

# CALIFORNIA HIGH-SPEED TRAIN

Program Environmental Impact Report/Environmental Impact Statement

Los Angeles to San Diego via Inland Empire

## Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice Technical Evaluation

January 2004

*Prepared for:*

California High-Speed Rail Authority

U.S. Department of Transportation  
Federal Railroad Administration



## Task 2.4

# Los Angeles to San Diego via Inland Empire

## Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice Technical Evaluation

*Prepared by:*

**HNTB**

in association with

**CH2MHILL**

**JANUARY 2004**

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## ACRONYMS

ARB	Air Reserve Base
Authority	California High-Speed Rail Authority
Caltrans	California Department of Transportation
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CNDDDB	California natural Diversity Database
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
HST	high-speed train
I-	Interstate
km/h	kilometers per hour
LOSSAN	rail corridor from Los Angeles to San Diego through Orange County
mph	miles per hour
MTDB	Metropolitan Transit Development Board
NCTD	North County Transit District
NEPA	National Environmental Policy Act
NWI	National Wetlands Inventory Database
RTP	Regional Transportation Plans
SANDAG	San Diego Association of Governments
SCAG	Southern California Association of Governments
SPA	Specific Planning Area
SR	State Route
STIP	State Transportation Improvement Program

TEA-21	Transportation Equity Act for the 21 <sup>st</sup> Century
TOD	transit-oriented development
U.S.	United States
UC	University of California
UP	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

## 1.0 INTRODUCTION

The California High-Speed Rail Authority (Authority) was created by the Legislature in 1996 to develop a plan for the construction, operation, and financing of a statewide, intercity high-speed passenger train system.<sup>1</sup> After completing a number of initial studies over the past 6 years to assess the feasibility of a high-speed train system in California and to evaluate the potential ridership for a variety of alternative corridors and station areas, the Authority recommended the evaluation of a proposed high-speed train system as the logical next step in the development of transportation infrastructure in California. The Authority does not have responsibility for other intercity transportation systems or facilities, such as expanded highways, or improvements to airports or passenger rail or transit used for intercity trips.

The Authority adopted a Final Business Plan in June 2000, which reviewed the economic feasibility of a 1,127-kilometer-long (700-mile-long) high-speed train system. This system would be capable of speeds in excess of 321.8 kilometers per hour (200 miles per hour [mph]) on a dedicated, fully grade-separated track with state-of-the-art safety, signaling, and automated train control systems. The system described would connect and serve the major metropolitan areas of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. The high-speed train system is projected to carry a minimum of 42 million passengers annually (32 million intercity trips and 10 million commuter trips) by the year 2020.

Following the adoption of the Business Plan, the appropriate next step for the Authority to take in the pursuit of a high-speed train system is to satisfy the environmental review process required by federal and state laws, which in turn will enable public agencies to select and approve a high-speed rail system, define mitigation strategies, obtain necessary approvals, and obtain financial assistance necessary to implement a high-speed rail system. For example, the Federal Railroad Administration (FRA) may be requested by the Authority to issue a Rule of Particular Applicability, which establishes safety standards for the high-speed train system for speeds over 200 mph and for the potential shared use of rail corridors.

The Authority is the project sponsor and the lead agency for purposes of the California Environmental Quality Act (CEQA) requirements. The Authority has determined that a Program Environmental Impact Report (EIR) is the appropriate CEQA document for the project at this conceptual stage of planning and decisionmaking, which would include selecting a preferred corridor and station locations for future right-of-way preservation and identifying potential phasing options. No permits are being sought for this phase of environmental review. Later stages of project development would include project-specific detailed environmental documents to assess the impacts of the alternative alignments and stations in those segments of the system that are ready for implementation.

The decisions of federal agencies, particularly the FRA related to high-speed train systems, would constitute major federal actions regarding environmental review under the National Environmental Policy Act (NEPA). NEPA requires federal agencies to prepare an environmental impact statement (EIS) if the proposed action has the potential to cause significant environmental impacts. The proposed action in California warrants the preparation of a Tier 1 Program-level EIS under NEPA, due to the nature and scope of the comprehensive high-speed train system proposed by the Authority, the need to narrow the range of alternatives, and the need to protect/preserve right-of-way in the future. FRA is the federal lead agency for the preparation of the Program EIS, and the Federal Highway Administration (FHWA), the United States (U.S.) Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE), the Federal Aviation Administration (FAA), the U.S. Fish and Wildlife Service (USFWS), and the Federal Transit Administration (FTA) are cooperating federal agencies for the EIS.

A combined Program EIR/EIS is to be prepared under the supervision and direction of the FRA and the Authority in conjunction with the federal cooperating agencies. It is intended that other federal, state,

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<sup>1</sup> Chapter 796 of the Statutes of 1996; SB 1420, Kopp and Costa

regional, and local agencies will use the Program EIR/EIS in reviewing the proposed program and developing feasible and practicable programmatic mitigation strategies and analysis expectations for the Tier 2 detailed environmental review process that would be expected to follow any approval of a high-speed train system.

The statewide high-speed train system has been divided into five regions for study: Bay Area-Merced, Sacramento-Bakersfield, Bakersfield-Los Angeles, Los Angeles-San Diego via the Inland Empire, and Los Angeles-Orange County-San Diego. This discipline-specific *Local Area Growth, Development, Planning, Land Use, Socioeconomics, and Environmental Justice Technical Evaluation* for the Los Angeles to San Diego via the Inland Empire region is one of five such reports being prepared for each of the regions on the topic. It is 1 of 11 technical evaluations for this region. This evaluation will be summarized in the Program EIR/EIS, and it will be part of the administrative record supporting the environmental review of alternatives.

## 1.1 ALTERNATIVES

### 1.1.1 No-Project Alternative

The No-Project Alternative serves as the baseline for the comparison of Modal and High-Speed Train Alternatives. The No-Project Alternative represents the state's transportation system (highway, air, and conventional rail) as it existed in 1999-2000, and as it would be after implementation of programs or projects currently programmed for implementation and projects that are expected to be funded by 2020 (Figure 1.1-1). The No-Project Alternative addresses the geographic area serving the same intercity travel market as the proposed high-speed train (generally from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego). The No-Project Alternative satisfies the statutory requirements under CEQA and NEPA for an alternative that does not include any new action or project beyond what is already committed.

The No-Project Alternative defines the existing and future statewide intercity transportation system based on programmed and funded (already in funded programs/financially constrained plans) improvements to the intercity transportation system through 2020, according to the following sources of information:

- State Transportation Improvement Program (STIP)
- Regional Transportation Plans (RTPs) for all modes of travel
- Airport plans
- Intercity passenger rail plans (California Rail Plan 2001-2010, Amtrak 5- and 20-Year Plans)

As with all of the alternatives, the No-Project Alternative will be assessed against the purpose and need topics/objectives for congestion, safety, air pollution, reliability, and travel times.

### 1.1.2 Modal Alternative

There are currently three main options for intercity travel between the major urban areas of San Diego, Los Angeles, the Central Valley, San Jose, Oakland/San Francisco, and Sacramento: vehicles on the interstate highway system and state highways, commercial airlines serving airports between San Diego and Sacramento and the Bay Area, and conventional passenger trains (Amtrak) on freight and/or commuter rail tracks. The Modal Alternative consists of expansion of highways, airports, and intercity and commuter rail systems serving the markets identified for the High-Speed Train Alternative (Figures 1.1-2 and 1.1-3). The Modal Alternative uses the same intercity travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the high-speed train ridership in 2020. This same travel demand is assigned to the highways, airports, and passenger rail described under the No-Project Alternative.



Figure 1.1-1 No-Project Alternative – California Transportation System



Figure 1.1-2 Modal Alternative – Highway Component

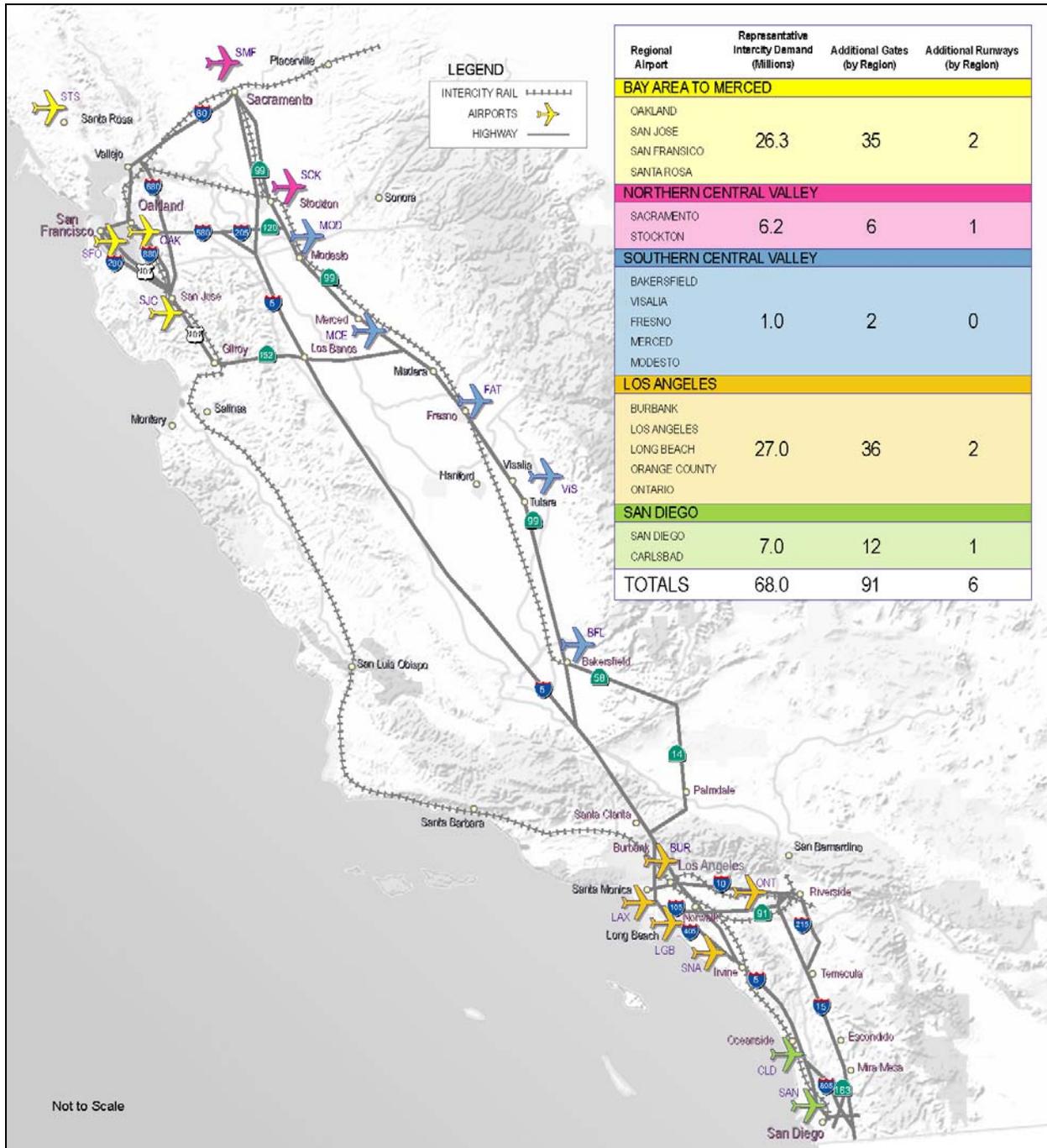


Figure 1.1-3 Modal Alternative – Aviation Component

The additional improvements or expansion of facilities are assumed to meet the demand, regardless of funding potential and without high-speed train service as part of the system.

The Modal Alternative for the Los Angeles to San Diego via the Inland Empire region consists of two major proposed improvements:

- **Improvements to Highways:** Consisting of additional highway lanes to provide sufficient highway capacity and associated interchange reconfiguration, crossing bridge widening, ramp widening, cross street and intersection widening (Figure 1.1-2). Within the study area corridor, these improvements, therefore, would occur along proposed portions of Interstates (I-) 10, 215, 15, and State Route (SR) 163. Table 1.1-1 lists the proposed highway improvements along the Los Angeles to San Diego via the Inland Empire corridor.

**Table 1.1-1 Proposed Modal Alternative Highway Improvements  
Los Angeles to San Diego via the Inland Empire**

Highway Corridor	Segment (From – To)	No. of Additional Lanes <sup>1</sup> (Total – Both Directions)	No. of Existing Lanes (Total – Both Directions)	Type of Improvement
I-10	I-5 to East San Gabriel Valley	2	10	widening
I-10	East San Gabriel Airport to Ontario Airport	2	8	widening
I-10	Ontario Airport to I-15	2	8	widening
I-10	I-15 to I-215	2	8	widening
I-15	I-10-I-215	2	8	widening
I-215	Riverside to I-15	2	4	widening
I-215	I-10 to Riverside	2	6	widening
I-15	I-215 to Temecula	2	10	widening
I-15	Temecula to Escondido	2	8	widening
I-15	Escondido to Mira Mesa	2	10	widening
I-15	Mira Mesa to SR-163	2	10	widening
SR-163	I-15 to I-8	2	8	widening

<sup>1</sup> Represents the number of through lanes in addition to the total number of existing lanes that approximate an equivalent level of capacity to serve the representative demand

- **Improvements to Airports:** Primarily consisting of improvements to terminal gates and runways to provide sufficient landside and airside capacity and associated taxiways, ground access, parking, terminal and support facilities and airports that can serve the same geographic area and demand as the proposed High-Speed Train (HST) Alternative. Within the study area corridor, these proposed improvements would occur at Ontario International Airport (ONT) and the San Diego International Airport (SAN) (Figure 1.2-3). Table 1.2-2 lists the airport improvements associated with the Ontario and San Diego airports.

**Table 1.1-2 Proposed Modal Alternative Airport Improvements – Year 2020  
Los Angeles to San Diego via the Inland Empire**

Airport Name	Additional Gates	Additional runways
Ontario International Airport	8	1
San Diego International Airport	12	1

Source: Parsons Brinckerhoff, November 2002

### 1.1.3 High-Speed Train Alternative

The Authority has defined a statewide high-speed train system capable of speeds in excess of 200 miles per hour (mph) (320 kilometers per hour [km/h]) on dedicated, fully grade-separated tracks, with state-of-the-art safety, signaling, and automated train control systems. State-of-the-art, high-speed, steel-wheel-on-steel-rail technology is being considered for the system that would serve the major metropolitan centers of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego (Figure 1.1-4).

The High-Speed Train Alternative includes several corridor and station options. A steel-wheel-on-steel-rail, electrified train, primarily on exclusive right-of-way with small portions of the route on shared track with other rail is planned. Conventional “nonelectric” improvements are also being considered along the existing rail corridor from Los Angeles to San Diego through Orange County (LOSSAN). The train track would be at grade, in an open trench or tunnel, or on an elevated guideway, depending on terrain and physical constraints.

For purposes of comparative analysis the high-speed train corridors will be described from station to station within each region, except where a bypass option is considered when the point of departure from the corridor will define the end of the corridor segment.

As described in the introduction, the study area is broadly defined by the Los Angeles to San Diego via Inland Empire corridor segment, which may be broadly divided into three regional segments. Each segment has several alternative alignments for all or a portion of the length of the segment. For example, Segment 1 has three alternative alignments, listed as 1A, 1B, and 1C. Each segment is further subdivided into segments for analyzing and reporting potential impacts. The various segment options and subsegments, along with station locations, are described below and shown in Figure 1.1-5.

#### 1.1.3.1 Regional Segment 1 – Union Station to March Air Reserve Base Segment

##### Segment 1A

Subsegment 1A1: Union Station to Pomona

Subsegment 1A2: Pomona to Ontario (beginning of Segment 1C)

Subsegment 1A3: Ontario (beginning of Segment 1C) to Colton (end of Segment 1C)

Subsegment 1A4: Colton to March Air Reserve Base (ARB)

##### Segment 1B

Subsegment 1B1: Union Station to Pomona

##### Segment 1C

Subsegment 1C1: Ontario (beginning of Segment 1C) to Colton (end of Segment 1C)

Station Locations: El Monte (1A1), Pomona (1A2), Ontario (1A2), Colton (1A3), University of California at Riverside (1A4), South El Monte (1B1), City of Industry (1B1), and San Bernardino (1C1)

#### 1.1.3.2 Regional Segment 2 – March ARB to Mira Mesa Segment

##### Segment 2A

Subsegment 2A1: March ARB to Escondido (beginning of Segment 2B)

Subsegment 2A2: Within Escondido (beginning to end of Segment 2B)

Subsegment 2A3: Escondido to Mira Mesa

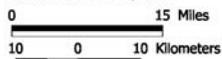


**Figure 1.1-4 High-Speed Train Alternative – Corridors and Stations for Continued Investigation**



Source: CH2M HILL, 2001

California High-Speed Train Program EIR/EIS



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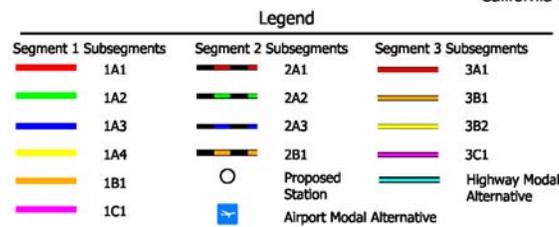


Figure 1.1-5 Modal and High-Speed Train Alternatives  
Los Angeles to San Diego via Inland Empire

Segment 2B

Subsegment 2B1: Within Escondido (Beginning to end of Segment 2B)

Station Locations: March ARB (2A1), Temecula (2A2), Escondido (2A2), and Escondido Transit Center(2B1)

**1.1.3.3 Regional Segment 3 – Mira Mesa to San Diego Segment**Segment 3A

Subsegment 3A1: Mira Mesa to Qualcomm Stadium

Segment 3B

Subsegment 3B1: Within Mira Mesa (beginning and end of Segment 3C)

Subsegment 3B2: Mira Mesa (end of Segment 3C) to Downtown San Diego

Segment 3C

Subsegment 3C1: Within Mira Mesa (end of Segment 3C)

Station Locations: Mira Mesa (3A1), Qualcomm Stadium (3A1), Transit Center (3B2), San Diego International Airport (3B2), and Downtown San Diego (3B2)

## 2.0 BASELINE/AFFECTED ENVIRONMENT

### 2.1 STUDY AREA

The study area for land use compatibility, communities and neighborhoods, property, and environmental justice, is 0.25 mi (0.40 km) on either side of the centerline of the rail and highway corridors, and the same distance around stations, airports, and other HST-related facilities. This is the extent of area where either the Modal or HST Alternative might result in a change to land use, the level and patterns of development, and socioeconomic conditions. For the property impacts analysis the study area is narrower, 100 ft (30 m) on either side of the alignment centerlines, to better represent the properties most likely to be impacted by the improvements defined (e.g., highway widenings or new HST lines).

### 2.2 REGULATORY SETTING

NEPA established procedures requiring that project decisions be in the public interest for safe and efficient transportation choices that consider the potential social, economic and environmental impacts. This section presents the regulatory setting for land use, displacement, and environmental justice impacts analysis.

#### 2.2.1 Land Use

Section 213 of United States Code (USC) 128 states, "When developing transportation projects that have received federal funds, agencies must consider the economic and social effects of the proposed project location, its impact on the environment, and consistency of the project with the goals and objectives of local comprehensive plans."

Federally funded transit projects must be consistent with the official plans for the comprehensive development of a region as well as with individual community goals and objectives as required by Sections 3 and 5 of the Urban Mass Transportation Act.

The FTA requires that land use information be a portion of the submittal for Section 5309 New Starts funding as specified in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). This submittal requires the evaluation of the transit supportive existing and planned land uses and the consistency of land use policies with transportation objectives.

#### 2.2.2 Environmental Justice

Civil Rights Act of 1964, Public Law 88-352, 78 Stat. 241 (codified as amended in various sections of 42 USC) Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national origin by all federal agencies or activities receiving federal financial assistance.

Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires EPA and other federal agencies to identify and address whether adverse human health or environmental effects are likely to fall disproportionately on minority and/or low-income members of the community. This requirement applies only to federal agencies, not agencies receiving federal funds.

## 2.3 LAND USE

### 2.3.1 Existing Land Use

#### 2.3.1.1 Modal Alternative

##### Segment 1: Union Station to March ARB

As shown in Table 2.3-1, existing land use within 0.25-mile of the Union Station to March ARB section of the Modal Alternative is characterized as largely developed. The major land use within this area is low-density residential and the combined residential uses compose nearly 35 percent of the area. Transportation and utility uses, defined by the I-10 corridor, make up 19.8 percent of the area. Vacant land and commercial uses compose the next highest uses, with 13.9 percent and 11.6 percent of the area, respectively.

**Table 2.3-1 Land Use Summary for Modal Alternative, Union Station to March ARB**

Land Use Category	Acres	Percentage of Total Area*
Agriculture	1,165.0	5.2
Commercial	2,613.5	11.6
Extraction	111.3	0.5
Industrial	1,766.1	7.8
Low Density Residential	5,983.2	26.5
Medium to High Density Residential	1,817.8	8.1
Open Space and Recreation	485.5	2.2
Public Facilities and Institutions	990.4	4.4
Rural Density Residential	0.0	0.0
Transportation and Utilities	4,463.3	19.8
Under Construction	26.6	0.1
Vacant	3,134.6	13.9
Waterways and Floodways	8.7	0.0
Total	22,566.0	100.0

\*Within 0.25-mile of the alignment

##### Segment 2: March ARB to Mira Mesa

Half of this segment lies within Riverside County, and the other half is within the San Diego Association of Governments (SANDAG) planning area. Due to the slightly different land use designations in these areas, the existing land uses for this section are presented separately.

Presented in Table 2.3-2 is the existing land use within 0.25-mile of the March ARB to Mira Mesa section of the Modal Alternative that is within Riverside County and presented in Table 2.3-3 is the land use that is within the SANDAG planning area.

Vacant land is the largest land use in the northern part of this section, composing more than 40 percent of the area. Within the southern section, vacant land makes up 25 percent of the area. The rural character of this section is illustrated by the availability of vacant land. The transportation and utility uses define the land dedicated to the I-15 and I-215 corridors. Residential uses (13.6 to 16.8 percent) compose the next highest land use, followed by agricultural uses, with 12.8 to 15.0 percent of the area.

**Table 2.3-2 Land Use Summary for Modal Alternative,  
March ARB to Mira Mesa – Riverside Section**

Land Use Category	Acres	Percentage of Total Area*
Agriculture	3,816.5	15.0
Commercial	1,222.6	4.8
Extraction	252.6	1.0
Industrial	983.4	3.9
Low-Density Residential	2,777.9	10.9
Medium- to High-Density Residential	272.1	1.1
Open Space and Recreation	320.8	1.3
Public Facilities and Institutions	494.7	1.9
Rural Density Residential	397.6	1.6
Transportation and Utilities	3,755.6	14.8
Under Construction	857.4	3.4
Vacant	1,0246.7	40.2
Water and Floodways	63.0	0.2
Total	25,460.9	100.0

\*Within 0.25-mile of the alignment

**Table 2.3-3 Land Use Summary for Modal Alternative,  
March ARB to Mira Mesa – SANDAG Section**

Land Use Category	Acres	Percentage of Total Area*
Commercial and Office	345.7	2.8
Commercial Recreation	421.1	3.4
Education	56.7	0.5
Extensive Agriculture	364.7	3.0
Institutions	139.4	1.1
Intensive Agriculture	1,199.5	9.8
Light Industry	278.4	2.3
Mobile Homes	115.4	0.9
Multiple Family	536.1	4.4
Parks	502.3	4.1
Shopping Centers	143.3	1.2
Single Family	1,414.5	11.5
Spaced Rural	537.1	4.4
Transportation, Communication, Utilities	3,109.9	25.3
Undeveloped	3,085.5	25.1
Water	45.3	0.4
Unknown	0.0	0.0
Total	12,294.9	100.0

\*Within 0.25-mile of the alignment

Segment 3: Mira Mesa to San Diego

Presented in Table 2.3-4 is the existing land use within 0.25-mile of the Mira Mesa to San Diego segment of the Modal Alternative. The variety of land uses along the corridor reflects the generally suburban nature of northern San Diego in addition to the urban character of the city. Other than transportation-related uses, parks, undeveloped land, and commercial and office uses compose the largest areas around the segment.

**Table 2.3-4 Land Use Summary for Modal Alternative, Mira Mesa to San Diego**

Land Use Category	Acres	Percentage of Total Area*
Commercial and Office	519.9	11.8
Commercial Recreation	162.0	3.7
Education	104.3	2.4
Institutions	113.9	2.6
Intensive Agriculture	8.1	0.2
Light Industry	383.9	8.7
Military	72.9	1.7
Mobile Homes	20.3	0.5
Multiple Family	222.6	5.1
Parks	579.9	13.2
Shopping Centers	112.6	2.6
Single Family	402.6	9.2
Transportation, Communication, Utilities	1,095.6	24.9
Undeveloped	561.5	12.8
Water	37.3	0.8
Unknown	0.0	0.0
Total	4,397.3	100.0

\*Within 0.25-mile of the alignment

**2.3.1.2 High-Speed Train Alternative**Segment 1: Union Station to University of California at Riverside

Between the City of Los Angeles and the University of California (UC) at Riverside, there are three proposed options (Segments 1A, 1B, and 1C) for the High-Speed Train Alternative.

*Segment 1A*

The first option, Segment 1A, generally follows the route of the existing Union Pacific Railroad (UP) through the City of Colton. Five possible station locations have been identified on this segment including:

- City of El Monte Station
- City of Pomona Station
- City of Ontario Station
- Colton Station
- UC Riverside Station

*Segment 1B*

The second option, Segment 1B, generally follows the same route as Segment 1A, but it enters/exits Los Angeles from the south through the City of South El Monte. Potential station locations on this segment that have been identified include:

- City of South El Monte Station
- City of Industry Station

### *Segment 1C*

The third option, Segment 1C, travels north from the proposed Ontario Station in Segment 1A to the City of San Bernardino Station, then south to rejoin Segment 1A. This segment has one station identified:

- San Bernardino Station

### Existing Land Use for Segment 1

This section summarizes the existing land use surrounding each segment and the existing land use surrounding the associated high-speed train stations for each alternative option from Union Station to the UC Riverside Station (Segments 1A, 1B, and 1C).

#### *Segment 1A: Via Union Pacific Corridor to Colton*

As shown in Table 2.3-5, existing land use within 0.25-mile of Segment 1A is characterized as largely developed. As expected around a railroad corridor, the majority of the existing land use surrounding this segment is industrial and is composed of transportation and utility uses. Vacant and agricultural land composes about 18 percent of the surrounding area, which illustrates the urban nature of the corridor through Los Angeles County. A little over 22 percent of the surrounding area is occupied by residential uses.

**Table 2.3-5 Segment 1A Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Agriculture	778.5	3.8
Commercial	1,869.0	9.0
Extraction	237.0	1.1
Industrial	5,896.2	28.4
Low-Density Residential	3,370.2	16.2
Medium- to High-Density Residential	1,236.7	6.0
Open Space and Recreation	202.7	1.0
Public Facilities and Institutions	1,034.6	5.0
Rural Density Residential	0.0	0.0
Transportation and Utilities	3,287.2	15.8
Under Construction	25.5	0.1
Vacant	2,808.2	13.5
Waterways and Floodways	4.7	0.0
Total	20,750.4	100.0

\*Within 0.25-mile of the alignment

El Monte Station. As presented in Table 2.3-6 and displayed in Figure 2.3-1, more than half of the existing land use within 0.25-mile of the proposed El Monte Station is industrial. The land use surrounding the station site is also industrial. Commercial and agricultural uses compose most of the remaining area, and nearly 12 percent is vacant land, which could provide for development that is supportive of high-speed rail and other related uses.

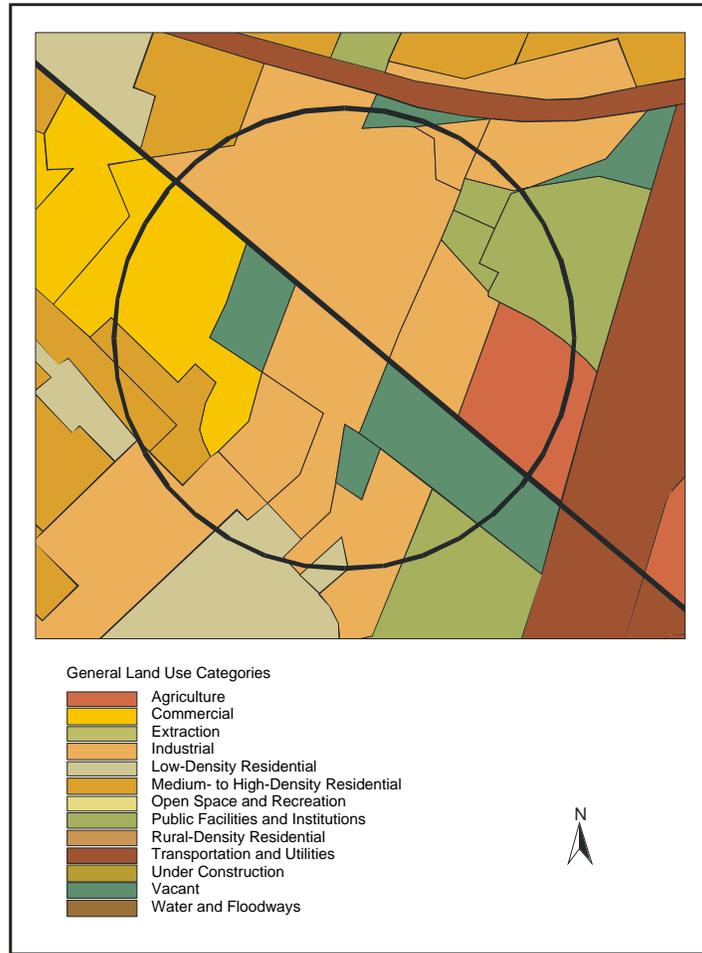
**Table 2.3-6 El Monte Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	7.8

**Table 2.3-6 El Monte Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial	12.3
Extraction	0.0
Industrial	52.5
Low Density Residential	1.5
Medium- to High-Density Residential	5.3
Open Space and Recreation	0.0
Public Facilities and Institutions	8.7
Rural Density Residential	0.0
Transportation and Utilities	0.0
Under Construction	0.0
Vacant	11.9
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile from the station



**Figure 2.3-1 El Monte Station Land Use**

Pomona Station. As presented in Table 2.3-7 and displayed in Figure 2.3-2, the majority of the existing land use within 0.25-mile of the proposed Pomona Station is commercial in nature. The land use nearest to the station is transportation and utilities, defined by the Union Pacific Railroad. Public utilities and institutions followed by industrial and medium- to high-density residential uses compose most of the remaining area.

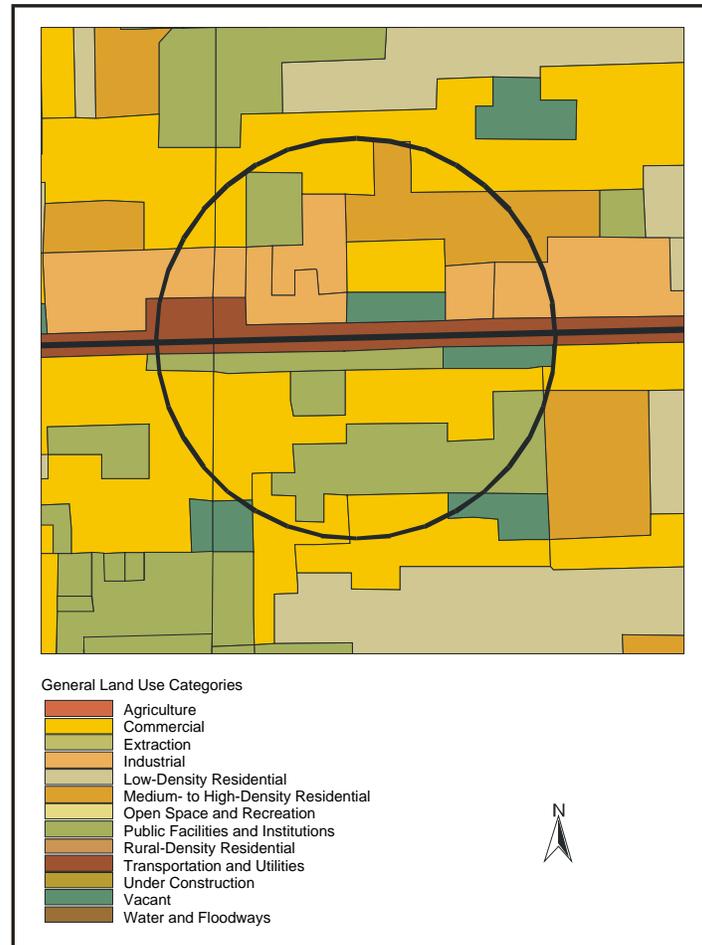
**Table 2.3-7 Pomona Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	0.0
Commercial	33.0
Extraction	0.0
Industrial	16.5
Low-Density Residential	0.0
Medium- to High-Density Residential	9.8
Open Space and Recreation	0.0
Public Facilities and Institutions	25.4
Rural Density Residential	0.0
Transportation and Utilities	10.8

**Table 2.3-7 Pomona Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Under Construction	0.0
Vacant	4.5
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-2 Pomona Station Land Use**

Ontario Station. As presented in Table 2.3-8 and displayed in Figure 2.3-3, the majority of the existing land use within 0.25-mile of the proposed Ontario Station is vacant land. The availability of vacant land makes this station an “opportunity station,” meaning it could be a good candidate for development that is compatible and supportive of high-speed rail and other related uses. However, the existing use does not provide for a travel shed near the station, which would improve transit ridership.

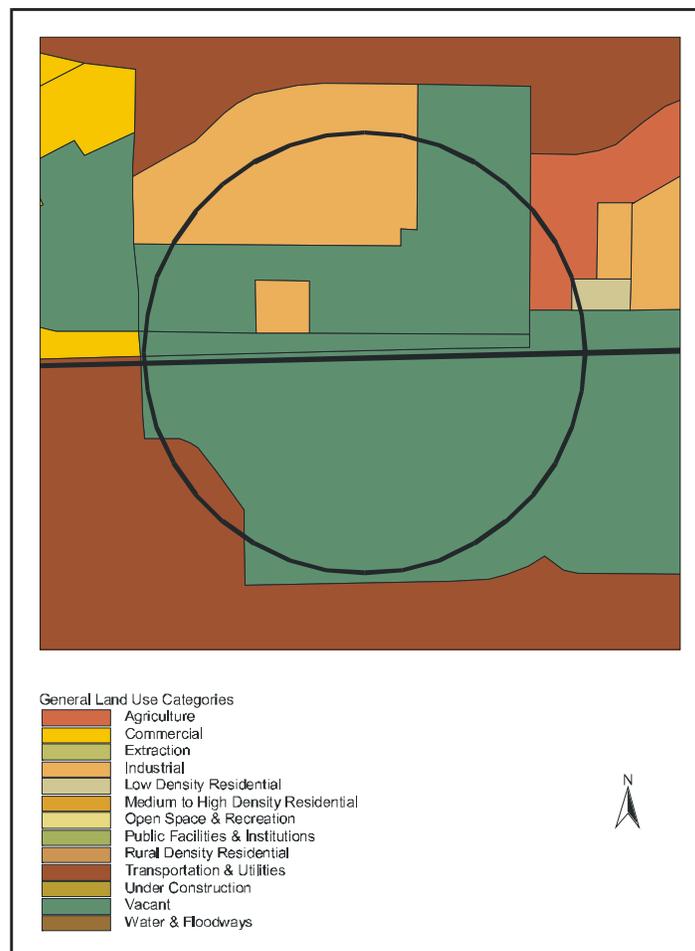
**Table 2.3-8 Ontario Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	2.0
Commercial	0.0

**Table 2.3-8 Ontario Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Extraction	0.0
Industrial	15.4
Low Density Residential	0.0
Medium to High Density Residential	0.0
Open Space and Recreation	0.0
Public Facilities and Institutions	0.0
Rural Density Residential	0.0
Transportation and Utilities	1.9
Under Construction	0.0
Vacant	80.7
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



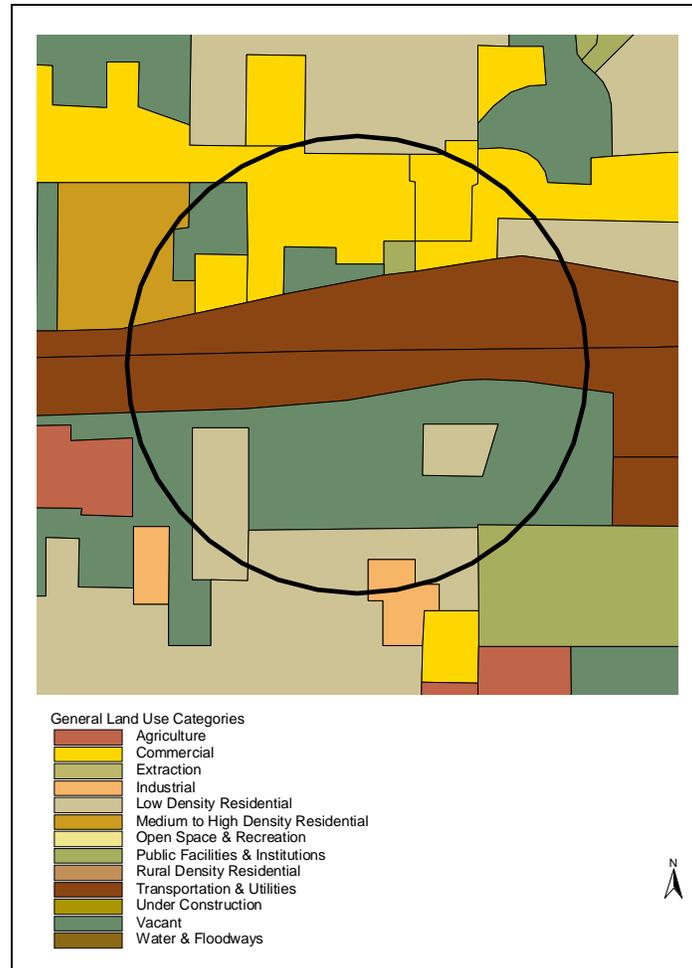
**Figure 2.3-3 Ontario Station Land Use**

**Colton Station.** As presented in Table 2.3-9 and displayed in Figure 2.3-4, about a third of the existing land use within 0.25-mile of the proposed Colton Station is vacant land. The land use nearest the station comprises transportation- and utility-related uses as defined by the Union Pacific Railroad. This station could also be a good “opportunity station” because the availability of vacant land lends itself to development opportunities that are compatible and supportive of high-speed rail. However, without a significant number of transit patrons living within this buffer area, this station does not provide for a close-in transit travel market shed.

**Table 2.3-9 Colton Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	2.0
Commercial	0.0
Extraction	0.0
Industrial	15.4
Low-Density Residential	0.0
Medium- to High-Density Residential	0.0
Open Space and Recreation	0.0
Public Facilities and Institutions	0.0
Rural Density Residential	0.0
Transportation and Utilities	1.9
Under Construction	0.0
Vacant	80.7
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-4 Colton Station Land Use**

UC Riverside Station. As presented in Table 2.3-10 and displayed in Figure 2.3-5, nearly 90 percent of the existing land use within 0.25-mile of the proposed UC Riverside Station is vacant land. The availability of vacant land lends itself to development opportunities that could be compatible with and supportive of high-speed rail. Again however, the existing land use is not supportive of a walk-to-transit travel market.

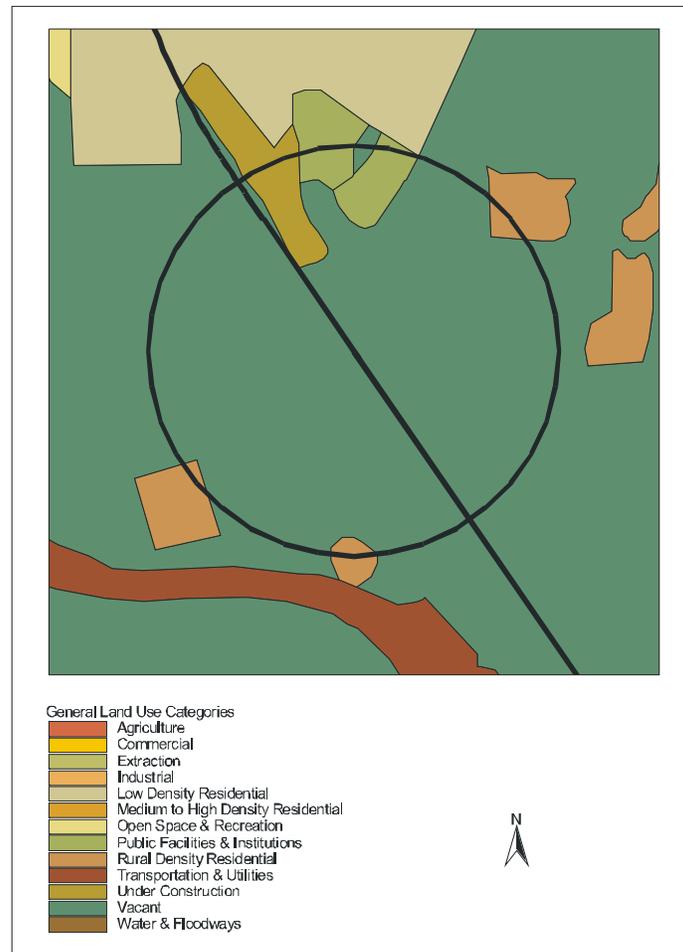
**Table 2.3-10 UC Riverside Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	0.0
Commercial	0.0
Extraction	0.0
Industrial	0.0
Low Density Residential	0.0
Medium to High Density Residential	0.0
Open Space and Recreation	0.0
Public Facilities and Institutions	4.0
Rural Density Residential	4.8
Transportation and Utilities	0.0

**Table 2.3-10 UC Riverside Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Under Construction	3.0
Vacant	88.2
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-5 UC Riverside Station Land Use**

*Segment 1B: Via Union Pacific Corridor to Riverside*

Presented in Table 2.3-11 is the existing land use within 0.25-mile of Segment 1B. As expected around a railroad corridor, more than a third of the land use surrounding this segment is industrial. Due to the urban nature of the corridor, most of the characteristics of this segment are similar to Segment 1A.

Vacant land composes about 10 percent of the surrounding area, and less than 15 percent of the surrounding area is residential use.

**Table 2.3-11 Segment 1B Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Agriculture	629.9	6.2
Commercial	582.9	5.7
Extraction	3.4	0.0
Industrial	3,841.7	37.7
Low-Density Residential	1,087.6	10.7
Medium- to High-Density Residential	420.8	4.1
Open Space and Recreation	220.8	2.2
Public Facilities and Institutions	534.9	5.2
Rural Density Residential	0.0	0.0
Transportation and Utilities	1,784.5	17.5
Under Construction	34.9	0.3
Vacant	1,048.3	10.3
Waterways and Floodways	0.6	0.0
Total	10,190.2	100.0

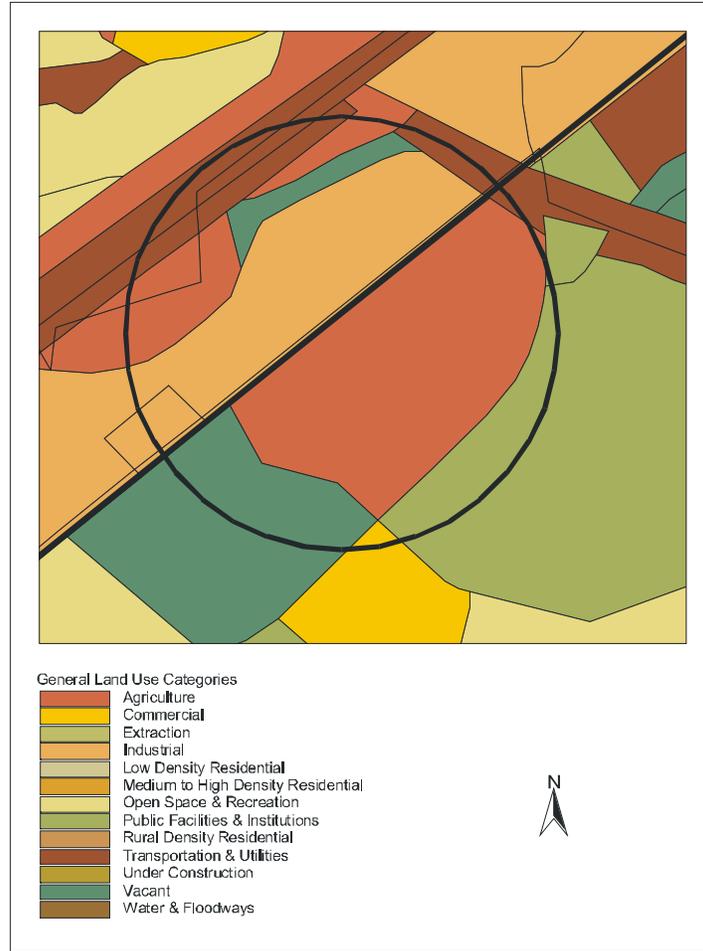
\*Within 0.25-mile of the alignment

**South El Monte Station.** As presented in Table 2.3-12 and displayed in Figure 2.3-6, the majority of the existing land use within 0.25-mile of, and nearest to, the proposed South El Monte Station is agricultural followed by industrial. These two uses compose more than 70 percent of the area, with vacant land making up nearly 13 percent of the area. Rio Hondo College is located south of the proposed station. The exact location of the station site would be a critical determinant in the compatibility of this station area.

**Table 2.3-12 South El Monte Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	44.5
Commercial	0.2
Extraction	0.0
Industrial	26.5
Low-Density Residential	0.0
Medium- to High-Density Residential	0.0
Open Space and Recreation	0.0
Public Facilities and Institutions	7.7
Rural Density Residential	0.0
Transportation and Utilities	8.4
Under Construction	0.0
Vacant	12.8
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-6 South El Monte Station Land Use**

City of Industry Station. As presented in Table 2.3-13 and displayed in Figure 2.3-7, the majority of the existing land use within 0.25-mile of the proposed City of Industry Station is agricultural land. Most of the remaining area is composed of medium- to high-density residential to the south, with vacant land to the north and to the west.

If the station were located in the northern area of the site, the uses would be incompatible. A southern station site, however, could locate the station either vacant land or on land identified for transportation and utilities uses, leading to compatibility.

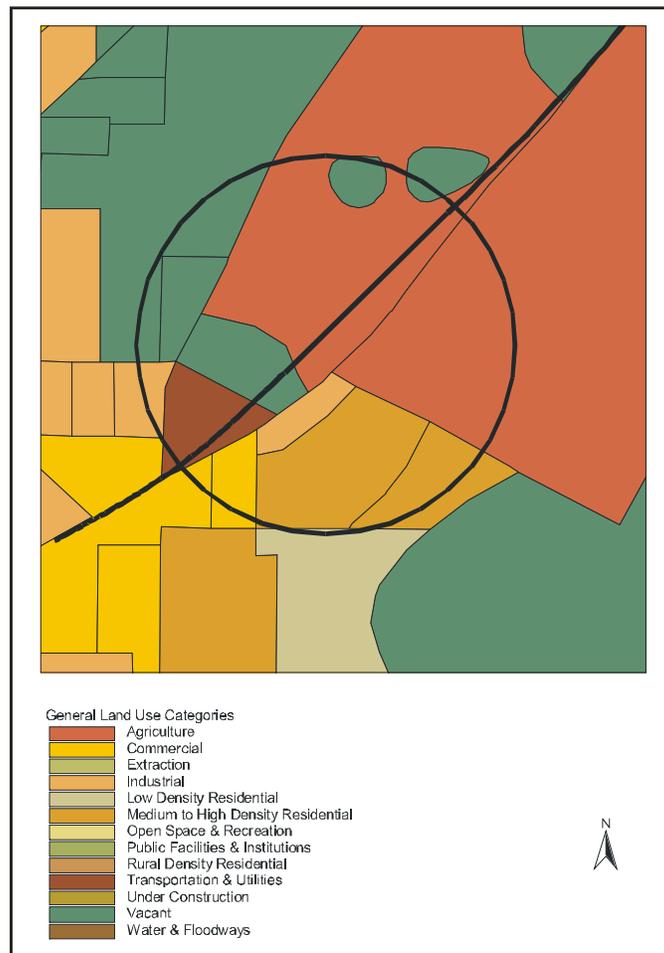
**Table 2.3-13 City of Industry Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	51.5
Commercial	2.8
Extraction	0.0
Industrial	4.1
Low-Density Residential	0.0
Medium- to High-Density Residential	17.7
Open Space and Recreation	0.0

**Table 2.3-13 City of Industry Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Public Facilities and Institutions	0.0
Rural Density Residential	0.0
Transportation and Utilities	5.8
Under Construction	0.0
Vacant	18.1
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-7 City of Industry Station Land Use**

Segment 1C: Loop Through San Bernardino. Presented in Table 2.3-14 is the existing land use within 0.25-mile of Segment 1C. Unique to this segment is that the majority of the surrounding land use is low-density residential. Industrial uses and vacant land compose the next highest concentration of land uses with about 19 percent each.

**Table 2.3-14 Segment 1C Land Use Summary**

Land Use Category	Acres	Percentage of Total Area *
Agriculture	231.9	3.4
Commercial	282.2	4.1
Extraction	149.6	2.2
Industrial	1,334.1	19.4
Low-Density Residential	2,060.7	30.0
Medium- to High-Density Residential	354.3	5.2
Open Space and Recreation	41.9	0.6
Public Facilities and Institutions	119.2	1.7
Rural Density Residential	0.0	0.0
Transportation and Utilities	1,000.5	14.6
Under Construction	13.3	0.2
Vacant	1,284.1	18.7
Waterways and Floodways	0.0	0.0
Total	6,871.9	100.0

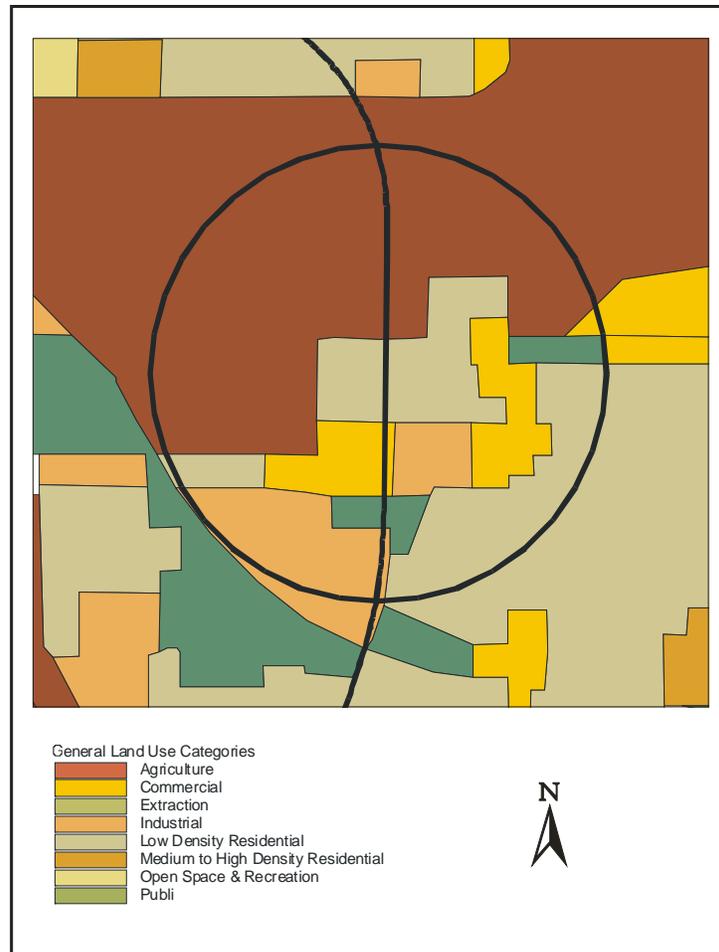
\*Within 0.25-mile of the alignment

San Bernardino Station. As presented in Table 2.3-15 and displayed in Figure 2.3-8, the majority of the existing land use within 0.25-mile of the proposed San Bernardino Station is composed of transportation and utility uses. The Santa Fe Railroad Yards and Depot occupy this area. Most of the remaining area is composed of low-density residential and industrial uses.

**Table 2.3-15 San Bernardino Station Land Use Summary**

Land Use Category	Percentage of Total Area *
Agriculture	0.0
Commercial	10.5
Extraction	0.0
Industrial	12.3
Low-Density Residential	25.4
Medium- to High-Density Residential	0.0
Open Space and Recreation	0.0
Public Facilities and Institutions	0.0
Rural Density Residential	0.0
Transportation and Utilities	48.1
Under Construction	0.0
Vacant	3.7
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-8 San Bernardino Station Land Use**

### Segment 2: UC Riverside to Mira Mesa

Between UC Riverside and City of Mira Mesa there are two proposed options for the High-Speed Train Alternative.

#### *Segment 2A*

The first option, Segment 2A, generally follows a route along I-15. Within Segment 2A, the following four potential stations have been identified:

- March ARB Station
- Riverside County (or Temecula) Station
- City of Escondido Station
- City of Mira Mesa Station

#### *Segment 2B*

Entering the City of Escondido, Segment 2B splits off Segment 2A. Within Segment 2B, a station site has been identified at:

- Transit Center in downtown Escondido

Existing Land Uses for Segment 2

The following section summarizes the existing land use surrounding each alternative option and the stations associated with each option for Segment 2, the segment from the UC Riverside to the City of Mira Mesa (Segments 2A and 2B).

*Segment 2A: Via Escondido I-15 Station*

Half of this segment lies within Riverside County and the other half is within the SANDAG planning area. Due to the slightly different designations in these two areas, the existing land uses for this segment are presented separately.

Table 2.3-16 presents the existing land use within 0.25-mile of Segment 2A that is within Riverside County, and Table 2.3-17 presents the land use of Segment 2A that is within the SANDAG planning area. Vacant land (25 to 35 percent) is the largest land use in both counties and illustrates the rural character of this segment. Agricultural uses (15 to 23 percent) compose the next highest land use, followed by residential uses.

**Table 2.3-16 Segment 2A Land Use Summary – Riverside County**

Land Use Category	Acres	Percentage of Total Area*
Agriculture	2,952.1	23.1
Commercial	716.9	5.6
Extraction	41.4	0.3
Industrial	529.1	4.1
Low-Density Residential	769.7	6.0
Medium- to High-Density Residential	193.7	1.5
Open Space and Recreation	206.0	1.6
Public Facilities and Institutions	405.7	3.2
Rural Density Residential	189.9	1.5
Transportation and Utilities	1,838.1	14.4
Under Construction	428.4	3.4
Vacant	4,480.4	35.1
Waterways and Floodways	14.4	0.1
Total	12,765.8	100.0

\*Within 0.25-mile of the alignment

**Table 2.3-17 Segment 2A Land Use Summary – SANDAG Planning Area**

Land Use Category	Acres	Percentage of Total Area*
Commercial and Office	321.6	2.7
Commercial Recreation	410.5	3.4
Education	74.0	0.6
Extensive Agriculture	290.0	2.4
Institutions	134.6	1.1
Intensive Agriculture	1,609.5	13.4
Light Industry	269.6	2.2
Mobile Homes	114.8	1.0

**Table 2.3-17 Segment 2A Land Use Summary – SANDAG Planning Area**

Land Use Category	Acres	Percentage of Total Area*
Multiple Family	580.0	4.8
Parks	482.0	4.0
Shopping Centers	159.1	1.3
Single Family	1,434.5	12.0
Spaced Rural	712.3	5.9
Transportation, Communication, Utilities	2,272.1	18.9
Undeveloped	3,076.4	25.7
Water	49.7	0.4
Total	11,990.6	100.0

\*Within 0.25-mile of the alignment

March ARB Station. As presented in Table 2.3-18 and displayed in Figure 2.3-9, the majority of the existing land use within 0.25-mile of the proposed March ARB Station is composed of vacant land. The existing Air Reserve Base occupies nearly 33 percent of the area and the land use is categorized as public facilities and institutions. The existing Union Pacific Railroad line that is parallel to the proposed line and station occupies about 12 percent of the area.

**Table 2.3-18 March ARB Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	0.0
Commercial	0.0
Extraction	0.0
Industrial	0.0
Low-Density Residential	0.0
Medium- to High-Density Residential	0.0
Open Space and Recreation	0.0
Public Facilities and Institutions	32.7
Rural Density Residential	0.0
Transportation and Utilities	12.2
Under Construction	0.0
Vacant	55.1
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the alignment



**Figure 2.3-9 March ARB Station Land Use**

Temecula Station. As presented in Table 2.3-19 and displayed in Figure 2.3-10, the majority of the existing land use within 0.25-mile of the proposed Temecula Station is vacant land. Hancock Street, which parallels the proposed alignment, composes about 17 percent of the area. The remaining area is composed of commercial, low-density residential, and open space and recreational uses including the Alta Murrieta Sport Park.

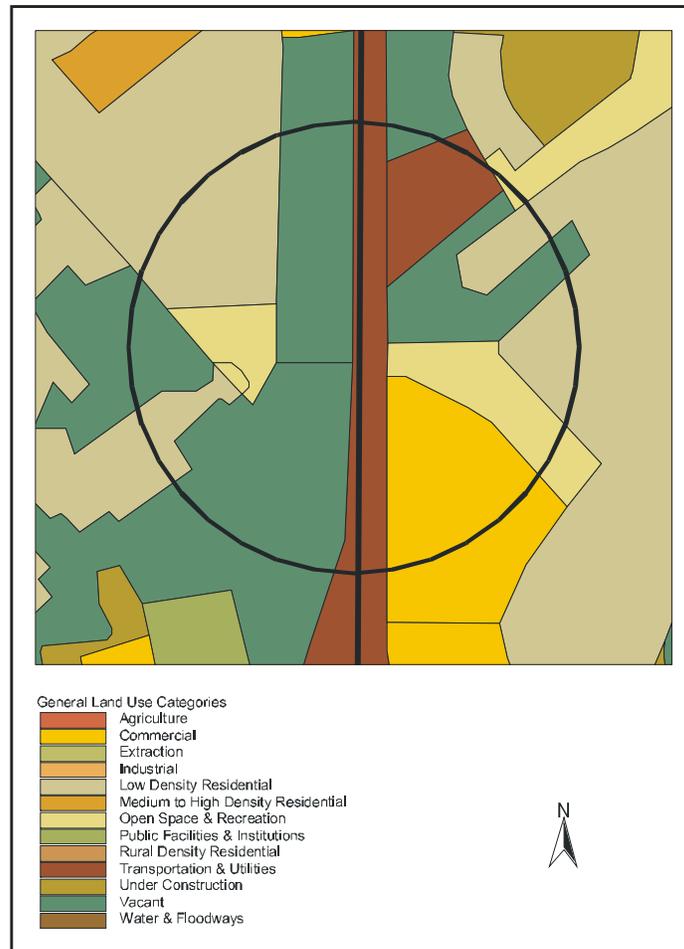
**Table 2.3-19 Temecula Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Agriculture	0.0
Commercial	12.1
Extraction	0.0
Industrial	0.0
Low-Density Residential	20.2
Medium- to High-Density Residential	0.0
Open Space and Recreation	10.6
Public Facilities and Institutions	0.0
Rural Density Residential	0.0
Transportation and Utilities	16.6

**Table 2.3-19 Temecula Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Under Construction	0.0
Vacant	40.4
Waterways and Floodways	0.0
Total	100.0

\*Within 0.25-mile of the alignment



**Figure 2.3-10 Temecula Station Land Use**

Escondido Station. As presented in Table 2.3-20 and displayed in Figure 2.3-11, the major existing land uses within 0.25-mile of the proposed Escondido Station include spaced rural, single family residential, transportation uses, and mobile homes. I-15 bisects the station area, with mobile homes on either side of the proposed alignment and station.

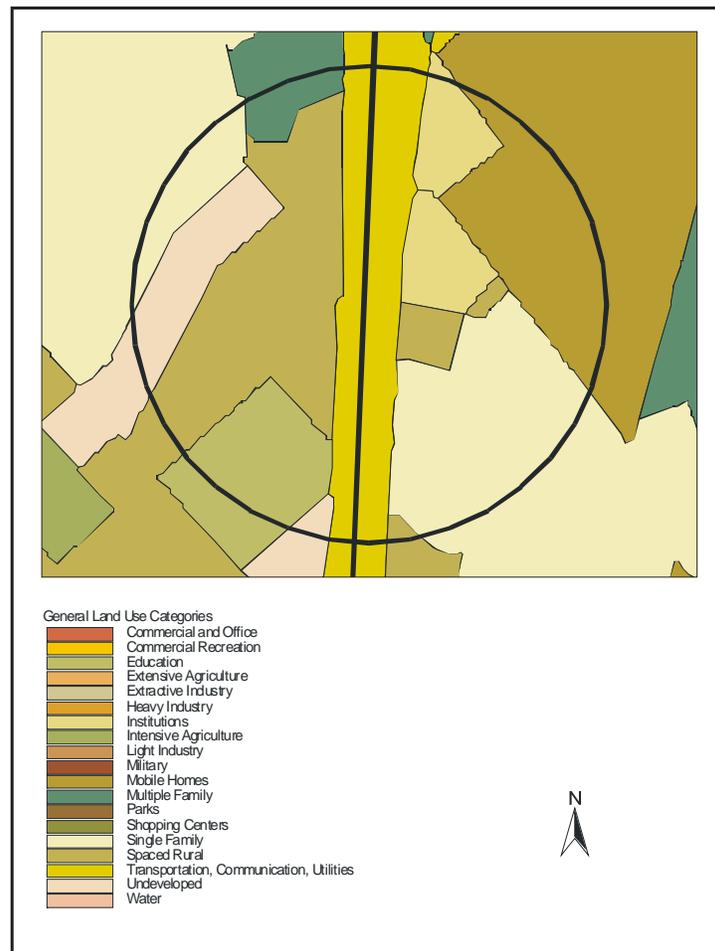
**Table 2.3-20 Escondido Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Education	7.4
Institutions	8.1
Mobile Homes	13.1

**Table 2.3-20 Escondido Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Multiple Family	2.4
Single Family	21.4
Spaced Rural	22.8
Transportation	17.5
Undeveloped	7.2
Total	100.0

\*Within 0.25-mile of the alignment



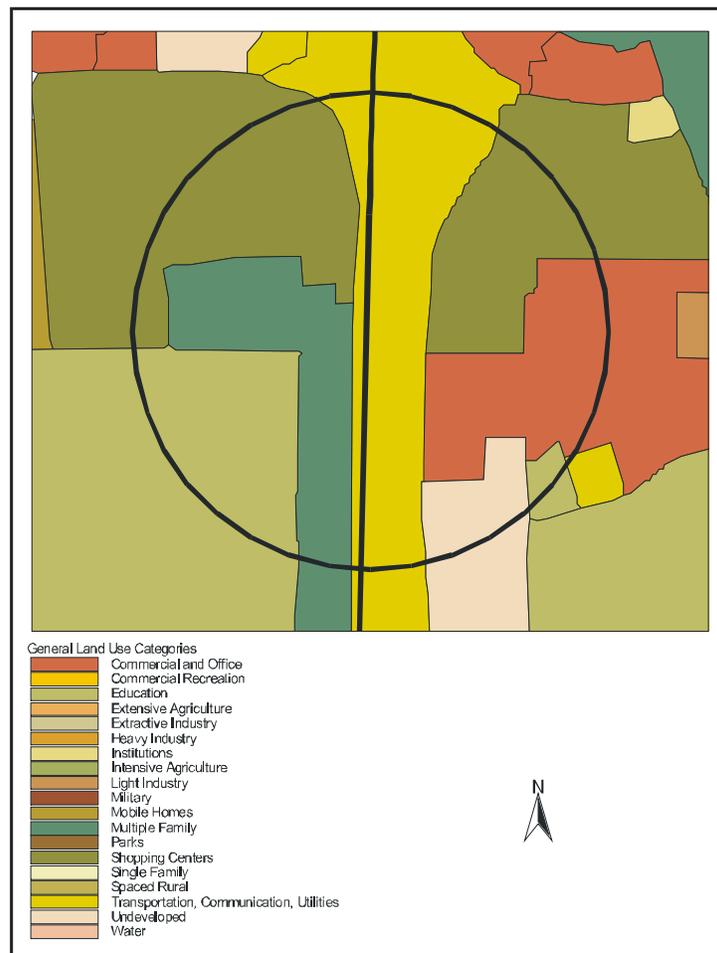
**Figure 2.3-11 Escondido Station Land Use**

Mira Mesa Station. As presented in Table 2.3-21 and displayed in Figure 2.3-12, the majority of the existing land use within 0.25-mile of the proposed Mira Mesa Station is composed of shopping center uses located in the southwest and southeast quadrants of the I-15 and the Mira Mesa Boulevard interchange. In addition to commercial, office, and multifamily uses, Miramar College is southwest of the station, occupying most of the remaining station area.

**Table 2.3-21 Mira Mesa Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial and Office	14.2
Education	14.1
Multi Family	15.0
Shopping Center	28.2
Undeveloped	4.6
Transportation	23.9
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-12 Mira Mesa Station Land Use**

*Segment 2B: Via Escondido Transit Center Station*

Presented in Table 2.3-22 is the existing land use within 0.25-mile of Segment 2B. Segment 2B leaves the I-15 corridor in Escondido and accesses the existing Escondido Transit Center in the central business district area. The largest single land use in this segment is residential, composed of 26 percent single family, about 11 percent multiple family, and nearly 2 percent mobile homes. Commercial and office uses make up the next largest land use with about 14 percent. Due to the alignment of Segment 2B and the proposed station location, this alignment has more potential for incompatibility of land uses within

0.25-mile of the corridor than Segment 2A. However, the proposed alignment and station location likely will provide better intercity to intracity transit connections, serve a larger population, and maintain and enhance the downtown area of Escondido.

**Table 2.3-22 Segment 2B Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Commercial and Office	384.2	14.3
Commercial Recreation	24.4	0.9
Education	70.5	2.6
Extensive Agriculture	15.0	0.6
Institutions	58.4	2.2
Intensive Agriculture	51.0	1.9
Light Industry	97.0	3.6
Mobile Homes	42.7	1.6
Multiple Family	292.3	10.9
Parks	166.5	6.2
Shopping Centers	96.2	3.6
Single Family	698.7	26.0
Spaced Rural	163.3	6.1
Transportation, Communication, Utilities	292.2	10.9
Undeveloped	198.5	7.4
Water	41.4	1.5
Total	2,692.3	100.0

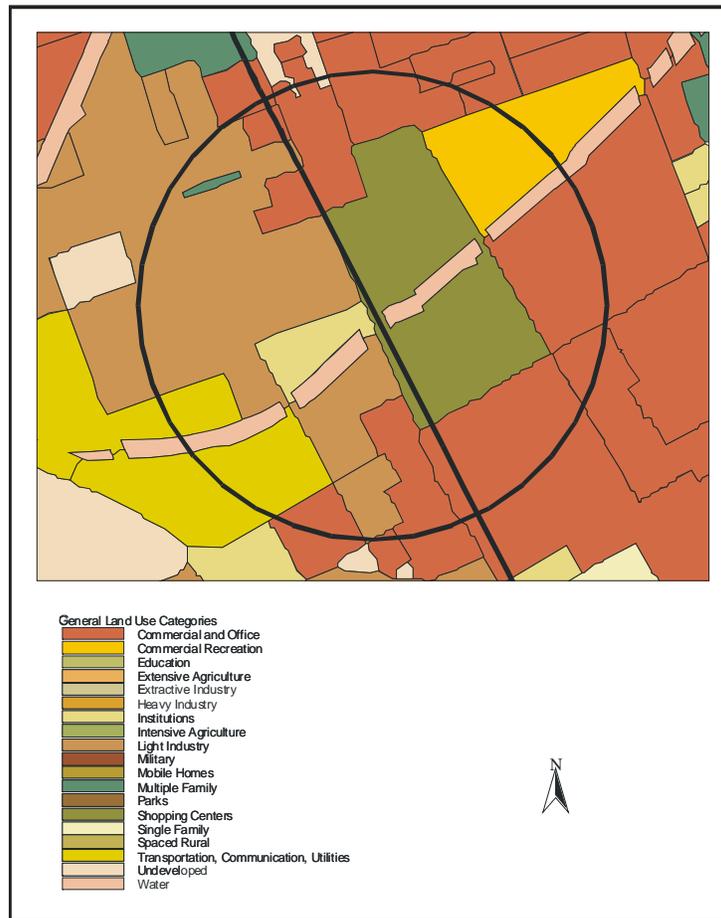
\*Within 0.25-mile of the alignment

Escondido Transit Center Station. As presented in Table 2.3-23 and displayed in Figure 2.3-13, the majority of the existing land use within 0.25-mile of the proposed Escondido Transit Center Station is commercial and office followed by light industrial. The land nearest to the station is in shopping center uses. Unique to this station area is a water feature that traverses the area from east to west, and the entire station area is developed.

**Table 2.3-23 Escondido Transit Center Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial and Office	32.7
Commercial Recreation	5.8
Institutions	2.9
Light Industry	28.0
Multiple Family	0.3
Shopping Centers	19.6
Transportation, Communication, Utilities	6.4
Undeveloped	0.0
Water	4.2
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-13 Escondido Transit Center Station Land Use**

### Segment 3: Mira Mesa to San Diego Segment

Between the City of Mira Mesa and the City of San Diego, there are three proposed potential options for the High-Speed Train Alternative.

#### *Segment 3A*

The first alternative option, Segment 3A, continues along the route generally following I-15 to an end-of-line station at Qualcomm Stadium.

#### *Segment 3B*

Segment 3B goes from Mira Mesa to downtown San Diego via Carroll Canyon and then parallel to I-5, with potential stations at the following locations:

- San Diego Transit Center
- San Diego International Airport
- Downtown San Diego

Segment 3C does not contain any stations and serves only as an alternate route to Carroll Canyon, via Miramar Road.

### Existing Land Uses for Segment 3

The following section summarizes the existing land use surrounding each segment and the associated stations from the City of Mira Mesa to the City of San Diego (Segments 3A, 3B, and 3C).

*Segment 3A: To Qualcomm Stadium, Via I-15*

Presented in Table 2.3-24 is the existing land use within 0.25-mile of Segment 3A. The variety of land use along the corridor reflects the suburban nature of northern San Diego. Segment 3 bisects MCAS Miramar along I-15. Undeveloped land and parkland uses compose more than a third of the Segment 3A area land use. Other than transportation-related uses, the land use in the remaining area is composed of commercial, industrial, and residential.

**Table 2.3-24 Segment 3A Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Commercial and Office	222.8	7.3
Commercial Recreation	110.2	3.6
Education	74.6	2.4
Institutions	19.5	0.6
Intensive Agriculture	9.2	0.3
Light Industry	200.7	6.5
Military	77.1	2.5
Mobile Homes	18.0	0.6
Multiple Family	273.2	8.9
Parks	513.3	16.7
Shopping Centers	102.1	3.3
Single Family	48.1	1.6
Transportation, Communication, Utilities	872.2	28.4
Undeveloped	530.9	17.3
Total	3,071.8	100.0

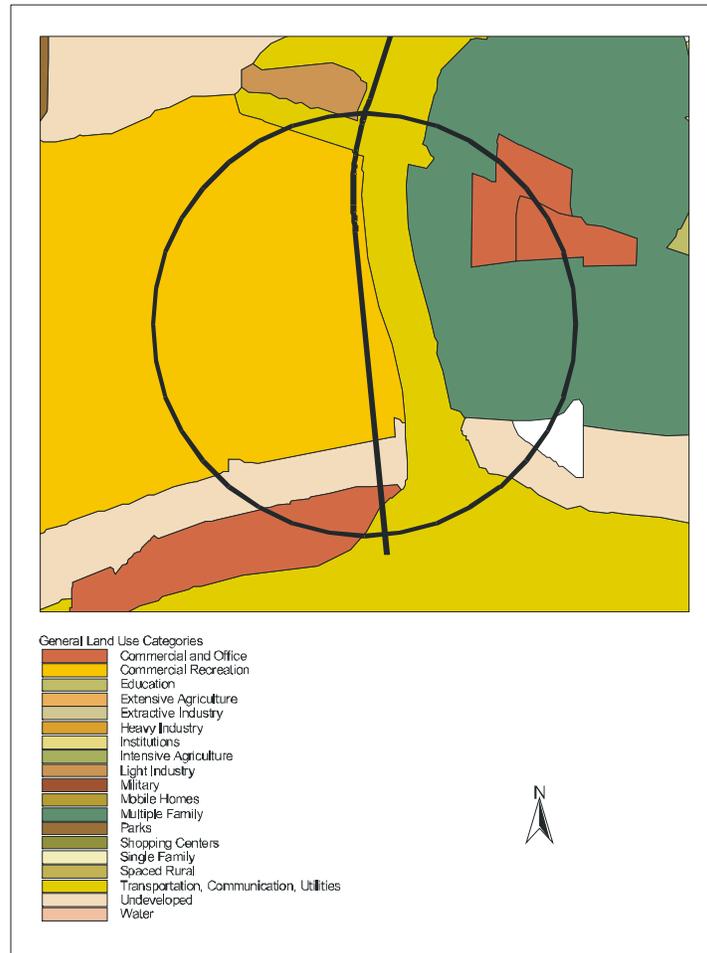
\*Within 0.25-mile of the alignment

Qualcomm Stadium Station. Home of the San Diego Chargers, the San Diego Padres, and the San Diego State University Aztecs, Qualcomm Stadium is located due west of the proposed station and composes all of the commercial and recreational land use in the station area. West of I-15 encompasses multifamily uses. Table 2.3-25 summarizes percentages of land use within 0.25-mile of Qualcomm Stadium Station.

**Table 2.3-25 Qualcomm Stadium Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial and Office	4.5
Commercial Recreation	47.0
Multiple Family	20.0
Transportation, Communication, Utilities	20.8
Undeveloped	7.7
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-14 Qualcomm Stadium Station Land Use**

*Segment 3B: To Downtown San Diego Via Carroll Canyon*

Presented in Table 2.3-26 is the existing land use within 0.25-mile of Segment 3B. Similar to Segment 3A, the variety of land uses along the corridor reflects the generally suburban nature of northern San Diego in addition to the urban character of the city. Other than transportation-related uses, single family, undeveloped land, and parkland uses compose the largest areas around the alignment. Parks are generally not compatible with rail projects of this type due to the probability of noise impacts, visual impacts, and other potential direct and indirect impacts. However, this alignment follows an existing transportation corridor, I-5, which is adjacent to Marian Bear Memorial Park and Balboa Park. Segment 3B has a higher percentage of industrial and commercial land uses than Segment 3A.

**Table 2.3-26 Segment 3B Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Commercial and Office	539.9	8.7
Commercial Recreation	199.0	3.2
Education	159.5	2.6
Extractive	435.1	7.0
Heavy Industry	27.2	0.4
Institutions	30.9	0.5

**Table 2.3-26 Segment 3B Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Intensive Agriculture	5.0	0.1
Light Industry	734.3	11.9
Military	106.2	1.7
Mobile Homes	11.6	0.2
Multiple Family	402.0	6.5
Parks	782.9	12.7
Shopping Centers	46.7	0.8
Single Family	857.7	13.9
Transportation, Communication, Utilities	899.4	14.5
Undeveloped	823.5	13.3
Water	121.3	2.0
Total	6,182.2	100.0

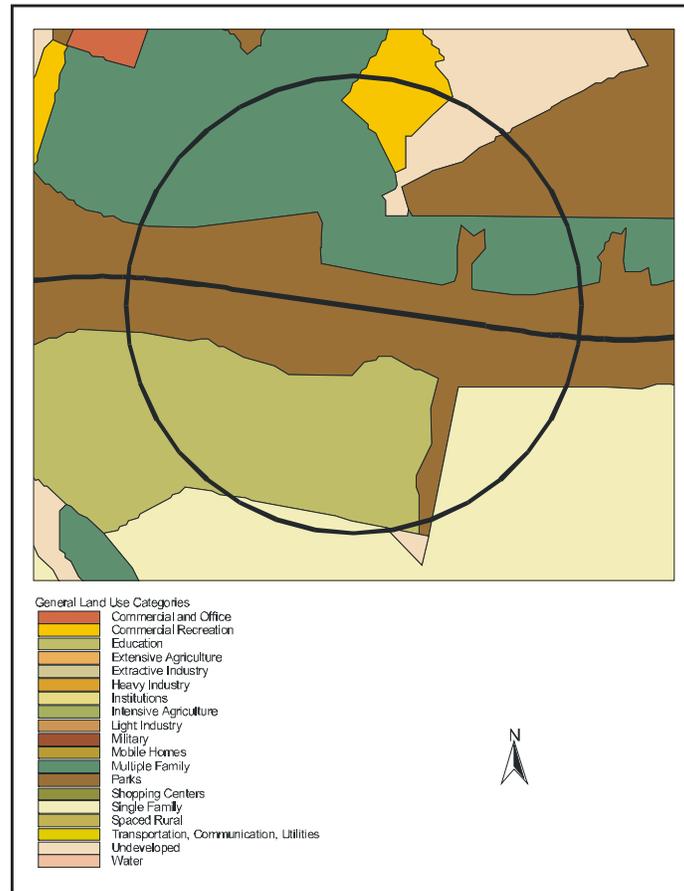
\*Within 0.25-mile of the alignment

San Diego Transit Center Station. As presented in Table 2.3-27 and displayed in Figure 2.3-15, the proposed station appears to be located within or east of the Marian Bear Memorial Park. However, the electronic geographic information system land use for this area may be incorrect because other data sources indicate that the park ends at Genesee Avenue and the station is located east of this street. The GIS database defines the alignment area as "park," which could also include an open space corridor. According to aerial photography, residential uses are to the northwest and southeast of the station and a school with athletic fields is directly to the south. The precise location and actual surrounding land use of this station should be identified and further analyzed.

**Table 2.3-27 San Diego Transit Center Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial Recreation	3.1
Education	24.3
Multiple Family	24.7
Parks	37.7
Single Family	6.9
Undeveloped	3.3
Total	100.0

\*Within 0.25-mile of the station



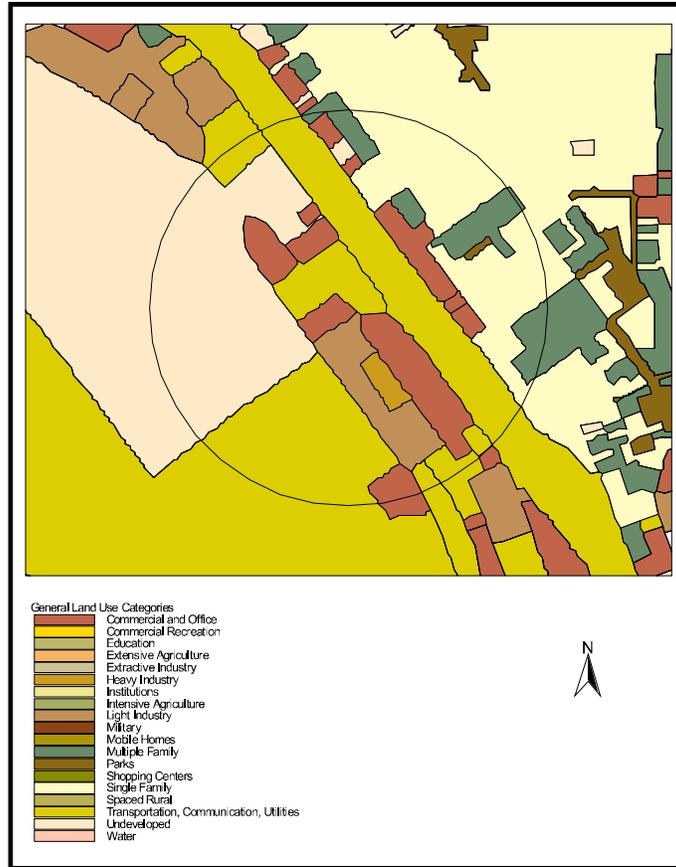
**Figure 2.3-15 San Diego Transit Center Station Land Use**

San Diego International Airport Station. As presented in Table 2.3-28 and displayed in Figure 2.3-16, the majority of the existing land use within 0.25-mile of the proposed San Diego International Airport Station is transportation, communication, or utilities related, as defined by the adjacent airport and the parallel I-5. Other major land uses include undeveloped land, single-family residential uses, and commercial and office use.

**Table 2.3-28 Downtown San Diego International Airport Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial and Office	13.4
Heavy Industry	1.1
Light Industry	4.9
Multiple Family	5.7
Parks	0.2
Single Family	15.8
Transportation, Communication, Utilities	35.0
Undeveloped	23.9
Total	100.0

\*Within 0.25-mile of the station



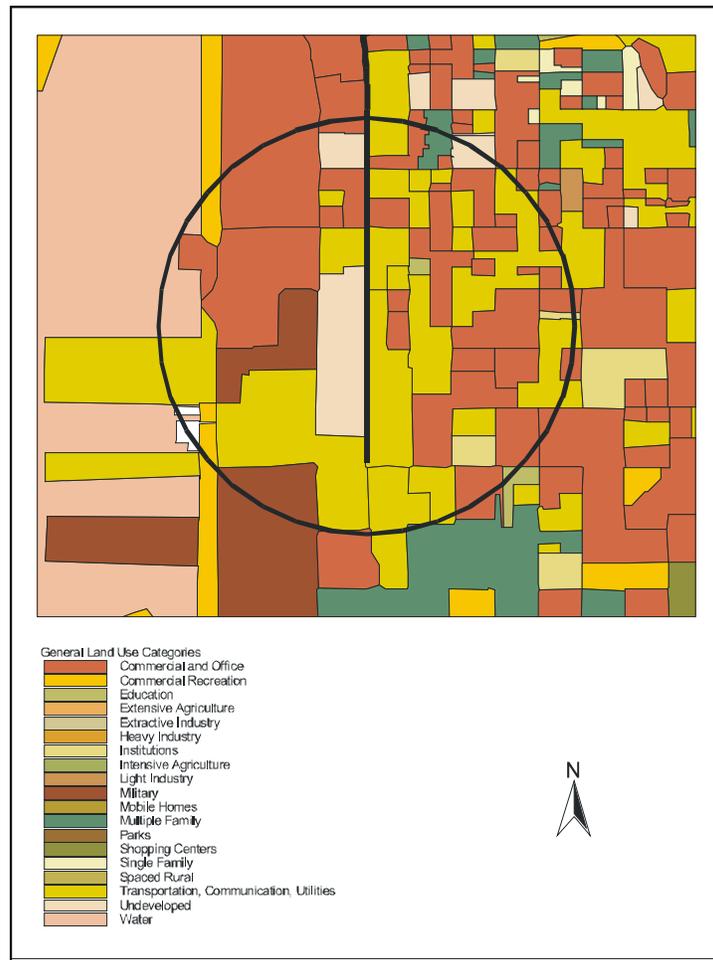
**Figure 2.3-16 San Diego International Airport Station Land Use**

Downtown San Diego Station. As presented in Table 2.3-29 and displayed in Figure 2.3-17, the majority of the existing land use within 0.25-mile of the proposed Downtown San Diego Station is in transportation, communication, and utilities use, followed by commercial and office uses. The dense grid system accounts for the high percentage of transportation use and the number of different land uses near the station. The proposed station is located directly adjacent to approximately 10 acres of undeveloped land.

**Table 2.3-29 Downtown San Diego Station Land Use Summary**

Land Use Category	Percentage of Total Area*
Commercial and Office	38.8
Commercial Recreation	1.5
Education	0.3
Institutions	1.2
Military	6.9
Multiple Family	0.7
Transportation, Communication, Utilities	40.1
Undeveloped	7.8
Water	2.7
Total	100.0

\*Within 0.25-mile of the station



**Figure 2.3-17 Downtown San Diego Station Land Use**

Segment 3C: To Downtown San Diego, Via Miramar Road. Presented in Table 2.3-30 is the existing land use within 0.25-mile of Segment 3C. Segment 3C serves as an alternate alignment to Segment 3B by following Miramar Road rather than Carroll Canyon. This segment does not have any stations. The majority of the area surrounding the alignment is institutional use, followed by light industry and undeveloped land. Presumably, the Miramar Memorial Golf Course could be impacted by this alignment.

**Table 2.3-30 Segment 3C Land Use Summary**

Land Use Category	Acres	Percentage of Total Area *
Commercial and Office	72.4	2.5
Commercial Recreation	159.9	5.5
Education	68.4	2.4
Extensive Agriculture	48.3	1.7
Institutions	1,291.5	44.6
Intensive Agriculture	8.1	0.3
Light Industry	394.4	13.6
Military	10.7	0.4
Multiple Family	137.1	4.7

**Table 2.3-30 Segment 3C Land Use Summary**

Land Use Category	Acres	Percentage of Total Area*
Parks	168.5	5.8
Shopping Centers	126.0	4.4
Single Family	22.7	0.8
Transportation, Communication, Utilities	81.5	2.8
Undeveloped	305.2	10.5
Total	2,894.6	100.0

\*Within 0.25-mile of the alignment

### 2.3.2 Planned/Future Land Use and Land Use Policies

The future land use and land use policies related to the No-Project and Modal Alternatives are discussed below. In response to rapid growth, the SANDAG and SCAG planning regions have undertaken planning efforts with the goals of providing for a more sustainable future for the region.

#### 2.3.2.1 No Build and Modal Alternatives

In the case of the SANDAG planning area, future land use forecast scenarios identified that a continuation of current local land use policies was unsustainable and that most of the available land in the region would be developed by 2020 without a substantial effort to increase the density of development.

In the case of the SCAG planning area, the alarming growth led to a similar conclusion—that without regional growth management coordination and a new vision for development, current land use patterns would result in an unsustainable future.

Generally, the managed growth policies of the SANDAG and SCAG planning areas provide a policy framework that is inconsistent with highway expansion efforts in the future, such as those anticipated in the No-Project and Modal Alternatives.

#### Future Land Use in the SANDAG Planning Area

In November 1998, SANDAG released *2020 Cities/County Forecast Land Use Alternatives*. SANDAG noted in this document that, since the completion of the *Series 8 Regional Growth Forecast* in 1995, SANDAG entities have been trying to call attention to the fact that current general community plans did not designate enough land for residential use to accommodate future population growth forecasts.

The Regional Growth Management Strategy was adopted by SANDAG in 1993. This strategy was anchored by the Land Use Distribution Element, which was an effort to provide for more sustainable growth patterns. The Land Use Distribution Element called for each jurisdiction to:

- Place its highest densities within walking distance of transit stations, along bus corridors and within traditional town centers (i.e., transit-oriented development)
- Encourage mixed use development and mixed housing types
- Incorporate residential uses within large employment areas

In producing the 2020 land use forecasts, SANDAG evaluated four land use scenarios that included existing patterns/policies and three other scenarios of increasing residential densities. The evaluation of existing land use planning policies led to the conclusion that current patterns would result in 98 percent of the existing developable land being consumed by development by 2020 (624,000 acres of the available 636,000 acres). Of that development, 606,000 acres are slated for residential use, which is primarily at low densities (only 7 percent of the land is planned for densities greater than one unit per acre). Of the

130,000 acres of developable agricultural lands, most is planned for rural residential use of one unit per acre or less.

The conclusion of the forecast was that any of the three scenarios calling for greater densities would result in an improvement.

#### Future Land Use in the SCAG Planning Area

The population in the SCAG planning region grew from 14.6 million to 16.5 million in the decade from 1990 to 2000 (almost 13 percent). Riverside County was the third fastest growing county in the region. Riverside County and San Bernardino County grew by 32 and 20.5 percent, respectively.

The SCAG forecast for 2025 projects that the population in the counties in the study area will increase as follows.

- Los Angeles County from 9.5 million in 2000 to 12.3 million in 2025
- San Bernardino County from 1.7 million in 2000 to 2.8 million in 2025
- Riverside County from 1.5 million in 2000 to 2.8 million in 2025

In July 2000, the SCAG Growth Visioning Subcommittee began working to develop a new framework to look at growth and planning issues in a regional framework. This effort was launched, out of the concern that the cumulative effect of local land use decisions would lead to an unsustainable future. The objectives of this effort include:

- Improving mobility for all residents
- Fostering livability for all communities
- Enabling prosperity for all citizens
- Promoting sustainability for future generations

#### **2.3.2.2 High-Speed Train Alternative**

From available city, county, and other general planning documents, the planned land use near proposed stations and land use policies were reviewed and summarized to determine compatibility with the High-Speed Train Alternative.

##### Segment 1: Union Station to UC Riverside

###### *Segment 1A and Stations*

Within Segment 1A, five potential stations have been identified. The planning documents for the appropriate entities were reviewed to determine planned land uses and the compatibility with the High-Speed Train Alternative for the following locations.

- City of El Monte Station
- City of Pomona Station
- City of Ontario Station
- Colton Station
- University of California at Riverside Station

City of El Monte Station. The Metrolink Commuter Train System currently provides service to the City of El Monte. Commuters can travel to Los Angeles, Riverside, San Bernardino, Santa Clarita, and Ventura County. The proposed station is located near the existing El Monte Station and the Bassett Station; thus, a new station would be consistent with current and future local planning efforts. The proximity of the proposed station to the El Monte Airport could help establish a multimodal connection between aviation, high-speed rail, and automobile users and may also promote redevelopment adjacent to the proposed station. The station area is currently not one of the ten redevelopment project areas identified by the City of El Monte. Presumably, the existing industrial zoning will remain with mixed-use and redevelopment as potential development options.

City of Pomona Station. According to the *City of Pomona General Plan*, the vision for the downtown Pomona Station is transit-oriented, mixed-use development north of the alignment and arts-oriented, mixed-use development south of the alignment. The focus of the planned land use is to maintain the existing downtown while promoting a “City Center” type development that is mixed-use and is supportive of and compatible with transit.

City of Ontario Station. The *General Plan for the City of Ontario* was completed in 1992. The existing and planned land use and policies for growth and development are highlighted in the Community Development Element. The proposed station is located north of the Ontario International Airport and south of Holt Boulevard in Community Planning Area number seven. Planned land use near the proposed station is predominately industrial and commercial. Identified in the Approved Commercial / Industrial Specific Plans is the Transpark, a development adjacent to the proposed station. Policy DT-4 states, “Allow for the further expansion of the Civic Center complex, as additional space is needed, south across East Holt Boulevard to the railroad tracks.” The proposed station could serve to connect the expanded Civic Center complex to adjacent communities via high-speed rail. Also, the proposed station lies within the airport influence area, and, due to noise impacts, the plan identifies residential uses as incompatible and industrial and commercial uses as compatible.

Colton Station. The *City of Rialto General Plan* was completed in March 1992. The plan identifies planned land uses and policies in the Land Use Chapter and discusses commuter rail in the Circulation Chapter. The proposed Colton Station is located just south of the I-10 and Cedar Avenue interchange within the City of Rialto, near the community of Bloomington. The southern sector of Rialto and the area surrounding the proposed station is the Agua Mansa Industrial Corridor Specific Planning Area and is a Redevelopment Area and Enterprise Zone. Agua Mansa was planned and is administered by joint powers agreements among the City of Rialto, the City of Colton, San Bernardino County, and Riverside County. The goal of Agua Mansa is to attract heavy industry to provide thousands of jobs to local residents. Accordingly, almost all of the area is zoned heavy or medium industry. The area adjacent to and south of the proposed station is zoned general industrial, and north of I-10 near the station is general commercial. The plan identifies several goals and policies to “assure a commuter rail stop in Rialto,” including:

- Promoting the location of a commuter rail station along either the Atchison-Topeka/Santa Fe or the Pacific Electric and Southern Pacific Railroad lines, as appropriate, on available undeveloped land
- As appropriate, using the redevelopment authority of the City of Rialto to plan appropriate commercial sales and services for commuters on properties convenient to the commuter rail station and parking area
- Creating a multimodal transit node at the commuter rail station
- Maximizing the benefits of commuter rail service by planning for a station that provides adequate parking, an adjoining transit center for transfers to other rail and bus lines, and passenger amenities

The plan recognizes the need to mitigate impacts due to incompatible adjacent land uses, including the implementation of commuter rail service by developing and enhancing the high-quality residential and industrial areas in the city, limiting industrial development to appropriate areas, separating incompatible areas using barriers, and providing adequate parking at the station.

UC Riverside Station. The *University of California at Riverside Long-Range Development Plan* was completed in July 1990. For the university to accommodate expected growth, major expansion of campus and support facilities are anticipated. The majority of this growth is expected to occur by the expansion of existing buildings and most of the construction is planned for the west side of campus. The proposed station is located near the eastern edge of the campus within Riverside County. According to the county land use plans, the station area is zoned for Residential—Hillside on the east and Residential, Semi-Rural on the west. Typically, residential uses are not considered compatible with rail alternatives; however, since most of the station area has not yet been developed, sensitive design guidelines and careful development review could ensure that adjacent uses are compatible with the station location and design.

The proposed high-speed train service may help accommodate the anticipated growth of the university and the surrounding area and also may serve to connect the university to a larger student base.

#### *Segment 1B and Stations*

Within Segment 1B, two potential stations have been identified. The planning documents for the appropriate entities were reviewed to determine planned land uses and compatibility with the High-Speed Train Alternative for station locations in:

- City of South El Monte
- City of Industry

The City of South El Monte and the City of Industry are within Los Angeles County. According to the *Los Angeles County General Plan*, completed in the late 1980s, one of the goals of the county is to achieve a more balanced transportation system. The plan identifies fixed-rail rapid transit and commuter rail as potential alternatives to achieve this goal. "The county exhibits widespread emergence of moderately high density centers which suggest the potential for a high speed rail network." Also, the plan recognizes that some commuter service is already operating on existing railroad corridors within the region and that the region's transportation system would benefit from increased commuter rail service. Relevant to this project, the plan identifies the Downtown Los Angeles to Pomona/Walnut Valley as a likely rail route. Although planned land use around the stations was unavailable, the existing industrial and agricultural uses provide a good deal of flexibility in the ability to rezone and to redevelop the station areas.

#### *Segment 1C and Stations*

Within Segment 1C, one potential station has been identified. The *General Plan for the City of San Bernardino* was reviewed to determine planned land uses and compatibility with the High-Speed Train Alternative.

City of San Bernardino Station. The *General Plan for the City of San Bernardino* was completed in June 1989. Highlighted in the "Land Use and Urban Design" element are the existing and planned land use as well as policies and design guidelines for urban design. The Santa Fe Railroad Yard and Depot is identified as a long-term tenant in the city and as an area that has declined with the departure of manufacturing and industrial uses. The reuse of the railroad depot and adjacent properties as high-intensity, mixed-use developments that incorporate commercial, industrial, transportation, and related uses is specifically identified as an "opportunity to continue to strengthen San Bernardino's region-serving role provided by land use policy." The planned land use surrounding the proposed station remains industrial and commercial. However, with the implementation of high-speed rail, construction of the station, and subsequent rezoning of the permitted uses of the area, the vision of a high-intensity, mixed-use center for the Santa Fe Railroad Yard and Depot could be implemented. According to Issue Five in the plan, "Future Role and Character of the Railroad Yards," the policy of the city would "permit development of a multi-modal transportation center, including railroad, rail transit, vehicular transit, bus, automobile, and other uses in areas designated as Industrial Heavy."

### Segment 2: UC Riverside to Mira Mesa

#### *Segment 2A and Stations*

Within Segment 2A, four potential stations have been identified. The planning documents for the appropriate entities were reviewed to determine planned land uses and compatibility with the High-Speed Train Alternative for station locations at:

- March ARB
- City of Temecula
- City of Escondido
- City of Mira Mesa

March ARB. In 1993, the Department of Defense announced that March ARB would become a "joint use airport." A joint use airport is one where the facilities are owned and operated by the Air Force and made

available for civilian uses. Shortly after the announcement, the March Joint Powers Authority was established and recognized as the local agency responsible for planning the economic redevelopment of surplus properties at the base, including the proposed station and surrounding areas. According to the March Joint Powers Authority Land Use Map, commercial development is planned around the proposed March ARB Station. The West March Business Park will encompass approximately 2,400 acres. Unique to this area is the Air Force performed hazardous waste cleanup of jet fuels in soil and groundwater in order to facilitate the redevelopment of the airbase and ancillary facilities. The plans for the aviation facility are targeted for cargo operations, but the airport also could serve as a multimodal connection to high-speed rail for residents and employees of the new development as well as for members of the surrounding communities.

City of Temecula. According to the *City of Temecula General Plan*, the land use within 0.25-mile of the station is planned to remain as it exists today. The majority of the planned land use is commercial retail with designated uses ranging from shopping centers to larger retail department stores. The plan specifies the type of permitted uses, development standards, and performance standards that enhance the character of the community while balancing functionality with aesthetic design qualities. These design guidelines should be followed to ensure the integration of the station design with the surrounding community. Due to the commercial nature of the station area, potential parking impacts to adjacent businesses should be analyzed and evaluated. The proximity of Alta Murrieta Sport Park and another neighborhood park also may be impacted by the implementation of a transit station.

City of Escondido. The *General Plan for the City of Escondido* was completed in May 1990. In addition to general land use category definitions, neighborhood descriptions, and the housing element, the plan also includes a circulation/transportation element. Within this element the following are identified as "Policies Regarding Land Use and Circulation."

- Circulation Policy D1.2 states, "The City shall support a balanced use of travel modes to address the transportation needs of all ages and to provide mobility for a variety of trip purposes. The City shall generally recognize the following priorities for new transportation facilities, in descending order: vehicular, transit, pedestrian, bicycle, and freight movement."
- Circulation Policy D1.4 states, "The City's circulation system shall promote efficient intra- and inter-city travel to minimize disruption of established areas and to reduce pollutants associated with vehicles and traffic resulting from development."

According to the policies regarding public transit, circulation policy D5.4 states, "The City shall cooperate with NCTD [North County Transit District], Caltrans [California Department of Transportation], SANDAG, and other appropriate agencies to plan and implement a commuter rail system. This shall include the appropriate location of stops, service schedules, feeder bus routes and parking needs." The planned land use surrounding the proposed station in the City of Escondido is zoned Estate II, which promotes single-family urban development on relatively large lots.

City of Mira Mesa Station. The City of Mira Mesa Station is located in the City of San Diego Community Planning Area Number 24, Mira Mesa. Station-specific planned land use was not available; however, a summary of applicable planning documents from the city and the county is presented in the discussion of Segment 3.

#### *Segment 2B and Station*

Within Segment 2B, one potential station has been identified. As described for the City of Escondido Station in Segment 2A, the *General Plan for the City of Escondido* was reviewed to determine planned land uses and compatibility with the High-Speed Train Alternative. The plan policies support a balanced use of travel modes, including a commuter rail system. The planned land use surrounding the proposed Escondido Transit Center Station is Specific Planning Area (SPA) Number 9. SPA Number 9 encompasses the City Central Business District. The *1986 Downtown Revitalization Plan* outlines official policies to develop a vibrant and aesthetically pleasing downtown.

### Segment 3: Mira Mesa to San Diego Segment

Segments 3A, 3B, and 3C are within the City of San Diego; therefore, the recently completed *City of San Diego City of Villages Action Plan*, the *Progress Guide and General Plan for the City of San Diego*, and the *General Plan for San Diego County* were reviewed to determine planned land uses and compatibility with the High-Speed Train Alternative.

*The City of San Diego General Plan Strategic Framework Element – Action Plan: City of Villages.* This new chapter to the General Plan, completed in June 2002, outlines the city's long-term policy for growth and development by encouraging higher-density, mixed-use infill and new development called "Villages." The plan identifies increased transit services as essential to improving mobility and mitigating traffic, parking, and air quality impacts. One of the action plan priorities (Action 5.a, Mobility) states, "Adopt a Mobility Element of the General Plan that incorporates the Metropolitan Transit Development Board's (MTDB) Transit First network of projects, design concepts, land use coordination measures, and transit priority measures." The "Transit First" strategy is a product of the strategic development program completed by MTDB and contains the following elements.

- Rich network of high-speed routes
- High frequency service
- Transit priority measures
- Walkable designs
- Integrated neighborhood stations
- Customer focus in service and facilities

The Transit First plan will be incorporated in the SANDAG 2030 RTP, which is a long-range blueprint for transportation improvements. Some of the other action items identified in the City of Villages plan include:

- Intensify employment uses in subregional districts and urban centers associated with transit improvements
- Designate transit corridors where employment uses should be emphasized
- Investigate the use of transit credits for Federal Acquisition Regulation (FAR) increases for industrial areas outside subregional districts
- Require application of the elements of the Transit-Oriented Development guidelines in centers and corridors where discretionary review is required until community plan amendments and rezoning are prepared for each site
- Address village parking needs through a combination of solutions, such as management of resources, shared use, parking structures, increased transit service, and parking districts
- Work with MTDB on Transit First showcase projects to aggressively pursue new forms of mobility, implement pedestrian enhancement projects, and enhance the overall transit experience in the community

*City of San Diego Progress Guide and General Plan – 1985.* One of the goals of the Transportation Element of the General plan is to provide for "A convenient, regionally coordinated transit system that is recognized as an essential public service because of its pervasive social, economic, and environmental benefits." One recommendation that is outlined in the plan in order to achieve this goal is to "support establishment of regionally significant transit routes based on travel demand, without regard to district or jurisdictional boundaries." Another goal that is identified is to "support cost-effective, environmentally sound passenger rail service between San Diego and Los Angeles and encourage physical and operational improvements to reduce travel times."

*San Diego County General Plan – 1990.* One of the policies identified in the General Plan is the Policy for Circulation Goal of safe, convenient, efficient, and accessible multimodal circulation systems to “establish additional nodes and opportunities for public transportation where higher densities exist or is planned for in the land use element.” Policy D-30 states, “Support the development of commuter rail services and coordinate with public transportation systems along rail corridors for each community served.”

#### *Segment 3A and Stations*

Within Segment 3A, an end-of-line station at Qualcomm Stadium has been identified.

Qualcomm Stadium Station is located in the City of San Diego Community Planning Area number 28, Mission Valley. Mission Valley is a subregional district and the stadium lies within an Urban Village Center. The planned land use near this station is expected to remain the same as existing due to the proximity of the stadium. Because the proposed station is located within a Village Center, the design of this station should consider the elements outlined in the Transit First plan, particularly to integrate the station into the surrounding area.

#### *Segment 3B and Stations*

Within Segment 3B, three potential stations have been identified.

- San Diego Transit Center
- San Diego International Airport
- Downtown San Diego

San Diego Transit Center Station. The San Diego Transit Center Station is located in the City of San Diego Community Planning Area number 8, Clairemont Mesa. Due to the discrepancies in the electronic geographic information system, existing land use data for this area and the lack of available planned land use, the precise location of the station, the existing land use, and the planned land use should be identified and analyzed to determine compatibility with the High-Speed Train Alternative. However, city and county documents are highly supportive of commuter or passenger rail, particularly between Los Angeles and San Diego.

San Diego International Airport Station. The San Diego International Airport Station is located in the City of San Diego Community Planning Area Number 54, Uptown. The proximity of the San Diego International Airport to the proposed station suggests stability in the surrounding land use. Also, the availability of undeveloped land near this station could support expansion of airport operations, an intermodal connection to the high-speed rail, or other uses that are compatible and supportive of commuter rail transit.

Downtown San Diego Station. The Downtown San Diego Station is located in the City of San Diego Community Planning Area Number 6, Centre City (a Regional Center). The current Downtown Station, also known as the Santa Fe Depot, is a station for the San Diego Trolley and would continue to serve as a multimodal center with the implementation of high-speed rail. Due to the downtown environment and density of development, the planned land use near this station is not anticipated to change.

#### *Segment 3C*

Segment 3C serves as an option to Segment 3B by following along Miramar Road rather than Carroll Canyon. This segment does not have any stations.

## **2.4 POPULATION CHARACTERISTICS**

### **2.4.1 Trends and Growth**

The Los Angeles to San Diego via the Inland Empire region of the proposed California High-Speed Train project involves areas in four counties: Los Angeles, San Bernardino, Riverside, and San Diego. The proposed HST project is expected to serve a region whose population increased by 18 percent between 1990 and 2000. Most of the population growth has been in San Bernardino and Riverside Counties. As

the population in Southern California has grown and land has become scarce and expensive, more and more of the population has been moving to the east, away from the overcrowded coastal communities, toward Riverside and San Bernardino Counties. Table 2.4-1 summarizes population, housing, and employment in the four counties.

**Table 2.4-1 Summary of Existing and Historical Socioeconomics,  
Los Angeles to San Diego Via the Inland Empire Region**

	County				California State
	Los Angeles	Riverside	San Bernardino	San Diego	
<b>Population</b>					
1990	8,863,164	1,418,380	1,170,413	2,498,016	29,760,021
1995 <sup>a</sup>	9,101,100	1,378,800	1,580,400	2,615,200	31,711,000
2000 <sup>b</sup>	9,519,338	1,709,434	1,545,387	2,813,833	33,871,648
2020 <sup>c</sup>	11,714,038	2,542,924	2,509,417	3,598,871	45,821,900
<b>Change in Population</b>					
1990 to 1995	2.7%	17.8%	11.4%	4.7%	6.3%
1995 to 2000	4.6%	12.1%	8.2%	7.6%	6.8%
1990 to 2000	7.4%	20.5%	32.0%	12.6%	13.8%
2000 to 2020	23.1%	64.5%	46.8%	27.9%	35.3%
<b>Minority Population<sup>b</sup></b>					
Minority Population <sup>b</sup>	51.4%	34.5%	41.3%	33.6%	40.6%
Hispanic <sup>d</sup> Population <sup>b</sup>	44.6%	36.2%	39.2%	26.7%	32.4%
Low Income Population <sup>b</sup>	17.9%	14.2%	15.8%	12.4%	14.2%
Average Household Size <sup>b</sup>	3.0	3.0	3.2	2.7	2.9
Average Family Size <sup>b</sup>	3.6	3.5	3.6	3.3	3.4
<b>Housing Units (Total)<sup>b</sup></b>					
Single Family	1,835,087	398,747	442,954	628,531	7,815,366
Multiple Family	1,379,201	103,066	116,581	364,679	3,829,515
Other	56,621	82,861	41,834	46,939	569,668
Vacancy rates <sup>b</sup>	4.2	13.4	12.1	4.4	5.8
<b>Labor Force</b>					
Labor Force	4,875,200	750,700	814,600	1,424,900	17,362,300
Employment	4,598,200	711,500	775,800	1,379,200	16,435,200
Unemployment Rate	5.7%	5.2%	4.8%	3.2%	5.8%

Source: U.S. Census 2000; SANDAG, 2003; SCAG, 2003; California DOF, 2003; California EDD, 2003

<sup>a</sup> California DOF, 2003

<sup>b</sup> U.S. Census 2000

<sup>c</sup> SANDAG, 2003; SCAG, 2003; DOF, 2003

<sup>d</sup> Hispanics or Latinos are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2000 questionnaire ("Mexican, Mexican American, Chicano," "Puerto Rican," or "Cuban") as well as those who indicate that they are "other Spanish/Hispanic/Latino." People who identify their origin as "other Spanish/Hispanic/Latino" may be of any race. Thus, the percent Hispanic should not be added to percentages for minority categories.

## 2.4.2 Population, Ethnicity, and Income

### 2.4.2.1 Modal Alternative

The following section discusses the existing population characteristics for all census blocks within a 0.25-mile of the alignments for the Modal Alternative. The population characteristics presented in this section are housing, ethnicity, and income. To facilitate comparison between the Modal Alternative and the HST Alternative, population characteristics for the Modal Alternative were evaluated for areas corresponding to the three segments of the HST Alternative. These three segments are:

- Segment 1: Union Station to March ARB (includes Ontario International Airport)
- Segment 2: March ARB to Mira Mesa
- Segment 3: Mira Mesa to San Diego (includes San Diego International Airport)

Table 2.4-2 presents the population characteristics for the three segments in the Modal Alternative. The data in the table show the total population and the percentage of the population that is minority (nonwhite), Hispanic, and low income. The table also shows total housing and the types of housing.

**Table 2.4-2 Existing Socioeconomic Characteristics – Modal Alternative**

	Segment 1	Segment 2	Segment 3
Total Population	419,498	356,933	56,412
Percent Minority	58.0%	27.0%	37.0%
Percent Hispanic	56.0%	22.0%	17.0%
Percent Low Income	21.0%	9.0%	12.0%
Total Housing Units	122,508	131,259	23,894
Single Family	78,816	90,209	8,378
Multiple family	76,999	55,683	29,231
Other	4,980	13,248	1,065

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the segments

With the exception of the Union Station to March ARB segment, the population within 0.25-mile of the Modal Alternative is predominantly Caucasian and non-Hispanic, with a small percentage below the poverty level. More than 50 percent of the population along the Union Station to March ARB segment is minority or Hispanic, and about 21 percent are low income. Minority population constitutes between 27 and 37 percent of the population within 0.25-mile of the March ARB to Mira Mesa segment and the Mira Mesa to San Diego segment, respectively. Low income population accounts for about 9 percent and 12 percent of the population in the March ARB to Mira Mesa segment and the Mira Mesa to San Diego segment, respectively.

### 2.4.2.2 HST Alternative

The following section discusses the existing population characteristics for all census blocks within 0.25-mile of the alignments and stations for the HST Alternative. The population characteristics presented in this section are housing, ethnicity, and income. Hispanics or Latinos are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2000 questionnaire (“Mexican, Mexican American, Chicano,” “Puerto Rican,” or “Cuban”) as well as those who indicate that they are “other Spanish/Hispanic/Latino.” People who identify their origin as “other Spanish/Hispanic/Latino” may be of any race. Thus, the percent Hispanic should not be added to percentages for minority categories.

The Los Angeles to San Diego via the Inland Empire region of the HST project is divided into three segments:

- Union Station to March ARB
- March ARB to Mira Mesa
- Mira Mesa to San Diego

Each of these segments is further divided into subsegments. The socioeconomics for each of the segments, subsegments, and station locations are described below.

#### Segment 1: Union Station to March Air Reserve Base Segment

Of the approximately 600,000 people who live within 0.25-mile of Segment 1 of the HST Alternative, minority and low income population constitute about 60 percent and 22 percent, respectively. Hispanics constitute 64 percent of the population. Table 2.4-3 summarizes the socioeconomics for this segment of the alternative.

Between Union Station in the City of Los Angeles and the March ARB Station, the HST Alternative has three segments:

- Segment 1A
- Segment 1B
- Segment 1C

The options represent three proposed potential routes for the Union Station to March ARB segment of the HST Alternative. Although the subsegments have a number of potential subsegments, these subsegments are not included in the following socioeconomic and environmental justice analysis.

#### *Segment 1A*

About two-thirds of the population within 0.25-mile of Segment 1 of the HST Alternative live along proposed Segment 1A (see Table 2.4-3). The distribution of minority, Hispanic, and low income population within this segment is similar to that for the entire HST Alternative in the Los Angeles to San Diego region.

Segment 1A has the following station locations:

- City of El Monte Station
- City of Pomona Station
- City of Ontario Station
- Colton Station
- UC Riverside Station

#### *Segment 1B*

The second option, Segment 1B, generally follows the same route as Segment 1A but enters/exits Los Angeles in the south through the City of South El Monte. There are about 145,000 people living within 0.25-mile of this subsegment. Minority, Hispanic, and low income populations constitute about 56, 73, and 20 percent, respectively, of the population within 0.25-mile of Segment 1B (see Table 2.4-3).

Potential station locations in Segment 1B are:

- City of South El Monte Station
- City of Industry Station

#### *Segment 1C*

The third option, Segment 1C, goes north from the proposed Ontario Station in Segment 1A to the San Bernardino Station, then south to rejoin Segment 1A. Of the three options within Segment 1, Segment 1C has the smallest population living within 0.25-mile of the alignment. Minority, Hispanic, and low income populations are 57, 65, and 23 percent, respectively, of the population.

This subsegment has one station identified:

- San Bernardino Station

Table 2.4-3 summarizes the existing socioeconomics within 0.25-mile of each optional route from Union Station to March ARB (Segments 1A, 1B, and 1C). The segments are characterized by high concentrations of minority and Hispanic population and low concentrations of low income population.

**Table 2.4-3 Segment 1: Summary of Existing Socioeconomics**

	Segment			Segment 1 Total
	1A	1B	1C	
<b>Total Population</b>	401,562	144,677	91,985	638,224
Percent Minority	61.0%	56.0%	57.0%	59.0%
Percent Hispanic	60.0%	73.0%	65.0%	64.0%
Percent Low Income	23.0%	20.0%	23.0%	22.0%
<b>Total Housing Units</b>	110,312	37,282	27,524	175,118
Single Family	64,895	24,619	15,248	104,762
Multiple Family	38,732	10,559	8,468	57,759
Other	16,829	4,609	9,624	31,062

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the segments

Table 2.4-4 presents the existing socioeconomics within 0.25-mile of the stations in Segment 1A. Total population varies from a low of 2,938 (Ontario) to a high of 38,579 (El Monte). Overall, the percentage of low income population is below 33 percent. The percentage of minority population varies from a high of 64 percent (El Monte) to a low of 43 percent (UC Riverside). The percentage of Hispanic population varies from a high of 81 percent (El Monte) to a low of 20 percent (Ontario). With the exception of the Ontario Station, most of the housing units within 0.25-mile of the proposed stations are single-family units.

**Table 2.4-4 Segment 1A Stations: Summary of Existing Socioeconomics**

	El Monte	Pomona	Ontario	Colton	UC Riverside
<b>Total Population</b>	38,579	19,309	2,938	11,090	18,612
Percent Minority	64.0%	60.0%	58.0%	48.0%	43.0%
Percent Hispanic	81.0%	76.0%	20.0%	64.0%	21.0%
Percent Low Income	26.0%	32.0%	7.0%	22.0%	10.0%
<b>Total Housing Units</b>	8,779	5,547	1,377	2,996	6,335
Single Family	5,948	2,948	325	2,487	4,414
Multiple Family	2,090	2,364	1,052	124	1,911
Other	741	235	0	385	10

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the station

The socioeconomics for Segment 1B are presented in Table 2.4-5. The South El Monte Station has a population of 5,707 living within 0.25-mile. Of this population, minority and Hispanic populations account for 40 percent and 46 percent, respectively. About 6 percent of the population is below the poverty level

(i.e., low income). The area within 0.25-mile of the City of Industry Station has a population of 4,632, of whom 55 percent are minority.

**Table 2.4-5 Segment 1B Stations: Summary of Existing Socioeconomics**

	South El Monte	Industry
<b>Total Population</b>	5,707	4,632
Percent Minority	40.0%	55.0%
Percent Hispanic	46.0%	35.0%
Percent Low Income	6.0%	5.0%
<b>Total Housing Units</b>	2,114	1,450
Single Family	1,425	1,057
Multiple Family	214	90
Other	475	303

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the station

Table 2.4-6 summarizes the socioeconomics for San Bernardino Station in Segment 1C of the HST Alignment. This station has a high concentration of minority and Hispanic population. About 44 percent of the population is below the poverty level.

**Table 2.4-6 Segment 1C Stations: Summary of Existing Socioeconomics**

	San Bernardino
<b>Total Population</b>	5,124
Percent Minority	59.0%
Percent Hispanic	83.0%
Percent Low Income	44.0%
<b>Total Housing Units</b>	1,606
Single Family	983
Multiple Family	489
Other	134

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the station

### Segment 2: March ARB to Mira Mesa

Between March ARB and the City of Mira Mesa, the HST Alternative has two options.

#### *Segment 2A*

The first alignment, Segment 2A, generally follows the route along Interstate I-15. Within Segment 2A, three potential stations have been identified.

- March ARB Station
- Temecula Station
- Escondido Station

*Segment 2B*

Entering the City of Escondido, Segment 2B splits off Segment 2A. Within Segment 2B, a station site has been identified at:

- Transit Center in downtown Escondido

The following section summarizes the existing socioeconomics within 0.25-mile of each route and stations within each of the segments from March ARB to the City of Mira Mesa (Segments 2A and 2B).

Table 2.4-7 summarizes the existing socioeconomics within 0.25-mile of each segment from March ARB and Mira Mesa (Segments 2A and 2B). Segment 2 is characterized by low (below 50 percent) concentration of minority, Hispanic, and low income population.

**Table 2.4-7 Segment 2: Summary of Existing Socioeconomics**

	2A	2B	Segment 2 Total
<b>Total Population</b>	250,201	63,355	313,556
Percent Minority	27.0%	32.0%	28.0%
Percent Hispanic	19.0%	37.0%	23.0%
Percent Low Income	8.0%	14.0%	9.0%
<b>Total Housing Units</b>	95,842	22,257	118,099
Single Family	62,839	11,784	74,623
Multiple Family	24,218	9,227	33,445
Other	29,932	2,371	32,303

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the alignment

Table 2.4-8 presents the existing socioeconomics within 0.25-mile of the stations in Segment 2A. The stations in this segment are characterized by low concentrations of Hispanic and low income populations. Minority populations constitute about 40 percent of the population within 0.25-mile of the Mira Mesa Station. The Escondido Station has more multiple-family housing units (about 50 percent of total housing units) than single-family housing units (about 40 percent of total housing units).

**Table 2.4-8 Segment 2A Stations: Summary of Existing Socioeconomics**

	March ARB	Temecula	Escondido
<b>Total Population</b>	2,414	11,556	10,067
Percent Minority	41.0%	20.0%	24.0%
Percent Hispanic	36.0%	18.0%	21.0%
Percent Low Income	33.0%	5.0%	12.0%
<b>Total Housing Unit</b>	1,037	3,717	4,133
Single Family	444	3,054	1,633
Multiple Family	593	602	2,061
Other	0	61	439

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the station

Table 2.4-9 summarizes the existing socioeconomics within 0.25-mile of the Escondido Transit Center Station. Of the 7,557 people who live within 0.25-mile of this station, 48 percent are minority, 68 percent are Hispanic, and 39 percent are low income. This station has more multiple-family housing units

(83 percent of the total housing units) than single-family housing units (15 percent of the total housing units).

**Table 2.4-9 Segment 2B Stations: Summary of Existing Socioeconomics**

Escondido Transit Center	
Total Population	7,557
Percent Minority	48.0%
Percent Hispanic	68.0%
Percent Low Income	39.0%
Total Housing Unit	2,358
Single Family	345
Multiple Family	1,974
Other	39

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the station

### Segment 3: Mira Mesa to San Diego

Between the City of Mira Mesa and the City of San Diego, there are three proposed options for the HST Alternative.

#### *Segment 3A*

The first option, Segment 3A, continues along the route generally following I-15 to an end-of-line station at Qualcomm Stadium.

#### *Segment 3B*

Segment 3B goes from Mira Mesa to downtown San Diego via Carroll Canyon and then parallel to I-5, with potential stations at the following locations.

- Transit Center
- Downtown San Diego
- San Diego International Airport

#### *Segment 3C*

This segment does not contain any stations and serves only as an alternate route to Carroll Canyon, via Miramar Road.

The following section summarizes the existing socioeconomics within 0.25-mile of each segment and stations within each of the segments from Mira Mesa to San Diego (Segments 3A, 3B, and 3C).

Table 2.4-10 summarizes the existing socioeconomics within 0.25-mile of each segment from Mira Mesa to San Diego (Segments 3A, 3B, and 3C). Segment 3 is characterized by low (below 50 percent) concentration of minority, Hispanic, and low income population.

**Table 2.4-10 Segment 3: Summary of Existing Socioeconomics**

	3A	3B	3C	Segment 3 Total
<b>Total Population</b>	38,655	116,673	16,548	171,876
Percent Minority	35.0%	28.0%	44.0%	31.0%
Percent Hispanic	14.0%	14.0%	15.0%	14.0%
Percent Low Income	8.0%	12.0%	8.0%	11.0%
<b>Total Housing Units</b>	14,312	48,683	4,583	67,578
Single Family	5,727	22,472	1,792	29,991
Multiple Family	7,989	25,132	2,643	35,764
Other	2,438	2,890	1,227	6,555

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the alignment

Table 2.4-11 presents the existing socioeconomics within 0.25-mile of Qualcomm Station in Segment 3A. Qualcomm Station has low concentrations of minority, Hispanic, and low income populations. This station is also characterized by more multiple-family housing units than single-family housing units. About 66 percent of the housing units around this station are multiple-family housing units.

**Table 2.4-11 Segment 3A Stations: Summary of Existing Socioeconomics**

	Mira Mesa	Qualcomm
<b>Total Population</b>	10,141	11,439
Percent Minority	41.0%	23.0%
Percent Hispanic	9.0%	11.0%
Percent Low Income	4.0%	8.0%
<b>Total Housing Units</b>	4,066	6,420
Single Family	2,215	2,162
Multiple Family	1,703	4,258
Other	148	0

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of the station

Table 2.4-12 summarizes the existing socioeconomics within 0.25-mile of the Transit Center, downtown San Diego, and the San Diego International Airport stations in Segment 3B. Although the downtown San Diego Station has slightly higher concentrations of minority, Hispanic, and low income populations, these numbers are relatively low. The station areas are characterized by higher concentrations of multiple-family housing units. More than half the housing units within 0.25-mile of the Transit Center Station are multiple-family units, while more than 90 percent of those near the downtown San Diego Station are multiple-family units. About 40 percent of the housing units within 0.25-mile of the San Diego International Airport station are multiple-family units.

**Table 2.4-12 Segment 3B Stations: Summary of Existing Socioeconomics**

	<b>Transit Center</b>	<b>Downtown San Diego</b>	<b>San Diego International Airport</b>
<b>Total Population</b>	11,844	8,771	9,940
Percent Minority	23.0%	33.0%	20.0%
Percent Hispanic	7.0%	24.0%	16.0%
Percent Low Income	17.0%	18.0%	12.0%
<b>Total Housing Units</b>	5,631	4,833	3,077
Single Family	3,110	270	1,883
Multiple Family	2,521	4,563	1,096
Other	0	0	98

Source: U.S. 2000 Census

Note: Data are within 0.25-mile of each station

### 3.0 EVALUATION METHODOLOGY

The analysis was conducted using existing U.S. Census 2000 tract information/data compiled in a geographic information system (GIS) format, local community general plans or regional plans, as well as land use information provided by the planning agencies in each of the regions. Existing and future baseline conditions were established for the No Project Alternative by documenting existing information for existing and planned future land use policy in station and airport areas, development patterns for employment and population growth, demographics, communities and neighborhoods, housing, and economics. The No Project Alternative was compared to the future baseline plans to see if there would be potential effects on future development. Chapter 2 lists and discusses the general and regional plans.

Ranking systems were established to evaluate potential impacts for all three alternatives for land use compatibility, communities and neighborhoods, property, and environmental justice. Because this is a programmatic environmental review, the analysis of these potential impacts was performed on a broad scale to permit a comparison of relative differences of proposed alternatives. A more detailed analysis would be required at the project-level environmental review, should a decision be made to proceed with the proposed HST system.

#### Land Use Compatibility

The compatibility of the alternatives with existing land use is evaluated for highways, airports, and proposed HST alignments, stations, and maintenance facility areas. Compatibility is based on the potential sensitivity of various land uses to the changes included with the Modal and HST Alternatives, and the impact of these changes on the land use. For example, homes and schools are more sensitive to changes that may result in increased noise and vibration (see *Noise and Vibration* technical reports) or increased levels of traffic congestion (see *Traffic and Circulation* technical reports). Industrial uses, however, are typically less sensitive to these types of changes because they interfere less with normal industrial activities. Given that an area's sensitivity or compatibility is based on the presence of residential properties, low, medium, and high levels of compatibility are identified based on the percentage of residential area affected, the proximity of the residential area to proposed modal or HST system facilities, and the presence of local or regional uses (such as parks, schools, and employment centers.). For highway corridors (under the No Project and Modal Alternatives) and for proposed HST alignments, land use compatibility was assessed using GIS layers (or aerial photographs where available) to identify proximity to housing and population and to determine whether the alignments would be within an existing right-of-way or a new transportation corridor in the area. Compatibility impacts are considered low if existing land uses within proposed alignment, station, airport, and maintenance facility areas are found to be compatible with proposed changes associated with either the Modal or HST Alternative. The type of improvement that would be associated with either the Modal or HST Alternative would also affect the level of potential impact, particularly for agricultural land. Improvements such as widening of the existing right-of-way or the need for new right-of-way were considered to have a low compatibility with agricultural land. Conversely, if the improvement would be contained within the existing right-of-way or within a tunnel, the alternative was considered to be highly compatible with agricultural land.

Future land use compatibility is based on information from general plans and other regional and local transportation planning documents. Each document was examined to determine whether a project alternative would be highly compatible with the goals and objectives defined therein. The Modal

Alternative is considered compatible if the highway or airport improvement is in the regional transportation plan (RTP) or regional airport master plan. The HST Alternative is considered highly compatible if it would be located in areas planned for transportation multi-modal centers or corridor development, redevelopment, economic revitalization, transit-oriented development, or high-intensity employment. Impacts are considered low if a project alternative is determined incompatible with local or regional planning documents. Table 3.0-1 summarizes the level of compatibility of existing land use types with proposed alignment options, station areas, maintenance facilities, and airports.

**Table 3.0-1  
Compatibility of Land Use Types**

Low Compatibility	Medium Compatibility	High Compatibility
Single-family residential, neighborhood park, habitat conservation area, elementary/middle school, agricultural (widened or new right-of-way needed)	Multifamily residential, high schools, community parks, low-intensity industrial, hospitals	Business park/ regional commercial, multifamily residential, existing or planned transit center, high intensity industrial park, service commercial, commercial recreation, college, transportation/utilities, high-intensity government facilities, airport or train station, agricultural (tunnel or no new right-of-way needed)

Communities and Neighborhoods

A potential impact on a community or neighborhood was identified if any of the proposed alignment options or facilities associated with each of the project alternatives would create a new physical barrier, isolating one part of an established community from another and resulting in a physical disruption to community cohesion. Improvements to existing transportation corridors, including grade separations, would not generally result in a new barrier.

Property

Assessment of potential property impacts is based on the types of land uses adjacent to the particular proposed alignment, the amount of right-of-way potentially affected by the construction type, and the land use sensitivity to potential impacts. Impacts include potential acquisition, relocation, or demolition of properties. Potential property impacts were ranked high, medium, or low as summarized below in Table 3.0-2.

**Table 3.0-2**  
**Rankings of Potential Property Impacts**

Facility Requirements	Type of Development						
	<u>Residential</u>			<u>Non-residential</u>			
	Rural/ Suburban	Suburban/ Urban	Urban	Rural Developed	Suburban Industrial/ Commercial	Urban Business Parks/ Regional Commercial	Rural Non- developed
No additional right-of-way needed (also applies to tunnel segments for HST Alternative)	Low	Low	Low	Low	Low	Low	Low
Widening of existing right-of-way required	Medium	Medium	High	Low	Medium	High	Low
New corridor (new right-of-way required; includes aerial and at-grade arrangements)	High	High	High	Medium	Medium	High	Low to medium

To determine potential property impacts, the 0.25-mi (.40-km) study area was characterized by its density of development. Densities of structures, buildings, and other elements of the built environment are generally higher in urbanized areas. *Rural/suburban residential* refers to low-density, single-family homes. *Suburban/urban* is medium density, multifamily housing such as townhouses, duplexes, and mobile homes. *Urban residential* refers to high-density multifamily housing such as apartment buildings. *Rural developed* non-residential uses typically occur in non-urbanized areas and often include developed agricultural land such as vineyards and orchards. *Suburban industrial/commercial* refers to medium density non-residential uses and includes some industrial uses, as well as transportation, utilities, and communication facilities. *Urban business parks/regional commercial* refers to non-residential uses that occur in urbanized areas and includes such uses as business parks, regional commercial facilities, and other mixed use/built-up uses. *Non-rural undeveloped land* includes cropland, pasture, rangeland, and barren land. The classification of development types was based on land use information provided by the planning agencies in each of the regions.

The complete property impact analysis was prepared separately from this technical report ("California High-Speed Train Program EIR/EIS Potential Property Impacts Technical Evaluation Memo," P&D Environmental, August 15, 2003. Revised February 2004).

### Environmental Justice

This analysis is based on two basic criteria: 1) Is an environmental justice population (i.e., minority or low-income population) present in the study area (0.25 mi [0.40 km] from the alignment), and 2) What is the potential for an adverse impact (low or high)? This assessment

was done using U.S. Census 2000 information and alignment information to determine if the populations exist within the study areas and if they do, whether the alignments would be within or adjacent to the right-of-way (low potential impact) or new alignments (high potential impact).

The presence of environmental justice populations was determined by following the guidelines mentioned in the regulatory section.

- At least 50% of the population in the project study is minority or low-income.
- The percentage of minority or low-income population in the project study area is at least 10% greater than the average in the county or community.

The potential for environmental justice impacts was assessed based on the size and type of right of way required for the project. For example, if an alignment was within an existing right-of-way, the potential impact was low. If the alignment was on a new alignment through an identified environmental justice neighborhood, then the potential impact was considered high. Since this is a program-level document with no preferred alternative, alignment, or stations, it is not possible to determine whether these populations would be adversely impacted disproportionately. Further study would be required to determine the type and extent of any possible impacts, and any potential benefits from the location of an HST station within the community. Such study would take place during project-level analysis.

## 4.0 IMPACTS

This section addresses potential land use, planning, , environmental justice, community/neighborhood, and property impacts associated with the No-Project, Modal, and HST Alternatives. The impacts evaluated are those relating to construction or operation of each of the three alternatives: No-Project, Modal, and High-Speed Train.

### 4.1 LAND USE COMPATIBILITY ISSUES

This section addresses the compatibility of each of the alternatives with existing and future planned land use.

#### 4.1.1 No-Project Alternative

The No-Project Alternative includes projects that are part of the STIP and those in RTPs. Because impacts associated with the projects in the STIP and RTPs have already been addressed in program-specific or project-specific environmental analyses, the No-Project Alternative is not anticipated to result in any land use impacts.

#### 4.1.2 Modal Alternative

This section discusses the compatibility issues of major airport expansion or highway system and interchange additions. Table 4.2-1 presents a summary of existing and planned land use compatibility for the Modal Alternative.

In Segment 1, Union Station to March ARB, 35 percent of the land use is in residential uses; 27 percent of that is low density. Additionally, 14 percent of the land is vacant. This leads to a situation in which improvements associated with highway facilities could cause a variety of impacts to the adjacent residential uses, and vacant land could be developed in ways inconsistent with growth management policies. As such, the existing land use in this segment for the modal alternative is incompatible.

In Segment 2, March ARB to Mira Mesa, there is a significant amount of vacant land—40 percent in the northern area of this segment and 25 percent in the southern. Residential uses are between 14 to 17 percent and agricultural uses between 13 to 15 percent. The large amount of vacant land in this segment would be at risk for low-density development in the Modal Alternative scenario. The existing land use in this segment is seen as incompatible also.

In Segment 3, Mira Mesa to San Diego, 25 percent of the land is undeveloped or parkland. Another 15 percent of the land is residential. Therefore, almost half of the existing land use in this section is incompatible with the Modal Alternative. There are large areas of parklands in the southern portion of this segment.

**Table 4.2-1 Land Use Compatibility Summary Table**

Segment	Existing Major Land Use Near Alignment	Airport or Station Compatible with Existing and Planned Land Use (Y/N)
Union Station to March ARB (includes Ontario International Airport)	Residential and Vacant	N – Due to impacts to residences and the promotion of low-density-type development

March ARB to Mira Mesa	Residential, Vacant, and Agricultural	N – Same as above
Mira Mesa to San Diego (includes San Diego International Airport)	Parks, Undeveloped, Residential, Office, and Commercial	N – Particularly parks and undeveloped land

#### 4.1.3 HST Alternative

Table 4.2-2 presents a summary of existing and planned land use compatibility with the proposed alignments and station locations. Generally, the land uses within 0.25-mile of the proposed alignments and station locations are compatible with the High-Speed Train Alternative.

Some segments impact a higher percentage of residential uses than others do. However, these alignments and station locations likely will provide better inter- to intra-city transit connections and serve larger travel markets.

Three stations considered potentially to have incompatible surrounding land uses are the South El Monte Station, the City of Industry Station, and the Escondido Station. This potential incompatibility is due to the more agricultural and residential nature of the areas surrounding the station locations. In the case of the stations in South El Monte and City of Industry, this incompatibility could be alleviated with the slight relocation of the actual site of the station. In the case of the Escondido Station, the existing residential land use is not generally compatible; however, local land use plans are very supportive of transit development in the Escondido area.

The San Diego Transit Center Station appears to be located within parkland, according to the GIS database. Other sources, however, indicate that it is not. This station should be analyzed further.

**Table 4.2-2 Land Use Compatibility Summary Table – HST Alternative**

Segment	Existing Major Land Use Near Alignment <sup>1</sup>	Station Compatibility with Existing and Planned Land Use	
		Compatible <sup>2</sup>	Incompatible—as currently located
1A: Via UP Colton	Industrial	1) El Monte (Industrial) 2) Pomona (Commercial) 3) Ontario (Vacant) 4) Colton (Vacant) 5) UC Riverside (Vacant) <sup>3</sup>	None
1B: Via UP Riverside	Industrial	None	1) South El Monte (Agriculture) <sup>4</sup> 2) City of Industry (Agriculture) <sup>4</sup>
1C: Loop Through San Bernardino	Low-Density Residential	1) San Bernardino (Transportation and Utilities) <sup>5</sup>	None
2A: Via Escondido I-15 Station	Vacant / Undeveloped	1) March ARB (Vacant) 2) Temecula (Vacant) 3) Mira Mesa (Shopping Center)	1) Escondido (Spaced Rural and Single Family Residential, Mobile Homes along alignment)
2B: Via Escondido Transit Center Station	Office and Commercial	1) Transit Center (Commercial and Office)	None
3A: To Qualcomm Stadium, Via I-15	Parks <sup>6</sup>	1) Qualcomm Stadium (Commercial Recreation)	None

**Table 4.2-2 Land Use Compatibility Summary Table – HST Alternative**

Segment	Existing Major Land Use Near Alignment <sup>1</sup>	Station Compatibility with Existing and Planned Land Use	
		Compatible <sup>2</sup>	Incompatible—as currently located
3B: To Downtown San Diego, Via Carroll Canyon <sup>7</sup>	Single Family and Undeveloped	2) Airport (Transportation and Undeveloped) 3) Downtown (Commercial and Office)	San Diego Transit Center—concern regarding the GIS database; further analysis required
3C: To Downtown San Diego, Via Miramar Road <sup>7,8</sup>	Institutions	No Stations in this Segment	

Notes:

- <sup>1</sup> 0.25-mile from the alignment
- <sup>2</sup> Compatible land uses include commercial, industrial, shopping center, mixed-use, vacant, and uses that provide flexibility in development that is supportive of transportation-related facilities.
- <sup>3</sup> Planned land use is residential hillside; development review may need ensure that uses are compatible with the station location and design.
- <sup>4</sup> Agricultural uses generally are not compatible with rail projects of this type. However, if the development goals are consistent with higher intensity land uses in the area, these uses may be considered compatible.
- <sup>5</sup> Considered compatible because the goals and policies outlined in the City of San Bernardino General Plan identifies the reuse of the Santa Fe Railroad Yards and Depot
- <sup>6</sup> Parks generally are not compatible with rail projects of this type due to noise and other potential impacts.
- <sup>7</sup> These alignments follow the existing I-5 corridor which is adjacent to Marian Bear Memorial Park and Balboa Park.
- <sup>8</sup> Segment 3C may impact the existing Miramar Memorial Golf Course

In summary, all station areas, except the San Diego Transit Center, are either currently compatible or could become compatible with the relocation of the station site and/or appropriate mitigation measures. The San Diego Transit Center Station requires further analysis.

Additionally, existing and planned land uses and community-planning policies generally are supportive of the implementation of commuter rail service between Los Angeles and San Diego. The following list provides a summary of the related planning policies:

- City of El Monte – Currently serviced by the METROLINK Commuter Train seems to indicate the potential desire for expanded rail service to and from this community.
- City of Pomona – According to the City of Pomona General Plan, the vision for the downtown Pomona Station is to focus on maintaining the existing downtown area while promoting a “City Center” development that is mixed use and supportive of and compatible with transit.
- City of Ontario – Policy DT-4 states, “Allow for the further expansion of the Civic Center complex, as additional space is needed, south across East Holt Boulevard to the railroad tracks.” Presumably, the proposed station could serve to connect the expanded Civic Center Complex to adjacent communities via high-speed train.
- City of Rialto – Identifies several goals and policies to “assure a commuter rail stop in Rialto,” such as using the authority of City Redevelopment to plan appropriate commercial sales and services on properties convenient to the rail station and parking area, and maximizing the benefits of commuter rail service by planning for a station that provides adequate parking, an adjoining transit center for transfers to other rail and bus lines, and passenger amenities.

- Los Angeles County – One of the County goals is to achieve a more balanced transportation system with fixed-rail rapid transit and commuter rail as potential alternatives to achieve this goal. “The County exhibits widespread emergence of moderately high-density centers, which suggest the potential for a high-speed rail network.” Also, the plan recognizes that some commuter service already operates on existing railroad corridors within the region and that the transportation system in the region would benefit from increased commuter rail service. Relevant to this project, the plan identifies the Downtown Los Angeles to Pomona/Walnut Valley as a likely rail route.
- San Bernardino – The City identifies the reuse of the Santa Fe Railroad Yard and Depot and adjacent properties to be high-intensity, mixed-use developments that could incorporate commercial, industrial, transportation, and related uses as an “opportunity to continue to strengthen San Bernardino’s region-serving role.”
- City of Escondido – According to the policies regarding public transit, circulation policy D5.4 states, “The City shall cooperate with NCTD, Caltrans, SANDAG, and other appropriate agencies to plan and implement a commuter rail system. This shall include the appropriate location of stops, service schedules, feeder bus routes and parking needs.”
- City of San Diego General Plan Strategic Framework Element / Action Plan: City of Villages – One of the plan action items states, “Work with MTDB on Transit First Showcase Projects to: Aggressively pursue new forms of mobility, implement pedestrian enhancement projects, and enhance the overall transit experience in the community.”
- City of San Diego Progress Guide and General Plan – One of the goals of the Transportation Element is “A convenient, regionally coordinated transit system that is recognized as an essential public service because of its pervasive social, economic, and environmental benefits.” One recommendation to achieve this goal is “Support establishment of regionally significant transit routes based on travel demand, without regard to district or jurisdictional boundaries.” Another is “Support cost-effective, environmentally sound passenger rail service between San Diego and Los Angeles and encourage physical and operational improvements to reduce travel times.”
- The San Diego County General Plan – Policy D-30 states, “Support the development of commuter rail services and coordinate with public transportation systems along rail corridors for each community served.”

## 4.2 ENVIRONMENTAL JUSTICE IMPACTS

This section addresses potential environmental justice impacts associated with construction or operation of the No-Project, Modal, and HST Alternatives. The following subsections describe the environmental justice impacts associated with the No-Project, Modal, and HST Alternatives for each of the alignments and stations, where applicable. Table 4.3-1 summarizes the environmental justice impacts for each of the three alternatives.

**Table 4.3-1 Detailed Analysis/Comparison Table – Environmental Justice Impacts**

Alternative	Potential Environmental Justice Impacts (Y/N) <sup>c</sup>
<b>No-Project Alternative</b>	
No Impact	
<b>Modal Alternative</b>	
Union Station to March ARB (includes Ontario International Airport) <sup>a,b</sup>	Y, Minority and Hispanic
March ARB to Mira Mesa	N
Mira Mesa to San Diego (includes San Diego International Airport)	N

**Table 4.3-1 Detailed Analysis/Comparison Table – Environmental Justice Impacts**

Alternative	Potential Environmental Justice Impacts (Y/N) <sup>c</sup>
<b>HST Alternative</b>	
<b>Segment 1: Union Station to March ARB</b>	
<b>Subsegment</b>	
UP/Colton Line (1A)	Y, Minority and Hispanic
UP/Colton Line via San Bernardino (1A1 + 1A2 + 1A4 + 1C)	Y, Minority and Hispanic
UP/Riverside Line - UP/Colton Line (1A2 + 1A3 + 1A4 + 1B1)	Y, Hispanic
UP/Riverside - UP/Colton Line via San Bernardino (1B1 + 1A2 + 1A4 + 1C)	Y, Hispanic
<b>Stations</b>	
El Monte	N
Pomona	Y, Hispanic and Low Income
Ontario Airport	N
Colton	N
UC Riverside	N
South El Monte	N
City of Industry	N
San Bernardino	Y, Hispanic and Low Income
<b>Segment 2: March ARB to Mira Mesa</b>	
<b>Subsegment</b>	
San Jacinto to I-15 Alignment via Escondido	N
San Jacinto to I-15 Alignment via Escondido Transit Center	N
<b>Stations</b>	
March Air Reserve Base	Y, Low Income
Temecula	N
Escondido at I-15	N
Escondido Transit Center	Y, Hispanic and Low Income
<b>Segment 3: Mira Mesa to San Diego</b>	
<b>Subsegment</b>	
I-15 to Coast via Miramar Road	N
I-15 to Coast via Carroll Canyon	N
I-15 to Qualcomm Stadium	Y, Minority
<b>Stations</b>	
Mira Mesa	N
Qualcomm Stadium	N
Transit Center	N
San Diego International Airport Station	N
Downtown San Diego	N

<sup>a</sup> Because the population for March ARB (Census-Designated Place) was smaller than that for the buffer zone, and March ARB is close to the City of Riverside, the Environmental Justice population distribution at March ARB was

**Table 4.3-1 Detailed Analysis/Comparison Table – Environmental Justice Impacts**

Alternative	Potential Environmental Justice Impacts (Y/N) <sup>c</sup>
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compared to that for the City of Riverside.

- <sup>b</sup> Because the population for the City of Industry was smaller than that for the buffer zone, the Environmental Justice population distribution in the City of South El Monte (the closest large city) was compared to that for the City of Industry.
- <sup>c</sup> “Y” in the Environmental Justice column means that minority or low-income populations have been identified within the study area at some location along the potential alignment.

#### 4.2.1 No-Project Alternative

The No-Project Alternative includes projects that are part of the STIP and RTPs. Because impacts associated with any of these projects already have been addressed in program-specific or project-specific environmental analyses, the No-Project Alternative is not anticipated to have any significant adverse impacts on minority and low income populations that would remain after the appropriate mitigation measures have been implemented. On the other hand, the No-Project Alternative may not adequately address the transportation needs in the communities that are included in the HST Alternative.

#### 4.2.2 Modal Alternative

The Modal Alternative consists of expansions to highways, airports, and intercity and commuter rail systems serving the markets identified for the High-Speed Train Program. The Modal Alternative uses the same intercity travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the high-speed train ridership in 2020. This same travel demand is assigned to the highways, airports, and passenger rail described under the No-Project Alternative. The additional improvements or expansion of facilities is assumed to meet the demand, regardless of funding potential and without high-speed train service as part of the system.

Of the three segments in the Modal Alternative, Segment 1 (Union Station to March ARB) is the only segment that has potential environmental justice impacts because the minority and Hispanic populations within 0.25-mile of this segment exceed 50 percent of the total population. Additionally, the distribution of the minority and Hispanic population in this segment is higher than that in Los Angeles, San Bernardino, and Riverside Counties, through which this alternative passes.

#### 4.2.3 HST Alternative

Evaluation of environmental justice impacts for the HST Alternative is by segment and by stations within each segment.

##### Segment 1: Union Station to March ARB

*Segment Evaluation.* There is a potential for environmental justice impacts along this portion of the HST Alternative since the percentage of minority and Hispanic population within the 0.25-mile buffer area is at least 10 percentage points higher than in Los Angeles, San Bernardino, and Riverside Counties, the three counties traversed by this segment. This holds true for Segments 1A and 1B; however, Segment 1C has a meaningfully greater concentration of Hispanic population than that for San Bernardino County, the county traversed by this option.

There are no environmental justice issues related to the presence of low-income populations because the distribution of low-income populations is not meaningfully greater than in the county or region (at least 10 percentage points greater than that of the general population in the county).

*Station Evaluation.* With the exception of the Pomona and San Bernardino stations, all the stations in this segment have minority, Hispanic, and low income populations that are not meaningfully greater than those observed for the cities in which the proposed stations are located. Thus, there are no potential environmental justice impacts at these stations.

There are potential environmental justice impacts related to the presence of a meaningfully greater percentage of Hispanic and low-income populations in the area of the Pomona and San Bernardino Stations.

#### Segment 2: March ARB to Mira Mesa

*Segment Evaluation.* There are no environmental justice impacts along this segment of the HST Alternative since the percentage of minority, Hispanic and low income populations within the 0.25-mile buffer area are meaningfully less than the percentage of these populations in Riverside and San Diego Counties, the two counties traversed by this segment. The same is true for each of the subsegments within this segment. Additionally, the concentration of minority and Hispanic populations in this segment are lower than those in Riverside and San Diego Counties, the two counties traversed by this segment.

*Station Evaluation.* The Escondido Transit Center and March ARB stations are the only stations with a potential for environmental justice impacts. The percentage of Hispanic and low income populations within 0.25-mile of the Escondido Transit Center Station is meaningfully greater than the percentage of Hispanic and low income population in the City of Escondido (32 percent minority, 39 percent Hispanic, and 13 percent low income). The potential environmental justice issue is due to the meaningfully higher concentration of Hispanic population. The potential environmental justice impact at the March ARB Station relates to the presence of low-income populations.

#### Segment 3: Mira Mesa to San Diego

*Segment Evaluation.* There is a potential environmental justice impact in Segment 3C due to the presence of minority population within 0.25-mile of the alignment.

*Station Evaluation.* There are no potential environmental justice impacts in any of the stations within this segment. Minority, Hispanic, and low-income populations within the 0.25-mile buffer area around each of the stations are meaningfully less than the percentage of these populations in the City of San Diego.

### **4.3 COMMUNITY/NEIGHBORHOOD IMPACTS**

This section addresses the potential for community/neighborhood barriers resulting from each of the alternatives.

#### **4.3.1 No-Project Alternative**

The No-Project Alternative is in existing plans and, consequently, has been analyzed previously for community barriers.

#### **4.3.2 Modal Alternative**

The Modal Alternative is assumed to be at low risk for the division of communities because 100 percent of the improvements would be within existing transportation corridors. However, there may be effects at particular geographic areas (e.g., where interchanges, bridges or other improvements, expand into residential areas) that have an impact on the functionality or livability of a neighborhood.

#### **4.3.3 HST Alternative**

The HST Alternative has portions identified that are within existing transportation corridors and portions that may be outside existing corridors. Therefore, this alternative is at some risk for effects to community

cohesion; however it is unclear from the existing data, whether development has encroached on a previous rail corridor or whether the corridor alignment is going through land designated for other uses.

The HST Alternative has 17 potential station area locations. Of these, the San Bernardino Station and the Escondido Transit Center Station have the potential to divide a community. The 15 stations that do not have a high potential to divide a community are discussed below, followed by a discussion of the potential for division of a community at the San Bernardino and Escondido Transit Center Stations.

The El Monte Station site is surrounded by industrial uses, so has very little potential to divide a community.

The Pomona Station site is within an existing transportation and utilities corridor, so, if a community has been divided by infrastructure, this is independent or pre-existing to the HST project.

The Ontario Station area is primarily rural or semi rural in character, so there is minimal potential for the division of a community.

The Colton Station area is near an existing freeway corridor so any community division is a pre-existing condition.

The UC Riverside Station area is primarily vacant land, so there is low potential for community division.

The March ARB Station is adjacent to the existing I-215, so any community division is a pre-existing condition.

The South El Monte Station is in a primarily commercial and industrial area.

The City of Industry Station has residential uses to south of the station; however, there are no residential uses north of the station area.

The Temecula Station is next to an existing freeway corridor, so any community division is a pre-existing condition.

The Escondido and Mira Mesa Station areas are both adjacent to the I-15 corridor, so any community division would be a pre-existing condition.

The Qualcomm Stadium Station is adjacent to the stadium and an existing freeway, so any community division would be a pre-existing condition.

The San Diego Transit Center Station is near existing rail and has a canyon adjacent to it, so there are existing transportation corridor and natural feature barriers.

The San Diego International Airport Station has industrial uses to the east and west and is adjacent to an existing freeway facility, so any community division is a pre-existing condition.

The Downtown San Diego Station is near a mixture of uses; however, these uses are urban in nature, any residential uses tend to be higher-density, self-contained communities, so a station would have a low probability of community division in that area.

## 4.4 PROPERTY

### 4.4.1 No-Project Alternative

The No-Project Alternative is in existing plans and, consequently, has been analyzed previously for community barriers.

#### 4.4.2 Modal Alternative

The highest potential for medium to high property impacts occurs in the developed Los Angeles area from Los Angeles to San Bernardino (along I-10). The edge of this right-of-way is densely developed with commercial and residential uses. High to medium property impacts would also potentially occur along I-10, I-15, and I-215 alignments due to residential development. Much of the area in the southern section of this region is occupied by undeveloped and agricultural land. Property impacts on those land uses would be low. Overall, 44 mi (71 km) of highway alignment (37% of total Modal Alternative highway alignment in the region) would potentially result in high property impacts, and 44 mi (71 km) of alignment (37% of total Modal Alternative highway alignment in the region) would potentially result in medium property impacts. The Ontario Airport and Lindberg Field expansions would affect 445 ac (180 ha) of high impact land uses and 142 ac (57 ha) of medium impact land uses.

#### 4.4.3 HST Alternative

The major land uses between LAUS and March ARB Station consist of low-density residential buffered from nearby rail corridors by commercial and industrial uses. Much of the alignment is also assumed to be adjacent to the existing highway corridor in this section and therefore is expected to result in mostly high and some medium property impacts. The area from March ARB Station to Mira Mesa Station primarily consists of open space; therefore, potential property impacts would be low. However, there are several areas located adjacent to existing corridors and new alignments that have a potential for medium to high property impacts. The proposed alignments between Mira Mesa Station and Downtown San Diego Station and the Qualcomm Stadium Station experience an increase in urban development as the alignments travel south, resulting in the potential for medium to high property impacts. There would be a medium potential for property impacts if the Qualcomm Stadium Station were located on the eastern side near multifamily residences.

Between 28 mi (45 km) and 37 mi (60 km) of rail alignment and station locations (between 19% and 22% of total HST alignment in the region) would result in potentially high property impacts, and between 35 mi (56 km) and 54 mi (87 km) of alignment and station locations (between 23% and 33% of total HST alignment in the region) would potentially result in medium property impacts.

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