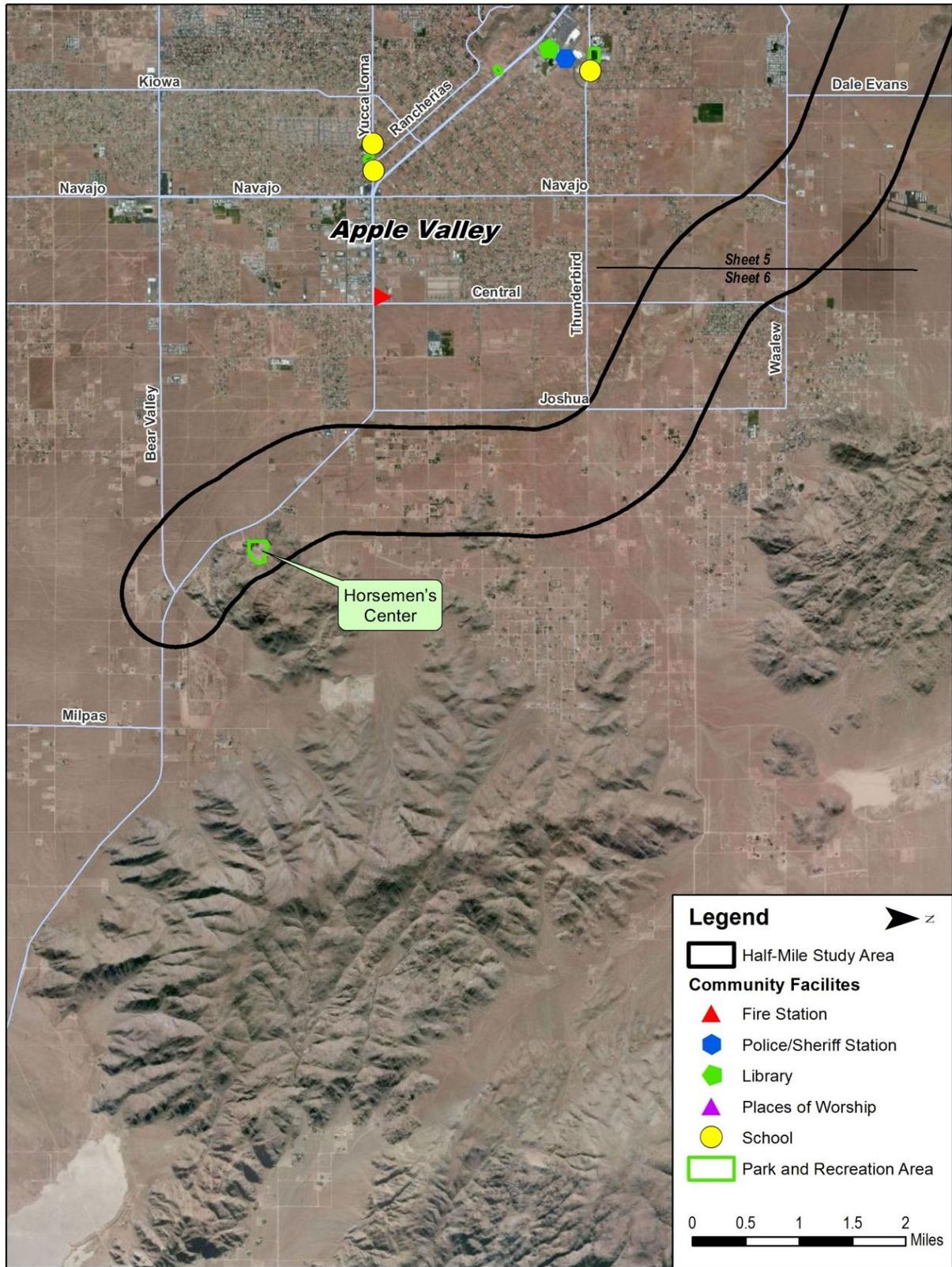


Figure 4.3.1.F - Community Facilities



## **Parks and Recreational Facilities**

### *City of Palmdale and Unincorporated Areas of Los Angeles County – Lake Los Angeles and Sun Village*

Twenty-two park and recreational facilities are located throughout the City of Palmdale and the unincorporated area of Los Angeles County. Two park and recreational facilities, Desert Sands Park and the Desert Aire Golf course are within a half mile of the Project. Only Desert Sands Park is adjacent to the Project alignment. Under the HSR alignment, Poncitlan Square (a four acre City owned park) and Hammack Activity Center/Roller Hockey Rinks (a 29,000 square ft. recreational facility owned and operated by the City) is located within a one half mile of the proposed HSR alignment.

#### *Desert Sands Park*

The 20-acre, City-owned Desert Sands Park is located approximately 0.08 mile from the project footprint (all alternatives), at 39117 3<sup>rd</sup> Street East, Palmdale, on the southwest corner of Technology Drive and 3<sup>rd</sup> Street East. The park includes a walking/jogging trail through natural vegetation; a semi-sheltered picnic area that accommodates up to 250 guests; a playground with swings, slides, fire poles, and climbers; a recreation/meeting building; two softball fields; one soccer field; two tennis courts; two basketball courts; a sand volleyball court; restrooms; and a tot lot. It is open to the public from 8:00 a.m. to 10:00 p.m., 7 days per week.

#### *Desert Aire Golf Course*

The Desert Aire Golf Course is a full-length nine-hole golf course located at 3620 East Avenue P within the city of Palmdale. In addition, the facility offers a practice facility, which includes a full-size sand bunker, a practice putting green, and a practice chipping green area. The Desert Aire Golf Course is approximately 0.5 mile from the project footprint (all alternatives).

#### *Poncitlán Square*

Poncitlán Square is located at 38315 9<sup>th</sup> Street East, Palmdale, and is across from City Hall. Poncitlán Square features native vegetation and landscaping, a rose garden, and a bandstand pavilion/gazebo for outdoor concerts, special events, outdoor wedding ceremonies, and reception photos. This park is about 0.4 mile from and southeast of the project limits.

#### *Robert St. Clair Parkway*

Robert St. Clair Parkway is located along Sierra Highway in Palmdale, from Avenue Q to Avenue R. The total acreage of the parkway is approximately 8.7 acres. The parkway includes a 12-foot-wide concrete trail that forms a meandering bikeway. The trail extends along the west side of Sierra Highway from Avenue Q to Palmdale Boulevard and from Palmdale Boulevard to

250 feet south of Avenue Q-12. The Parkway/path is owned by the City of Palmdale. It is designated primarily for passive recreation and is open to the public.

#### Hammack Activity Center/Roller Hockey Rinks

This public recreational facility is located at 815 East Avenue Q-6. None of the project alternatives would permanently incorporate land from or temporarily occupy this park.

#### Trails and Parkways

There are many areas within the High Desert that provide bicycling opportunities for bicyclists, but few designated trails are available. Several active bicycle clubs ride through portions of the study area on surface roadways and trails that are disconnected, due largely to the rugged terrain and limitations of available access points. Within Palmdale and unincorporated areas of Los Angeles County, there are three trails and parkways that are designated multi-use for pedestrian, bike, and/or equestrian. These trails include Barrel Springs Trail, Joshua Ranch Trail, and Robert P. St. Clair Parkway. Other pedestrian facilities include walking paths around Domenic Massari Park, Pelona Vista Park, and Marie Kerr Park.

#### *City of Adelanto and Unincorporated San Bernardino County*

Six park and recreational facilities are located throughout the city of Adelanto and the unincorporated areas of San Bernardino. Three park and recreational facilities are within a half mile of the Project, Adelanto Park, Howard Loy Park and Richardson Park. None of the three park and recreational facilities are located adjacent to the Project.

#### Adelanto Park

Located off Inca Avenue and adjacent to the Adelanto School Academy of Math and Science, the Adelanto Park serves as a recreational facility and is open to the public. Adelanto Park provides open green space for various recreational activities and sports.

#### Howard Loy Park

Howard Loy Park is located near Air Base Road and US 395, and it is characterized by open spaces with several trees providing ample shade. The park is limited in size; thus, certain recreational activities may not be ideal at this location. However, it is a nice place for picnicking activities.

#### Richardson Park

Richardson Park is located at the intersection of Air Base Road and Delicious Street. The park offers various activities for children and includes a softball and soccer field. Parking is also provided within the park facility.

### *Bicycle and Pedestrian Facilities*

There are no designated pedestrian or bicycle facilities within Adelanto and unincorporated areas of San Bernardino County. Although no facilities may exist at this time, the goals of the City are to incorporate the design of improved and/or new roadway systems encompassing a complete and effective pedestrian element and to establish a trails network within the open space areas. All major roadways would contain adequate ROW to allow the implementation of sidewalks and bike lanes.

An interagency meeting was conducted August 15, 2012, between bicycle coordinators from Los Angeles County, Metro, SCAG, and Caltrans to obtain input on bicycle design options. The working group determined that the existing bicycle network in Los Angeles and San Bernardino counties would benefit from a parallel bicycle facility to provide continual linkage between the bicycle networks from both counties.

### *City of Victorville*

Twenty-five park and recreational facilities are located throughout the City of Victorville. Two park and recreational facilities, Rockview Nature Park and West Wind Golf course are within a half mile of the Project.

### *Rockview Nature Park*

The Rockview Nature Park includes a Nature Center with a carpeted multipurpose room with approximately 1,900 square feet of gathering space and a kitchen. This park is dedicated to E.Q. and Rosalind Sullivan. Amenities located within the park include the Nature Center, an outdoor amphitheater with a campfire area, two small open grass areas, a gazebo, and play equipment. Rockview Nature Park is open for scheduled uses only.

### *West Wind Golf Course*

The West Wind Golf Course is located within Victorville and is a 9-hole golf course open to the public. With the use of multiple tees, the golf course can be played as an 18-hole golf course. This course is available for daily fee or reserved play, special events, and tournaments.

### *Bicycle and Pedestrian Facilities*

There is one designated bike path within Victorville, which begins north of D Street, just southeast of Eva Dell Park. The bike path is separated from the road and travels north, eventually terminating at I-15. Plans for non-motorized transportation facilities in the City of Victorville can be found in the CIA.

The City has plans to utilize waterways and power line ROW for use by bicyclists, equestrians, and other nonmotorized uses. Safety of these uses is a major concern and requires special

attention at street crossings. Trails along the Mojave River and Oro Grande River are considered within the City's jurisdiction. Mojave River walk trail is a 9-mile trail along the river from the northern city limits, north of I-15 to the southern city limits near Victor Valley College. Oro Grande trail is planned as a paved pathway that would run the length of the river and through much of Victorville. It would link the Mall of Victor Valley and downtown, as well as parks and schools, and cross I-15 on a separate bridge near La Mesa Nisqualli Road. Within utility ROW, trail planning requires coordination with utility companies. *The Non-Motorized Transportation Plan* (City of Victorville, 2010) considers connectivity with public facilities, retail establishments, and other points of interest and improvement of accessibility over I-15. Safe bike racks for occasional users and every day users are also considered for any multimodal facilities within the city. Bicycle parking facilities are also considered and planned at the proposed railroad station for the DesertXpress Rail Station.

### *Town of Apple Valley*

Seventeen park and recreational facilities are located throughout the Town of Apple Valley. One park and recreational facility, Horsemen's Center, is within a half mile of the Project.

### *Horsemen's Center*

Horsemen's Center is a rural park that is located 3 miles east of Central Road within Apple Valley. The park is approximately 80 acres large and includes various amenities that include two horse show arenas, a BMX park, a children's playground, picnic areas, a hiking trail, and seven campsites. The park is open for use beginning at dusk and closes at dawn.

### *Bicycle and Pedestrian Facilities*

The Town of Apple Valley's master plan is to create a network of bikeways and pathways within an urban environment that would encourage the use of alternative means of transportation. A trails system would be designed to connect the urban and natural environments by providing access to open spaces. Three types of bicycle lanes are proposed in Apple Valley, as described in the Parks and Recreation Element of the Town of Apple Valley General Plan (2009). Bicycle lanes have been expanded to ensure greater connectivity and access throughout the community and promote nonmotorized modes of travel. Bicycle lanes in Apple Valley are also designed to connect to regional bikeways. Continued coordination with the City of Victorville and San Bernardino County will be essential in the ultimate development of an effective regional bikeway system. (See Section 2.2.2, Bicycle Access Option, for bikeway classifications). A map showing pedestrian and bicycle facilities located in the Town of Apple Valley can be found in the CIA. The City-adopted master plan indicates that no existing or future planned bicycle routes cross the proposed HDC road alignment.

## **Emergency Services**

### **Police, Fire and Hospital/Medical Facilities**

#### *City of Palmdale and Unincorporated Areas of Los Angeles County – Lake Los Angeles and Sun Village*

The Los Angeles County Sheriff's Department and the Los Angeles County Fire Department (Battalion 17) provide police and fire services within the City of Palmdale and the surrounding unincorporated areas of Los Angeles County. There are no fire or police/sheriff stations within a half mile of the Project. The Palmdale sheriff station is the only police or fire services located within two miles of the Project. The station is located near city hall approximately one-mile south of the Project. Palmdale Regional Medical Center, within the City of Palmdale, is the only medical facility within two miles of the Project.

#### *City of Adelanto & Unincorporated San Bernardino County*

The San Bernardino Sheriff's Department and the San Bernardino County Fire Department (North Desert Division) provide police and fire services within the City of Adelanto and the unincorporated areas of San Bernardino. There are no police/sheriff stations within a half mile of the Project. In the City of Adelanto, two fire stations and a sheriff's station are located within two miles of the Project. No medical facilities are located within a half mile of the Project; however, Desert Valley Medical Center (City of Adelanto) is located within two miles of the Project near the intersection of Bartlett Avenue and Bellflower Street.

#### *City of Victorville*

The San Bernardino County Sheriff's Department and San Bernardino County Fire Department (Victorville Division) provide police and fire services within the City of Victorville. The Sheriff's Department also serves unincorporated areas throughout the Victor Valley area. No police or sheriff stations are located within two miles of the Project. One fire station (Station 319), located on the Southern California Logistics Airport, and is within two miles of the Project.

Two medical facilities serve the City of Victorville, Victor Valley Community Hospital and Desert Valley Medical Center. These two medical facilities are not located within two miles of the Project.

#### *Town of Apple Valley*

Within the Town of Apple Valley, police services are provided by the Apple Valley Police Department and San Bernardino County Sheriff's Department (through a contractual agreement).

Fire protection services are provided by the Apple Valley Fire Protection District, which serves the Town of Apple Valley, as well as other high desert communities, including those portions of unincorporated San Bernardino County that are within its approximately 206-square mile service area. No police or sheriff stations are located within two miles of the Project. Eight fire stations are located throughout the city, but only one fire station is located within two miles of the Project. The station is located near the intersection of Central Road and Happy Trails Highway.

One medical facility serves the Town of Apple Valley, Street Mary Medical Center. The medical facility is located near the intersection of Kasota Road and Happy Trails Highway. The facility is not located within two miles of the Project.

### **Utilities**

#### *City of Palmdale and Unincorporated area of Los Angeles County – Lake Los Angeles and Sun Village*

Water services in the City of Palmdale and the unincorporated areas of Los Angeles County are provided by the Palmdale Water District and Los Angeles County Water. Wastewater collection and treatment services are provided by Los Angeles County Water. Electricity is provided by Southern California Edison and natural gas is provided by Southern California Gas Company. Sewer maintenance responsibilities are shared by the City of Palmdale and the LA County Sanitation District.

#### *City of Adelanto & Unincorporated San Bernardino County*

Water services in the City of Adelanto and unincorporated areas of San Bernardino County are provided by the Adelanto Water Department. Wastewater collection and treatment services are provided by the Adelanto Public Utility Authority. Electricity is provided by Southern California Edison and natural gas is provided by Southern California Gas Company.

#### *City of Victorville*

Water service in the City of Victorville is provided by Victorville Water Department. Wastewater collection and treatment services are provided by Victor Valley Waster Water Reclamation Authority. Electricity is provided by the Southern California Edison and natural gas is provided by the Southern California Gas Company.

#### *Town of Apple Valley*

Water service in the Town of Apple Valley is provided by the Golden State Water Company. Wastewater collection and treatment services are provided by the Town of Apple Valley.

Electricity is provided by Southern California Edison and natural gas is provided by Southwest Gas.

### **4.3.2 Environmental Consequences**

#### No Build Alternative

The No-Build alternative consists of those transportation projects that are already planned and committed to be constructed by or before 2040 other than the Project. It is not anticipated that the implementation of these projects would have an impact on community facilities and services.

#### All Build Alternatives excluding Variation E

The proposed alternatives include the construction several types of facilities within the proposed corridor. These build alternatives are planned to improve mobility, travel safety and accessibility within the region. It is not anticipated that these alternatives would impact negatively community and emergency services, or public utilities. The build alternatives for this proposed transportation project will improve mobility, and will not create demand for additional services and other major facilities within the communities, except in the area of emergency service. (See discussion below)

Direct impacts of build alternatives to community facilities, parks and recreational facilities, emergency services, and utilities are discussed in the following sections.

### **Community Facilities**

#### **Schools, Libraries and other community centers**

##### *City of Palmdale and Unincorporated area of Los Angeles County*

The Project would require the acquisition of additional right-of-way within the City of Palmdale and the unincorporated areas of Los Angeles County. The Project may have a right-of-way impact at the property of Unity Church-Antelope Valley, and three Palmdale School District structures that are needed for the day-to-day school district activities. Special attention will be given to the relocation of school district properties, including hiring an architect to create plans for reconstruction of new facilities at a neighboring vacant land. Relocation assistance and compensation will be provided to all other impacted facilities, as well.

*City of Adelanto & Unincorporated San Bernardino County*

Right-of-way needs of the Project would require a full acquisition of a Boys and Girls Club located in the City of Adelanto. The club facilities consist of administrative offices, large gymnasium, and a parking lot. The Project would not result in an impact to schools, libraries, or places of worship.

*City of Victorville*

The Project would not result in an impact to schools, libraries, or places of worship.

*Town of Apple Valley*

The Project would not result in an impact to schools, libraries, or places of worship in the Town of Apple Valley.

**Parks and Recreational Facilities**

*City of Palmdale and Unincorporated area of Los Angeles County*

The Project would not result in an impact to parks and recreational facilities in the City of Palmdale or in the unincorporated area of Los Angeles County.

The proposed project would incorporate bicycle paths along the HDC corridor; therefore, the impact is considered beneficial. Three options were considered for the 26-mile High Desert Segment between the Palmdale Transportation Center in Los Angeles County and US 395 in San Bernardino County, described in Section 2.2.2. The bikeway would traverse the eastern portion of Palmdale and continue eastward through Lake Los Angeles towards El Mirage and terminate within Adelanto.

*City of Adelanto & Unincorporated San Bernardino County*

The Project would not result in an impact to parks and recreational facilities in the City of Adelanto or in the unincorporated area of San Bernardino County.

*City of Victorville*

The Project would require the acquisition of additional right-of-way within the City of Victorville. The land acquisition would affect a parcel that is leased from Los Angeles Department of Water and Power (LADWP) for parking adjacent to the Rockview Nature Park. The project would not permanently incorporate land from the Rockview Nature Park into the transportation right of way. It would incorporate a part of the LADWP owned property, which

currently serves as the southern parking lot and access entrance for the Rockview Nature Park. The southern parking lot and access entrance will be acquired as part of the highway right-of-way for the Project. Caltrans will coordinate with the LADWP regarding the acquisition of their land during Right-of-Way acquisition process. Temporary facilities located within the parcel would be permanently eliminated and no longer be used for the Rockview Nature Park. In order to minimize any potential project proximity effects on the Rockview Nature Park due to the acquisition of LADWP's property, the Project is proposing a minimization measure to grade/construct additional parking spaces within the Rockview Nature Park. The new parking lot would be a functional equivalent to the existing parking lot on the LADWP's property. Detailed design and construction of the parking lot and access entrance to the park will be further discussed between the Project Team and the City's Community Services Department during the Design phase of the Project. Rockview Nature Park has been determined as *de minimis* finding under Section 4(f). For further discussion in regards to Section 4(f) please see Appendix B.

Access to the park would be reduced from two access points to one access point through the northern entrance. It should also be noted that the access entrance at LADPW's property was considered a temporary access point according to the agreement between the LADPW and the City of Victorville. The current northern access to the park does not currently have a designated turn lane. As an enhancement measure, the Project would propose to install/pave a turn lane to the park within the roadway's right of way to enhance safety and access to the park.

In addition, the Project would acquire approximately 5 acres of land from the south side of the West Winds Golf Course. However, this land is only a small portion of the approximately 139 acres of the golf course's total area. In addition, the land to be incorporated into the project would fall under the vacant portion of the golf course that has no facilities or activities located on it. Therefore, no facilities, functions or activities of the park are adversely affected. Access to the golf course, via Westwinds Road, is anticipated to be maintained at all times during project construction and operation. West Winds Golf Course is protected under the Park Preservation Act in which just compensation will be provided for the acquisition of land as outlined under the *Avoidance, Minimization, and/or Mitigation Measures* section.

Indirect impacts to Rockview Nature Park may result through the acquisition of right-of-way for the Project alignment, in which a segment of the parking lot which serves the park may be acquired as part of the project. The loss of parking will result towards an indirect impact on the park facility.

Based on the Section 4(f) findings under *Appendix B*, the project build alternatives would result in a *de minimis* finding for the West Winds Golf Course and Rockview Nature Park, and no use

to the remaining parks. Please refer to Appendix B (Resources Evaluated Relative to the Requirements of Section 4(f) section) for more information about the parks with No Section 4(f) use.

### *Town of Apple Valley*

The Project would not result in an impact to parks or recreational facilities in the Town of Apple Valley.

## **Emergency Services**

### **Police, Fire and Hospital/Medical Facilities (All Cities and unincorporated areas along the project corridor)**

The Project would not result in a direct impact to medical facilities, fire or police stations. The Project is not anticipated to adversely affect response time for emergency services associated with fire station or police/sheriff department personnel. It is likely the Project may improve response times of emergency services to other areas that do not have direct access to a major travel route. The project may improve response times by allowing current traffic to access to a different route, which would reduce congestion on the existing local roadways.

However, the project could create the need for additional personal and equipment in the areas of highway patrol, and possibly emergency services. This need will be mitigated by the fact that the project will increase the economic vitality of the region, and is anticipated to improve the overall local and regional fiscal conditions.

## **Utilities**

It is anticipated that no permanent impacts on utilities would occur as a result of the construction of this project. The project does not include construction of new development that would generate the need for new additional utilities. However, temporary impacts would occur as a result of utilities relocation to accommodate the new transportation facilities.

It is estimated that the highway-only alternatives would have an impact on utilities at approximately 300 locations and the highway-plus-rail alternatives would have an impact on utilities at approximately 400 locations within the different communities along the alignment. California Public Utilities Commission General Order 131-D exempts from permitting requirements (and thus from CEQA review) those relocations of less than or equal to 2,000 linear feet. Of the more than 100 potential relocations identified in the utilities conflict matrix prepared for the EIR/EIS, all but about eight relocations would be less than 2,000 feet.

Some power lines would require modifications to avoid conflicts with the project. Such modifications would consist chiefly of increasing the height above ground of the lines passing over the HDC to maintain consistency with CPUC GO #95. The HDC corridor would be elevated above the existing terrain by approximately 12 feet, so some power lines (and power line towers) may need to be increased in height by up to 12 feet. These modifications could have incremental visual impacts and could trigger FAA notification (FAA Form 7460-1) and marking and lighting requirements pursuant to 14 Code of Federal Regulations Part 77. **Table 4.3.2.A** provides information on the owners, type of utility and the general location of the utilities affected. The utilities that will be affected by the project include overhead and underground power lines; various capacity water, sewer, gas, and storm water conduits; and telephone and other telecommunication lines. During final design, special attention should be given to coordination with the utility companies and to the allocation of adequate resources in order to ensure that utility services are not interrupted.

**Table 4.3.2.A: HDC Utility Conflict Matrix**

Owner	Utility Description	Conflict Location
AT&T	Telephone Line	Avenue S
SC Gas	30" Gas Line	Avenue S
AT&T	Telephone Line	Avenue R
AT&T	Telephone Line	Palmdale Blvd
SC Gas	4" Gas Line	Rancho Vista Blvd
City of Palmdale	8" Sewer Line	Rancho Vista Blvd
AT&T	Telephone Line	Rancho Vista Blvd
SC Gas	4" Gas Line	10th and SR-14 (loop on-ramp)
Time Warner Cable	Cable Line	10th and SR-14 (loop on-ramp)
AT&T	Buried Telephone Line	10th Street
SC Gas	6" Gas Line	10th Street
AT&T	Buried Telephone Line	10th Street
SC Gas	8" Gas Line	Avenue O-8
AT&T	Buried Telephone Line	Avenue O
AT&T	Telephone Line	Avenue O
Level 3 Communications	6-2" HDPE Conduits	Avenue O
AT&T	Telephone Line	Avenue O
AT&T	Telephone Line	Avenue N-12
AT&T	Telephone Line	Avenue N-8
Time Warner Cable	Cable Line	Avenue N-8
AT&T	Telephone Line	Avenue N
Time Warner Cable	Cable Line	Avenue N
SC GAS	2" Gas Line	W Avenue P-4

**Table 4.3.2.A: HDC Utility Conflict Matrix**

Owner	Utility Description	Conflict Location
City of Palmdale	39" Sewer Line	W Avenue P-4
City of Palmdale	33" Sewer Line	Along west side of SR-14
SC Edison	Lighting Conduits	Avenue P-8
City of Palmdale	33" Sewer Line	Avenue P-8
AT&T	Telephone Line	Avenue Q
SC GAS	6" Gas Line	Avenue Q
City of Palmdale	10" / 12" Sewer Line	Avenue Q
Time Warner Cable	Cable Line	Avenue Q
City of Palmdale	36" Sewer Line	15th Street
Palmdale Water District	12" Water Line	Division St
SCE	Overhead Power Line	Division St
City of Palmdale	15" Sewer Line	Division St
SC Edison	Overhead Power Line	3rd Street
Palmdale Water District	12" Water Line	3rd Street
City of Palmdale	8" VCP Sewer	3rd Street
SC GAS	4" Gas Line	3rd Street
SC Edison	Overhead Power Line	Sierra Highway
City of Palmdale	42" Sewer Line	East of 10th to 15th Street
AT&T	Telecommunications Cable Line	Sierra Highway
Level 3 Communications	Fiber Optic Line	Sierra Highway
Sprint	Fiber Optic Line	Sierra Highway
Time Warner Cable	Telecommunications Line	8th Street
AT&T	Telecommunications Cable Line	8th Street
SC GAS	2" Gas Line	8th Street
Level 3 Communications	Fiber Optic Line	8th Street
SC Edison	Overhead Power Line	8th Street
SC Edison	Electroliers	10th Street
SC Edison	Overhead Power Line	10th Street
Palmdale Water District	12" Water Line	10th Street
Palmdale Water District	6" Water Line	10th Street
SC GAS	4" Gas Line	10th Street
SC Edison	Overhead Power Line	12th Street
City of Palmdale	15" Sewer	East of 10th to 15th Street
City of Palmdale	18" Sewer	15th Street
Palmdale Water District	4" / 9" Water Line	Between 12th and 20th Street
SC GAS	4" Gas Line	15th Street
Palmdale Water District	12" Water Line	15th Street
AT&T	Telecommunications Cable Line	15th Street

**Table 4.3.2.A: HDC Utility Conflict Matrix**

Owner	Utility Description	Conflict Location
SC Edison	Overhead Power Line	15th Street
AT&T	Telecommunications Cable Line	Between 15th and 20th Street
SC GAS	4" Gas Line	Between 15th and 20th Street
Palmdale Water District	12" Water Line	Between 15th and 20th Street
SC GAS	4" Gas Line	20th Street
AT&T	Telecommunications Cable Line	20th Street
Palmdale Water District	12" Water Line	20th Street
SC Edison	Overhead Power Line	20th Street
City of Palmdale	24" RCP Storm Drain	20th Street
SC GAS	4" Gas Line	20th Street and East of 20th Street
AT&T	Telecommunications Cable Line	25th Street
Palmdale Water District	12" Water Line	25th Street
Palmdale Water District	16" Water Line	25th Street
AT&T	Telecommunications Cable Line	30th Street
City of Palmdale	15" / 18" Sewer Line (partially abandoned)	30th Street
Palmdale Water District	20" Water Line	30th Street
SC Edison	Overhead Power Line	30th Street
Palmdale Water District	12" Water Line	Between 30th and 35th Street
City of Palmdale	15" Sewer Line	35th Street
City of Palmdale	27" Sewer Line	35th Street
SC Gas	3" Gas Line	37th Street
SC Edison	Overhead Power Line	40th Street
City of Palmdale	12" Sewer Line	45th Street
City of Palmdale	15" Sewer Line	56th Street
SC Edison	Overhead Power Line	90th Street
City as-builts	Tel Line	110th Street
Antelope Valley E Kern County	24" Water Line	110th Street
SC Gas	12" Gas Line	110th Street
SC Edison	Overhead Power Line	110th Street
City as-builts	Tel Line	E Avenue Q
SC Edison	Overhead Power Line	E Avenue Q
Level 3 Communications	Fiber Optic Line	E Palmdale Ave
SC Edison	Overhead Power Line	E Palmdale Ave
Time Warner	Telecommunications Line	E Palmdale Ave
SC Edison	Overhead Power Line	121st Street
SC Edison	Overhead Power Line	E Avenue R
SC Gas	4" Gas Line	E Avenue R

**Table 4.3.2.A: HDC Utility Conflict Matrix**

<b>Owner</b>	<b>Utility Description</b>	<b>Conflict Location</b>
AT&T	Telecommunications Cable Line	E Avenue R
SC Gas	14" Gas Line	165th Street
AT&T	Telecommunications Cable Line	165th Street
SC Edison	Overhead Power Line	165th Street
SC Edison	Overhead Power Line	170th Street
SC Edison	Overhead Power Line	171st Street
SC Edison	Overhead Power Line	187th Street
SC Edison	Overhead Power Line	200th Street
SC Edison	Overhead Power Line	E Avenue Q-12
SC Edison	Overhead Power Line	East of 205th St
SC Edison	Overhead Power Line	205th Street
SC Edison	Overhead Power Line	West of Largo Vista Rd (210th St)
SC Edison	Overhead Power Line	Largo Vista Rd (210th St)
SC Edison	Overhead Power Line	215th Street
SC Edison	Overhead Power Line	Between 215th and 217th Street
SC Edison	Overhead Power Line	Between 217th and 230th Street
SC Edison	Overhead Power Line	220th Street
SC Edison	Overhead Power Line	230th Street
SC Edison	Overhead Power Line	240th Street
SC GAS	30" Gas Line	Rancho Rd
SC GAS	3" Gas Line	Sheet Creek Rd
Mojave Water Agency	48" Water Line	Richardson Road
SC Gas	Gas Line	Koala Road
City of Adelanto	8" PVC Water Line	Muskrat Ave
DWP	Overhead Power Line	Between Muskrat and Racoon Ave
City of Adelanto	18" Water Line	Racoon Ave
Southwest Gas	Distribution Gas Line	Racoon Ave
City of Adelanto	12" PVC Sewer	Racoon Ave
SC Edison	Overhead Power Line	Racoon Ave
Continental Tele Co.	Telecommunications Line	Aster Road
City of Adelanto	12" PVC Sewer	Aster Road
Southwest Gas	Distribution Gas Line	Bellflower Street
SC Edison	Overhead Power Line	HWY 395
SC Edison	Overhead Power Line	Adelanto Road
N/A (per City of Adelanto as-builts)	2" Gas Line	Adelanto Road
Time Warner Telecom	Telecommunications Duct Bank	Adelanto Road
City of Adelanto	8" Water Line	Adelanto Road
Level 3 Communications	Fiber Optic Cable Line	Adelanto Road

**Table 4.3.2.A: HDC Utility Conflict Matrix**

Owner	Utility Description	Conflict Location
Kinder Morgan	14" High Pressure Petroleum Pipe	Adelanto Road
Kinder Morgan	8" High Pressure Petroleum Pipe	Adelanto Road
Southwest Gas	Distribution Gas Line	Adelanto Road
Southwest Gas	High Pressure Gas Line	Adelanto Road
DWP	Overhead Power Line	Between Adelanto Rd and Phantom West
Southern California Gas	30" Gas Line	Between Adelanto Rd and Phantom West
Southern California Gas	Gas Line	Phantom West
N/A (per City of Adelanto as-built)	Overhead Telecommunications Line	Air Expressway
Time Warner	4-1" Telecommunications Innerducts	Air Expressway
City of Adelanto	24" Water Line	Air Expressway
Kinder Morgan	6-4" High Pressure Petroleum Pipe	Air Expressway
City of Adelanto	12" Water Line	Air Expressway
N/A (per City of Adelanto as-built)	Telecommunications Duct Bank	Air Expressway
City of Adelanto	18" Water Line	Air Expressway
N/A (per City of Adelanto as-built)	24" Gas Line	Phantom West and Air Expressway
City of Adelanto	18" Water Line	Phantom West and Air Expressway
Calnev	4" Oil Line	Phantom West
SC Edison	Lighting Conduit	Phantom West and Air Expressway
N/A (per City of Adelanto as-built)	24" Gas Line	Air Express Way and Weapons Movement Rd
City of Adelanto	18" Water line	Air Express Way
Unknown	Overhead Telecommunication Line	Air Express Way
City of Adelanto	12" Water Line	Air Express Way
City of Adelanto	24" Water Line	Air Express Way
Time Warner	4-1" telecommunications innerducts	Air Express Way
Unknown	Overhead Telecom Line	Air Express Way
City of Adelanto	10" Water Line	Air Express Way
SC Edison	Overhead Power Line	Air Express Way and Weapons Movement Rd
City of Adelanto	14" Water Line	Air Express Way
City of Adelanto	Water Line	Air Express Way
City of Adelanto	3" Water Line	Air Express Way
N/A (per City of Adelanto as-built)	3" Gas Line	Air Express Way
Victorville Water	16" Water Line	Air Express Way and Nevada Ave
City Of Victorville	18" Sewer Line	Air Express Way and Nevada Ave
City Of Victorville	6" Sewer Line	Air Express Way and Nevada Ave
Southwest Gas	High Pressure Gas Pipe	Air Express Way and George Blvd
SC Edison	Overhead Power Line	West of Phantom East
SC Edison	Overhead Power Line	Phantom East
City Of Victorville	18" Sewer Line	Phantom East

**Table 4.3.2.A: HDC Utility Conflict Matrix**

Owner	Utility Description	Conflict Location
City Of Victorville	27" Sewer Line	East of Phantom East
City Of Victorville	18" Sewer Line	Air Express Way and Gas Line Rd
Southwest Gas	High Pressure Gas Pipe	Air Express Way and Gas Line Rd
N/A (per City of Victorville as-builts)	10" Gas Line	Air Express Way and Gas Line Rd
N/A (per City of Victorville as-builts)	Power Line	Air Express Way
City Of Victorville	4" Water line	Air Express Way
City Of Victorville	8" Water Line	Air Express Way
City Of Victorville	27" Sewer Line	East of El Evado Rd
DWP	Overhead Power Line	East of El Evado Rd
Southern California Gas	30" Gas Line	Rancho Rd
SC Edison	Overhead Power Line	West of National Trails Hwy
City of Victorville	6" AC Water Line	West of National Trails Hwy
City of Victorville	2-14" DIP Sewer Line	West of National Trails Hwy
Southwest Gas	High Pressure Gas Pipe	National Trails Hwy
City of Victorville	12" AC Water Line	National Trails Hwy
DWP	Overhead Power Line	Between National Trails Hwy and Mining RailRoad
SC Edison	Overhead Power Line	Between National Trails Hwy and Mining RailRoad
Level 3 communications	Fiber Optic Line	Mining RailRoad
SC Edison	Overhead Power Line	Mining RailRoad
SC Edison	Overhead Power Line	East of Mining RailRoad
City of Victorville	24" Sewer Line	Stoddard Wells Rd
Victor Valley wastewater Reclamation Authority	24" Sewer Line	Stoddard Wells Rd
City of Victorville	21" Sewer line	Stoddard Wells Rd
Victor Valley wastewater Reclamation Authority	24" Sewer line	Stoddard Wells Rd
Time Warner Telecom	Telecommunications Duct Bank	East of I-15
SC Edison	Overhead Power Line	East side of I-15 and Falchion Rd
Southwest Gas	2" Gas Line	D Street
Southwest Gas	4" Gas Line	D Street
City of Victorville	10"/12" Sewer Line	Stoddard Wells Rd
Southwest Gas	2" Gas Line	Stoddard Wells Rd
Apple Valley County Water District	12" Water line	Bell Mountain Rd
SC Edison	Overhead Power Line	Between Bell Mountain Rd and Comanche Rd
Apple Valley County Water District	12" Water line	Between Bell Mountain Rd and Comanche Rd
Town Of Apple Valley	12" Sewer Line	Between Bell Mountain Rd and Comanche Rd
Apple Valley County Water District	14" Water Line	Comanche Rd
SC Edison	Overhead Power Line	Between Comanche Rd and Ramona Rd

**Table 4.3.2.A: HDC Utility Conflict Matrix**

Owner	Utility Description	Conflict Location
SouthWest Gas	High Pressure Gas Line	Ramona Rd
SC Edison	Overhead Power Line	Carmel Ln
SC Edison	Overhead Power Line	Between Papago Rd and Waalew Rd
SC Edison	Overhead Power Line	Waalew Rd
SouthWest Gas	High Pressure Gas Line	Waalew Rd
SC Edison	Overhead Power Line	Between Waalew Rd and Cahuilla Rd
SouthWest Gas	High Pressure Gas Line	Central Rd
Sunesys	Fiber Optic Line	Cahuilla Rd
SC Edison	Overhead Power Line	Cahuilla Rd
SC Edison	Overhead Power Line	Joshua Rd
SC Edison	Overhead Power Line	Thunderbird Rd
SC Edison	Underground Power Line	Thunderbird Rd
SC Edison	Overhead Power Line	Standing Rock Rd
SC Edison	Overhead Power Line	Between Standing Rock Ave and Yucca Loma Rd
SC Edison	Overhead Power Line	Yucca Loma Rd
SC Edison	Overhead Power Line	Ottawa Rd
SC Edison	Overhead Power Line	Between Ottawa Rd and Nisqually Rd
South West Gas	High Pressure Gas Pipe	Nisqually Rd
SC Edison	Overhead Power Line	Between Nisqually Rd and Bear Valley Rd
SC Edison	Overhead Power Line	Bear Valley Rd

Source: California Department of Transportation, District 7, May 2013

### 4.3.3 Avoidance, Minimization, and Mitigation Measures

#### All Build Alternatives

The Project traverses mainly undeveloped lands and areas of very low-density business and residential units. Most of the community facilities are located near existing populated urban areas. No impacts on community facilities, such as schools and libraries are anticipated as a result of the Project. In addition, no impacts are anticipated to emergency services as a result of the Project.

- Caltrans may work with the City of Victorville to add parking capacity to the Rockview Nature Park if additional adjacent right of way becomes available and can be obtained. Caltrans will provide the City of Victorville Department of Community Services an opportunity to review the HDC project design at the location of the Rockview Nature Park during the Design Phase.

- Install a right turn lane pocket into Rockview Nature Park at the northern entrance within the roadway's ROW to enhance safety and access to the park. In addition, to minimize HDC impacts on recreational and park lands during the construction phase, no equipment staging will occur within the boundaries of the adjacent parks, golf course and other recreational facilities. Also see the minimization measures listed under other resource impacts below (visual, air quality, noise) that would be incorporated into the project to minimize any impacts to park and recreational facilities.
- Relocate impacted school district facilities to a neighboring vacant land. Provide facilities to the school district in a timely manner that allows for the continuation of the service to students. This includes hiring an architect to create plans for reconstruction of new facilities. In the interim, temporary structures should be utilized to ensure services are not interrupted.
- Provide compensation to eligible facilities in accordance with the Federal Uniform Relocation Assistance and Property Acquisition Act of 1970 as amended (42 USC Secs. 4601-4655).
- Utility Relocation will be coordinated with the affected utility companies and owners during the final design phases of the project to ensure that services are not impacted.
- Minimization and avoidance measures for impacts during construction should include the following:
  - Prepare staging plan that will ensure that access to homes and businesses is available at all times with minimum disruption of traffic flow and increase in delays.
  - Staging areas would be located when possible outside of any community or recreational facilities.
  - Design a public campaign through which the public will advise of construction plans that may have impacts on traffic.
  - Keep emergency services providers informed of changes in traffic plans, and continue coordination on traffic management over the entire period of construction.
  - Coordinate with the affected utility companies during the final design phase of the project to insure that services are not interrupted.
  - Prepare a Comprehensive Transportation Management Plan (TMP) to minimize traffic inconveniences due to construction activities.
  - The project would conform to all Department construction required measures for dust control and air pollution control.
  - Implement sound-control measures to minimize noise impacts during construction.

## 4.4 Relocations

Caltrans' Relocation Assistance Program (RAP), as established by federal and state law provides help to individuals, families, businesses, and others that are required to relocate as a result of a public improvement project. Its primary objective is to assist all project displacees so that they do not suffer disproportionate injury as a result of projects constructed for the benefit of the public. RAP is based on Federal and state laws including, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the California Government Code, Chapter 16, Section 7260, et seq.

Information for this section is derived from the *Final Relocation Impact Report (FRIR)* completed in 2015.

### 4.4.1 Affected Environment

The project area is located within the High Desert. The area is located to the east of State Route 14, and to the north of existing State Route 138. The High Desert is an unofficial geographic term used to refer to an area of southern California, located to the northeast of the San Gabriel Mountains. The High Desert may be defined as the area bounded by the San Gabriel Mountains and the Tehachapi Mountains, and extending varyingly into the Mojave Desert's Basin and Range Province to the east. The High Desert most commonly refers to the Antelope Valley and Victor Valley area, as well as the Edwards Air Force Base region to the north. The area is mostly vacant, developed primarily with minimal industrial and pocket residential subdivisions. The main project alignment crosses through the City of Palmdale, Unincorporated Los Angeles County, Unincorporated San Bernardino County, the City of Adelanto, the City of Victorville, and the Town of Apple Valley. **Table 4.4.1.A** provides a summary of units that will be potentially displaced as a result of the preferred alternative by jurisdiction.

**Table 4.4.1.A – Relocations Matrix for the Preferred Alternative**

Comparative Analysis Displacement Units – Main Alignment Route (City/Town)	Estimated Residential Units	Estimated Commercial/ Business Units	Estimated Industrial Relocation	Estimated Non-Profit	Estimated Agricultural parcels
Palmdale	73	20	19	9	0
Little Rock	0	0	0	0	1
Llano	0	0	0	0	4
Lake Los Angeles	8	0	0	0	6
City of Adelanto/El Mirage	0	0	2	1	0
Victorville	39 (including 29 dilapidated & abandon)	1 (a portion of abandon golf course)	1	0	0
Apple Valley	11	1	1	0	0
<b>Total:</b>	131	22	23	10	11

## Palmdale

*Area Type:* Incorporated on August 24, 1962, the City of Palmdale is an urban area, located 60 miles northeast of Downtown Los Angeles. It is situated within the High Desert area of Los Angeles County and is also known as the Aerospace Capital of America. Palmdale consists of mostly vacant land. It is developed primarily with pocket residential subdivisions and minimal industrial usage.

*Housing Characteristics:* Sixteen (16) of the seventy-six residences, within the main project alignment area, are located within the City of Palmdale. The residences are single-family houses built between the mid 1950's to the mid 1980's. The residences vary in size/amenities, ranging from approximately 900 sf to 2,250 sf. The condition of homes range from fair to good. The acquisition requirement for six (6) of the sixteen (16) parcels are full acquisitions and include the acquisition of six single-family residences. The remaining ten (10) acquisitions are partial and do not indicate the acquisition of the residences.

*Commercial Business Characteristics:* Eight (8) of the nine commercial properties affected by the main project alignment are located within in Palmdale. Three (3) of the properties are full acquisitions – APN: 33005004074; APN: 3005004090; APN: 3022002016/3022002017. The properties consist of a fast food restaurant, a florist shop, a bingo supply wholesaler. The number of employees range from two to 15 persons. Partial acquisition is required for the remaining four commercial properties. Three of the partial acquisitions involve acquiring a portion of rear parking areas that are utilized by three car dealerships within the Antelope Valley Auto Center. There is also a partial acquisition of a public storage (APN: 3006023020). The partial acquisition of APN: 3006023020 include the acquisition of one (1) of the six storage buildings, located in the rear of the property and is the largest of the six storage buildings.

*Non-Profit Characteristics:* Eight (8) non-profits affected by the main project alignment are located in Palmdale. The properties are improved with structures which include a media services, educational annex, warehouse garages, office, utility storage, and a fuel pump station. Operators of the facilities vary and include: LAWA, the Palmdale School District, and a church. Full acquisitions are indicated for all eight properties.

*Industrial Characteristics:* No industrial businesses are affected by the main project alignment.

*Variation A:* One (1) industrial property affected by the Variation A alignment is located in Palmdale. The property is a salvage yard.

*Agricultural Characteristics:* No agricultural properties are affected by the main project alignment.

### Littlerock/Sun Village

*Area Type:* Littlerock and Sun Village are unincorporated, rural communities within Los Angeles County. The communities are located in the southeastern portion of the Antelope Valley; approximately eleven (11) miles east of the Palmdale Civic Center. Littlerock encompasses a total area of approximately 2 square miles. Sun Village encompasses an area of approximately 11 square miles. Sun Village is considered to be a part of Littlerock.

*Housing Characteristics:* One (1), of the seventy-six residences within the main project alignment area is located within Littlerock. The single-family residence was built in 1979 and is in good condition. It is approximately 2,150 sf and is on a parcel zoned LCA25 - Agriculture. In addition to the residence, the parcel also contains small horse stables and feed areas. The partial acquisition of the parcel will not impact the residence. *Commercial Business Characteristics:* No commercial properties are affected by the main project alignment.

*Non-Profit Characteristics:* No non-profit properties are affected by the main project alignment.

*Industrial Characteristics:* No industrial properties are affected by the main project alignment.

*Agricultural Characteristics:* One (1) of the eleven (11) agricultural properties affected by the main project alignment is located in Littlerock. APN #3029016007 is 19.55 acres. As of the date of this report, the parcel is vacant. However, as farmland, there is a potential for future crop cultivation. Based on field review, the land appears vacant but could be fallowed.

### Llano:

*Area Type:* Llano is an unincorporated area located in Los Angeles County, near the San Bernardino County line. Llano is approximately 25 miles southeast of Palmdale and has a population of approximately 1,200. Pearblossom High (State Route 138) runs through the heart of Llano and is its principal street. Small storefront properties line Pearblossom Highway. Much of the land use consists of small ranches or single family residences situated on agricultural land.

*Housing Characteristics & Condition:* One (1) of the seventy-six residences, within the main project alignment area, is located within Llano. The residence was built in 1950 and is in average condition. It is a two bedroom, one bath and measures approximately 13,123 SF. In addition, a site visit of the property confirmed that there are approximately 8 small bungalow style structures also present on the parcel. The measurement and condition of the bungalows are unavailable. The partial acquisition requirement will not impact the residence.

*Commercial Business Characteristics:* No commercial properties are affected by the main project alignment.

*Industrial Characteristics:* No industrial properties are affected by the main project alignment.

*Agricultural Characteristics:* Four ( 4) of the eleven (11) agricultural properties affected by the main project alignment, are located in Llano. All four farmland parcels contain either large crops or rows of crops. Three (3) parcels are owned and operated by Bolthouse Properties (APNs: 3091021018, 3091020019, and 3091020020). One farmland parcel is privately owned (APN: 3075007007). The main project alignment indicates that the project will have varying impact to the four farmland parcels. Partial acquisition of the farmland parcels will cause a disturbance to crops and to each parcel's irrigation system. In addition to such disturbance, partial acquisition of APN: 3091021018 and APN: 3075007007 is significant. Partial acquisition of APN: 3091021018 will require approximately half of the property and separate the property. Partial acquisition of APN: 3075007007 will bisect midway through the parcel and affect the large water well/pump currently in place. The acquisition will impact the utility of the farmland and its water source. Site visits appear to indicate that APN: 3075007007 is also irrigated with a non-stationary sprinkler system. However, the source of irrigation water is undetermined. Therefore, the overall impact to parcel #3075007007 is unquantifiable.

### Lake Los Angeles

*Area Type:* Lake Los Angeles is an unincorporated community within northern Los Angeles County. It is approximately seventeen (17) miles east of the Palmdale Civic Center and thirteen (13) square miles long.

*Housing Characteristics:* Thirteen (13) of the seventy-six residences within the main project alignment area are located within Lake Los Angeles. The properties are single-family residences. The majority of the residences were built in the 1950's. Several of them were built in the late 1970's and early 1980's. The residences vary in size and amenities, ranging from approximately 1000 sf. to 2,978 sf. The condition of the homes range from fair to good. Full and partial acquisitions are required for the thirteen (13) parcels. The acquisition requirement for eight (8) of the thirteen parcels are full acquisitions and include the acquisition of eight single-family residences. The remaining five acquisitions are partial and do not indicate the acquisition of residences.

*Commercial Business Characteristics:* No commercial properties are affected by the main project alignment.

*Non-Profit Characteristics:* No non-profit properties are affected by the main project alignment.

*Industrial Characteristics:* No industrial properties are affected by the main project alignment.

*Agricultural Characteristics:* Six (6) of the eleven (11) agricultural properties affected by the main project alignment are located in Lake Los Angeles and within unincorporated areas east of Lake Los Angeles. One, of the parcels is privately owned and is vacant. Parcel (APN: 3075007008) is farmland and has the potential for future crop cultivation. Based on field reviews, the land appears to be vacant but could be fallowed. The remaining five agricultural parcels are owned and operated by Long Valley Road, LP. Impacts on the five parcels vary. The partial acquisition of APN: 3075007001 and full acquisition of APN: 3075007010 may prove to be sizeable. The partial acquisition of APN: 3075007001 will bisect midway through the parcel. Impacts to privately owned APN: 3075007008 and three Long Valley Road LP farm parcels (APN: 3075007002, 3075007003, and 3075007009) are minor.

### Adelanto

*Area Type:* The City of Adelanto is located within San Bernardino County and is located approximately 43 miles east from Downtown Palmdale and 9 miles northwest from the City of Victorville. The city's boundaries extend to Shadow Mountain Road to the north, Amethyst Road to the east, Palmdale Road to the south, and Lessing Ave towards the west. U.S. Route 395 runs along the western portion of the city.

*Housing Characteristics:* One (1) of the seventy-six residences within the main project alignment area is located within the City of Adelanto. The main project alignment indicates a partial acquisition of the parcel (APN: 3200121030000) which does not include the purchase of the residence.

*Commercial Business Characteristics:* No commercial properties are affected by the main project alignment.

*Non-Profit Characteristics:* One (1) of the two non-profits affected by the main project alignment is located in the City of Adelanto. The non-profit is the Boys & Girls Club. The property consists of a 4,857 sf building. The building has an office, restrooms, and a large gymnasium floor. The partial is approximately 3 acres which includes a parking lot and a basketball court. The requirement indicates a full acquisition of the parcel.

*Industrial Characteristics:* Two (2) of the five industrial properties, affected by the main project alignment are located within Adelanto. The parcels have been improved with varying improvements. The improvements include: warehouses, office spaces, garages/carports, and parking lots. Partial acquisitions impact parking spaces and a small section of warehouse and office space.

*Agricultural Characteristics:* One (1) of twelve (12) agricultural properties affected by the main project alignment is located in El Mirage. APN: 0457161100000 is a large former dairy farm and it is approximately 158 acres. One-half of the square shaped parcels contain two very large crop circles. The remainder of the property contains a warehouse, a large garage, machinery, and approximately twenty long carport style structures that provide shade and a feeder to over 600 cattle. Partial acquisition is required. The requirement will bisect midway through the property and will impact large portions of the crop circles, feeder stations, housing, and the milk processing machinery. A full acquisition may be necessary under this alternative.

### Victorville

*Area Type:* The City of Victorville is situated within San Bernardino County and is adjacent to the City of Adelanto and the Town of Apple Valley. According to the *City of Victorville's General Plan 2030*, the city's overall planning area is divided into 10 distinct planning areas within its area of jurisdiction. The boundaries for the planning areas are defined with topographic features, man-made features, and land use characteristics.

*Housing Characteristics:* Twenty-nine (29) of the seventy-six residences within the main project alignment area are within the City of Victorville. The properties are single-family residences located on SCLA parcel (APN: 459211100000). Full acquisitions are indicated for all twenty nine. The units are dilapidated and abandoned. Recent site visits show that the units have been gutted out and have been left unattended for years. Ms. Escobar, a SCLA representative, states that the residences were part of the former George Air Force Base and that the base has been closed since 1989. These abandoned military housing properties in the section of the Variation E Main Alignment are not occupied and will not require tenant relocation.

*Commercial Business Characteristics:* One (1) commercial property within the main alignment is within Victorville. A partial acquisition is indicated. It contains a small portion of an abandoned golf course. The golf course is non operable and has portions of it owned by SCLA & other portions owned by the City of Victorville. The course was closed sometime in 2010, according to SCLA. A site visit confirmed that the golf course has been abandoned and is in a state of disrepair.

*Non-Profit Characteristics:* No non-profit properties are affected by the main project alignment.

*Industrial Characteristics:* Two (2) of the five industrial properties affected by the main project alignment are located within Victorville. The parcels are improved with large warehouses and equipment. Partial acquisition of parcel APN: 0459-194-02, will involve the acquisition of all

of the five to seven loading docks that are located along the south west side of the building. Partial acquisition of the other parcel (APN: 0459-194-050) will not affect the improvement.

*Agricultural Characteristics:* No agricultural properties are affected by the main project alignment.

### Apple Valley

*Area Type:* The town of Apple Valley, located within the western end of the project limits, is due east of the City of Victorville. According to the *Town of Apple Valley General Plan (2009)*, the planning area for the town of Apple Valley consists of 50,532 acres, in which 46,948.3 acres are within the town area. Two annexation areas totaling 3,583.2 acres were later added to the planning area.

*Housing Characteristics:* Fourteen (14) of the seventy-six (76) residences within the main project alignment area are located within Apple Valley. The properties are single-family residences. The majority of the residences were built in the late 80's and early 2000's. Several were built between the late 1940's and mid 1950's. The residences vary in size/amenities and range between 800 sf to 2,170 sf. The condition of the units range from average to fair. Full and partial acquisitions will be required. Eleven (11) parcels are indicated for a full acquisition and will require the acquisition of approximately ten single-family residences. The requirement for the remaining three parcels will not affect the units on the site.

*Commercial Business Characteristics:* One (1) of the nine commercial businesses affected by the main project alignment is located within Apple Valley. It operates as a propane provider. A site visit confirmed that there are several large containers on the site along with a self service propane pump. A full acquisition is indicated for this parcel.

*Non-Profit Characteristics:* No non-profit properties are affected by the main project alignment.

*Industrial Characteristics:* One (1) of the five industrial properties affected by the main project alignment area is located within Apple Valley. The parcel is improved with garages and warehouses. A full acquisition is indicated for the parcel.

*Agricultural Characteristics:* No agricultural properties are affected by the main project alignment.

### **4.4.2 Environmental Consequences**

Tables 4.4.2.A and 4.4.2.B provide an estimate of the number of permanent full and partial acquisitions and associated displacements that would result from the proposed project broken down by alternative, variation, rail option, and community.

Note that the acquisition data presented in the FRIR were obtained from the SCAG Land Use Data Set, 2008. If 70 percent or more of the parcel would be acquired by the project, it was considered to be a full acquisition in terms of analysis. The relocation impact data (Table 4.4.2.B) was obtained using ROW Land Vision Software, which is continuously updated for new information. These two data sets are not consistent in how they categorize parcels in different municipalities. For example, some parcels are classified as being located in Palmdale in one data set, while in the other data set the parcel is classified as being located in unincorporated Los Angeles County. This classification difference, along with the relative age of the data sets, accounts for the discrepancies between the acquisition data (Table 4.4.2.A) and the relocation data (Table 4.4.2.B).

**Table 4.4.2.A Residential and Nonresidential Property Acquisition Impacts of the Build Alternatives**

Alignment/Variations	Freeway/Expressway & Freeway/Tollway Alternatives			Freeway/Expressway Freeway/Tollway with HSR Alternatives		
	Full Acquisition (Residential)	Full Acquisition (Non-Residential)	Partial Acquisition	Full Acquisition (Residential)	Full Acquisition (Non-Residential)	Partial Acquisition
<b>Main Alignment/common areas</b>						
Adelanto	0	38	76	0	47	83
Apple Valley	7	51	339	2	47	255
Unincorporated San Bernardino County	1	28	75	1	28	75
Lake Los Angeles	5	93	304	5	95	298
Palmdale	0	14	140	0	17	152
Unincorporated LA County	0	18	51	0	31	45
Victorville	9	13	66	11	17	73
<b>Variation A Main Alignment</b>						
Palmdale	0	5	25	n/a	n/a	n/a
Unincorporated LA County	0	24	44	n/a	n/a	n/a
<b>Variation A*</b>						
Palmdale	0	9	53	n/a	n/a	n/a
Unincorporated LA County	0	18	33	n/a	n/a	n/a
<b>Variation B Main Alignment</b>						
Adelanto	0	3	2	0	3	2
Unincorporated San Bernardino County	1	27	52	1	28	57
<b>Variation B</b>						
Adelanto	0	3	2	0	3	3
Unincorporated San Bernardino County	0	17	82	0	19	78
<b>Variation B1</b>						
Adelanto	0	3	2	0	3	2
Unincorporated San Bernardino County	0	32	67	0	35	67
<b>Variation D Main Alignment</b>						
Lake Los Angeles	5	48	187	5	52	189
<b>Variation D</b>						
Lake Los Angeles	5	36	106	5	45	108

Alignment/Variations	Freeway/Expressway & Freeway/Tollway Alternatives			Freeway/Expressway Freeway/Tollway with HSR Alternatives		
	Full Acquisition (Residential)	Full Acquisition (Non-Residential)	Partial Acquisition	Full Acquisition (Residential)	Full Acquisition (Non-Residential)	Partial Acquisition
<b>Variation E Main Alignment**</b>						
Adelanto	0	32	56	0	40	63
Apple Valley	0	0	1	0	0	35
Victorville	9	11	47	11	17	73
<b>Variation E</b>						
Adelanto	0	31	81	0	42	79
Apple Valley	0	0	1	0	0	34
Victorville	0	22	54	7	36	133
<b>Palmdale Rail Option #1A</b>						
Palmdale	n/a	n/a	n/a	0	14	74
Unincorporated LA County	n/a	n/a	n/a	0	0	15
<b>Palmdale Rail Option #1B</b>						
Palmdale	n/a	n/a	n/a	0	9	91
Unincorporated LA County	n/a	n/a	n/a	0	0	15
<b>Palmdale Rail Option #1C</b>						
Palmdale	n/a	n/a	n/a	7	31	127
Unincorporated LA County	n/a	n/a	n/a	0	0	15
<b>Palmdale Rail Option #7A</b>						
Palmdale	n/a	n/a	n/a	5	14	73
Unincorporated LA County	n/a	n/a	n/a	0	0	26
<b>Palmdale Rail Option #7B</b>						
Palmdale	n/a	n/a	n/a	4	1	104
Unincorporated LA County	n/a	n/a	n/a	0	0	26
<b>Palmdale Rail Option #7C</b>						
Palmdale	n/a	n/a	n/a	12	32	143
Unincorporated LA County	n/a	n/a	n/a	0	0	18
<b>XpressWest Rail connection Main Alignment</b>						
Victorville	n/a	n/a	n/a	11	17	73
<b>XpressWest Rail connection Variation E</b>						
Victorville	n/a	n/a	n/a	7	36	133
<p>*Note: Variation A was not considered a viable option for alternatives with HSR; therefore, no study of affected properties under Variation A was performed.</p> <p>**Note: There are a number of abandoned military housing properties in this section of the main alignment. These are not included here since they are unoccupied and would not require tenant relocation.</p> <p>Note that the acquisition data presented in the FRIR were obtained from the SCAG Land Use Data Set, 2008. If 70 percent or more of the parcel would be acquired by the project, it was considered to be a full acquisition in terms of analysis. The relocation impact data (Table 4.4.2.B) was obtained using ROW Land Vision Software, which is continuously updated for new information. These two data sets are not consistent in how they categorize parcels in different municipalities. For example, some parcels are classified as being located in Palmdale in one data set, while in the other data set the parcel is classified as being located in unincorporated Los Angeles County. This classification difference, along with the relative age of the data sets, accounts for the discrepancies between the acquisition data (Table 4.4.2.A) and the relocation data (Table 4.4.2.B).</p> <p>See Appendix I for complete list of potentially affected developed and undeveloped parcels.</p>						

Source: High Desert Corridor Final Relocation Impact Report, 2015.

Table 4.4.2.B Residential and Nonresidential Relocation Impacts of the Build Alternatives

Alignment/Variations	Freeway/Expressway & Freeway/Tollway Alternatives		Freeway/Expressway Freeway/Tollway with HSR Alternatives	
	Residential Relocation	Non-residential Relocation	Residential Relocation	Non-residential Relocation
<b>Main Alignment/common areas</b>				
Adelanto	0	2	0	2
Apple Valley	11	5	11	5
Unincorporated San Bernardino County	0	4	0	2
Lake Los Angeles	6	4	7	4
Palmdale	17	17	18	6
Unincorporated LA County	0	0	0	0
Victorville	0	1	0	1
<b>Variation A Main Alignment</b>				
Palmdale	1	8	1	8
Unincorporated LA County	0	0	0	0
<b>Variation A*</b>				
Palmdale	2	6	n/a	n/a
Unincorporated LA County	0	0	n/a	n/a
<b>Variation B Main Alignment</b>				
Adelanto	2	0	2	0
Unincorporated San Bernardino County	1	4	1	2
<b>Variation B</b>				
Adelanto	1	0	1	0
Unincorporated San Bernardino County	1	0	0	0
<b>Variation B1</b>				
Adelanto	0	0	0	0
Unincorporated San Bernardino County	0	1	1	0
<b>Variation D Main Alignment</b>				
Lake Los Angeles	1	1	1	1
<b>Variation D</b>				
Lake Los Angeles	1	1	1	1
<b>Variation E Main Alignment**</b>				
Adelanto	0	1	0	1
Apple Valley	0	0	0	0
Victorville	39	1	39	1
<b>Variation E</b>				
Adelanto	1	9	0	11
Apple Valley	0	0	0	0
Victorville	0	5	24	2
<b>Palmdale Rail Option #1A</b>				
Palmdale	n/a	n/a	1	5
Unincorporated LA County	n/a	n/a	0	0
<b>Palmdale Rail Option #1B</b>				
Palmdale	n/a	n/a	1	19
Unincorporated LA County	n/a	n/a	0	0
<b>Palmdale Rail Option #1C</b>				
Palmdale	n/a	n/a	54	34
Unincorporated LA County	n/a	n/a	0	0

Alignment/Variations	Freeway/Expressway & Freeway/Tollway Alternatives		Freeway/Expressway Freeway/Tollway with HSR Alternatives	
	Residential Relocation	Non-residential Relocation	Residential Relocation	Non-residential Relocation
<b>Palmdale Rail Option #7A</b>				
Palmdale	n/a	n/a	1	16
Unincorporated LA County	n/a	n/a	0	0
<b>Palmdale Rail Option #7B</b>				
Palmdale	n/a	n/a	36	14
Unincorporated LA County	n/a	n/a	0	0
<b>Palmdale Rail Option #7C</b>				
Palmdale	n/a	n/a	63	35
Unincorporated LA County	n/a	n/a	0	0
<b>XpressWest Rail connection Main Alignment</b>				
Victorville	n/a	n/a	0	1
<b>XpressWest Rail connection Variation E</b>				
Victorville	n/a	n/a	24	1
<p>*Note: Variation A was not considered a viable option for alternatives with HSR; therefore, no study of affected properties under Variation A was performed.</p> <p>**Note: There are a number of abandoned military housing properties in this section of the main alignment. These are not included here since they are unoccupied and would not require tenant relocation.</p> <p>Note that the acquisition data presented in the FRIR were obtained from the SCAG Land Use Data Set, 2008. If 70 percent or more of the parcel would be acquired by the project, it was considered to be a full acquisition in terms of analysis. The relocation impact data (Table 4.4.2.B) was obtained using ROW Land Vision Software, which is continuously updated for new information. These two data sets are not consistent in how they categorize parcels in different municipalities. For example, some parcels are classified as being located in Palmdale in one data set, while in the other data set the parcel is classified as being located in unincorporated Los Angeles County. This classification difference, along with the relative age of the data sets, accounts for the discrepancies between the acquisition data (Table 4.4.2.A) and the relocation data (Table 4.4.2.B).</p> <p>See Appendix I for complete list of potentially affected developed and undeveloped parcels.</p>				

Source: High Desert Corridor Final Relocation Impact Report, 2015.

Tables 4.4.2.C through 4.4.2.D provides an estimate of displacement units for the preferred alternative.

**Table 4.4.2.C – Residential Relocation Impacts Preferred Alignment**

Type of Residence	Preferred Alternative
Owner Occupants of Single-family Residence	40
Tenant Occupants of Single-family Residences	11
Abandon (no Occupants) Single-family Residence	29
Tenant Occupants of Multiple Unit Residence	51
Owner Occupants of Mobile Homes	0
Tenant Occupants of Mobile Homes	0
Total Residential Properties	131

**Table 4.4.2.D – Nonresidential Relocation Impacts Preferred Alignment**

Type	Preferred Alternative
Commercial Business	21
Industrial/Manufacturing Business	24
Non-Profit Organizations	10
Agricultural Farms	11
Total Nonresidential Properties	66
<b>TOTAL RESIDENTIAL &amp; NONRESIDENTIAL PROPERTIES</b>	<b>197</b>

### All Build Alternatives

Based upon on the FRIR (2015), it appears that there are sufficient residential, commercial, industrial, and agricultural properties available in the replacement area for all properties affected under all the build alternatives including variations. It does not appear that the Last Resort Housing Program will be necessary, as the residential housing stock in the replacement area is ample. Should the housing market improve and prices increase, however, the Last Resort Housing Program would be available to assist any residential displacees unable to afford comparable replacement housing. Similarly, according to the FRIR, current commercial, industrial, and agricultural real estate markets confirm that non-residential properties impacted by all alternatives and variations will have sufficient replacement property available for lease/purchase and or raw land for development. The exception will apply to Palmdale School District, as the acquisition of and relocation of the property will require the use of functional replacement process.

All of the alternatives affect 3 Palmdale School District properties, which house administrative and operational facilities essential to the day-to-day operations for the school district's 22,500 enrolled students. Acquisition of the 3 facilities would require a significant amount of additional time and financial allotment, in which replacement stock for such facilities is not readily available. As such, the costs for architectural design, allocation of land, and construction of new replacement facilities would require significant time and financial allotment. Relocation experts anticipate approximately 8 years for completion of the entire relocation process of the 3 properties. Due to the complexity of the property type, temporary facilities may be utilized in the interim.

In addition, though there is an ample land supply, certain businesses may find it somewhat of a greater challenge to find a suitable replacement site, such as the Original Tommy's Burgers (705 W. Rancho Vista, Palmdale), which may not easily find an existing facility that can accommodate the same functional use; however, most of the nonresidential properties that may

be acquired for project purposes appear to be of the type commonly found in the area and would not be expected to pose extraordinary relocation issues.

Furthermore, one private, nonprofit 3-acre property, which is slated for full acquisition under all of the build alternatives, stands out in particular as a property that may provide for the special needs of nearby residents: the Boys and Girls Club of Victor Valley (17537 Montezuma Street, Adelanto) reaches out to disadvantaged youth in the greater region and offers them year-round and after-school social and recreational programs.

#### Build Alternatives with Variation E

In addition to the impacts described above, under the build alternatives with Variation E, there is a potential to impact several industrial/manufacturing companies in Adelanto that handle hazardous chemicals (FRIR, 2015). The properties include Assessor's Parcel Number (APN): 0459461730000, 0456461740000, and 0459461750000, which are owned and operated by USA Services. APN: 0459461340000 and 0459461280000 are owned and operated by the APEX Bulk Transportation Company and produce and/or transport various materials such as waste byproducts, borax, manganese, ore, and limestone.

#### Build Alternatives with High-Speed Rail Option 1

Under HSR Options 1A, 1B, and 1C, there would be 5, 19, or 34 nonresidential relocations, respectively, that include various commercial businesses ranging from auto repair to storage facilities and industrial companies. HSR Options 1A, 1B, and 1C would also require the relocation of 1 (1A, 1B) or 54 (1C) residential properties.

Option 1 includes the relocation of commercial and industrial properties, including Allen Recycling, Lusk Machine Products, and other industrial buildings/structures, and regular mid-size businesses such as auto repairs and warehouses. Heavy machinery and equipment associated with these facilities would require more time and resources for relocation in comparison to Option 7. Although there is an adequate supply of replacement business properties, business relocations are more complex in comparison to residential relocations. Because businesses serve a particular clientele specific to a particular area, potential business relocations may disrupt services received by that particular clientele. Affected businesses may suffer from economic impacts due to a potential loss of clientele as a result of the relocation.

While 6 government parcel facilities that will be impacted include the Lockheed Martin facility located at a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the

Lockheed Martin facility involve a partial acquisition of a parcel with a parking lot; the lot will be relocated.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Uniform Relocation Act and Real Property Acquisition Policies Act of 1970, as amended, to ensure adequate relocation and decent, safe, and sanitary housing for displaced residents. All eligible displacees would be entitled to moving expenses.

#### Build Alternatives with High-Speed Rail Option 7

Option 7A, 7B, and 7C will require the relocation of 1, 36, or 63 homes, respectively, located along 10<sup>th</sup> Street East. . The majority of these units include single-family homes and one multi unit duplex. In addition, between 14 and 35 nonresidential properties would require relocation, including exclusive nonresidential parcels and government facility parcels.

Option 7 will also require the relocation of nonresidential units, which are mainly composed of industrial, warehouse, commercial, auto repair, and government facilities. Under Option 7 the following facilities will be impacted: a water test center/utility owned by the City of Palmdale, located at the corner of Rancho Vista Boulevard (Ave P) and 20<sup>th</sup> Street, the Lockheed Martin facility located at a federally owned parcel at Sierra Highway and Lockheed Way, the Palmdale Transit Center/Metrolink Station located at Sierra Highway and Technology Drive, and two parking lots owned by the City of Palmdale located at Sierra Highway and Technology Drive. Impacts to the Lockheed Martin facility involve a partial acquisition of a parcel with a parking lot; the lot will be relocated.

All displacees will be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

#### **4.4.3 Avoidance, Minimization, and Mitigation Measures**

Avoidance and minimization measures shall include the following:

- Provide relocation assistance and counseling to displaced persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Polices Act, as amended, to ensure adequate relocation for displaced persons and businesses. All eligible displacees will be provided moving expenses. All benefits and services will be provided equitably to all relocatees without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964.

- Provide ROW agents who are bilingual or have translators to assist with the diverse population within the area during the relocation process.
- Assist displacees, to the extent possible, in locating replacement areas that are homogenous to the displacement areas and are comparable in terms of amenities, public utilities, and accessibility to public services, transportation, and shopping.
- Utilize the Last Resort Housing Program, if necessary, to relocate residential households within the Los Angeles or San Bernardino county area.
- Establish a designated office to assist displacees during the relocation process.
- Replacement facilities will be constructed, whenever feasible based on availability of suitable replacement properties, before demolishing displaced facilities.
- As part of the project design, provide landscape and streetscape improvements in the displacement areas and the remaining areas adjacent to the new corridor as project compatibility features following extensive and collaborative community involvement and context-sensitive solution approaches.
- Give special attention to the three Palmdale School District properties, if acquired, to ensure an effective acquisition and relocation process that minimizes disruption to the school district.
- Provide additional lead time for the relocation process for the handling of all industrial and manufacturing businesses affected by the project. Lead time will be required to assess the environmental condition of these properties and secure suitable replacement properties.

## 4.5 Environmental Justice

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended, and Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority and Low-Income populations.” *Title VI* states that “No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal or federally funded projects on minority and low-income populations.

Minority individuals, as defined by the Council on Environmental Quality, include members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black; or Hispanic.

As for minority populations, as determined by the Council of Environmental Quality, should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

Low-income populations in an affected area are identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty. According to the U.S. Census low-income or poverty, thresholds are determined by a set dollar amount earned by either a sole individual or family unit, in which this amount determines whether a person or family is considered below or above the poverty threshold level. **Table 4.5.A**, provides the threshold levels for determination of poverty or low-income within the United States.

**Table 4.5.A - The Census Bureau's Poverty Thresholds for 2010**

Size of Family Unit	Poverty Threshold
One person (unrelated individual)	\$11,139
Under 65 years	\$11,344
65 years and over	\$10,458
Two people	\$14,218
Householder under 65 years	\$14,676
Householder 65 years and over	\$13,194
Three people	\$17,374
Four people	\$22,314
Five people	\$26,439
Six people	\$29,897
Seven people	\$34,009
Eight people	\$37,934
Nine people or more	\$45,220

*Source: U.S. Census Bureau, Weighted Average Poverty Thresholds, 2010 released in September 2011. Preliminary estimates for 2010 were released January 14, 2011.*

#### 4.5.1 Affected Environment

Please see *Chapter 4 – Community Character* for community character information including population demographics for the affected communities within the study area, which include Palmdale, Unincorporated Los Angeles County, Unincorporated San Bernardino County, Adelanto, Victorville, and Apple Valley.

As previously defined in *Chapter 4 – Community Character*, the study area for the project is composed of block groups that fall within 1/2 mile from the centerline of the proposed alignment.

#### The City of Palmdale Minority and Low-Income Populations

Based on **Table 4.5.1.A**, the total minority population within the City of Palmdale is approximately 74 percent. In which there exists a higher percentage of minorities when

compared to the other local jurisdictions and overall county. Please see *Section 4.1.1.2 – The City of Palmdale Ethnicity and Race* for further information pertaining to minority populations within the City of Palmdale.

Low-income populations within the City of Palmdale account for approximately 19 percent within the City of Palmdale, which falls within range in comparison to the Palmdale study area and Los Angeles County. (See **Table 4.5.1.B**)

Also, see *Section 4.1.1.2 – The City of Palmdale Income* for further information pertaining to income.

#### The City of Palmdale Study Area Minority and Low-Income Populations

For the Palmdale study area, as displayed in **Table 4.5.1.A**, the minority population is approximately 77 percent, which again is quite representative when compared to the overall City of Palmdale and Los Angeles County. Please see *Section 4.1.1.2 – The City of Palmdale Study Area Ethnicity and Race*, for further information pertaining to minority populations within Palmdale study area.

Low-income populations within the City of Palmdale study area account for approximately 29 percent, which is greater in comparison to the city of Palmdale and Los Angeles County. (See **Table 4.5.1.B**)

Also, see *Section 4.1.1.2 – The City of Palmdale Study Area Income* for further information pertaining to income.

#### Unincorporated Los Angeles County Minority and Low-Income Populations

Census data pertaining to minority and low income populations within Unincorporated Los Angeles County was not attainable. However, census data was obtainable for the Unincorporated Los Angeles County study area.

#### Unincorporated Los Angeles County Study Area Minority and Low-Income Populations

Based on **Table 4.5.1.A**, the total minority population within the Unincorporated Los Angeles County study area is approximately 69 percent. When compared to Los Angeles County, the study area is marginally smaller in percentage. Please see *Section 4.1.1.2 – Unincorporated Los Angeles County Study Area Ethnicity and Race* for further information pertaining to minority populations.

Low-income populations within the Unincorporated Los Angeles County study area account for approximately 25 percent, which is greater in comparison to Los Angeles County. (See **Table 4.5.1.B**)

See *Section 4.1.1.2 – Unincorporated Los Angeles County Study Area Income* for further information pertaining to income.

#### Unincorporated San Bernardino County Minority and Low-Income Populations

Census data pertaining to minority and low income populations specifically within Unincorporated San Bernardino County was not attainable. However, census data was obtainable for the Victor Valley study area, which includes areas within Unincorporated San Bernardino County, Adelanto, Victorville and Apple Valley. Please see *Section 4.1.1.2 – Victor Valley Study Area Ethnicity and Race* for further information pertaining to minority populations. Also, see *Section 4.1.1.2 – Victor Valley Study Area Income* for further information pertaining to income.

#### Adelanto Minority and Low-Income Populations

The minority population accounts for approximately 80 percent of the total population within the City of Adelanto, which is greater in percentage when compared to San Bernardino County and the Victor Valley study area. (See **Table 4.5.1.A**) Please see *Section 4.1.1.2 – City of Adelanto Ethnicity and Race* for further information pertaining to minority populations.

Low-income populations within the City of Adelanto account for approximately 26 percent, which is greater in comparison to San Bernardino County. (See **Table 4.5.1.B**)

See *Section 4.1.1.2 – The City of Adelanto Income* for further information pertaining to income.

#### Victorville Minority and Low-Income Populations

For the City of Victorville, as shown in **Table 4.5.1.A**, the minority population accounts for approximately 68 percent of the total population within the city, which is marginally greater in percentage when compared to San Bernardino County and the Victor Valley study area. Please see *Section 4.1.1.2 – City of Victorville Ethnicity and Race* for further information pertaining to minority populations.

Low-income populations within the City of Victorville account for approximately 19 percent, which is greater in comparison to San Bernardino County. (See **Table 4.5.1.B**)

See *Section 4.1.1.2 – The City of Victorville Income* for further information pertaining to income.

### Apple Valley Minority and Low-Income Populations

Within the Town of Apple Valley, the minority population accounts for approximately 41 percent of the total population, which is lower in comparison to San Bernardino County and the Victor Valley study area. (See **Table 4.5.1.A**) Please see *Section 4.1.1.2 – The Town of Apple Valley Ethnicity and Race* for further information pertaining to minority populations.

Low-income populations within the Town of Apple Valley account for approximately 18 percent, which is greater in comparison to San Bernardino County. (See **Table 4.5.1.B**)

See *Section 4.1.1.2 – The Town of Apple Valley Income* for further information pertaining to income.

### Victor Valley Study Area Minority Population (Unincorporated San Bernardino County, Adelanto, Victorville, Apple Valley)

As shown in **Table 4.5.1.A**, the minority population within the study area accounts for approximately 61 percent of the total population within the study area. In comparison to the county, the percentage of minorities within the study area is quite representative.

Please see *Section 4.1.1.2 – Victor Valley Study Area Ethnicity and Race* for further information pertaining to minority populations.

Low-income populations within the Victor Valley study area account for approximately 22 percent of the total population. In comparison to the county, the margin share of low-income individuals is greater. (See **Table 4.5.1.B**)

See *Section 4.1.1.2 – The Victor Valley Study Area Income* for further information pertaining to income.

**Table 4.5.1.A – Total Minority Population Demographics**

Location	Total Minority Population		
	Study Area	City/Town	Los Angeles County
Palmdale	11,791 (77%)	113,973 (74%)	6,990,550 (71%)
Unincorporated Los Angeles County	1,322 (69%)	N/A	6,990,550 (71%)
	Victor Valley Study Area	City/Town	San Bernardino County
Adelanto	27,550 (61%)	25,509 (80%)	1,310,191 (64%)
Victorville	27,550 (61%)	79,423 (68%)	1,310,191 (64%)
Apple Valley	27,550 (61%)	28,685 (41%)	1,310,191 (64%)

Source: U.S. Census Bureau

**Table 4.5.1.B – Total Low-Income/Poverty Status Population Demographics**

Location	Low-Income/Poverty Status Population		
	Study Area	City/Town	Los Angeles County
Palmdale	6,033 (29%)	29,163 (19%)	1,697,465 (18%)
Unincorporated Los Angeles County	1,885 (25%)	N/A	1,697,465 (18%)
	Victor Valley Study Area	City/Town	San Bernardino County
Adelanto	16,867 (22%)	7,080 (26%)	291,020 (15%)
Victorville	16,867 (22%)	20,219 (19%)	291,020 (15%)
Apple Valley	16,867 (22%)	12,021 (18%)	291,020 (15%)

Source: U.S. Census Bureau

## 4.5.2 Environmental Consequences

Although minority populations exist within the project area, the overall percentage of total minority populations within the greater Los Angeles and San Bernardino Counties in comparison to the percentage of total minority populations within the communities located within the project area is quite similar. Based on the analysis contained in the various technical reports prepared for this project, all the HDC Build Alternatives would impact some members of minority and low-income population groups, as they would non-environmental justice populations, resulting from displacements/relocations, air quality violations of PM<sub>10</sub>, noise impacts, and changes in visual/aesthetics.

Since the demographics are similar to the county averages, the Project is not disproportionately affecting a particular high minority population. In addition, at an early stage, the proposed Project alignment was designed to avoid populated areas thus reducing potential adverse impacts on developed communities.

Low-income/poverty status populations exist within the project area, and when compared to the county averages the project area exhibits a higher percentage. However, as mentioned above, the proposed Project alignment was designed to avoid populated areas in order to reduce potential adverse impacts on communities and populations. As a result, measures shall be taken in order to assist low-income/poverty status populations that may potentially be affected by the Project.

Although the effects of the project would occur in an area having a population that is largely minority and low-income, these effects cannot reasonably be considered disproportionately high and adverse under the circumstances. Noise, visual, and air quality impacts associated with the various build alternatives would affect area residents along the entire 63-mile corridor length, not solely the areas with minority and low-income populations. Because these impacts would be distributed similarly throughout the corridor, impacts would not fall disproportionately on low-income and minority populations. All Census block groups in the project study area, except

9102.01, 9101.01, 9100.01, 9800.04, 9105.02, and 9106.01, are composed of substantial portions of minority and low-income populations; however, only a relatively small linear portion of the proposed HDC Project would actually be located within the direct impact area, and most of the residents within the Census block groups through which the project would traverse are not likely to be affected by the proposed HDC Project. Due to the small population within each block group (9102.01, 9101.01, 9100.01, 9800.04, 9105.02, and 9106.01), encompassed within a rather large geographical size, and often rural in character, the minority and low-income populations are not highly concentrated in a central location but are dispersed throughout the area of the Census block groups. With the exception of those properties that may require relocation (a list of all the properties potentially displaced appears in Appendix I), most of the residences dispersed throughout these large block groups are located far from the proposed HDC Project alignments and would not be affected any more so than the other community members. As indicated in Section 3.1.4.2, Relocations and Acquisitions, the difference among the build alternatives with variations is narrow. Effects on neighborhood integrity and community cohesion would be generally similar for the community populations.

As it would for other community members who are not members of the minority or low-income population groups, the HDC Project build alternatives would also provide benefits for the minority and low-income populations within the study area. Goals of the project are to improve travel safety and reliability in the High Desert region, improve traffic operations, and provide improved access and connectivity to regional transportation facilities, including airports and future passenger rail systems. These benefits would be shared among all of the study area populations.

#### No Build Alternative

Given the absence of new transportation infrastructure, certain impacts would be less substantial than the effects described below for the build alternatives; however, certain adverse effects on minority or low-income populations in the study area would arise as a result of transportation needs left unmet by the No Build Alternative. These effects would include direct impacts and indirect effects that are typically caused by traffic congestion and impaired mobility, longer travel times on local roadways, and increased air pollution and noise. The economic benefits associated with implementation of the HDC would also not be realized. Because these effects would not be concentrated in any particular location, minority and low-income and non-minority and non-low-income populations would be affected. Therefore, impacts associated with the No Build Alternative would not be predominantly borne by a minority or low-income population, nor would these impacts be appreciably more severe or greater in magnitude than those experienced by non-minority or non-low-income populations.

### Freeway/Expressway Alternative

Under this alternative, impacts to minority and low-income/poverty status populations would be minimal. As discussed above, the demographics of minority and low-income populations in the area in comparison to the two counties are similar. In Palmdale, most of the full-property residential displacements which are anticipated are located on Calle Street/10<sup>th</sup> Street East. Outside the city limits, but houses on Palmdale Blvd., 170<sup>th</sup> Street East, and East Avenue Q12 would also be taken under any of the alternatives. Most of the other potential full single family residential acquisitions occurring in a concentrated neighborhood area would occur in the Town of Apple Valley, on Waalew Road and Cuyama Road. The neighborhoods from which right-of-way acquisitions would occur consist of both minority/low-income and non-minority/non-low-income populations. Impacts would not result in a deterioration of the overall neighborhood. Most of the other potential displacements for the Freeway/Expressway alternative, overall, however, are widely distributed and located in unincorporated areas on semi-rural parcels and individual streets that are not part of any established neighborhoods (See Appendix I for a table of the affected properties subject to relocation).

The proposed improvements would require the relocation of three commercial properties in Palmdale, a fast food restaurant, a florist shop and a bingo supply wholesaler. There are also several nonprofit properties slated for full right-of-way acquisition, with the FRIR indicating these provide services that include media services, equipment storage, a warehouse, and a fuel pumping station. Industrial and manufacturing parcels contain warehouses and garages. None of these enterprises were specifically identified as being minority-owned by the Caltrans FRIR (2015). Nor is there evidence to suggest that these businesses have any particular connection to a minority community or provide employment, goods, and/or services uniquely important to a particular minority population group. However, the Boys and Girls Club of Victor Valley, situated on a three-acre parcel in Adelanto would be acquired under this and all project Build Alternatives, and as it primarily serves the needs of the area's youth of minority populations and low-income households, should be considered a significant community resource. According to the FRIR, adequate replacement properties are available for all relocations under each of the Alternatives.

The effects of increased noise and changes in visual character are not confined to limited areas but rather dispersed over the length of the project and are not in themselves expected to affect the overall character of the environmental justice areas. The project's Noise Study Report (2015) indicated that, other than for single family residences, a church (Unity Church of Antelope Valley) and a school (Palmdale Learning Plaza School), both located in Palmdale, were sensitive receptors and would be eligible for sound abatement in terms of construction of soundwalls. Based on available online research, while the church does not appear to serve a predominantly minority population among its constituent members, the school, with an interdisciplinary, multi-

cultural approach to learning, does appear to have a student body that reflects the largely diverse local demographic base.

Each Build Alternative was analyzed to assess the degree of potential project effects to existing visual features. In many areas, construction of the High Desert Corridor project would occur within existing roads rights-of-way or on rural parcels and would have minimal to moderate effects on current viewer experiences. In some instances, because of construction of soundwalls, bridges, grade separations, and other structures, or the location of the facility into open or rural adjacent areas that create a more urban experience, some people would experience a higher degree of visual effect or aesthetic impact as certain open views of landscape vistas would be blocked or diminished. These impacts would be distributed along the length of the corridor and, as a result, would not be experienced disproportionately among low-income or minority populations. The visual analysis concluded that the introduction of retaining walls, soundwall barriers, and new bridges would have a moderate visual effect on residents living adjacent to the corridor, which statistically include a large percentage of minority and/or low-income household populations. Retaining walls and noise barriers would shield residences from the transportation facility, lessening its visual impacts. Further discussion of visual/aesthetic resources is provided in the Visual Impact Assessment (2015).

Mitigation measures have been developed to reduce impacts identified above. However, alternatives that would completely avoid or completely eliminate adverse effects on the low-income and minority populations are not likely practicable as it is not possible to route either the Freeway/Expressway Alternative or the Freeway/Tollway Alternative completely around these populations because the demographics in the project area are similar to the county averages and other people meeting a similar demographic profile would likely experience the project impacts. That is, for the project to meet the purpose the transportation system must provide for effective and efficient east-west movement between Palmdale and Victorville/Apple Valley. In looking at the U.S. Census data, it becomes apparent that it is not possible to find census tracts that do not contain large percentages of minority and low-income populations because the entire area is comprised of people who meet the definition of environmental justice populations. In addition, impacts would be distributed along the length of the corridor and, as a result, would not be experienced disproportionately among low-income or minority populations. In addition, impacts would be distributed along the length of the corridor and, as a result, would not be experienced disproportionately among low-income or minority populations.

#### Freeway/Tollway Alternative

With the exception of potential economic impacts on low-income households, the Freeway/Tollway Alternative would have the same effects as that of the Freeway/Expressway Alternative discussed above because of the same physical project footprint upon which it would be built.

Impacts would be distributed along the entire length of the transportation corridor; therefore, impacts would not fall disproportionately on minority populations. However, the one distinction this alternative has compared to the Freeway/Expressway is that the low-income/poverty status populations in the area may be impacted by an increased financial burden as a result of the tolling option that would be implemented under these alternatives.

Because a fare must be paid to utilize the tollway, financial access to a tolling facility is an issue that often emerges when such options are considered. To use the new tolled express lanes, tollway users would be required to pay for their travel. The segment in which tolling is being considered for implementation is located between 90<sup>th</sup> Street East in Palmdale and US 395 in Adelanto. The extent to which the tollway would affect low-income populations would vary depending on the final toll rate, which would change based on the congestion level at different times. As a result, these alternatives may affect low-income populations. By requiring a toll to utilize the facility, low-income/poverty status populations would be less able to afford the toll required and may need to utilize local arterial roads when commuting between Antelope Valley and Victor Valley. However, not only because travel options would continue to exist, but by absorbing some percentage of the traffic onto the new toll facility, those same people using the existing local road system would benefit from having less congestion on these general purpose roads than would be so without a toll facility.

Currently, there is no generally accepted understanding of the effects of tolling on transportation equity, and methodologies to measure such effects are not well established. Studies conducted on tolling in California showed that economically disadvantaged drivers use toll lanes, voluntarily and are not necessarily excluded, although more frequent use is often exhibited by higher-income drivers. The studies revealed that low-income drivers approved of the express toll concepts, similar to opinions of higher-income households. Case studies on two toll facilities – I-680 in the San Francisco Bay Area and SR-91 in southern California – revealed no substantive differences of opinion on tolling among members of the public based on their ethnic or income breakdown, nor was equity a critical issue identified by stakeholder focus groups or in surveys conducted for either tolling project. Most users, even those from higher-income households, choose the express lanes judiciously when they need to benefit most from bypassing reduced congestion. Legislation enables Metro and Caltrans to work together and in cooperation with a PPP to determine tolling programs. An Equity Assessment Analysis will be conducted during the design phase, and options for alternative purchasing of tolling transponders and other creative solutions will be considered prior to inauguration and construction of the tollway. Public involvement will be a cornerstone to future decision making concerning pricing. Therefore, impacts to minority populations would be minimal after avoidance and minimization measures are taken into account under this build alternative.

### Freeway/Expressway with HSR Alternative

In addition to the impacts to environmental justice and low-income populations noted with the Freeway/Expressway Alternative, this alternative, with the inclusion of the HSR feeder service, would result in greater impacts to minority populations under Option 7 because the total number of full acquisition of residential properties is higher. A tract of 20 to 73 residential houses within Palmdale would be displaced as a result of the proposed HSR alignment. While the U.S. Census does not allow a direct correlation of specific demographic or income data to be tied to any specific households or physical property addresses, given the percentage of minorities within the community, there is a high probability that approximately 15 of these 20 houses are the residences of members of minority population groups, particularly likely of Hispanic background. Options 1 and 7 would not cause an “island effect” for the residences located along 10<sup>th</sup> Street East in Palmdale or anywhere along the proposed corridor because the rail connection would use the tunnel configuration. In addition, neither 10<sup>th</sup> Street nor Avenue Q would be closed or obstructed. Although conveniently located to transportation facilities, it is not likely that all residents would consider the noise, right-of-way fencing, and other activities associated with the HST operational traffic to be of mutual benefit. On the positive side, property that becomes more accessible to a High Speed Rail alignment may increase the property’s economic value.

Whereas Option 7 would have greater impacts on residential properties in terms of residential displacements, Option 1 would entail a greater impact on non-residential industrial and manufacturing properties both in sheer number and size, but these would not be expected to have a similar impact on environmental justice population groups. Though employee composition details are not known, it is probable, however, that several of the industries that would be displaced also employ members of minority population groups.

### Freeway/Tollway with HSR Alternative

Under this alternative for the HSR, as it is with the Freeway/Expressway Alternative described above, under Option 7, a considerably higher percentage of minority populations would likely be affected within Palmdale as a result of the 20 to 73 residential relocations for the proposed HSR alignment. This alternative would also affect low-income populations as a result of the proposed tollway facility.

### *Outreach to Minority and Low-income Populations*

EO 12898 requires federal agencies to ensure effective public participation and access to information. Consequently, a key component of compliance with EO 12898 is outreach to the potentially affected minority and/or low-income population to discover issues of importance that may not otherwise be apparent. As Chapter 5 of the EIR/EIS provides in detail, a concerted effort

by Caltrans and Metro to conduct community outreach on the HDC Project was made to all population segments, which included the use of bilingual direct mail. Public meeting notices, in both English and Spanish, were posted at all of the public library kiosks in the project area. Scoping notices were also published in six local newspapers, including the region's major Spanish-language newspaper, *La Opinion*. In addition to the legally required scoping and public hearing meetings required as part of CEQA and NEPA, in which a Spanish-language interpreter was present, all informational handouts available at the meetings were provided in English and Spanish, and at some meetings, Korean. In addition, public information meetings/open houses were also held during preparation of the environmental documents. The community meetings were spread out geographically to make it convenient for stakeholders along the linear project study area to participate.

### **4.5.3 Avoidance, Minimization, and Mitigation Measures**

Based on the above discussion and analysis, neither the Freeway/Expressway Alternative, or Freeway/Tollway Alternative with variations or with the HSR options 1 or 7 would cause disproportionately high and adverse effects on any minority or low-income populations as per Executive Order 12898 regarding environmental justice.

Avoidance and minimization measures for impacts for the Freeway Expressway with High Speed Rail Service Feeder, the Freeway/Tollway Alternative, and the Freeway/Tollway with High-Speed Rail Service Feeder Alternative include:

- Involve low-income and minority status populations, through public outreach efforts, throughout the various phases of the project to address their concerns and needs.
- An Equity Assessment Analysis will be conducted during final design. Depending on assessment results, implementation of an Equity Program to alleviate cost burdens on low-income commuters on the facility will be considered. Low-income poverty status populations will be considered in decisions concerning toll pricing options.
- Incorporate community enhancement features such as parks, landscaping and pedestrian amenities during the final design to minimize impacts and add benefits for low-income populations.
- Collaborate with communities and local jurisdictions on aesthetics of the project facilities in order to minimize impacts to residential areas.
- During the relocation period, the Boys and Girls Club of Victor Valley will, if feasible, be allowed to continue to operate temporarily at their present location after acquisition by the State, under a lease agreement with the State. This would allow for continued operation until such time as a replacement site is located or until the property is actually required for construction of the HDC Project.

# **Chapter 5 Traffic and Transportation/ Pedestrian and Bicycle Facilities**

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The Department, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). The Department further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR part 27) implementing Section 504 of the Rehabilitation Act (29 USC 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

Information for the local existing and planned facilities were obtained from the general plans prepared for the urbanized jurisdictions within the project area. Therefore, for the purpose of this section, the analysis was divided into four areas based on the main urbanized areas within the project limits. These included from west to east (1) the City of Palmdale and the surrounding unincorporated areas of Los Angeles County, (2) the City of Adelanto and unincorporated areas of San Bernardino County, (3) the City of Victorville, and (4) the Town of Apple Valley.

## **5.1 Affected Environment**

### **Access, Circulation, and Parking**

The following is a description of the existing motorized roadway facilities, as well as the non-motorized facilities including bicycle and pedestrian facilities. The availability of parking facilities or parking spaces that would be affected by the project are also identified.

#### **City of Palmdale and Unincorporated Areas of Los Angeles County**

The Antelope Valley Freeway (SR-14) is a north/south freeway, which provides regional access for the entire Antelope Valley to the rest of Los Angeles County. The route connects with

Interstate 5 (I-5), in the west, and U.S. 395 in the east. I-5 is a major north-south route that terminates at the border with Mexico. SR-14 is a busy commuter freeway that serves the communities of Palmdale and Lancaster with the greater Los Angeles area. North of the City of Palmdale is SR-14 which serves the Edwards Air Force Base (located approximately 20 miles north of the City of Palmdale). According to the HDC Traffic Study, the rapid suburbanization of the Antelope Valley area made the SR-14 one of the most congested freeways within Southern California.

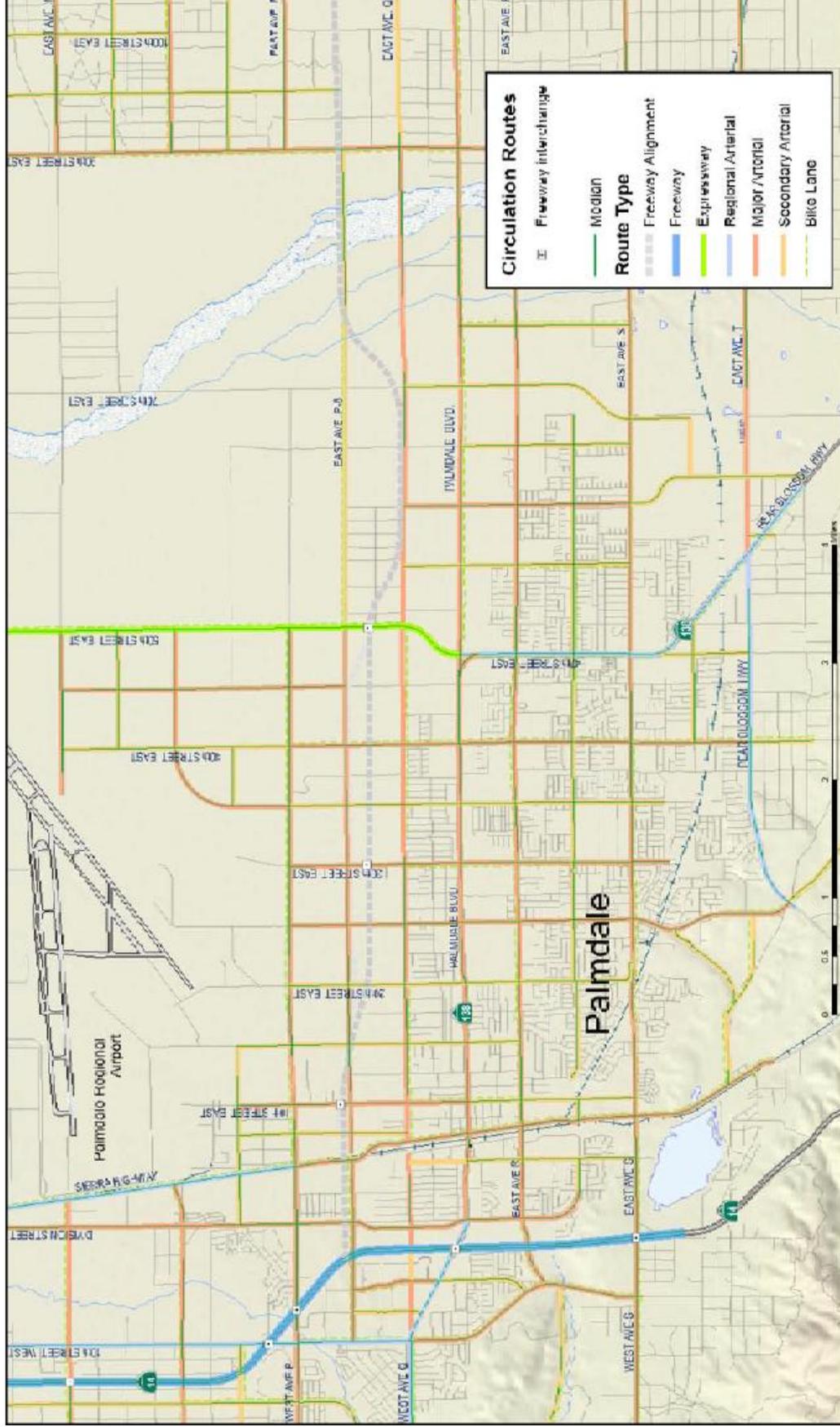
Pearblossom Highway (SR-138) is an east-west highway. It branches near the Los Angeles/San Bernardino County border into Palmdale Road (SR-18), which connects to Interstate (I-15) Mojave Freeway near Victorville. SR-138 continues through San Bernardino County and connects to I-15 south of Crestline in the San Bernardino Mountains. I-15 is a major north-south interstate transportation facility.

Several major arterials within the City of Palmdale also serve a regional function as well as local access needs. Palmdale Boulevard connects Palmdale with Victorville to the east in San Bernardino County. Elizabeth Lake Road, which is the westerly extension of Palmdale Boulevard, connects with Avenue D, which in turn connects to I-5 near the Ventura County border. Sierra Highway links Palmdale with the City of Mojave to the north in Kern County and with the I-5/SR-14 interchange to the south near Sylmar. **Figure 5.1.A** illustrates the existing roadway and highway network located in the City of Palmdale.

Two park-and-ride lots, located on either side of SR-14 on Avenue S, provide a total of 1,522 parking spaces, with an additional 445 spaces at a third park-and-ride lot located on West Avenue R-8 at Pelona Vista Park. The parking lot at the Palmdale Transportation Center contains approximately 500 parking spaces, but is not designated as a park-and-ride lot.

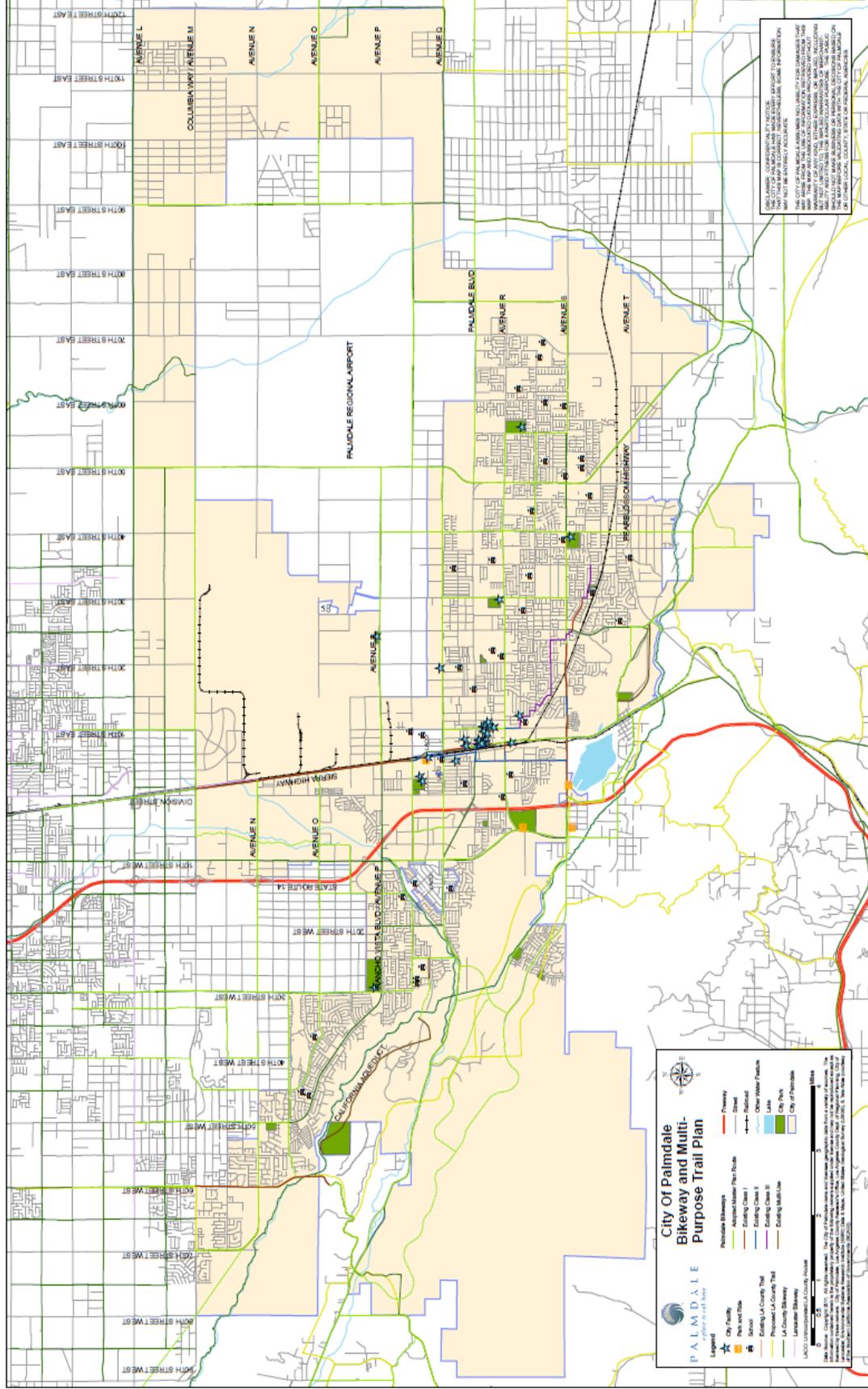
There are many areas within the high desert that provide bicycling opportunities for bicyclists, but few designated trails are available. Several active bicycle clubs ride through portions of the study area on surface roadways and trails that are disconnected, due largely to the rugged terrain and limitations of available access points. Within the City of Palmdale and the unincorporated areas of Los Angeles County, there are three trails and parkways that are designated multi-use for pedestrian, bike, and/or equestrian. These trails include Barrel Springs Trail, Joshua Ranch Trail, and Robert P. Street Clair Parkway. Other pedestrian facilities include walking paths around Domenic Massari Park, Pelona Vista Park and Marie Kerr Park. **Figure 5.1.B** illustrates the pedestrian and bicycle facilities located in the City of Palmdale and in the unincorporated Los Angeles County areas within the project area.

Figure 5.1.A - City of Palmdale Multi-Purpose Trail Plan



Source: HDC Traffic Study Report, 2014

Figure 5.1.B - City of Palmdale Multi-Purpose Trail Plan



Source: City of Palmdale General Plan, 1993

## City of Adelanto and Unincorporated Areas of San Bernardino County

United States Federal Highway 395 (US-395) is a north/south freeway, which provides regional access for the City of Adelanto and to the unincorporated areas of San Bernardino County. The City and the unincorporated areas of San Bernardino County are located near a vast regional and national highway network. I-15 is located five-miles east of the City's southeastern boundary. State Route 18 (Palmdale Road) forms Adelanto's southern boundary. Highway 58 travels just north of the City's General Plan Planning Area, linking I-40 and I-15. Air Expressway, El Mirage Road, and Koala Road are the major arterials within the City, which serve the local access needs of the area. **Figure 5.1.C**, Roadway and Highway Network of the City of Victorville and Surrounding Areas, illustrates the roadway and highway network located in the City of Adelanto and unincorporated San Bernardino County within the project area.

There are no designated pedestrian or bicycle facilities within the City of Adelanto and the unincorporated areas of San Bernardino County. Although no facilities may exist at this time, within the General Plan (Adelanto, 1994), it is the goal of the City and County to incorporate the design of improved and/or new roadway systems encompassing a complete and effective pedestrian element. All major roadways would contain adequate right-of-way to allow for the implementation of sidewalks and bike lanes. It is also a goal to establish a trails network within the open space areas.

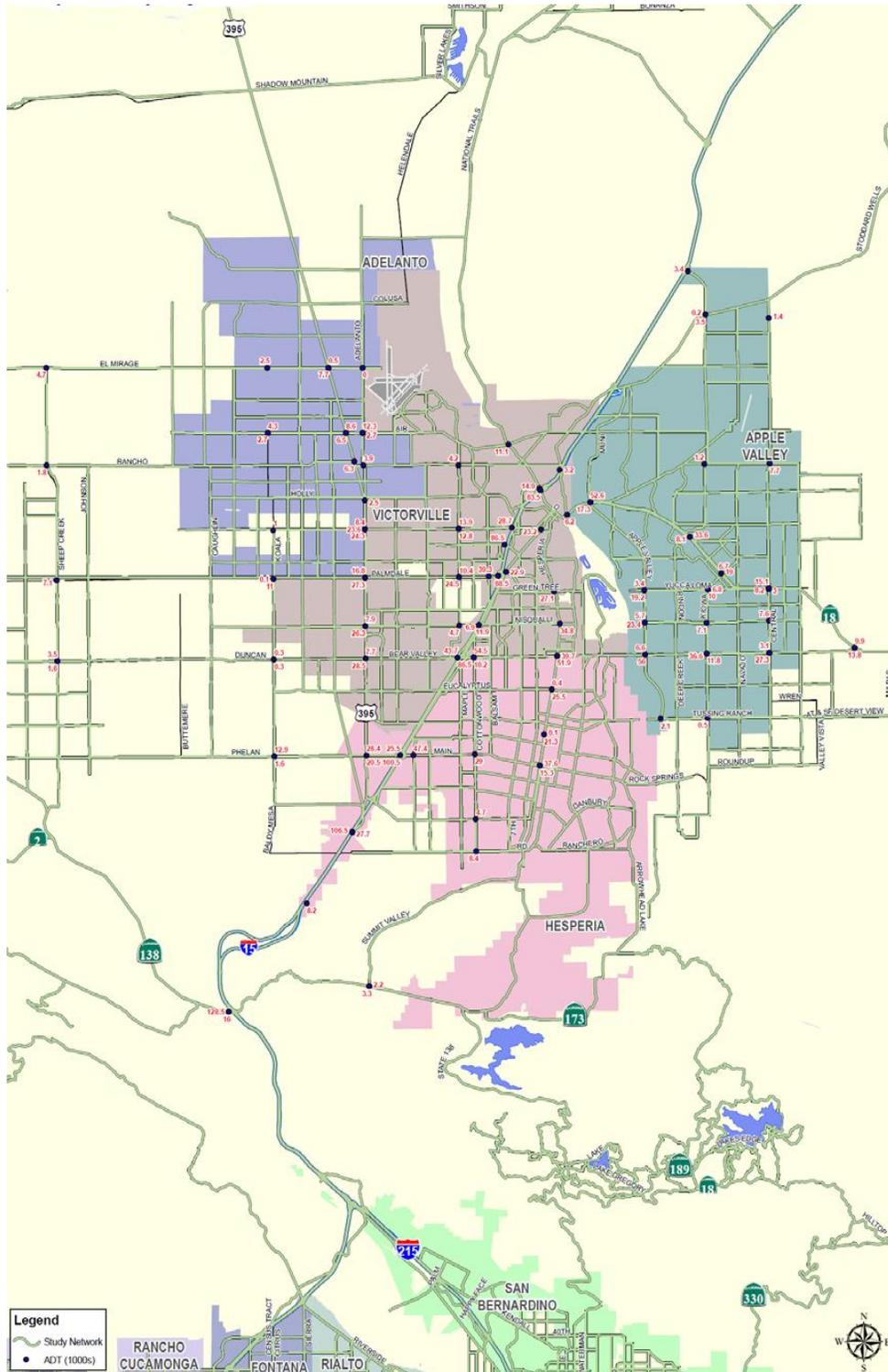
## City of Victorville

I-15 and US-395 are the major regional connections to the City of Victorville. I-15 and US-395 also serve as the primary regional connections to other San Bernardino County cities. While SR-18 (Happy Trails Highway) provides connection to the San Bernardino County communities east and west of the City.

Several major arterials within the City of Victorville also serve a regional function as well as local access needs. These arterials include 7th Street, Amethyst Road, Bear Valley Road (east of Petaluma Road), El Evado Road, Green Tree Boulevard, Hesperia Road, and La Mesa Road (East of Amethyst Road). **Figure 5.1.C** illustrates the roadway and highway network located in the City of Victorville and its surrounding areas.

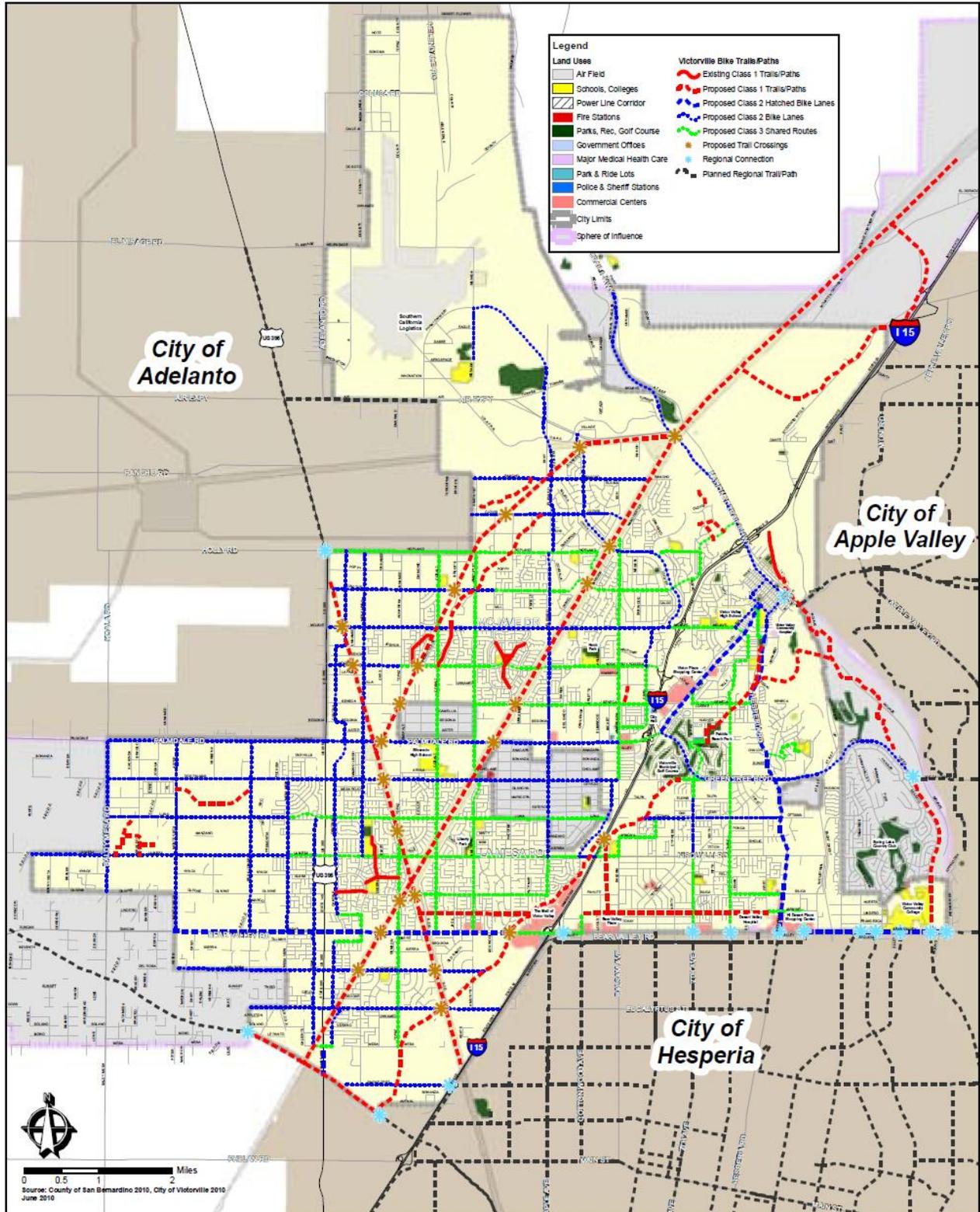
There is one designated bike path within the City of Victorville, which begins north of D Street, just southeast of Eva Dell Park. The bike path is separated from the road and travels north which eventually terminates at I-15. Plans for non-motorized transportation facilities in the City of Victorville are identified in **Figure 5.1.D**.

Figure 5.1.C - Roadway and Highway Network of the City of Victorville and Surrounding Areas



Source: Victor Valley Area Transportation Plan, 2008

Figure 5.1.D - City of Victorville Planned Non-Motorized Transportation Facilities



The City circulation plan includes three types of bikeway facilities. Definitions of the three types of facilities offered are provided as follows:

- Class I bikeways, such as “bike paths,” provide completely separated right of way designated for exclusive use of bicycles and pedestrians with minimum cross flows by motorists. These are shared use paths that may be used by pedestrians, skaters, wheelchair users, joggers, and/or other non-motorized users.
- Class II bikeways, such as “bike lanes,” provide restricted right of way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited. However, it allows for permitted vehicle parking and cross flows by pedestrians and motorists. This is a portion of roadway that has been designated by striping, signing, pavement delineation, and pavement markings for preferential or exclusive use of bicyclists.
- Class III bikeways, such as on-street or off-street “bike routes,” provide right of way designated by signs or permanent markings and are shared with pedestrians or motorists. Under Caltrans Design Standards, Class III bikeways are designated by signage as a preferred route for bicycle use.
- In addition, the San Bernardino Association of Governments (SANBAG) in 2001 developed a countywide Non-Motorized Transportation Plan to address the growing popularity of cycling. 5.1.A identifies the routes that are planned throughout the City of Victorville.

**Table 5.1.A - SANBAG Non-Motorized Transportation Plan for Bicycle Routes in the City of Victorville (2001)**

Class	Name	From	To
1	Mojave River	Hwy 18	Bear Valley Rd
2 or 3	7th Street	I-15 Fwy	D Street
2 or 3	Avenue D	7th Street	Mojave River
2 or 3	Hesperia Rd	D Street	Bear Valley Rd
2 or 3	Palmdale Rd	Hwy 395	I-15 Fwy
2 or 3	Highway 395	Palmdale Rd	Joshua St
2 or 3	Village Dr	Air Expwy	Mojave Dr
2 or 3	Bear Valley Rd	Hwy 395	Hesperia
2 or 3	Air Expwy	Village Dr	National Trails Hwy
2 or 3	Mariposa Rd	Bear Valley Rd	Palmdale Rd
2 or 3	Mojave St	Hwy 395	Amargosa Rd

*Source: San Bernardino County Non-motorized Transportation Plan – 2001 Update*

The City of Victorville has 10 bike lockers located at the Victor Valley Transportation Center located in Downtown Victorville. Bike racks are dispersed throughout the City, with the majority being found at schools and parks. Changing facilities are also provided and can be utilized by non-motorized commuters at the Wellness Center located at City Hall and at Victor Valley College.

The City of Victorville has two existing multimodal facilities, the Victor Valley Transportation Center in Downtown Victorville and the Park and Ride lot located on the corner of Amargosa Road and Bear Valley Road. The Park and Ride lot offers parking spaces for carpool participants and also includes a bus stop for Route 53 of the Victor Valley Transit Authority. There are currently no bicycle parking facilities at the lot. The Victor Valley Transportation Center also includes parking for carpool participants and includes bus stops for Routes 22 and 41 of the Victor Valley Transit Authority. In addition, the Victor Valley Transportation Center serves as a Greyhound bus station and an Amtrak train station. The Victor Valley Transit Authority buses provide bicycle racks on the front of each bus, which can accommodate two bicycles each.

The city has plans to utilize waterways and power line right-of-way for use by bicyclists, equestrians, and other non-motorized uses. Safety of these uses is a major concern and requires special attention at street crossings. Trails along the Mojave River and Oro Grande River are considered within the city's jurisdiction. Mojave River walk trail is a nine-mile trail along the river from the northern city limits, north of I-15 to the southern city limits near Victor Valley College. Oro Grande trail is planned as a paved pathway that would run the length of the river and through much of Victorville. It would link the Mall of Victor Valley and downtown, as well as parks and schools, and cross I-15 on a separate bridge near La Mesa Nisqualli Road. Within utility right-of-way, trail planning requires coordination with utility companies. The *Non-Motorized Transportation Plan* considers connectivity with public facilities, retail establishments, and other points of interest and improvement of accessibility over the I-15 freeway. Safe bike racks for occasional users and every day users are also considered for any multimodal facilities within the city. Bicycle parking facilities are also considered and planned at the proposed railroad station for the DesertXpress Rail Station.

### **Town of Apple Valley**

I-15 and SR-18 are the major regional connection points to the Town of Apple Valley. I-15 serves as the primary regional connections to other San Bernardino County cities, while SR-18 provides connection to San Bernardino County communities west of the City.

Apple Valley Road, Bear Valley Road, Central Road, Corwin Road, Dale Evans Parkway, Navajo Road, and Yucca Loma Road are the major arterials that provide access within the Town of Apple Valley. **Figure 5.1.C** illustrates the roadway and highway network located in the Town of Apple Valley within the project area.

There is a large network of recreational trails and bicycle facilities within the Town of Apple Valley. The facilities mainly travel along or near existing major arterials throughout the Town of

Apple Valley. Most of the facilities are mixed-use for pedestrian, equestrian, bicycle or any other modes of non-motorized transportation.

The Town of Apple Valley's master plan is to create a network of bikeways and pathways within an urban environment that would encourage the use of alternative means of transportation. A trails system would be designed to connect the urban and natural environments by providing access to open spaces. Three types of bicycle lanes are proposed in the Town of Apple Valley, as described in the Parks and Recreation Element (Town of Apple Valley General Plan, 2009). Bicycle lanes have been expanded to insure greater connectivity and access throughout the community, and promote non-motorized modes of travel. Bicycle lanes in the Town of Apple Valley are also designed to connect to regional bikeways. Continued coordination with the City of Victorville and San Bernardino County will be essential in the ultimate development of an effective regional bikeway system. (See section on 'City of Victorville' for bikeway classifications). **Figure 5.1.E** illustrates the pedestrian and bicycle facilities located in the Town of Apple Valley. The City adopted master plan indicates that no existing or future planned bicycle routes cross the proposed Project road alignment.

### **Public Transportation**

The following provides a description of the existing and planned public transit services within the project area.

### **City of Palmdale and Unincorporated Areas of Los Angeles County**

Public transportation within the City of Palmdale and the unincorporated areas of Los Angeles County is provided by the Antelope Valley Transit Authority (AVTA) and Metrolink. The Palmdale Transportation Center is a multi-modal facility located south of the Project alignment in the City of Palmdale. The multi-modal facility serves as a Metrolink train station, and as a hub for commuters connecting between the AVTA Santa Clarita Transit, Greyhound and Amtrak bus services. Eighteen Metrolink trains serve the station each weekday, while on Saturdays and Sundays nine trains provide service, linking Palmdale to the greater Los Angeles area. The Palmdale Transportation Center is also designated as a stop on the future California High Speed Rail line from San Francisco to San Diego.

Local and commuter bus service for the City and unincorporated areas of Los Angeles County includes six core routes and four supplemental routes. The six core routes provide public access to schools, parks, civic centers, and shopping centers. The four supplemental routes provide access to surrounding regional communities. In addition to AVTA services, Greyhound Lines provide bus service to Lancaster and Palmdale, primarily as intermediate stops along routes heading towards central or northern California, or Los Angeles. Service is limited with only two trips in each direction per day.





In addition, the Palmdale Regional Airport can offer commercial flights between Palmdale and surrounding city airports. **Figure 5.1.F** illustrates the public transit systems and facilities located in the City of Palmdale and in unincorporated areas of Los Angeles County within the project area.

### **City of Adelanto and Unincorporated Areas of San Bernardino County**

Public transportation within the City of Adelanto and the unincorporated areas of San Bernardino County is provided by the Victor Valley Transit Authority (VVTA). Three bus routes serve the City of Adelanto and the unincorporated areas of San Bernardino County. Two of the three routes also provide residents with service to the City of Victorville.

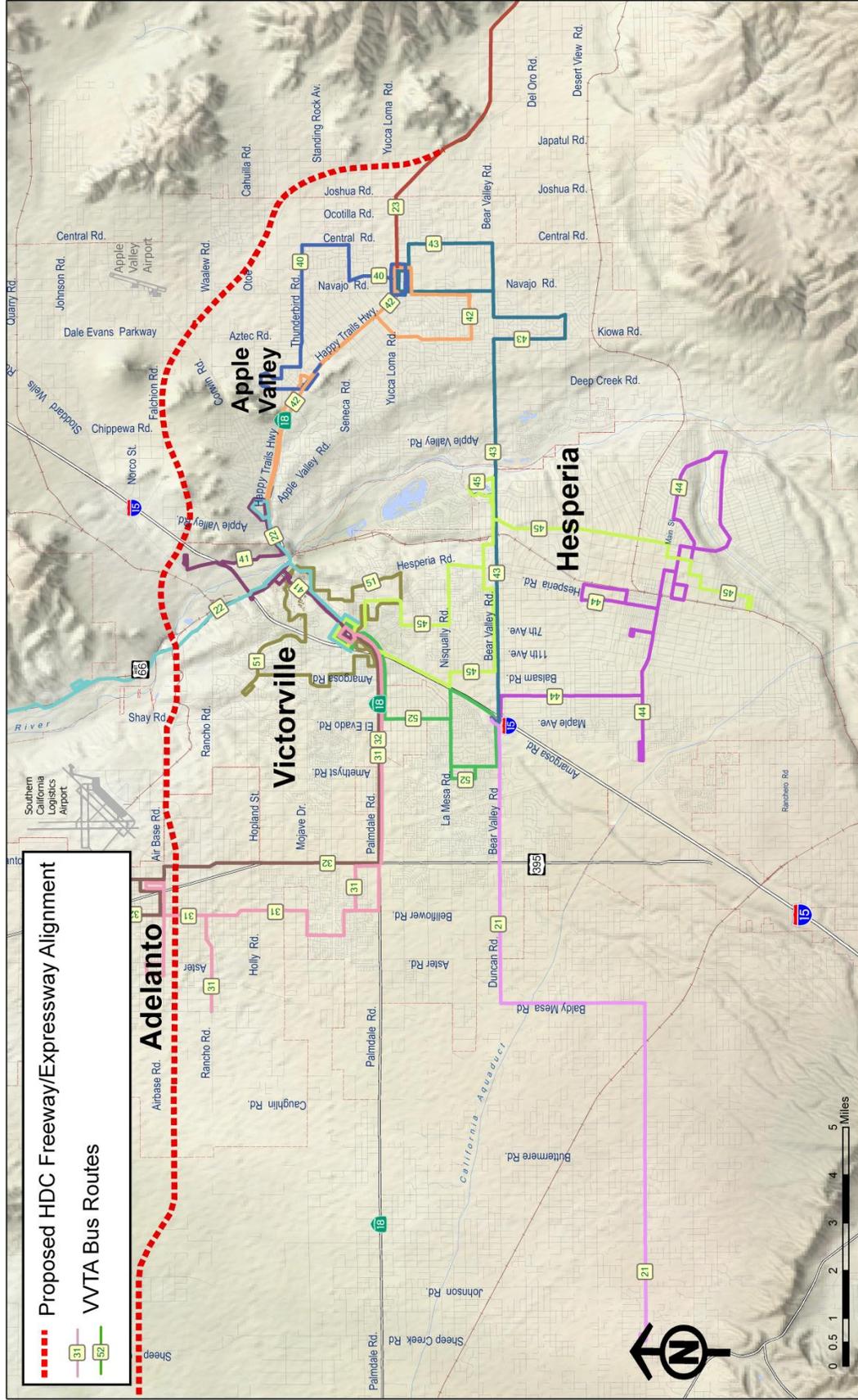
### **City of Victorville**

Public transportation within the City of Victorville is provided by the VVTA and Amtrak. Ten core routes provide bus service within the City of Victorville. Other routes provide regional access to the adjacent cities of Barstow, Adelanto, Apple Valley, and Hesperia. The VVTA was established through a Joint Powers Authority in 1991. The Joint Powers Authority includes four cities consisting of Adelanto, Apple Valley, Hesperia and Victorville in addition to certain unincorporated portions of San Bernardino County including Oro Grande, Helendale, Lucerne Valley, Phelan, Pinon Hills, and Wrightwood. Service is also provided to Barstow and Fort Irwin. The VVTA operates local fixed-route and ADA complementary para-transit bus services to senior citizens and people with disabilities in the Victor Valley area. The VVTA has secured a federal grant to jump-start an ongoing vanpool subsidy program for vanpools that originate or terminate in the greater Victor Valley area. Qualified vanpools will receive up to \$400 per month, on an ongoing basis to help defray the costs of this alternative commuting mode. **Figure 5.1.G** illustrates the public transit systems and facilities located in the City of Victorville and Town of Apple Valley as they relate to the project area.

While standard commercial airlines do not fly directly into Victor Valley, the Southern California Logistics Airport (SCLA) serves as a hub for many companies providing air cargo service and has the ability to accept commercial and military aircraft. It also provides service for executive air travel.

The Amtrak Southwest Chief, which provides service between Chicago and Los Angeles, is the only passenger train route that runs through Victorville. Service for the Amtrak Southwest Chief coming from the east typically arrives in the morning, while departure trains running east typically depart in the evening.

Figure 5.1.G Victor Valley Transit Authority Bus Route Network



Source: HDC Traffic Study Report, 2014

The proposed DesertXpress high-speed rail will offer non-stop passenger train service between Victorville and Las Vegas, Nevada. The proposed DesertXpress station is located along the I-15 between the north and south Stoddard Wells Road interchanges. It will encompass approximately 60 acres of land with parking as additional facility. This project would extend rail service to Palmdale.

### **Town of Apple Valley**

Public transportation within the Town of Apple Valley is also provided by the VVTA. Three core routes provide bus service within the Town of Apple Valley and one route provides resident access to the adjacent cities of Victorville. There is an airport located within Apple Valley that is open to the public, but does not have the ability to accept commercial aircraft.

## **5.2 Environmental Consequences**

### **Access, Circulation, and Parking**

#### No Build Alternative

The No Build Alternative would not create any changes to the existing location and type of transportation facilities. There will be no impacts to the circulation system, access, parking, pedestrian and bicycle facilities. However, under the No Build Alternative, it is anticipated that limited improvements will be made towards connectivity and the mobility of people and goods movement within the region.

#### All Build Alternatives

According to the *HDC Traffic Study Report* (2014), it is anticipated that the Build Alternatives (the project) will have a beneficial impact on long-term traffic and transportation operations in the corridor by accommodating future population growth, relieving future congestion, and improving safety between SR-14 and SR-18. Several improvements are proposed as part of the project in order for it to accomplish the identified purpose and need, and to meet the required design standards and specifications in a manner that avoids and minimizes adverse impacts to the communities and resources. The improvements include access enhancements, access control, and grade separations. The proposed improvements are the same for all build alternatives, except for some variations as described below. (See **Figure 5.2.A**, for the project alignment with the proposed access improvements.)



In the Antelope Valley area, the project runs in an east-west direction near Avenue P-8, between State Route 14 and 100th Street East in the City of Palmdale. A freeway-to-freeway interchange will be constructed for State Route 14/High Desert Corridor. New local interchanges are proposed at the locations of 20th Street East, 30th Street East, 50th Street East, and 90th Street East. In addition, viaduct structures would be constructed between Division Street and 10th Street East and over Little Rock Wash. Grade separations from the first viaduct are included in the way of undercrossings at Division Street, Third Street, Sierra Highway, Union Pacific and Metrolink tracks, Eighth Street and 10th Street. Additional grade separations are proposed at 15th Street, 25th Street, 30th Street, 40th Street, and 70th Street. The existing partial interchange at State Route 14/Rancho Vista Boulevard would be closed and replaced by 10th Street West to provide better weaving distance with the direct connector ramps of the State Route 14/High Desert Corridor interchange. Fiftieth Street East would be widened from two lanes to four lanes between the new freeway and existing SR-138. In Palmdale, alternatives to the above project description include a slightly different centerline alignment between 15th Street East and Little Rock Wash. This version of the centerline alignment would follow the original easement that the Los Angeles World Airport has agreed to donate.

In the area between the City of Palmdale and the City of Adelanto, the proposed location of the Project would be approximately one-quarter mile from Palmdale Boulevard. The proposed alignment generally follows existing Air Expressway Boulevard between Caughlin Road in Adelanto and Dale Evans Parkway east of I-15 in the town of Apple Valley. Continuing southeasterly as an expressway, it joins SR-18 just east of Joshua Road. For the remaining extent of the project, it continues easterly toward the Apple Valley Airport before turning southeasterly to align with the existing SR-18 north of Bear Valley cutoff. New interchanges are proposed at 140th Street, 170th Street, 210th Street, and 240th Street in Los Angeles County, and a future Oasis Road, midway between Avenue P and Saint George Avenue, Sheep Creek Road and Caughlin Road in San Bernardino County. Additional freeway grade separations (overcrossings or undercrossing) are proposed at 110th Street, Palmdale Boulevard, Longview Road, 165th Street, and Big Rock Creek (a viaduct structure). Grade separations may also be proposed at Avenue Q, 200th Street, 230th Street, Saint Anthony Avenue, Palmer Road, and Tanner Road at a later date when land development warrants additional north-south circulation capacity.

A freeway-to-freeway interchange for I-15/High Desert Corridor/SR-18 would be constructed with direct ramp connectors. Viaduct/bridge structure(s) would be constructed over the BNSF Railway and Mojave Northern Railroad tracks and the Mojave River. Additional new interchanges are proposed at Koala Road, U.S. 395, Phantom Road West, Phantom Road East,

National Trails Highway, Choco Road and Dale Evans Parkway. Additional grade separations are proposed at Bellflower Road, Turner Wash, Ossam Wash, Bell Mountain Wash, Adelanto Road, New Stoddard Wells Road and Apple Valley Road. Grade separations at Richardson Road, Beaver Road, Raccoon Avenue, Aster Road, Verbena Road, Evado Road/Majeta Avenue (south alternative alignment), Village Drive (south alternative alignment), Rancho Road (south alternative alignment), and Quarry Road may be proposed at a later date when local circulation needs warrant their construction. For the access-controlled, expressway portion of the project east of Dale Evans Parkway, at grade, traffic signal controlled intersections are proposed at Waalew Road, Central Road, Joshua Road, Standing Rock Road and Yucca Loma Road.

Alternatives to the above project include a different centerline alignment between Aster Road and Quarry Road. This version of the centerline alignment would run parallel to Rancho Road, approximately one-half mile south of Air Expressway Boulevard, to pass by the Victorville Federal Correctional Complex on the south side of this facility. This southern alignment would not include the interchange at Phantom Road East.

The Project would affect local circulation by causing several street closures and loss of direct connectivity on both sides of the proposed facility. In order to mitigate this impact, the HDC Traffic report mentions that frontage roads would be built where required. In addition, the existing alignment of SR-18 west of Joshua Road would be relinquished for use by local traffic. Congestion on local roads near the Palmdale Transportation Center will be caused by the construction of the Project railroad facility. The project's traffic impact on these roads should be addressed and improvements should be implemented in order to maintain accessibility, and to ensure that transit and non-motorized facilities are not negatively impacted.

In addition, it is anticipated that the new project alignment may conflict with some of the planned, non-motorized transportation facilities. The project is planned to support a variety of transportation facilities including rail and bicycle facilities. It would also be designed to accommodate local jurisdictions existing and planned non-motorized transportation, such as recreational and commuting trails. . Continuous coordination during the planning, design, and construction of the project would be required in order to accomplish this objective.

The project will not impact the existing parking facilities with the exception of Rockview Nature Park. Additional parking facilities will be provided as part of the railroad stations in order to meet the need created by the expansion of train service in Palmdale and Victorville.

Other amenities will also be provided to accommodate for non-motorized transportation such as bike racks and lockers.

Early coordination has been conducted with local agencies to minimize and/or avoid impacts to any trails that are bisected as a result of the proposed Project alignment. Potential impacts to trail systems were identified within unincorporated Los Angeles County, in which early coordination with the Los Angeles County Department of Parks and Recreation and the Los Angeles County Department of Regional Planning was conducted. Through early coordination, avoidance measures were discussed in order to maintain trail connectivity. Such measures include potential updates to the Trails System Map Plan within unincorporated areas of Los Angeles County within the Antelope Valley to include the Project component as part of the trails system plan. In addition, there is a potential for trail connectivity to be maintained by shifting the trail alignment to nearby multi-use culverts. Such multi-use culverts are to be utilized for the safe crossing of biological species however further coordination with the Los Angeles County Department of Parks and Recreation and the Los Angeles County Department of Regional Planning will need to be conducted to determine a feasible way to integrate trail access with the multi-use culverts. Avoidance measures must be implemented in order to ensure that access and connectivity of the trail is preserved.

### **5.2.1 Public Transportation**

#### No Build Alternative

The No Build Alternative would not create any changes to the existing transportation facilities. There will be no impacts to the circulation system, including the transit system. However, under the No Build Alternative, it is anticipated that limited improvements will be made towards local and regional connectivity and the mobility.

#### All Build Alternatives

According to the *Traffic Study Report (2014)*, the Project alignments and grade separations would not affect access to the five AVTA bus routes, which serve the Palmdale and Lancaster areas. These lines access the Palmdale Transportation center from Avenue P, Technology Drive, Sierra Highway, and Carriage Way. To the east, the Lake L.A. Express route, which operates on 60-minute headways, crosses the proposed freeway alignment at 40<sup>th</sup> Street East. A grade separation is currently proposed at 40<sup>th</sup> Street, so this transit line would not be affected. Commuter bus service would not be disturbed by the construction of the project, as well. It is not anticipated that the Project alignments and grade separations would affect access to any facilities and services provided by the VVTA.

The project does not include construction of new development, and would not generate the need for new additional transit facilities. However, transit routes and location of bus stops may have to be adjusted in order to accommodate the changes in the highway and roadway circulation system resulting from the construction of this project.

### Construction Impacts

Project construction activities would temporarily increase traffic along local roadways. Construction-related traffic such as heavy trucks delivering construction equipment and materials would comprise the highest volume of traffic. In addition, another contributor would be traffic from construction workers and inspectors traveling to and from the project site. Some construction vehicles and equipment would be stored at the project site, while other vehicles would incur daily trips to the project site. The types and number of vehicles and equipment would vary depending on the project phase.

Public transportation facilities and routes throughout the study area, particularly within the area of direct impacts, may also temporarily experience service delays and disruptions during construction.

## **5.3 Avoidance, Minimization, and Mitigation Measures**

### **Access, Circulation, and Parking**

- Prepare a Traffic Management Plan (TMP) in order to avoid and minimize any impacts during project construction. The TMP could include the following elements:
  - Public Awareness Campaign
  - Highway Advisory Radio
  - Portable changeable message signs
  - Temporary loop sensor/signals
  - Bus or Shuttle Service
  - Construction Zone Enhanced Enforcement Program (COZEEP)
- During final design, prepare construction staging plans, road and access closures, and traffic detours in coordination with the local agencies including cities, counties, bicycling advocacy groups, emergency providers, and law enforcement, and in a manner that is least disruptive to access, circulation, and services.
- The project plans and specifications will include adequate parking facilities as part of the rail stations that will be constructed in the City of Palmdale and the City of Victorville, in order to accommodate the need created by the project's rail service component.

- The project design will include frontage roads and secondary access, local roadway enhancements, intersection signalization, improved signage, and a bicycle-pedestrian-equestrian friendly facility, to ensure continuous connectivity and accommodate future plans for local roads and non-motorized facilities that will be cut-off by the construction of the project.
- The Project will cause congestion on local roads near Palmdale Transportation by the construction of the build alternatives that have a rail component. The congestion impacts on the local circulation are addressed in the traffic report, and compliance with the identified measures will occur.
- Further coordination with local agencies must be conducted to ensure that local and regional trail connectivity is maintained.
- Project design and construction will accommodate existing and future local public transportation plans, including routes and bus stops, and other impacted facilities. During final design, construction staging plans, road and access closures, and traffic detours will be prepared in coordination with the local transit agencies, and in a manner that is least disruptive to the services.



# Chapter 6 Public Involvement

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## 6.1 Community Based Organizations

Community based organizations that have been involved and have shown interest in the project include the following organizations: The American Red Cross, the Antelope Valley Archeological Society, Antelope Valley Partners for Health, Apple Valley Rotary Club, Apple Valley Senior Citizens Club, Association of Rural Town Council, Barstow Rotary Club, Boys & Girls Club of Victor Valley, Community Call to Action, Crystallaire Property Owners Association, Desert Communities United Way, Early Childhood Education, Elks Lodge, Equestrian Trails International, Family History Center, Girl Scout Desert Center, Greater Hope Foundation, High Desert Cyclists, High Desert Rotary Club, Homestead Valley Community Council, Inland Fair Housing, International Union of Operating Engineers, Local 12, Knights of Columbus, LA Conservation Corps, Lake Los Angeles Park Association, Lancaster Sunrise Rotary Club, Meals on Wheels, Old Town Homeowners, One 2 One Mentors, Owner-Operator Independent Drivers Assn., Inc., Palmdale Masonic Lodge 769, Phelan Community Watch, Phelan Pinon Hills Community Services District, Pickard Cyclery, Rancho Village, Rosamond Rotary Club, Salvation Army, Samaritan's Helping Hand, Sierra Club - Mojave Group, The Homestead Valley Community Council (HVCC), The International Brotherhood of Electrical Workers (IBEW), The Linn Company, The Spring Valley Lake Lions Club, Victor Senior Citizens, Victor Valley Velo Bike Club, Victor Valley Sunrise Rotary Club, and Victorville Rotary Club.

## 6.2 Stakeholders

Stakeholders include community groups within the City of Palmdale, the City of Lancaster, Los Angeles County, the City of Adelanto, the City of Victorville, the Town of Apple Valley, and San Bernardino County. In addition to the schools, school districts, and Chambers of Commerce within the above mentioned jurisdictions. Government agencies, in addition to the already above-mentioned jurisdictions, include Metro, Caltrans, the HDC Joint Powers Authority (JPA), the City of Los Angeles, LAWA, SCLA, SCAG, and SANBAG.

## 6.3 Outreach to Minority and Low-Income Communities

Special outreach efforts were extended to reach minority, low income and low English proficiency (LEP) communities. For the five cities included within the project area, Lancaster, Palmdale, Adelanto, Victorville and Town of Apple Valley, the range of racial backgrounds includes 36%-73% White; 10%-57% Hispanic; 10%-18% Black; 4% Asian and 10%-26% Other.

Announcements and briefings to neighborhood councils, local business groups, and non-governmental organizations have been conducted. Strategies to reach low-income population included holding meetings in transit-accessible locations in order to allow for participation at multiple and convenient times. All meeting announcements, advertisements and brochures have been made available bilingually (in Spanish and Korean, when requested).

A social media campaign was implemented and utilized to increase public participation for interested stakeholders, including minority and low-income people who were not able to attend the meetings in person. The public was also afforded the opportunity to participate through live webcast of the public meetings held in 2011 and 2012.

Additionally, supplemental material was offered in various languages and ADA accommodations are made available when requested. The Project stakeholder database contains approximately 165 contacts of organizations with minority and low income members/constituents, including community-based organizations, religious organizations, neighborhood associations and local libraries; these contacts were notified of meetings, briefings and public hearings.

In addition, outreach efforts to include minority and low-income communities as part of the project include the transmittal of advertisements of community meetings and mailing of postcards to households within the project area. Bilingual (English and Spanish) postcards were produced and sent via mail to notify communities in the study area of upcoming Project community meetings. The purpose of the notices was to encourage public participation and involvement in the project approval process and to document any community concerns that may occur because of the Project. Postcards were distributed through direct mail, in addition, postcards were also placed on various city and elected public counters for further distribution.

## **6.4 Community Participation Program**

Metro and Caltrans in a joint effort have conducted five (5) rounds of community meetings for the public. The first round of meetings included four (4) scoping meetings between September 27, 2010 and September 30, 2010. A second round of community meetings, consisting of a series of four (4) community meetings conducted between April 11, 2011 through April 14, 2011. A third round of community meetings were conducted between January 24, 2012 and February 1, 2012. The fourth round of community meetings were conducted between November 5, 2012 and December 11, 2012. While the fifth set of community meetings were conducted between July 15, 2013 and July 22, 2013. The scoping and community meetings were held in several locations throughout Los Angeles and San Bernardino County, particularly within Palmdale, Lancaster, Town of Apple Valley, Adelanto and Victorville. The purpose of the meetings was to encourage

public participation throughout the project approval process and to solicit early input and concerns from various stakeholders.

### **Overall Outreach Efforts**

Since the project inception, Metro and Caltrans have implemented a Public Involvement Program that would ensure key project stakeholders and the public opportunities to be involved in the project development process. The Public Involvement Program involved the implementation of several rounds of community meetings throughout the duration of the project. Metro and Caltrans have conducted the following outreach activities between January 2011 to July 2013, including:

- 18 Public Meetings
- 14 Elected and City Staff Meetings
- 4 Corridor Partner Agency Briefings
- 6 Events
- 3 Institutional Stakeholder Briefings (School Districts, NCTC, AVBOT)
- 4 Interest Group Briefings (WTS, Industry Groups)
- 6 Regulatory Agency Briefings (JPA, SCAG, Caltrans)
- 10 Stakeholder Meetings
- 1,100 Attendees/Participants
- 276 Facebook Fans
- 235 Twitter Followers

GIS mapping was utilized to create an initial database of contacts within the project area. Through GIS mapping, all parcels and property owners within a ½-mile buffer around the proposed alignment were identified. From this information, a contact list was generated and a total of 25,040 scoping postcards were prepared and sent out to notify the public about the upcoming scoping meetings. The postcards were sent out in two separate mailings on September 14, 2010 and September 16, 2010.

The purpose of the community meetings was to provide an update on the project, introduce partner agencies, review the environmental process, provide a summary of findings from the scoping meetings, and to provide the community to further voice and concerns or issues as a result of the project. The community meetings also provided the public within an update of the current project status in addition to the latest developments in regards to project design, alternatives, and purpose and need for the project.

As mentioned above, multicolor, bilingual (English and Spanish) postcards were produced to notify communities in the project study area of the Project community meetings. Postcards were

distributed through direct mail, in addition, postcards were also placed on 16 city and elected public counters for distribution. An electronic version of the meeting notice was also emailed to the project database and local organizations, inviting stakeholders to attend upcoming meetings. Email notifications were sent to six (6) cities, fifty-five (55) schools, eight (8) Chambers of Commerce, and seven (7) School Districts.

Press releases were also released by Metro informing the media of the Project community meetings. Press releases were published in the following publications and/or electronic media outlets: *Apple Valley News*, *Daily Press*, *Antelope Valley Press*, *The Sun (San Bernardino)*, *The Bradco Report*, *Press Release*, *Victorville Daily Press*, *Curbed LA*, *AVHiDesert.com*, *Mountaineer Progress*, and *La Opinion*.

Media coverage proved to be useful and contributed to high participation and attendance at the community meetings, in which a significant amount of meeting attendees attributed their awareness of the meetings to the project's media coverage. Social networks such as Facebook and Twitter were also utilized, in which HDC profiles were created and were utilized to announce upcoming community meetings.

The typical format of the community meetings consisted of an open house style format, followed by a presentation by Metro and Caltrans, and a question and answer period. The presentation team was composed of Metro and Caltrans staff, and focused on the project background, project partners, scoping results, and a Caltrans project video. The video presentation showcased area landmarks and the various project alignments and alternatives. Comment cards were also provided which provided the public with another means to comment on the project. Robert Machuca, Metro Project Manager, led the question and answer session with input from members the project development team.

Additional forms of media were also utilized to encourage further public involvement including social media and live internet feeds. UStream, a live internet feed website, provided live streaming of the presentation for stakeholders and the public to view the meeting from the convenience of their own home. The community meeting in the Town of Apple Valley provided UStream capabilities, in which it was reported that 28 UStream members viewed the community meeting. In conjunction, Twitter was utilized to communicate with the online audience, which further encouraged participation. Summary reports of the community meetings were created, which documents the process and results of the meetings.

In addition, an interactive map was also created and is hosted on the Caltrans High Desert Corridor website (<http://interactive.metro.net/projects/high-desert-corridor/>) in which the interactive map provides users the opportunity to view the entire project alignment and provide

comments directly on the a specific area on the map. The comments will allow for a forum-based discussion in which other users can respond to comments and share their views and options on certain project alignments and/or elements. Through the use of a web based interactive map, users can provide comments on the certain elements of the project at any time of the day or night.

## 6.5 Results of Public Outreach

The initial round of community meetings were conducted between September 27, 2010 and September 30, 2010. **Table 6.5.A** below provides the date, location, and number of attendees for the four (4) community meetings conducted in September 2010.

**Table 6.5.A – Community Open Houses Information September 2010**

Community Open Houses	Date	Time	Location	# of Attendees
City of Palmdale	9/27/10	6:00 pm – 8:00 pm	Larry Chimbole Cultural Center Joshua Room 38350 Sierra Highway Palmdale, CA	96
City of Lancaster	9/28/10	6:00 pm – 8:00 pm	Lancaster City Hall - Emergency Operations Center, 44933 Fern Avenue, Lancaster, CA	44
Town of Apple Valley	9/29/10	6:00 pm – 8:00 pm	Parks and Recreation Department, Development Services Building Conference Center, 14955 Dale Evans Parkway, Apple Valley, CA	142
City of Victorville	9/30/10	6:00 pm – 8:00 pm	Conference Room D, 14343 Civic Drive, Victorville, CA	87
Total Attendees				369

For the initial round of public meetings, a total of 369 attendees were accounted for based on the sign-in sheets. For this initial round of meetings, the purpose was to provide initial scoping and soliciting involvement from various public agencies, stakeholders, and /or members of the public. Approximately 543 comments were received from 206 individual commenters via various sources including comment cards, emails, letters received, and verbal comments during the public meetings. Based on the initial round of community meetings and comments received the general consensus towards the project was neutral of the Project. Major concerns voiced by the community included the following:

- Questions regarding the construction schedule,
- Requests for more project information,
- Specific design features of the project,
- Funding,
- Right-of-way acquisition,

- The purpose and need,
- Alternatives to be analyzed in the EIS,
- Potential impacts to community,
- Potential impacts to cultural resources,
- Potential impacts to biological resources,
- Mitigation measures,
- Travel accessibility, and
- Traffic safety.

A second round of community meetings were conducted between April 3, 2011 and April 14, 2011. **Table 6.5.B** below provides the date, location, and number of attendees for the four (4) community meetings conducted in April 2011.

**Table 6.5.B – Community Open Houses Information April 2011**

Community Open Houses	Date	Time	Location	# of Attendees
City of Lancaster	4/11/11	6:00 pm – 8:00 pm	Lancaster City Hall 44933 Fern Avenue Lancaster, CA	32
City of Palmdale	4/12/11	6:00 pm – 8:00 pm	Twin Lakes Community Church 17213 Lake Los Angeles Avenue, Palmdale, CA	118
Town of Apple Valley	4/13/11	6:00 pm – 8:00 pm	Town of Apple Valley Council Chambers 14955 Dale Evans Pkway. Apple Valley, CA	121 (including 28 UStream viewers)
City of Adelanto	4/14/11	6:00 pm – 8:00 pm	Adelanto Community Center 11555 Cortez Avenue Adelanto, CA	43
Total Attendees				314

A total of 314 people attended the community meetings during April 2011. The purpose of this particular round of meetings was to provide additional project overview, provide scoping results from the previous round of meeting, notifying the community that Variation C had been dropped as a viable alternative, and to solicit public input. According to the summary report, stakeholders attending the community meetings were generally supportive of the Project and encouraged Metro and Caltrans to move forward with the project schedule and commence construction.

Major concerns voiced by the community included:

- The need for employment opportunities within the area and the need for safer transportation routes to facilitate mobility for residents, businesses, and visitors.
- Concerns over right-of-way requirements and future construction impacts.
- Concerns over hydrology,
- Traffic,

- Earthquake faults in the vicinity,
- Project schedule, and
- Plans for tolling on the project.

Variation C was a major issue of concern for the community within the Town of Apple Valley. Attendees opposed the alignment, expressing concerns over the acquisition of private right-of-way required for the project, and the potential impact the alignment may have in bisecting the community. The project delivery team (PDT) has since taken this into consideration and as a result Variation C has been dropped as a viable project alternative. A total of 12 comment cards were collected during community meetings in April, 2011.

A third round of community meetings were conducted between January 24, 2012 and February 1, 2012. **Table 6.5.C** below provides the date, location, and number of attendees for the five (5) community meetings conducted between January and February 2012.

**Table 6.5.C – Community Open Houses Information January/February 2012**

Community Open Houses	Date	Time	Location	# of Attendees
City of Victorville	1/17/12	6:00 pm – 8:00 pm	Endeavour School of Exploration 12403 Ridgecrest Road Victorville, CA	15
City of Palmdale	1/24/12	6:00 pm – 8:00 pm	Twin Lakes Community Church 17213 Lake Los Angeles Avenue, Palmdale, CA	57
City of Palmdale	1/26/12	6:00 pm – 8:00 pm	Larry Chimbole Cultural Center Joshua Room 38350 Sierra Highway Palmdale, CA	59
City of Victorville	1/31/12	6:00 pm – 8:00 pm	Victorville City Hall, Conference Room D - 14343 Civic Drive, Victorville, CA	87
City of Adelanto	2/1/12	6:00 pm – 8:00 pm	State Bros Stadium Mavericks Conf. Room 12000 Stadium Way Adelanto, CA	117 (29 attendees and 88 online participants)
Total Attendees				335

A total of 335 attendees attended the community meetings in January and February 2012. The initial public meeting on February 17 was hosted specifically for the Victorville neighborhood that resides and has businesses near the Project Variation E. This particular meeting concentrated more on the details of Variation E. The subsequent community open house meetings, hosted between January 24 through February 1, were more generalized in which the content provided in all subsequent meetings were identical. The purpose of this round of community meetings was to provide input on the multipurpose corridor designation and to provide updates on project alternatives and variations in addition to introducing the newly proposed Variation E. Generally, the community members who attended supported the Project as well as improvements to SR-138. Major concerns voiced by the community included:

- Questions regarding the proposed green corridor
- Noise levels
- The toll road alternative
- Proximity of the HDC from residents, anticipated growth
- The HDC's impact on north and south freeways and local arterials as a result of toll
- Location of tolls and eligibility for toll discounts
- Cumulative impacts from noise, glare, and visual impacts related to the green energy technologies
- Native American resources of concern
- Air quality
- Economic impacts of local businesses along Palmdale Boulevard
- Flooding and hydrology issues, potential health impacts associated with using Technology Drive as a bypass
- The protection of smaller communities such as Little Rock and Pearblossom looking for ways to enhance their character to attract development, and
- Goods movement.

A fourth round of community meetings were conducted between December 5, 2012 and December 11, 2012. The **Table 6.5.D** below provides the date, location, and number of attendees for the four (4) community meetings within December 2012.

**Table 6.5.D – Community Open Houses Information December 2012**

Community Open Houses	Date	Time	Location	# of Attendees
City of Palmdale	12/5/12	6:00 pm – 8:00 pm	Lake Los Angeles Elementary School 16310 E. Avenue Q Palmdale, CA	47
City of Adelanto	12/6/12	6:00 pm – 8:00 pm	State Bros Stadium Mavericks Conf. Room 12000 Stadium Way Adelanto, CA	44
City of Victorville	12/10/12	6:00 pm – 8:00 pm	Endeavour School of Exploration 12403 Ridgecrest Road Victorville, CA	143 (58 attendees and 85 online participants)
City of Palmdale	12/11/12	6:00 pm – 8:00 pm	Larry Chimbole Cultural Center Joshua Room 38350 Sierra Highway Palmdale, CA	92 (44 attendees and 48 online participants)
Total Attendees				326

There were a total of 326 attendees for this particular round of community meetings, in which nearly 60 written, verbal, and/or online comments were received which provided valuable input for the project. The purpose of these meetings was to provide project updates and to solicit additional public input. Stakeholders attending the community meetings were generally

supportive of the Project and encouraged Metro and Caltrans to move forward with the project schedule and technical studies. Major concerns voiced by the community included:

- Interest in local residential and business benefits (not just mitigation strategies but also enhancement of the corridor)
- Interest in HDC agency partnerships and roles
- The Green Energy component
- Public-Private Partnerships and potential funding mechanisms
- Concerns about potential impacts on local streets from motorists avoiding toll road portions of the HDC
- Visual impacts and light pollution to current scenery
- Unsafe street conditions, i.e. lack of pedestrian sidewalks along US-395
- Support for bike route option – more defined connections from the highway to local destinations, i.e. train stations, and
- Opportunities for local businesses and employment.

A fifth round of community meetings were conducted between July 15, 2013 and July 22, 2013. The **Table 6.5.E** below provides the date, location, and number of attendees for the four (4) community meetings within July 2013.

**Table 6.5.E – Community Open Houses Information July 2013**

Community Open Houses	Date	Time	Location	# of Attendees
City of Palmdale	7/15/13	6:00 pm – 8:00 pm	Lake Los Angeles Elementary School 16310 E. Avenue Q Palmdale, CA	60
City of Adelanto	7/16/13	6:00 pm – 8:00 pm	State Bros Stadium Mavericks Conf. Room 12000 Stadium Way Adelanto, CA	40
City of Victorville	7/17/13	6:00 pm – 8:00 pm	Endeavour School of Exploration 12403 Ridgecrest Road Victorville, CA	141 (39 attendees and 102 online participants)
City of Palmdale	7/22/13	6:00 pm – 8:00 pm	Larry Chimbole Cultural Center Joshua Room 38350 Sierra Highway Palmdale, CA	138 (64 attendees and 74 online participants)
Total Attendees				379

A total of 379 attendees shared in this round of public meetings. The purpose of the meetings was to provide updates in regards to the revised purpose and need, and to introduce the rail alternatives analysis. Nearly 59 written, verbal, and/or online comments were received during the meeting in the July 2013. Stakeholders attending the meetings were generally supportive of the HDC project and encouraged Caltrans and Metro to move forward with the project. Major concerns voiced by the community included:

- Interest in the integration of land use and zoning policies throughout the planning process
- Pedestrian and public safety
- Local and residential business benefits (not just mitigation strategies but also enhancement of the corridor)
- Ensuring public input is reflected in the study and decision making process
- Access to increased transportation networks
- P3 and potential funding mechanisms
- Concerns about the development of an equitable mitigation program that addresses construction and operational impacts
- Right-of-way impacts
- Tollroad fees and the impact to local residents
- Potential impacts to local roads and traffic circulation
- Maintaining the rural character in rural communities
- Adequate infrastructure for communities seeking growth
- Noise impacts and soundwall criteria
- Visual impacts and light pollution to current scenery
- Unsafe street conditions (i.e. lack of pedestrian sidewalks along US-395)
- Support for bike route option – more defined connections from the highway to local destinations, i.e., train stations
- Continued access to equestrian paths
- Increased transportation infrastructure, and
- Increased separation of “local” and “regional” traffic.

Through these series of community meetings, Metro and Caltrans have fulfilled their Public Involvement Program. In addition, Metro and Caltrans plan to conduct “HDC Variation Workshops” in the near future. Such workshops will provide an opportunity for the local community to more closely review the four alignment variations currently under study and to provide input.

# Appendix A Farmland Conversion Impact Rating Form

NRCS-CPA-1006 Form (for corridor-type projects)

U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service		NRCS-CPA-106 (Rev. 1-91)	
<b>FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS</b>			
<b>PART I (To be completed by Federal Agency)</b>		3. Date of Land Evaluation Request 4/4/13	4. Sheet 1 of 1
1. Name of Project High Desert Corridor Project	5. Federal Agency Involved Caltrans Acting for FHWA(23 USC 327)		
2. Type of Project Transportation: Freeway/Expressway/Rail	6. County and State Los Angeles and San Bernardino, CA		
<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS 4/5/13	2. Person Completing Form Paul Nguyen
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 29,710	Average Farm Size 63
5. Major Crop(s) Carrot, Onion, Alfalfa	6. Farmable Land in Government Jurisdiction Acres: 49,158 % 1.9		7. Amount of Farmland As Defined in FPPA Acres: 43,631 %
8. Name Of Land Evaluation System Used CA Revised Storie Index	9. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 5/7/13	
<b>PART III (To be completed by Federal Agency)</b>		<b>Alternative Corridor For Segment</b>	
		Corridor A	Corridor B
		Corridor C	Corridor D
A. Total Acres To Be Converted Directly	337	0	0
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0	0	0
C. Total Acres In Corridor	337	0	291
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>			
A. Total Acres Prime And Unique Farmland	209.8		
B. Total Acres Statewide And Local Important Farmland	12		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.48		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	Data Not Available		
<b>PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative Value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)</b>	83		
<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>		Maximum Points	
1. Area in Nonurban Use	15	14	N/A
2. Perimeter in Nonurban Use	10	9	N/A
3. Percent Of Corridor Being Farmed	20	18	N/A
4. Protection Provided By State And Local Government	20	0	N/A
5. Size of Present Farm Unit Compared To Average	10	8	N/A
6. Creation Of Nonfarmable Farmland	25	10	
7. Availability Of Farm Support Services	5	5	N/A
8. On-Farm Investments	20	18	N/A
9. Effects Of Conversion On Farm Support Services	25	10	N/A
10. Compatibility With Existing Agricultural Use	10	5	N/A
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	160	97	0
<b>PART VII (To be completed by Federal Agency)</b>			
Relative Value Of Farmland (From Part V)	100	83	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	97	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	260	180	0
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
5. Reason For Selection:			
Signature of Person Completing this Part:		DATE	
NOTE: Complete a form for each segment with more than one Alternate Corridor			



## **Appendix B**      References Used and Contacts

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LandVision

# **Appendix C**      **Summary of Relocation Benefits**

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California Dept. of Transportation Relocation Assistance Program

## *Relocation Assistance Advisory Services*

The California Department of Transportation (Caltrans) would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Residential replacement dwellings would be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees would be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex, or national origin, and are consistent with the requirements of Title VI of the Civil Rights Act of 1964, as amended. This assistance would also include supplying information concerning federal- and state-assisted housing programs, and any other known services being offered by public and private agencies in the area.

## *Residential Relocation Payments Program*

A brochure on the residential relocation program is available in English at [http://www.dot.ca.gov/hq/row/pubs/residential\\_english.pdf](http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf) and in Spanish at [http://www.dot.ca.gov/hq/row/pubs/residential\\_spanish.pdf](http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf).

If you own or rent a mobile home that may be moved or acquired by Caltrans, a relocation brochure is available in English at [http://www.dot.ca.gov/hq/row/pubs/mobile\\_eng.pdf](http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf) and in Spanish at [http://www.dot.ca.gov/hq/row/pubs/mobile\\_sp.pdf](http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf).

## *The Business and Farm Relocation Assistance Program*

A brochure on the business relocation program is also available in English at [http://www.dot.ca.gov/hq/row/pubs/business\\_farm.pdf](http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf) and in Spanish at [http://www.dot.ca.gov/hq/row/pubs/business\\_sp.pdf](http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf).

## *Additional Information*

No relocation payment received would be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of

any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project would not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments would not be required to move unless at least one comparable “decent, safe, and sanitary” replacement residence, open to all persons regardless of race, color, religion, sex, or national origin, is available or has been made available to them by the state.

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Caltrans’ Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal counsel at his/her expense. Information about the appeal procedure is available from Caltrans’ Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans’ laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans’ relocation programs.

#### Important Notice

To avoid loss of possible benefits, no individual, family, business, farm, or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor.

## **Appendix D**      **List of Preparers**

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This document was prepared by the following Caltrans/Consultant staff:

Daniel Tran, Associate Environmental Planner. B.A., Environmental Analysis and Design, University of California, Irvine and Masters in Public Administration, California State University of Long Beach; 5 years environmental planning experience. Contribution: Prepared Chapters 1, 2, 4, and 6 of the Community Impact Assessment.

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Stephanie S. Oslick, AICP, Environmental Manager, Parsons Brinckerhoff. M.S., Environmental Studies, California State University Fullerton; B.S., Biological Sciences, University of Southern California; 18 years of environmental planning experience. Contribution: Managed preparation and conducted Quality Assurance/Quality Control Review of sections prepared by Parsons Brinckerhoff (Chapter 3, Section 4.2, Section 4.3, and Chapter 5); conducted overall review of the whole Community Impact Assessment.

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Jennifer Andersen, Environmental Planner. B.S. Environmental Studies, University of Southern California; 4 years of environmental planning experience. Contribution: conducted an overall review of the original Community Impact Assessment and prepared revisions.