

EXISTING CONDITIONS

COMMUNITY ATLAS

November 2018

PREPARED BY:



MOBILITY CHAPTER FIGURES BY:



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1. Introduction and Overview

1.1 INTRODUCTION

This Community Atlas provides baseline spatial information on existing conditions, opportunities, and challenges in the Mira Mesa Community Planning Area (CPA) and outlines future prospects for the community. The focus of this Atlas is on mappable resources, trends, and critical concerns that will frame choices for the long-term physical development of Mira Mesa CPA. The Atlas provides maps, photos, charts, and tables about land uses, ecosystems, community form, and transportation infrastructure. The Atlas will be used as a basis for:

- Facilitating community input on planning issues, priorities, and vision for the future;
- Evaluating policy issues and options and preparing alternative land use and transportation concepts;
- Formulating policies and implementation actions for the updated Community Plan; and
- Creating the environmental setting portion of the Environmental Impact Report for the Community Plan.

This Atlas provides information on latest data and conditions that existed as of September 2018.



A view of Los Peñasquitos Canyon and Black Mountain from Camino Ruiz Park



Qualcomm Building AY on Pacific Heights Blvd and Pacific Mesa Blvd.



A single-family home in Mira Mesa

1.2 COMMUNITY PLAN PURPOSE AND PROCESS

General Plan Context

The City of San Diego General Plan, adopted in 2008, is a comprehensive “blueprint” for San Diego’s growth over the next 20 to 30 years; it provides the broad citywide vision and development framework. Central to the plan is the “City of Villages” strategy, which focuses growth in pedestrian-friendly, mixed-use activity centers linked to an improved regional transit system. As a part of this strategy, the General Plan identifies over 50 community Planning Areas in the city, including Mira Mesa, for which community plans are to be developed or updated to provide more localized policies. The General Plan identifies Sorrento Mesa within the Mira Mesa Community Planning Area as a Subregional Employment Area due to its industrial land use base supporting high-tech, life science and manufacturing sectors. These uses are an important source of base sector employment and contribute to the City’s economic prosperity.

Purpose

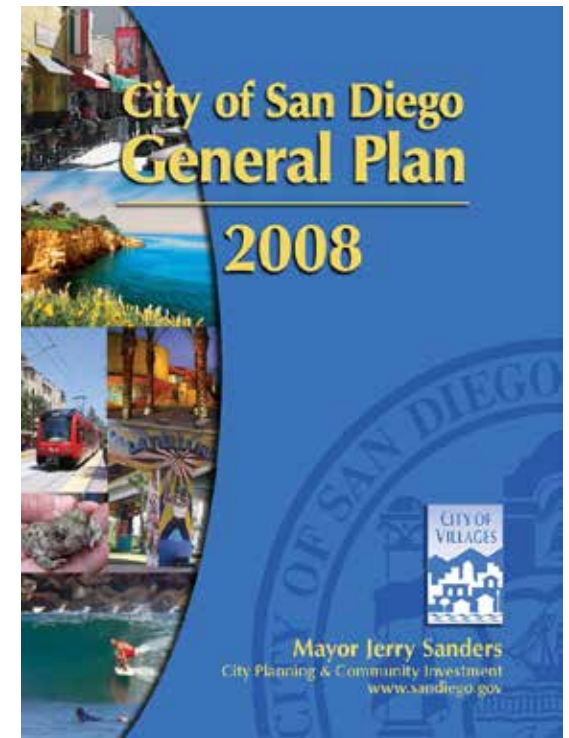
The current Mira Mesa Community Plan provides the detailed framework to guide development in Mira Mesa. Originally adopted in 1992, the community plan has undergone over nine amendments in the intervening years. The Community Plan update seeks to bring the Plan up-to-date by:

- Analyzing current land use, development, and environmental characteristics;
- Evaluating changes in demographics that may affect land use needs;
- Understanding demand for housing, public facility, and commercial development;
- Working with community members and stakeholders to determine key issues of concern, desires, and preferences to establish a vision and objectives for the plan update;
- Evaluating the “fit” of current Community Plan policies to achieve community goals and regulatory requirements;
- Ensuring that policies and recommendations remain in harmony with the General Plan, Climate Action Plan, and state mandates.

Process

The Community Plan update process will unfold in five phases (Figure 1-1):

- **Phase 1** includes evaluation of existing conditions (this report), and identification of community needs, constraints & opportunities. Community members’ input will be sought through workshop, online outreach, and advisory committee meetings.
- **Phase 2** will explore land use, community design, and mobility concepts and update the existing community plan elements’ goals and policies.
- **Phase 3** will explore various ways in which the vision can be achieved, resulting in a preferred concept and policy framework, and development of a draft Community Plan. Community members’ input will be sought through workshops and online outreach.
- **Phase 4** will involve drafting the EIR and updating the Impact Fee Study (IFS). These will be introduced to the community at a workshop, and there will be a formal public review period for the Draft EIR. A Final EIR and Responses to Comments will be prepared.
- **Phase 5** involves presenting the Draft and Final EIR, the Draft IFS, and the Draft Community Plan to the Planning Commission and the Smart Growth and Land Use Committee of the City Council for formal recommendation and, then, the City Council for adoption.



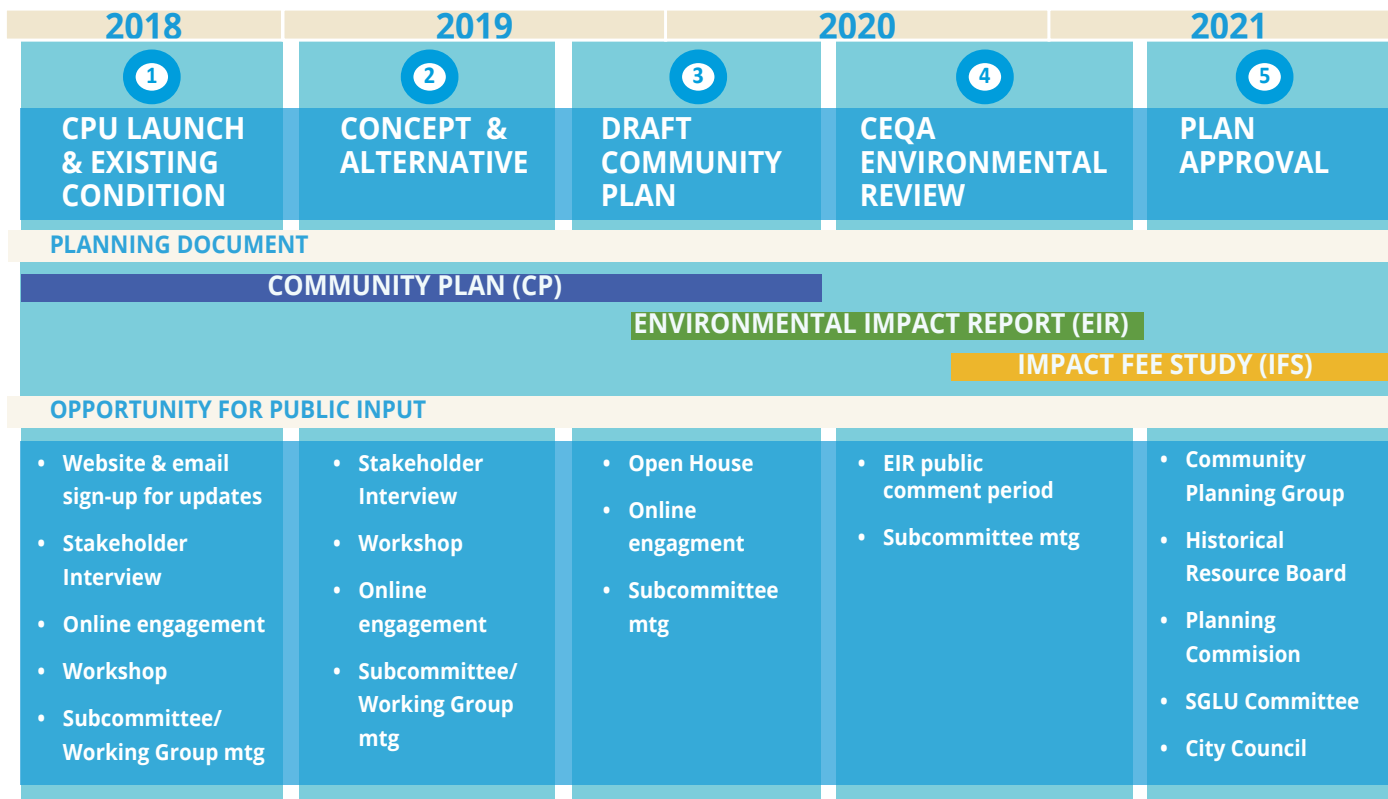
1.3 REGIONAL LOCATION AND PLANNING BOUNDARIES

Regional Location

The Mira Mesa community is approximately 10,500 acres in area. It is located in the north central portion of the City of San Diego, 16 miles north of downtown San Diego, between the Interstate 805 (I-805) and Interstate 15 (I-15) corridors.

Figure 1-2: Mira Mesa CPA Regional Location

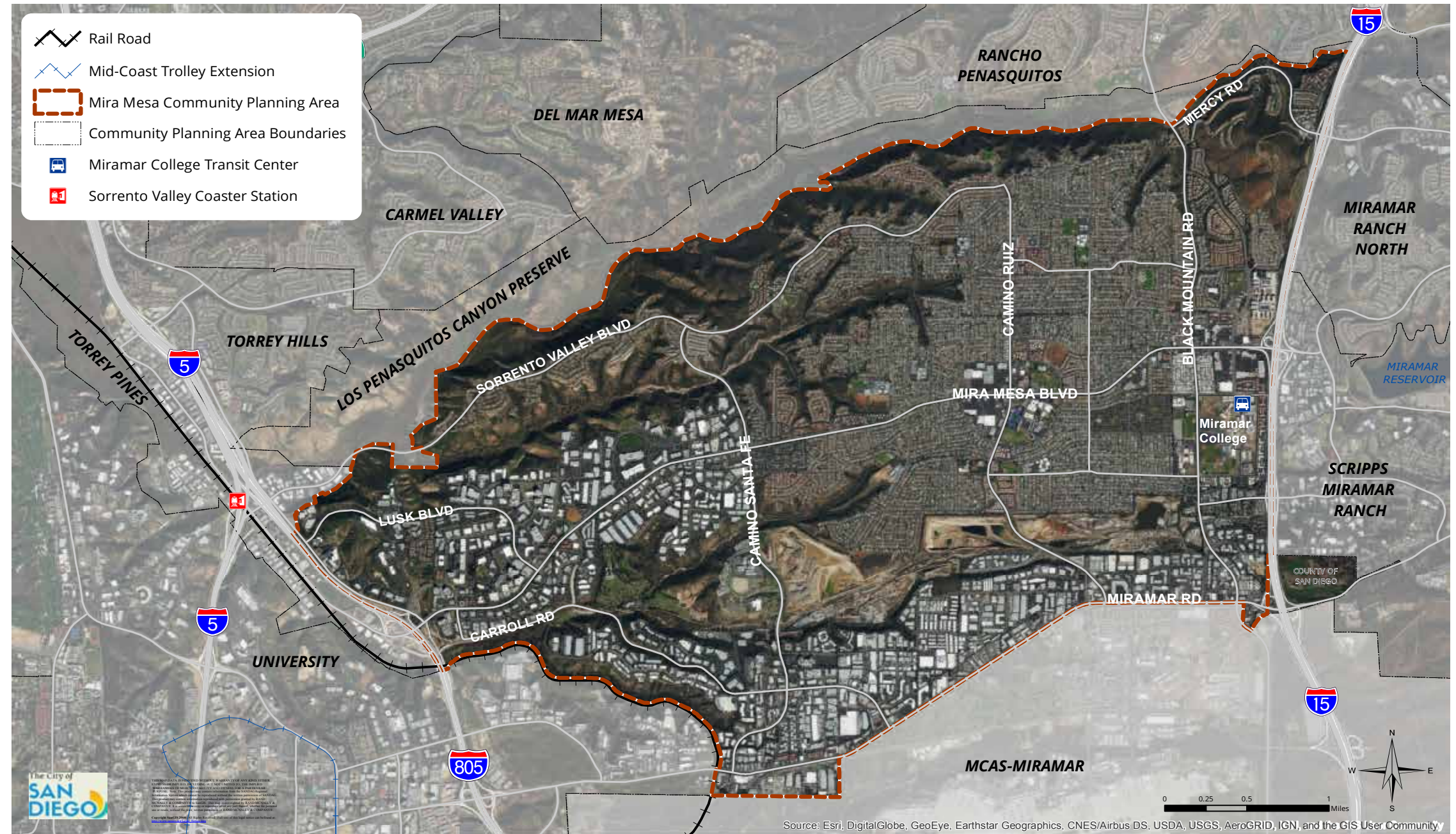
Figure 1-1: Process and Timeline



Planning Boundaries

As indicated in Figure 1-3, Mira Mesa community is bounded on the north by Los Peñasquitos Canyon and the surrounding communities of Torrey Hills, Carmel Valley and Rancho Peñasquitos; on the east by Miramar Ranch North and Scripps Miramar Ranch; on the south by Marine Corps Air Station (MCAS) Miramar; and on the west by the University and Torrey Pines communities.

Figure 1-3: Planning Area



1.4 MIRA MESA OVERVIEW

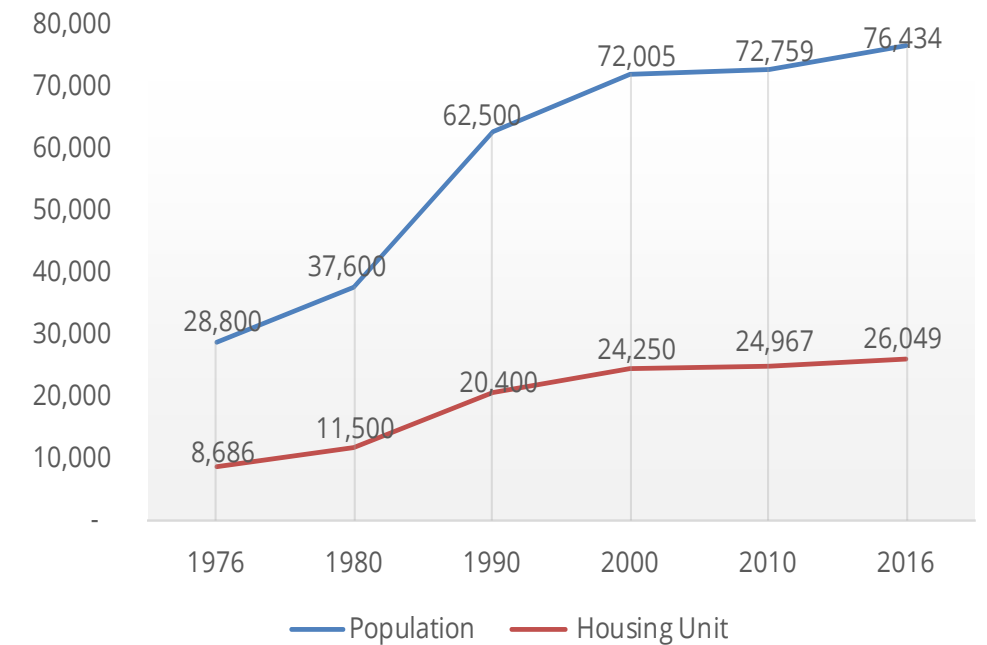
Brief History

Mira Mesa was annexed to the City in 1958 as part of a larger annexation that included Del Mar Heights and NAS Miramar. Little development occurred in the planning areas until mid-1969, when the demand for moderate priced housing brought several major developers into eastern Mira Mesa. From early 1971 to the third quarter of 1972, Mira Mesa led construction activity within the City. In 1973, the City Council initiated a comprehensive update of the community plan in collaboration with the community planning group, which was adopted in June 1977.

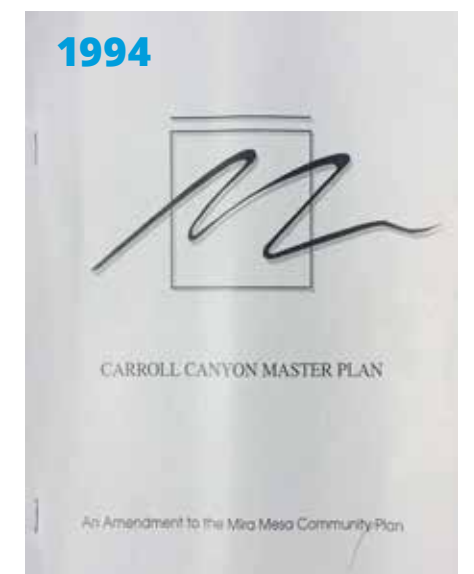
In 1981, the Mira Mesa Community Plan was again updated to include both the eastern and western areas and to serve as the Local Coastal Program Land Use Plan for the community, in accordance with California Coastal Act of 1976. The current Mira Mesa Community Plan was adopted in 1992, while the Carroll Canyon Master Plan - an amendment to the Community Plan - was adopted in 1994.

Between 1976 to 2016, Mira Mesa added 47,634 people and 17,363 housing units or an average of 2.7 people per housing unit (Chart 1-1). The population grew rapidly between 1976 to 2000, at an annual rate of 6.3 percent, before stabilizing during 2000 to 2010.

Chart 1-1: Mira Mesa Population and Housing Growth



Source: MM CP (1977, 1981, 1992); Census (2000, 2010); SANDAG, Current Estimates (Data Extracted on 03/2018).



History of Mira Mesa Community Plans

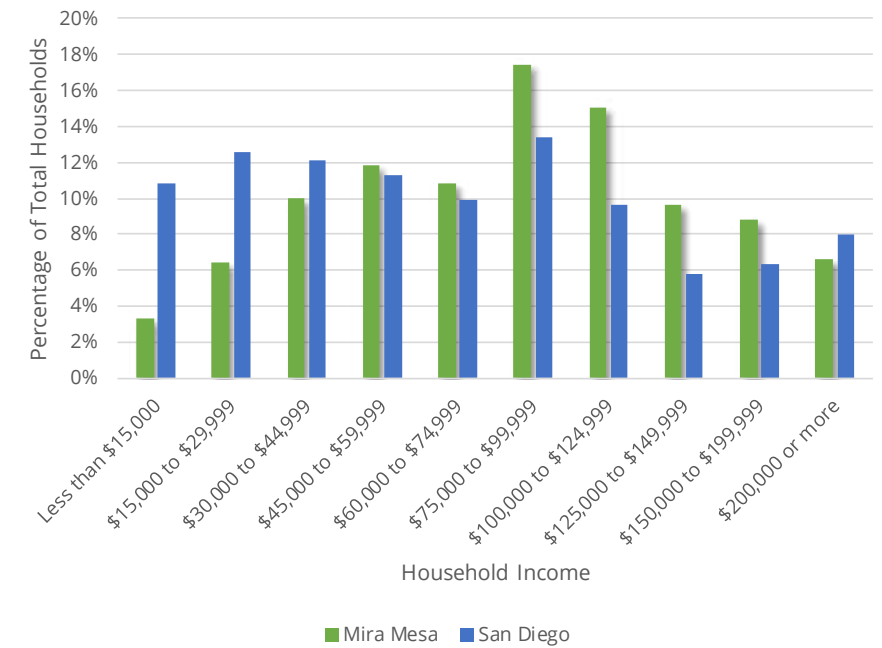
Demographic

The total population of Mira Mesa was 76,434 in 2016, according to the most current estimate by San Diego Association of Governments (SANDAG). Over 74 percent of households are “family households,” according to Census Bureau’s American Community Survey (ACS), compared to 60 percent in the city as a whole. Families with children (under the age of 18) make up 33 percent of household, compared to 30 percent of households citywide (Chart 1-2). People living alone constitutes 16.8 percent of the population, compared to 28.1 percent in the city. Over 32 percent of households in Mira Mesa have four or more persons, compared to 23 percent in San Diego. See Chart 1-3.

The median household income in Mira Mesa is \$94,215. As shown in Chart 1-4, the largest income group in Mira Mesa comprises households earning \$75,000 to \$99,999. Compared to the City of San Diego, Mira Mesa has a smaller percentage of households with annual income less than \$44,999 dollars, and also a smaller percentage with incomes of more than \$200,000.

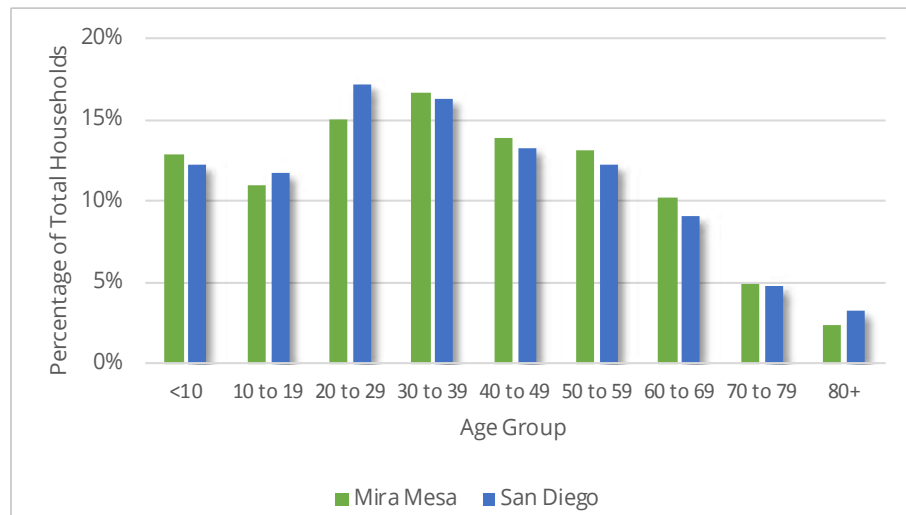
As shown in Chart 1-5, Mira Mesa is a diverse community. Asians constitute 39 percent of the population, while non-Hispanic white make up 33 percent of the population. Hispanics represents 20 percent of the population, while residents who are two or more races constitute four percent and blacks constitute three percent of the population.

Chart 1-4: Household Income, Mira Mesa and San Diego



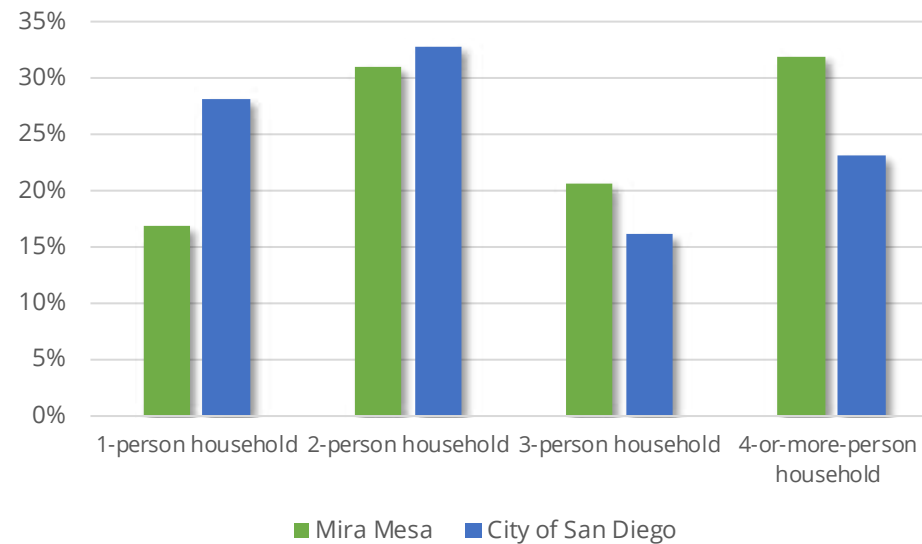
Source: SANDAG, Current Estimates (Data Extracted on 03/2018).

Chart 1-2: Age Groups, Mira Mesa and San Diego



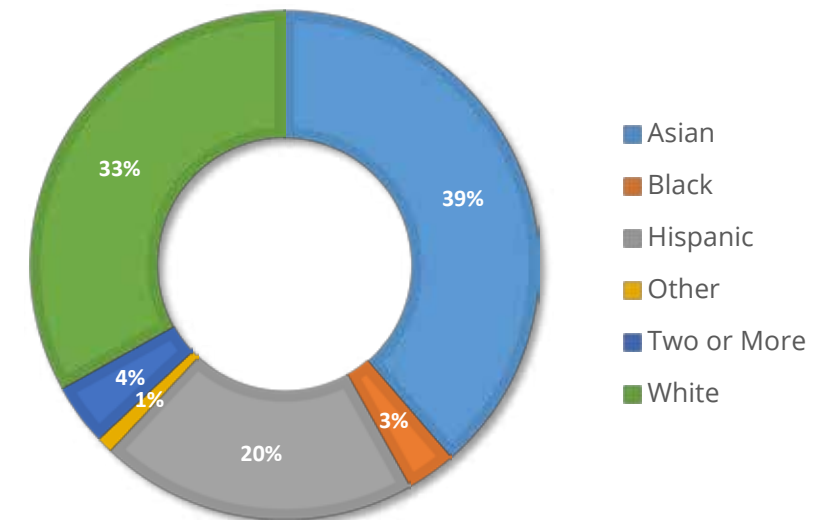
Source: SANDAG, Current Estimates (Data Extracted on 03/2018).

Chart 1-3: Household Size, Mira Mesa and San Diego



Source: US Census ACS, 2016

Chart 1-5: Ethnic Breakdown of Mira Mesa



Source: SANDAG, Current Estimates (Data Extracted on 03/2018).

Trend and Forecast

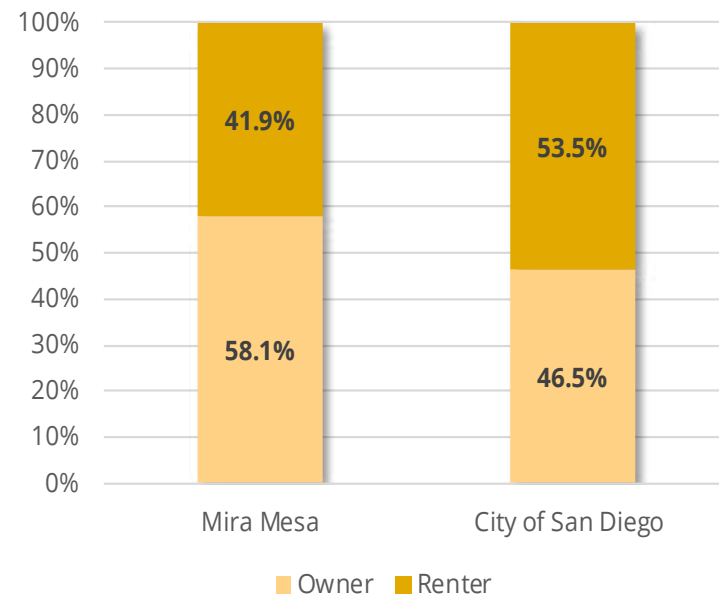
As shown in Chart 1-6, 58.1 percent of occupants in Mira Mesa are homeowners, compared to 46.5 percent citywide.

Between 2010 to 2015, jobs in Mira Mesa grew 6.6 times faster than housing. The rate of recent job growth in Mira Mesa significantly outpaced City and County of San Diego (Chart 1-7). Region wide, the rate of population and job growth is outpacing housing development leading to a higher housing cost.

Chart 1-9 illustrate the historical changes in median housing value, median income, and median-housing-price to median-income (P/I) ratio for census tracts in the Mira Mesa CPA. The P/I ratio explains the recent history of residential real estate. In 1970, the median home cost 2.3 times the median income in Mira Mesa. Today P/I ratio is 6.4. Between 1970 to 2018, the annual growth of median income was 4.8 percent while annual price appreciation of housing unit was 12.3 percent.

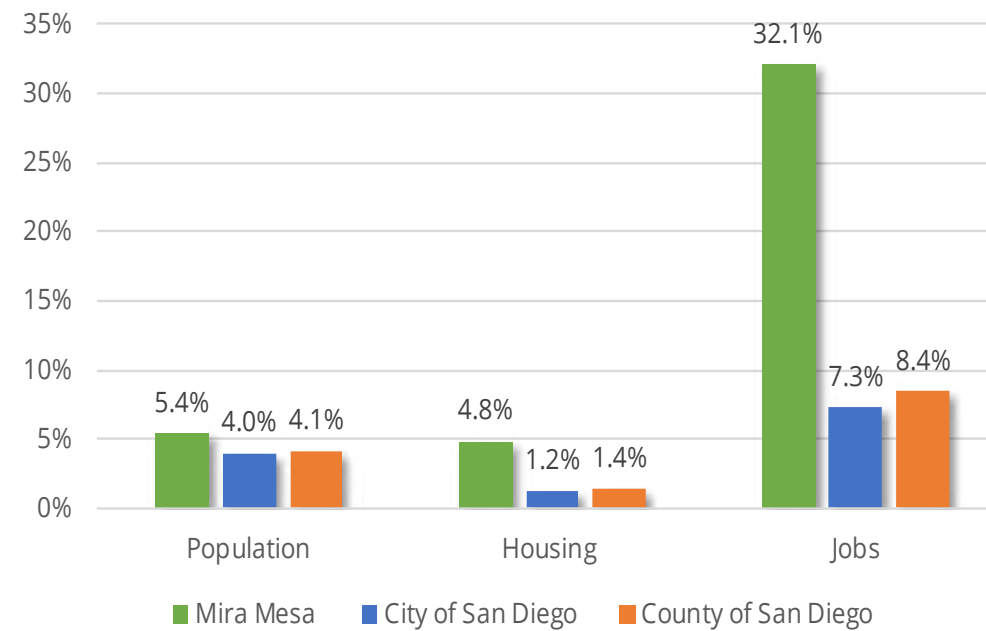
SANDAG forecast represents one possibility for future growth in Mira Mesa. It suggests Mira Mesa could see additional growth of 27,565 people, 8,552 housing units, and 4,891 jobs by 2035 from 2016 (Chart 1-8).

Chart 1-6: Occupancy Status



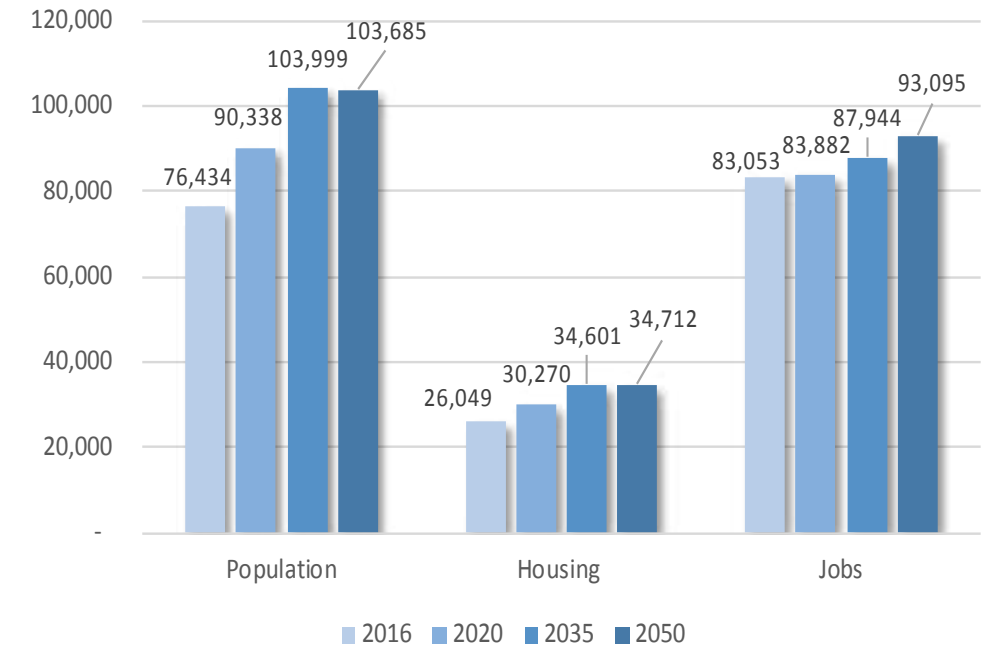
Source: SANDAG, Current Estimates (Data Extracted on 07/2018).

Chart 1-7: Rate of Growth - 2010 to 2015



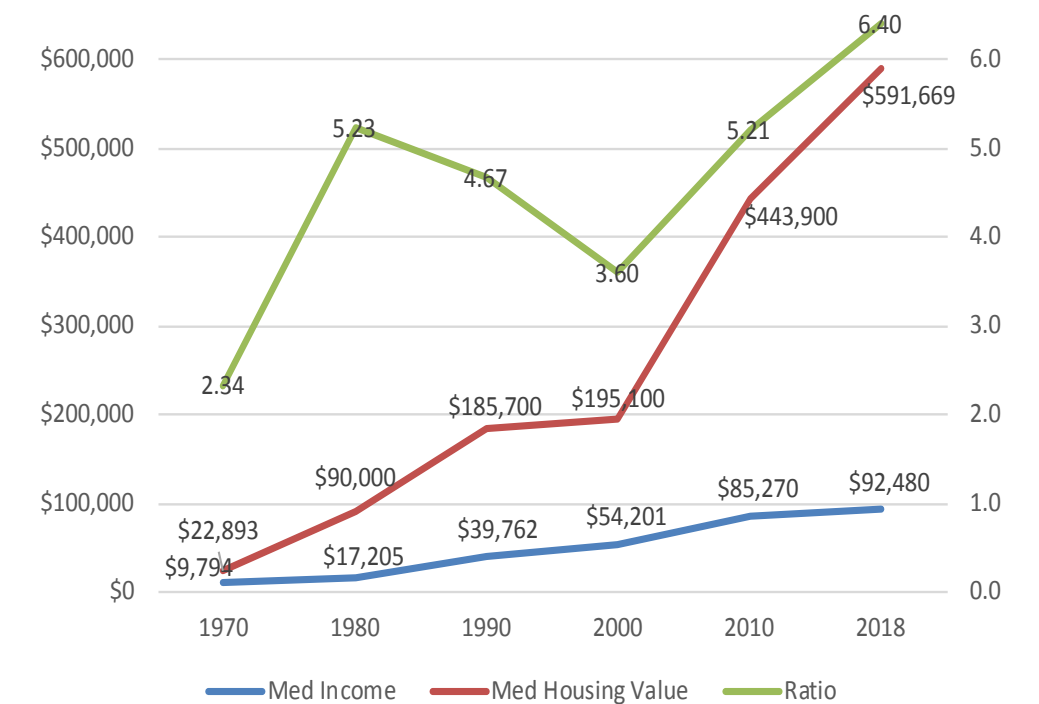
Source: US Census (2010, 2015); LEHD (2010, 2015); SANDAG Current Estimates (Data Extracted on 07/2018).

Chart 1-8: Mira Mesa Growth Projection



Source: SANDAG, Forecast, Current Estimates (Data Extracted on 07/2018); LEHD

Chart 1-9: Mira Mesa Housing Price to Income Ratio



Source: Logan et al. Interpolating U.S. Decennial Census Tract Data from as Early as 1970 to 2010; City of San Diego, 2018; Zillow, 2018

1.5 EXISTING PLANS IN MIRA MESA

Existing Mira Mesa Community Plan (1992)

The current Mira Mesa Community Plan was originally adopted in 1992 and has been amended on over nine occasions since. The Plan identifies several key issues, goals, and implementation actions for the Mira Mesa Community. These include improving the transportation system; relating development intensity to the capacity of the transportation system; encouraging mixed-use development on large sites to offer environments for living, working, shopping, and related activities; guiding urban form and physical development that protects and is responsive to the physical environment of Mira Mesa; and encouraging the development of neighborhood facilities and services that fulfill the daily needs of local residents.

Land Use Designations

The Community Plan land use diagram, shown on Figure 1-4, shows the Plan's land use designations. As shown in the figure, a significant portion of the Community Planning Area is designated as Residential (26.6%), Open Space (23.2%), and Industrial (20.8%). Chart 1-10 illustrates the breakdown of land use designations summary in the current Mira Mesa Community Plan. The specific land use designations are briefly described in Table 1-1.

Chart 1-10: Community Plan Adopted Land Use Summary

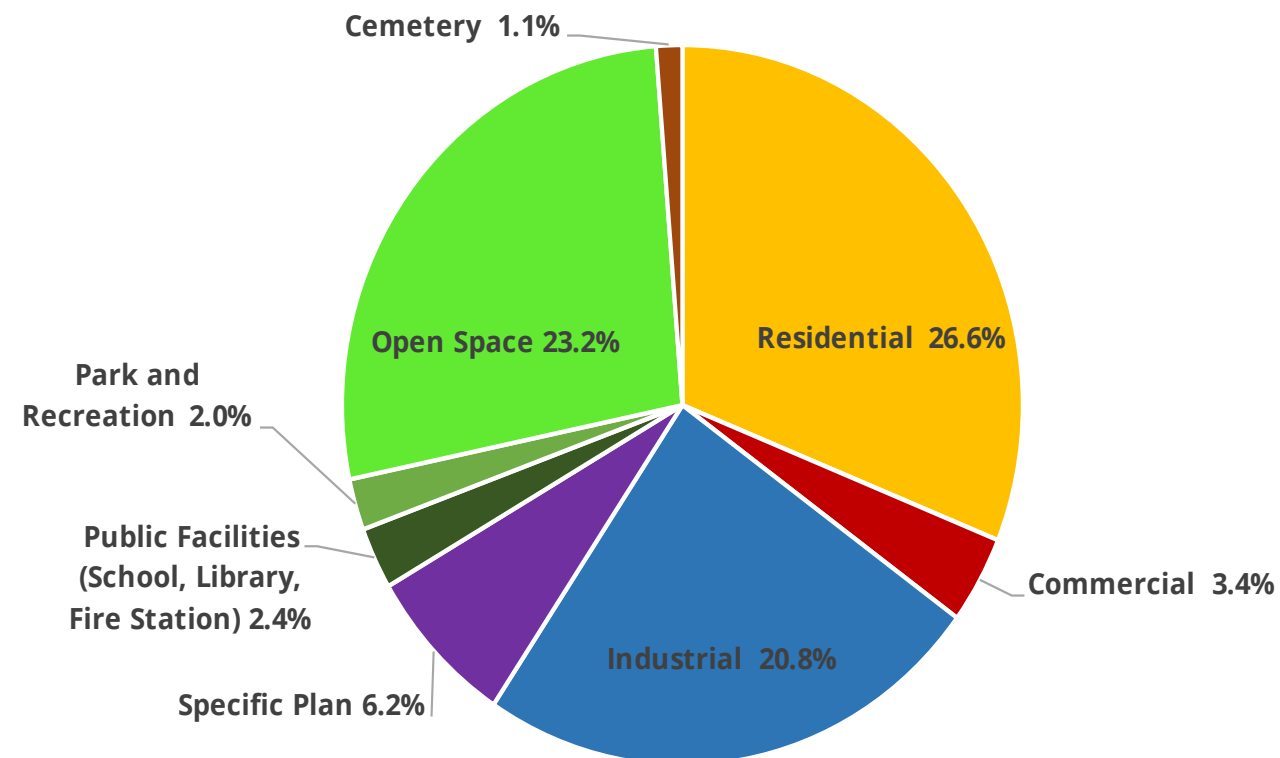
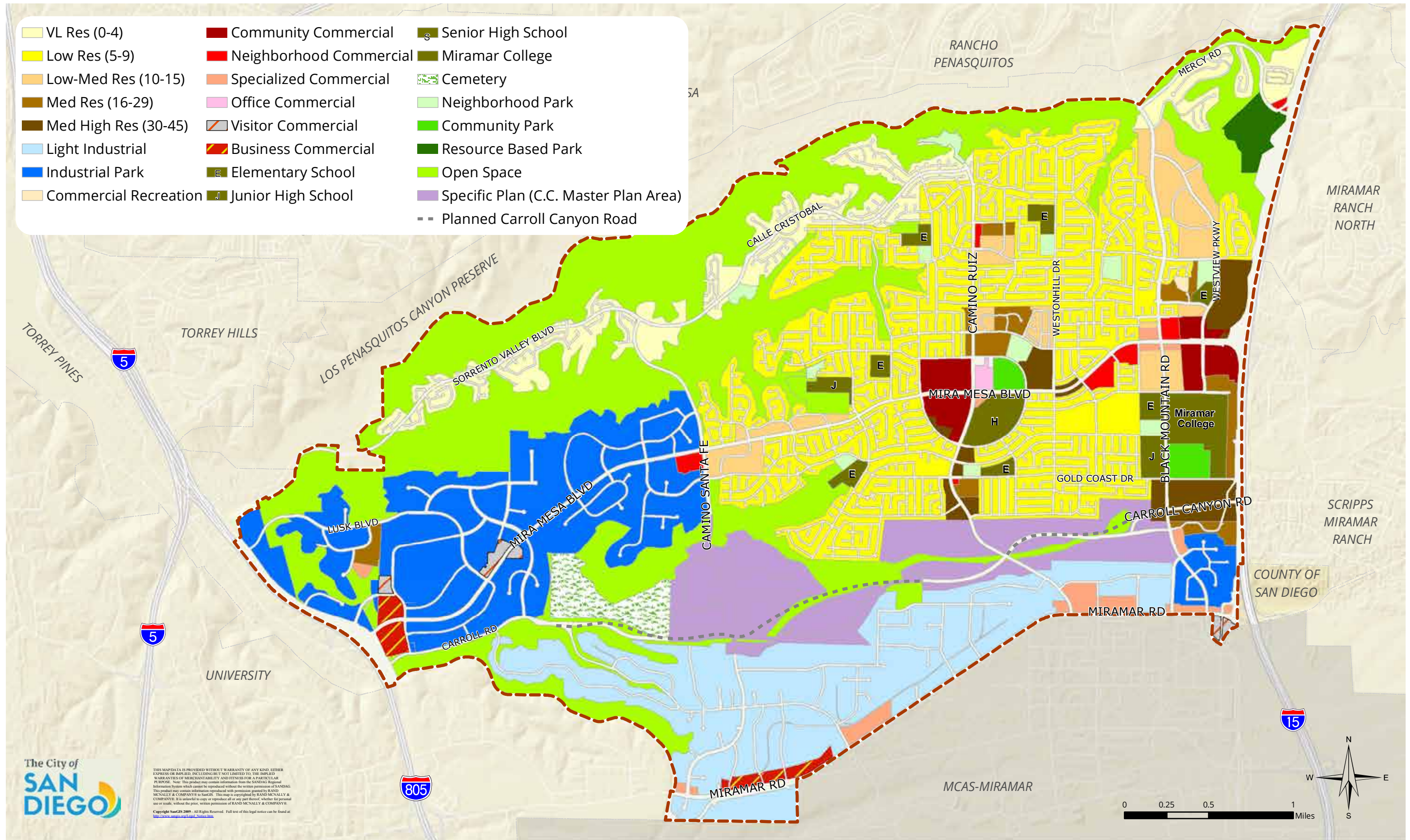


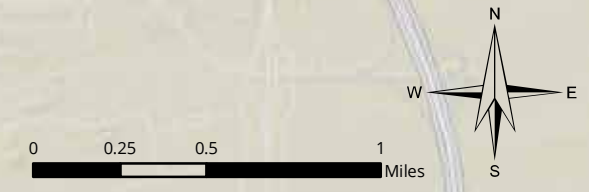
Table 1-1: Existing Mira Mesa Community Plan Designated Land Uses

Land Use Designation	Description	Acre	Percent
Residential		2858	26.6%
Very Low Res	Residential at density below 4 dwelling units per acre.	499	4.7%
Low Res	Residential at density between 5-9 dwelling units per net acre.	1769	16.5%
Low-Med Res	Residential at density between 10-15 dwelling units per net acre.	287	2.7%
Med Res	Residential at density between 16-29 dwelling units per net acre.	135	1.3%
Med High Res	Residential at density between 30-45 dwelling units per net acre.	168	1.6%
Commercial		362	3.4%
Specialized Commercial	Intended to provide the location of commercial uses that are more suitable for individual auto access than for general shopping area developments.	91	0.8%
Neighborhood Commercial	Retail goods and services for the convenience of the immediately adjacent residential neighborhood.	48	0.5%
Community Commercial	Concentration of a wide variety of retail goods and services for the community.	127	1.2%
Business Commercial	Serves the employees of the surrounding industrial parks.	55	0.5%
Office Commercial	Accommodates: multi-tenant office buildings; single purpose office-administrative facilities; professional-medical buildings; and financial institutions	10	0.1%
Commercial Recreation	Accommodates recreation facilities for residents and visitors.	4	0.0%
Visitor Commercial	Intended for hotels and motels.	26	0.2%
Industrial		2232	20.8%
Industrial Park	Intended for industrial uses and office parks	1143	10.7%
Light Industrial	Allows for light manufacturing and research and development uses.	1089	10.2%
Public Facilities		255	2.4%
Elementary School	Maximum enrollment of 700 students (>=7 ac).	82	0.8%
Junior High	Maximum enrollment of 1,500 students (>=15 ac).	38	0.4%
Senior High School	Maximum enrollment of 2,000 students (>=25 ac).	50	0.5%
Miramar College	Intended for two-year degree-awarding campuses.	82	0.8%
Library	Serves the informational & educational interest (>=15,000 square feet).	1	0.0%
Fire Station	Fire station manage public safety and hazard risks	1	0.0%
Park and Recreation		211	2.0%
Resource Based Park	Notable natural or man-made features (beaches, canyons, lakes, etc.) intended to serve the citywide population, as well as visitors.	57	0.5%
Neighborhood Park	Serves population of 5,000 within approximately 1 mile and accessible primarily by bicycling and walking (3-13 ac)	69	0.6%
Community Park	Serves population of 25,000, may serve multiple community planning areas (>=13 ac)	85	0.8%
Open Space		2486	23.2%
Open Space	Provide for preservation of land that has distinctive scenic, natural, or cultural features.		
Specific Plan		665	6.2%
Specific Plan	Carroll Canyon Master Plan details the designated land uses.		
Cemetery		114	1.1%
Cemetery	Land specifically designated as a burial ground.		

Figure 1-4: Adopted Community Plan Land Use



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Specific, Master, and Other Plans

The City has supplemented the Mira Mesa Community Plan through the adoption and implementation of Carroll Canyon Master Plan. Other relevant specific and master plans within the community are summarized below (see Figure 1-5).

Carroll Canyon Master Plan (1994)

The Carroll Canyon Master Plan is an amendment to the Mira Mesa Community Plan. The 573-acre site is situated between Interstate 805 on the west and Interstate 15 on the east, and between Mira Mesa Boulevard on the north and Miramar Road on the south. The Master Plan emphasizes the importance of transit-oriented development with a new transit station surrounded by a mixed-use core at the northeast corner of Camino Santa Fe and Carroll Canyon. The first phase of development under the Master Plan provided significant industrial and employment uses for this area as part of the Fenton Technology Park, with approximately 600,000 square feet of light industrial uses. In conjunction with this development, the connection to Camino Santa Fe to Miramar Road was also completed. As of March 2018, there is a request to initiate an amendment to the Master Plan for the 3 Roots development proposal.

3 Roots Master Plan (2018)

The draft master plan provides a detailed strategy for a 412-acre site. The plan proposes open space and the restoration of creek and floodplain features; a mix of uses to balance housing and employment opportunities; and a multi-modal circulation system to maximize the use of future transit along the new east-west connection provided by Carroll Canyon Road. A total of 1,800 multi-family dwelling units, 140,000 square feet of retail/office, and 40 acres of parks and trails are planned.

Stone Creek Master Plan (2017)

The Stone Creek Master Plan area is a 293-acre site located north of Miramar Road, east of Camino Santa Fe, south of Mira Mesa Boulevard and west of Black Mountain Road. The Draft Master Plan proposes a mixed-use Transit-Oriented Development consisting of 4,445 multi-family residential dwelling units, 174,000 square-feet of retail, 200,000 square-feet of office, a 175 room hotel, 415,000 square-feet of light industrial, 135,000 square feet of business park, 300,000 square feet of high technology, and approximately 33.9 acres of population-based parks.

MCAS Miramar Master Plan (2013)

The Marine Corps Air Station (MCAS) Miramar Airport Master Plan area encompasses 23,065 acres, with over 15,000 service members and their families serving this location. The Master Plan identifies nearly 11 million square feet of new facility development capacity using the infill development model on 672 acres of developable land, across 4 districts.

MCAS Miramar Airport Land Use Compatibility Plan (2008)

MCAS Miramar Land Use Compatibility Plan (ALUCP) provides for the orderly growth of the airport and the area surrounding the airport and safeguards the general welfare of the inhabitants within the vicinity of the airport and the public in general. The ALUCP identifies airport land use compatibility policies and standards related to four airport-related factors: noise, safety, airspace protection and overflight.

Los Peñasquitos Canyon Preserve Master Plan (1998)

The Los Peñasquitos (meaning little cliffs) Canyon and Lopez Canyon encompasses some 4,000 acres. The Master Plan outlines recreational and education opportunities and preservation and management of a unique natural and cultural resources. The Preserve is jointly owned and administered by the City and County of San Diego.

San Diego Miramar College Facilities Master Plan Update (2014)

The plan serves to document the current status of building projects on campus and provides an update on projects completed, projects currently in construction, projects in design, other campus projects, and ranked facilities needs for the 2014-15 academic year.

Figure 1-5: Community Specific & Master Plans

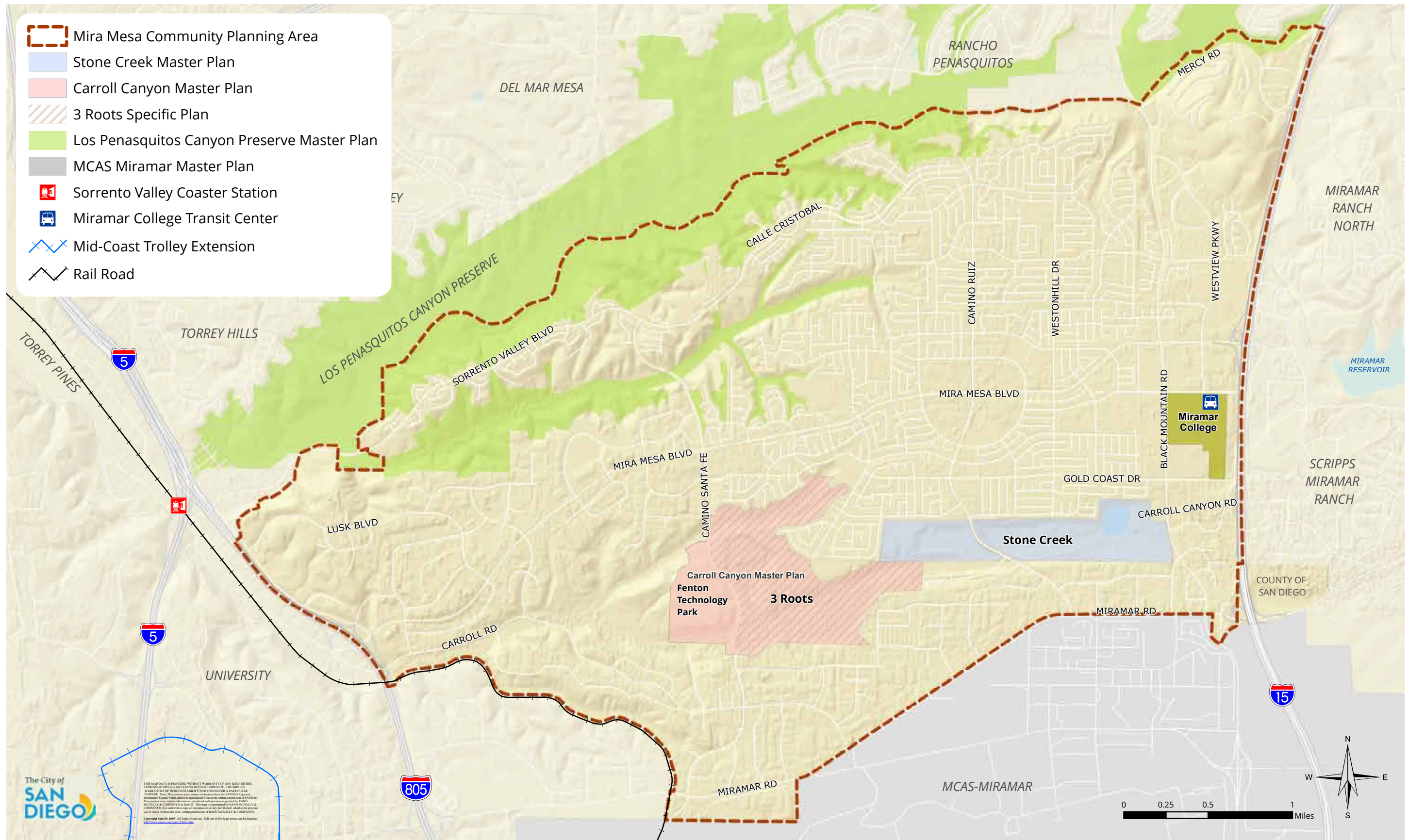


Table 1-2: Existing Zoning Designations

Agricultural	
AR-1-1	Agricultural Residential, require min. 10 acre lots
AR-1-2	Agricultural Residential, require min. 1 acre lots
Open Space	
OC-1-1	Open Space (Conservation), protect natural and cultural resources and environmentally sensitive lands.
OF-1-1	Open Space (Floodplain) while permitting development that will not constitute a dangerous condition or an impediment to the flow of flood waters
OP-1-1	Developed active parks
OR-1-2	Open space with limited private residential development and to implement the MHPA
Commercial	
CC-1-3	Commercial Community, mix of residential and commercial development with an auto orientation (1 du/1,500 sf. of lot area)
CC-3-5	Commercial Community, mix of residential and commercial development with pedestrian orientation (1 du/1,500 sf. of lot area)
CC-4-2	Commercial Community, heavy commercial uses and residential with high intensity, strip commercial characteristics (1 du/1,500 sf. of lot area)
CN-1-2	Commercial Neighborhood, development with auto orientation
CO-1-2	Commercial Office, mix of office and residential that serve as an employment center
CV-1-1	Commercial Visitor, mix of large-scale, visitor-serving uses and residential uses
CV-1-2	Commercial Visitor, mix of visitor-serving uses and residential uses with a pedestrian orientation
Industrial	
IH-2-1	Industrial Heavy (land-intensive industrial emphasizing base-sector manufacturing), manufacturing with some office
IL-1-1	Industrial Light allows primarily light industrial uses
IL-2-1	Industrial Light, mix of light industrial, office, and limited commercial
IL-3-1	Industrial Light, mix of light industrial, office, and commercial
IP-1-1	Industrial Park (high quality science and business park development), mix of light industrial and office uses with some limited manufacturing
IP-2-1	Industrial Park (high quality science and business park development), mix of light industrial and office uses
Residential	
RM-1-1	Residential Multiple Unit, lower density multiple dwellings with single dwelling character. (1 du/3,000 sf. of lot area)
RM-1-2	Residential Multiple Unit, lower density multiple dwellings with single dwelling character. (1 du/2,500 sf. of lot area)
RM-1-3	Residential Multiple Unit, lower density multiple dwellings with single dwelling character. (1 du/2,000 sf. of lot area)
RM-2-5	Residential Multiple Unit, medium density multiple dwellings. (1 du/1,500 sf. of lot area)
RM-3-7	Residential Multiple Unit, medium density multiple dwellings. (1 du/1,000 sf. of lot area)
RM-3-8	Residential Multiple Unit, medium density multiple dwellings. (1 du/800 sf. of lot area)
RS-1-1	Residential Single Unit, Urbanized Community min. 40,000 sf. lot
RS-1-8	Residential Single Unit, Planned Urbanized Community min. 40,000 sf. lot
RS-1-11	Residential Single Unit, Planned Urbanized Community min. 10,000 sf. lot
RS-1-13	Residential Single Unit, Planned Urbanized Community min. 6,000 sf. lot
RS-1-14	Residential Single Unit, Planned Urbanized Community min. 5,000 sf. lot
RX-1-2	Residential Small Lot requires minimum 3,000 square-foot lots.

Zoning

Zoning implements the policies and land use designations put forth in the General Plan and the Community Plan through detailed development regulations. Zoning also regulates the form, design, density and intensity, and permitted uses.

As shown in Figure 1-6, residential, industrial and open space zones dominates the current zoning in Mira Mesa. Table 1-2 describes the existing zoning designations.

2. Land Use and Development

2.1 EXISTING LAND USE

Existing on the ground land uses were identified from City and County data and aerial photography. The analysis uses parcel-level information from Geographic Information Systems (GIS) databases, including Assessor’s data, updated in 2018. Aerial photography is current as of 2018.

There are approximately 10,500 acres in Mira Mesa, or 9,344 acres excluding utilities and rights-of-way. Table 2-1 shows the breakdown of existing land uses, and Chart 2-1 shows the summary of existing land uses in a pie chart, excluding rights-of-way and utilities. Figure 2-1 shows the overall pattern of existing land uses in Mira Mesa.

Current Land Use Pattern

As shown in Table 2-1 and Chart 2-1, residential use is the most prominent existing land use in Mira Mesa, occupying 2,736 acres (29.3%) of the Planning Area, closely followed by Open Space with 2,414 acres (25.8%). The Industrial land use is the 3rd largest area occupying 2,006 acres (21.5%) while Office land uses account for 654 acres (7.0%) of the Planning Area. There are only 49 acres of Vacant/Undeveloped land in Mira Mesa.

Chart 2-1: Existing Land Use Summary

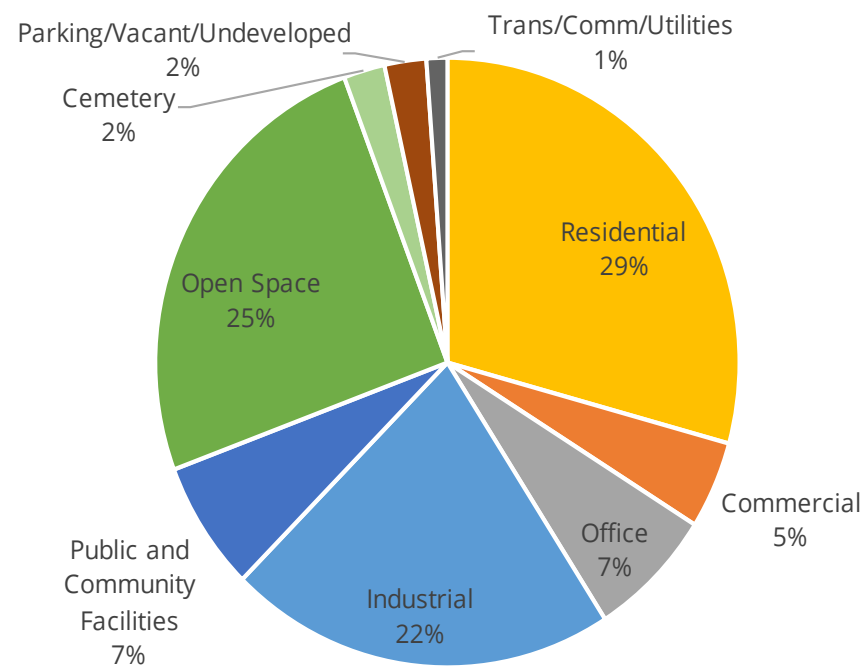
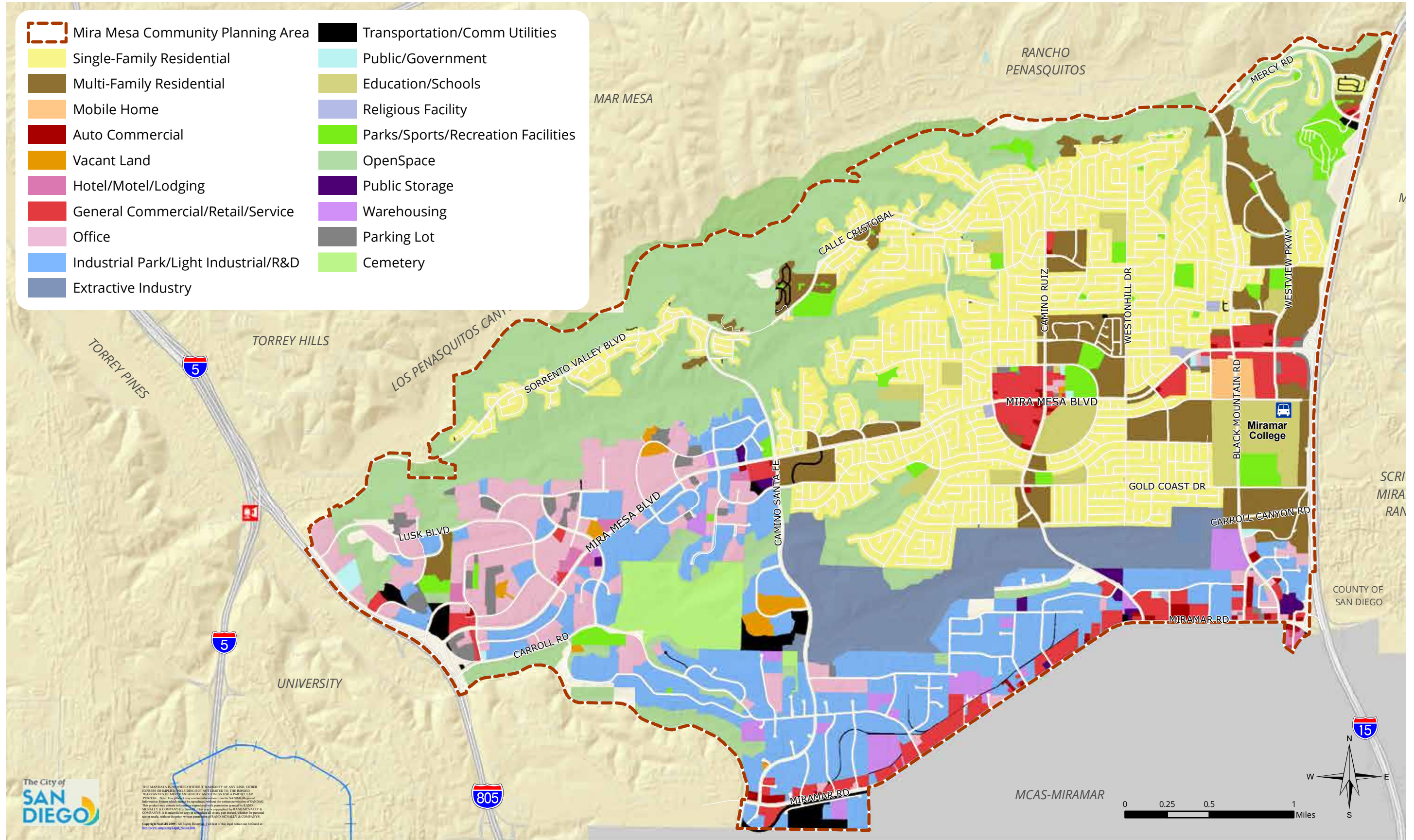


Table 2-1: Existing Land Use

Existing Land Use Categories	Acres	Percentage
Residential	2,736	29.3%
Single-Family	2,009	21.5%
Multi-Family	692	7.4%
Mobile Home Park	35	0.4%
Commercial	434	4.6%
Auto Commercial	43	0.5%
Hotel/Motel/Lodging Commercial	30	0.3%
General Commercial/Retail/Service	330	3.5%
Public Storage	32	0.3%
Office	654	7.0%
Industrial	2,006	21.5%
Industrial Park/Light Industrial	1,277	13.7%
Extractive Industry	599	6.4%
Warehousing	130	1.4%
Public and Community Facilities	644	6.9%
Public/Government	19	0.2%
Educational/Institutional	289	3.1%
Religious Facilities	15	0.2%
Parks/Sports/Recreational Facilities	320	3.4%
Open Space	2,414	25.8%
Cemetery	213	2.3%
Parking Lot	86	0.9%
Vacant/Undeveloped	49	0.5%
Trans/Comm/Utilities	108	1.2%
Total	9,344	100%

Source: City of San Diego, 2018; SANGIS Regional GIS Data Warehouse, 2018

Figure 2-1: Existing Land Use

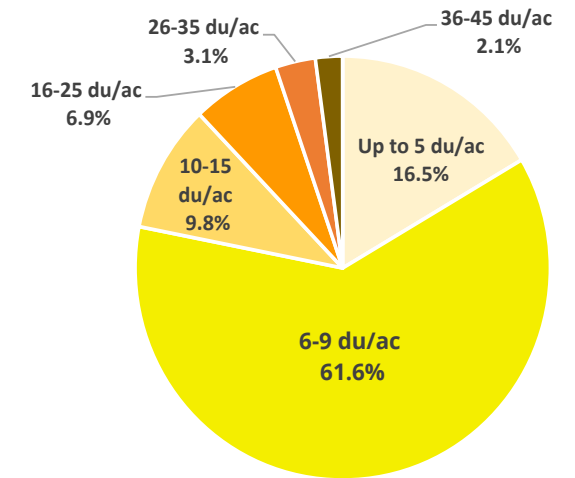


2.2 RESIDENTIAL DENSITY

The density of residential development in Mira Mesa is shown in Figure 2-2 and Chart 2-2. For residential uses, density is expressed as the number of housing units per acre (dwelling units/acre, or du/ac). As reflected in this analysis, residential density is calculated as a “gross” residential density, which also accounts for streets and other public areas.

Average residential density in Mira Mesa is approximately 8 dwelling units per acre, demonstrating the relatively compact suburban form that predominate in the community. Mira Mesa’s housing includes single-family homes, townhomes, multiplex apartment and condominium complexes; these housing typologies are described in detail in Section 4.4, Buildings. As shown in Chart 2-2, over 61 percent of residential properties have a gross density of at least 6-9 dwelling units per acre. Many of the densest residential properties are located West of I-15.

Chart 2-2: Breakdown of Existing Residential Densities



6 Sorrento Heights, 5 dwelling units/acre.



5 Londonderry, 8 dwelling units/acre.



4 Wateridge, 15 dwelling units/acre.



1 Casa Mira View, 45 dwelling units/acre.



2 Mira Monte Apartments, 31 dwelling units/acre.



3 Casa Ruiz Apartments, 19 dwelling units/acre.

Source: Photo 2, 4, 5, & 6 Google Streetview

2.3 NON-RESIDENTIAL DEVELOPMENT INTENSITY

The intensity of non-residential development (office, retail, and industrial) in Mira Mesa is shown in Figure 2-3. Development intensity is expressed as Floor Area Ratio (FAR), which refers to the ratio between a building's total floor area and the total area (excluding any area devoted to parking) of the site. For instance, as shown in Figure 2-3, a one-story building occupying half of a parcel has an FAR of 0.5; a two-story building occupying the same half of a parcel has an FAR of 1.0.

Overall, non-residential buildings in Mira Mesa have a median FAR of 0.44. As shown in Chart 2-3, over 85.5 percent of non-residential buildings have an FAR of 0.5 or less. Only fourteen development in Mira Mesa has an FAR that reaches beyond 1.0. Taller buildings in the Planning Area, such as the San Diego Innovation Center, Country Inn & Suites, and Qualcomm Building WT, have an overall FAR of less than 2.0 because they are situated on lots with substantial surface parking and landscaping.

Figure 2-3: FAR Illustration

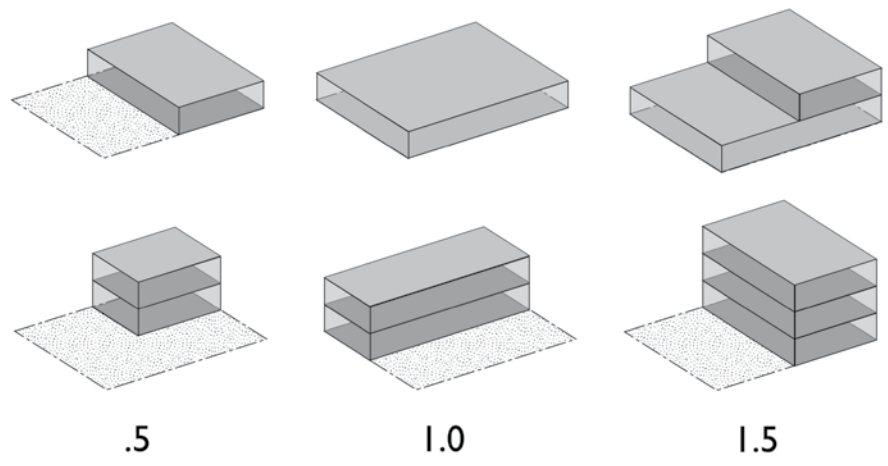
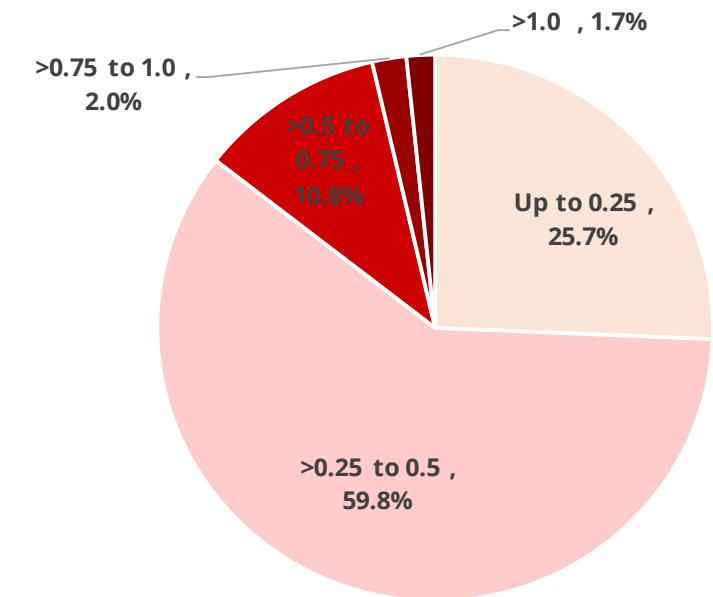


Chart 2-3: FAR Breakdown



4 The Towers Sorrento, 1.43 FAR.



3 San Diego Innovation Center, 1.07 FAR.



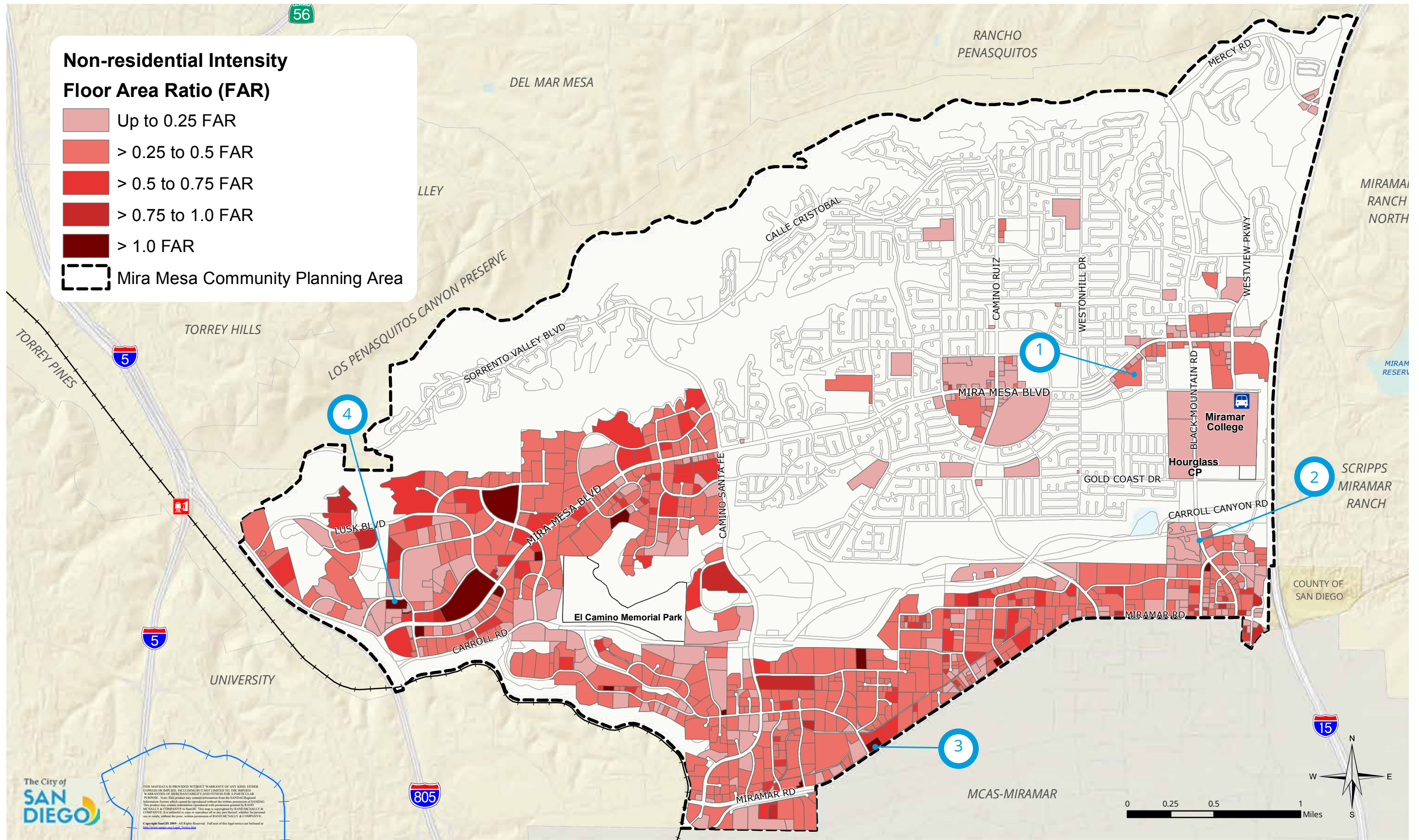
1 Mesa Shopping Center, 0.29 FAR.



2 Office building located at 9600 Kearny Villa Road, 0.45 FAR.

Source: Google Streetview

Figure 2-4: Non-Residential Development Intensity (FAR)



2.4 PUBLIC FACILITIES

Figure 2-5 depicts community services, facilities and infrastructures that support Mira Mesa.

Mira Mesa has three fire station, one community relations police storefront, and one library which is centrally located on New Salem Street. There are 14 public and charter schools at the kindergarten through twelfth grade level, as well as San Diego Miramar College that serve the community (Table 2-2). In school year 2017-2018, 9,381 K-12 students attended Mira Mesa schools.

The 2016 Mira Mesa Public Facilities Financing Plan (PFFP) implements the City of San Diego General Plan and the Mira Mesa Community Plan. The financing plan identifies major public facilities that will be needed to serve the community over the next 25 years. When construction or building permit is issues, the Development Impact Fees (DIF) are collected to help finance community projects, such as:

- Transportation improvements;
- Neighborhood parks and recreation;
- Fire; and
- Libraries.

The DIF are paid on a per unit basis for residential development, and on a per acre basis for non-residential development. The Current Mira Mesa PFFP identifies:

- \$156.3 million for transportation projects;
- \$292.1 million for park and recreation projects; and
- \$12.2 million for Fire-Rescue projects

The Mira Mesa PFFP will be revised during the phase 4 of Mira Mesa Community Plan Update and will be renamed Impact Fee Study (IFS). The current list of public facilities projects is available at: www.sandiego.gov/facilitiesfinancing/plans

Table 2-2: Mira Mesa School Enrollment

Schools	Enrollment	
	2007-2008	2017-2018
Public		
Sandburg Elementary	672	571
Ericson Elementary	753	692
Hage Elementary	741	696
Hickman Elementary	683	424
Jonas Salk Elementary	N/A	702
Mason Elementary	776	552
Walker Elementary	565	389
Challenger Middle	1,137	976
Waggenheim Middle	1,308	941
Mira Mesa High	2,592	2,338
Charter		
Trace	N/A	471
Twain High (Alternative)	N/A	234
Private		
Good Shepard	N/A	250
Lutheran - Christ the Cornerstone - Academy	N/A	145
Total		9,381
Community College		
San Diego Miramar College	7,922 FTE	10,108 FTE*

Source: San Diego Unified School District, 2018; San Diego Community College District, 2018 (*projected)



Miramar College



Mira Mesa Library



Mira Mesa Fire Station

2.5 PARKS, RECREATION AND OPEN SPACE

There are three use categories of parks and recreation for residents and visitors: population-based, resource-based, and open space. These three categories of recreation, including land, facilities, and programming, constitute the City of San Diego’s municipal park and recreation system.

- Population-based parks (commonly known as Neighborhood and Community parks), facilities and services are located in close proximity to residential development and are intended to serve the daily needs of the neighborhood and community. Joint use parks/facilities are intended to provide active and passive recreational opportunities for school children when school is in session and the general public when school is not in session. Each joint use site is governed by a joint use agreement between the City of San Diego and San Diego Unified School District. These agreements outline the responsibilities of each agency.
- Resource-based parks are located at, or centered on, notable natural or man-made features (beaches, canyons, habitat systems, lakes, historic sites, and cultural facilities) and are intended to serve the citywide population, as well as visitors.
- Open space lands are City-owned lands located throughout the City, consisting of canyons, mesas, and other natural landforms. This open space is intended to preserve and protect native plants and animals, while providing public access and enjoyment by the use of hiking, biking, and equestrian trails.

The Planning Area’s existing parks, recreation facilities and open space areas are shown in Figure 2-9 while Table 2-3 illustrate the acreage of existing parks.

Table 2-3: List of Existing Parks

Name	Acre (Usable)
Community Park (CP)	
Mira Mesa CP	28.00
Neighborhood Park (NP)	
Sandburg NP	4.84
Camino Ruiz NP	10.27
Mesa Viking NP	6.67
Westview NP	7.25
Breen NP	8.66
Lopez Ridge NP	8.38
Maddox NP	5.00
Mesa Verde NP	4.50
Mcauliffe NP*	4.52
Resource Based Park	
Canyon Hills Park	16.25
Joint Use Facility	
Hourglass CP - Miramar College	31.00
Challenger Middle School	7.57
Ericson Elementary	5.44
Hage Elementary	0.30
Mason Elementary	1.12
Walker Elementary	4.80
Walker Elementary NP	1.88
Wangenheim Middle School	6.6
Existing Park Total	163.05
Existing Eligible Park Total	146.80



Westview Neighborhood Park



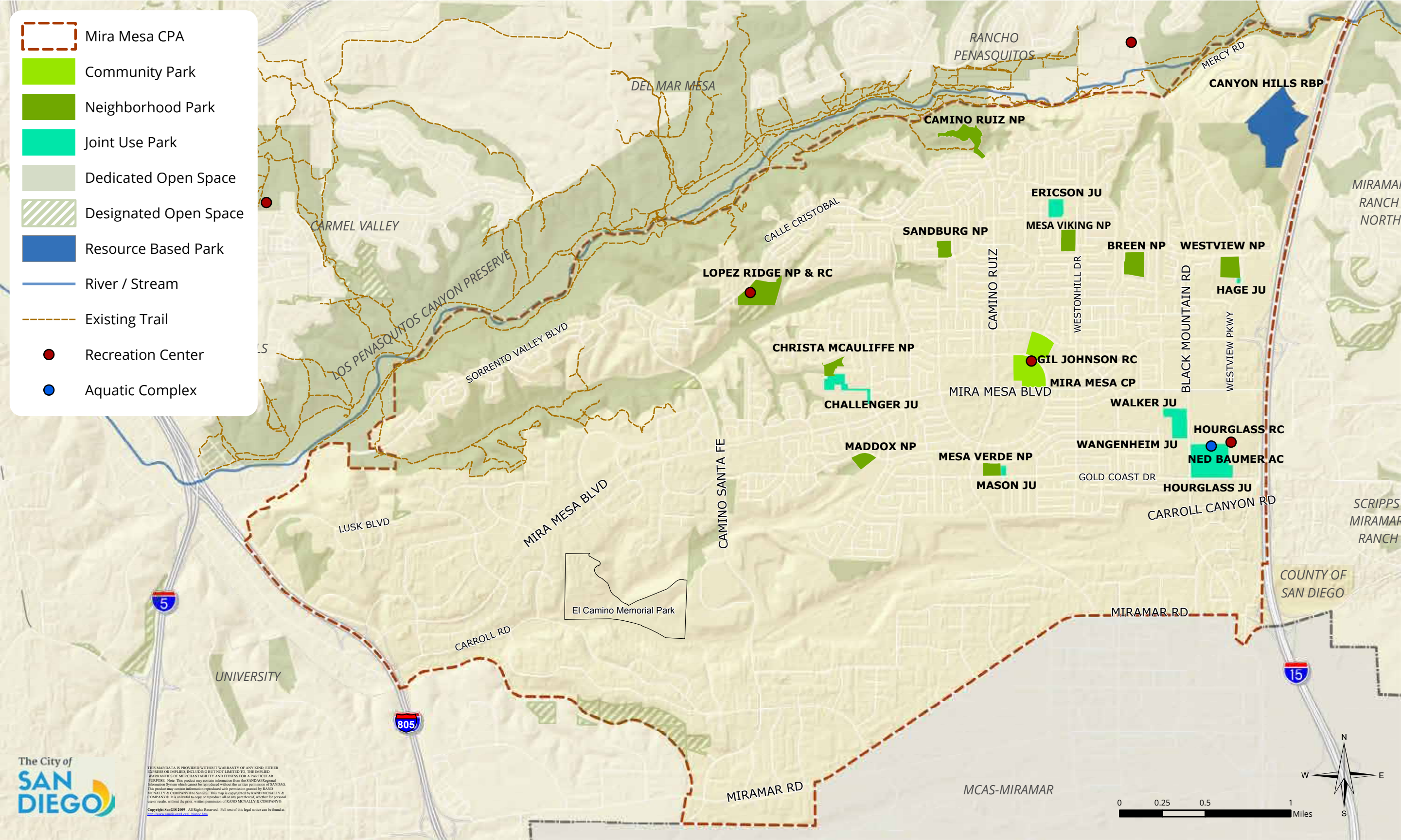
Camino Ruiz Neighborhood Park



Breen Neighborhood Park

*Mcauliffe NP is currently designated in the Mira Mesa Community Plan as a Community Park, but due to the lack of usable acreage, designation has been adjusted to accurately reflect realities on the ground.

Figure 2-6: Existing Parks, Recreation and Open Space



- Mira Mesa CPA
- Community Park
- Neighborhood Park
- Joint Use Park
- Dedicated Open Space
- Designated Open Space
- Resource Based Park
- River / Stream
- Existing Trail
- Recreation Center
- Aquatic Complex




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The Planning Area’s proposed parks (as of September 2018) are shown in Figure 2-7 while Table 2-4 illustrates different types of park facilities.

Table 2-4: Park Facilities Descriptions

Park Type	Community Park	Neighborhood Park	Mini Park/Plaza	Pocket Park	Major Park
Population	Serves 25,000, typically one community plan area.	Serves approximately 5,000 within 1 mile.	Serves population within ½ mile.	Serves population within ¼ mile.	Serves single or multiple community plan areas/populations, parking provided.
Features	Passive and active recreation facilities, community cultural facilities, multi-purpose sports fields, recreation center and aquatic complex.	Accessible by bicycling and walking. Minimal parking. Picnic areas, children’s play area, multi-purpose turf areas, walkways, and landscaping.	Accessible by bicycling and walking. No parking. Picnic areas, children’s play area, and/or multi-purpose turf areas.	Accessible by bicycling and walking. No parking. Primarily hardscape, picnic areas, children’s play area, and/or multi-purpose turf areas.	Specialized facilities that serve larger populations, passive and active recreation facilities found in Community Parks, could include special activities such as skate park, dog off leash.
Example	Hourglass Community Park	Camino Ruiz Neighborhood Park	Kenmore Terrace Mini Park	Lewis Street Pocket Park	NTC Park
					
Park Type	Open Space Trails	Special Activity Park	Recreation Center	Aquatics Complex	
Population	Serves single or multiple community plan areas.	Serves one or more community.	Serves 25,000 or more.	Serves 50,000. Serves multiple community plan areas.	
Features	City-owned land, canyons, mesas, other natural land-forms, usually with trails, staging areas, outlooks, viewpoints, picnic areas.	Skateboard parks, off-leash dog park, and/or other unique uses.	May be a stand-alone facility or within a community park. May include a gymnasium, indoor courts, multi-purpose rooms, kitchen, or other facilities. Parking provided.	May be a stand-alone facility or located within a community park. May include pool facility, locker rooms, showers, and/or special types of pools.	
Examples	Los Peñiquitos Canyon Preserve	Linda Vista Skate Park	Doyle Recreation Center	Ned Baumer Aquatic Center	
					

2.6 LAND USE SITING OPPORTUNITIES

There are many opportunities to transition the existing auto-centric land use pattern towards a smart growth and mixed-use transit-oriented development along Transit Priority Areas in Mira Mesa CPA. The growth of craft breweries, life science, and high-tech sectors; regional housing shortage; and policies to reduce vehicle miles traveled (VMT) are creating demand for a high quality mixed-use community and residences near job centers. For existing residential areas, the physical layout of compact suburban land use pattern and close proximity to many amenities provides a strong foundation to improve neighborhood walkability, bikability, and safety through strategic investment in multi-modal infrastructure.

Sand Diego Forward: The Regional Plan & SANDAG Smart Growth Areas (SGAs)

San Diego Forward: The Regional Plan was adopted by the San Diego Association of Governments (SANDAG) Board of Directors on October 9, 2015. It combines the big-picture vision for how our region will grow by 2050 within an implementation program to help make that vision a reality. Smart Growth is a compact, efficient, and environmentally-sensitive urban development pattern. It focuses future growth and infill development close to jobs, services, and public facilities to maximize the use of existing infrastructure and preserve open space and natural resources. SANDAG has identified eight areas in Mira Mesa as Smart Growth Areas (SGAs). The Smart Growth Concept Map and SGAs serves as the foundation for prioritizing regional transportation investments and determining eligibility for local smart growth incentive funds (Figure 2-7).

General Plan

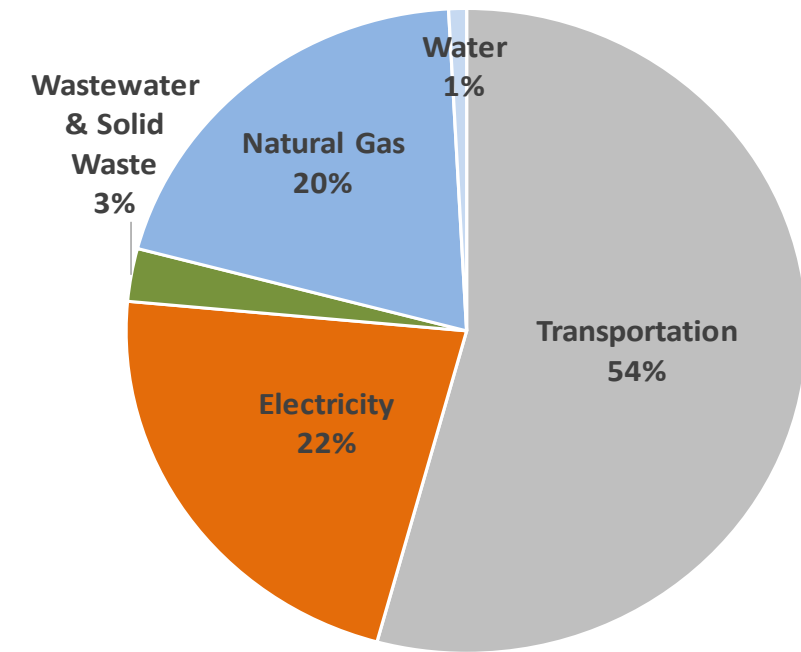
City of San Diego General Plan, adopted in 2008, calls for a City of Village Strategy to redevelop, infill, and target new growth into compact, mixed-use, and walkable villages that are connected to the regional transit system. It is comprised of 10 elements that provide a comprehensive slate of citywide policies.

Climate Action Plan - Transit Priority Areas (TPAs)

The City of San Diego's Climate Action Plan, adopted in December 2015, is a roadmap towards a sustainable future that serves all citizens. Sustainability means making better use of resources, such as water, energy and waste; designing neighborhoods to be more walkable, bikable and livable; and investing in the future by supporting clean-energy technology, innovation, and jobs. The CAP calls for eliminating half of all greenhouse gas emissions in the City and aims for all electricity used in the city to be from renewable sources by 2035. 54 percent of City's emission came from transportation in 2016 (Chart 2-4). The average Mira Mesa Household contribute to the release of 47.5 tons of CO₂e annually (Chart 2-5), which is higher than City wide average of 41.7 tons CO₂e. The tailpipe emissions from car fuel is the highest source of household emission.

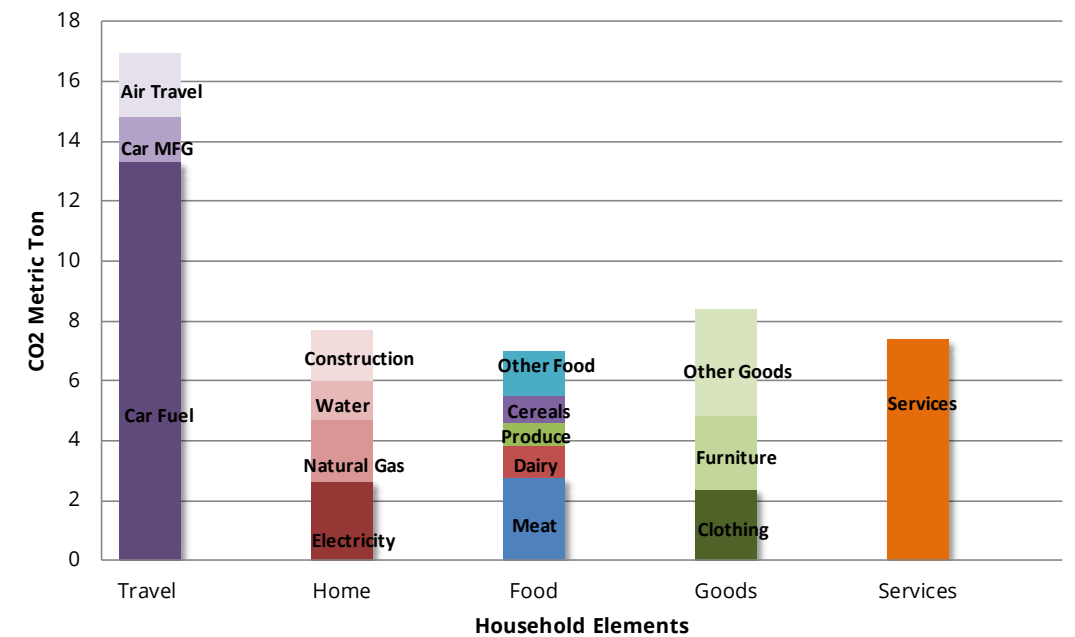
The CAP prioritizes the implementation of the General Plan's Mobility Element and the City Villages Strategy in TPAs to increase housing, jobs, and the use of transit. The TPAs means "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 of Title 23 of the Code of Federal Regulations."

Chart 2-4: City of San Diego GHG Emissions 2016



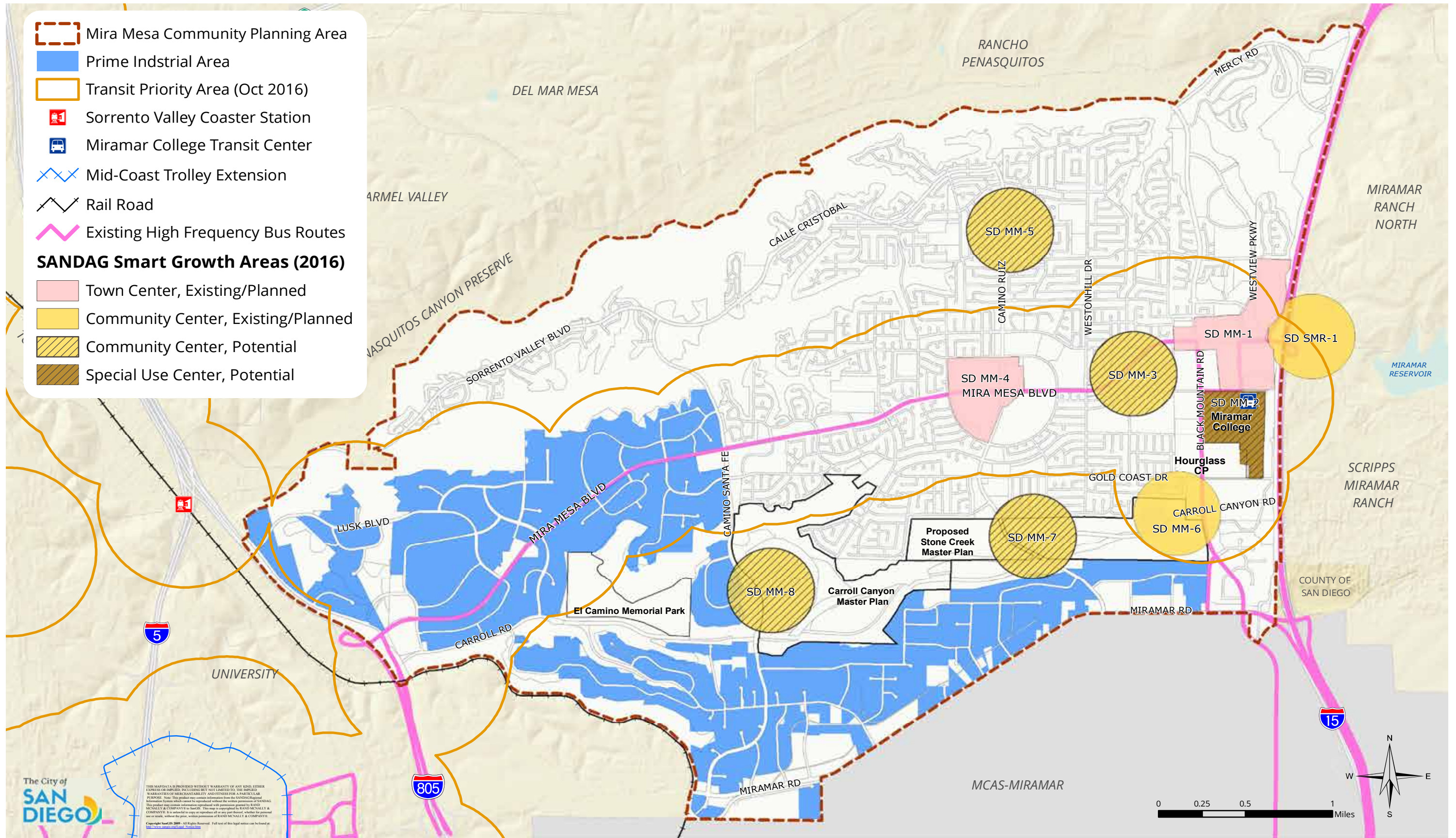
Source: City of San Diego, 2018

Chart 2-5: Mira Mesa Average Household Carbon Footprint



Source: UC Berkeley Cool Climate Calculator, 2018

Figure 2-7: Smart Growth and Transit Priority Areas



2.7 LAND USE SITING CONSTRAINTS

The major community constraints to residential development are the Airport Land Use Compatibility Overlay Zone (ALUCOZ) and Prime Industrial Land Use Designation, which limits residential development in western and southern Mira Mesa CPA. There are additional restrictions related to intensity of commercial uses within the ALUCOZ safety zones. Furthermore, approximately 2,300 acres in western Mira Mesa are located within the Local Coastal Program.

Airport Land Use Compatibility Plan

The 2008 Airport Land Use Compatibility Plan (ALUCP) for MCAS Miramar establishes land use compatibility policies and development criteria to protect airport operations and minimize the public's exposure to excessive noise and safety hazards (See Figure 2-9). Policies focus on limiting or avoiding new land uses that are sensitive to aircraft noise, minimizing concentrations of people in the event of an off-airport aircraft accident or emergency landing, ensuring that structures and other uses of the land do not cause hazards to aircraft in flight, and notifying people of aircraft overflights. The ALUCP does not allow residential use in noise contour 65+ CNEL and Accident Potential Zone 1, 2 and Clear Zone.

The General Plan Land Use and Community Planning Element address the policies and criteria contained in the ALUCPs. The Federal Aviation Administration (FAA) regulates additional safety factors to protect the approach, departure and circling airspace near airports. The Federal Aviation Regulations, Part 77, the ALUCPs, and the MCAS Miramar Master Plan provide technical descriptions of the safety factors.

Prime Industrial Lands (PIL)

The General Plan identifies prime industrial lands as areas that support export-oriented base sector activities such as manufacturing, research and development, assembly and distribution (see Section 3, Figure 3-1). The General Plan includes policy direction to protect these lands through:

- Maintaining or expanding industrial land use designations
- Preserving or applying strict industrial zoning
- Limiting public assembly and sensitive receptor uses
- Providing incentives for job growth, and
- Requiring a General Plan amendment to remove properties from the PIL map

While policies do not prescribe a specific buffer around these industrial lands, changes in land use that abut PIL must carefully consider the potential to reduce its utility.

Local Coastal Program (LCP)

California Coastal Act of 1976 established a coastal zone boundary within which certain planning and development requirements must be met. These requirements have been designed to protect and enhance California's coastal resources. The North City Local Coastal Program Land Use Plan (LCP) was adopted by the City Council in March 1981, revised in May 1985 and revised again in March 1987. The North City LCP provides development criteria for approximately 2,300 acres in western Mira Mesa that are within the watershed of Los Peñasquitos Lagoon (Figure 2-8).

Figure 2-8: Coastal Zone

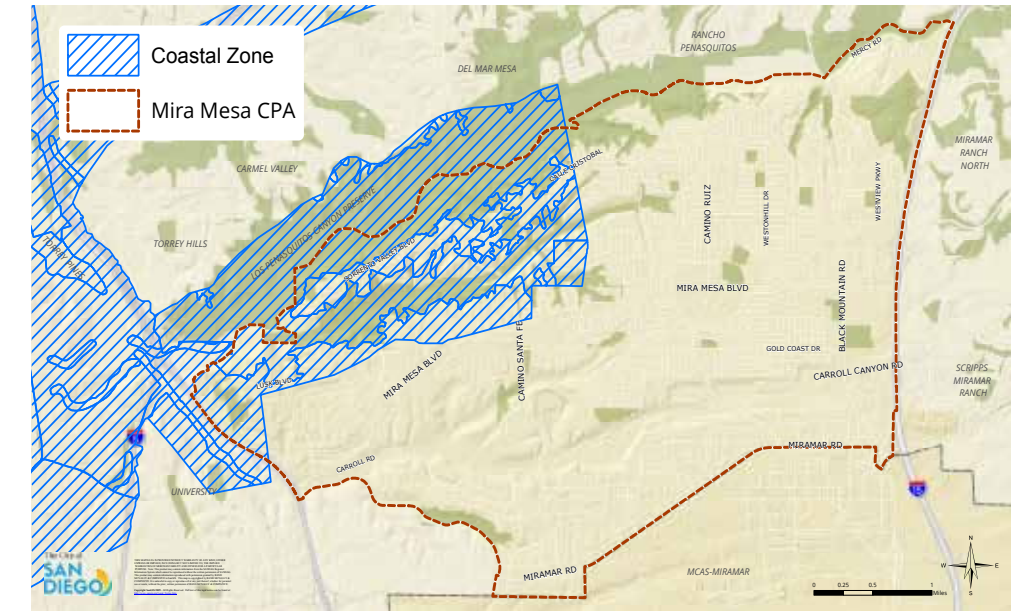
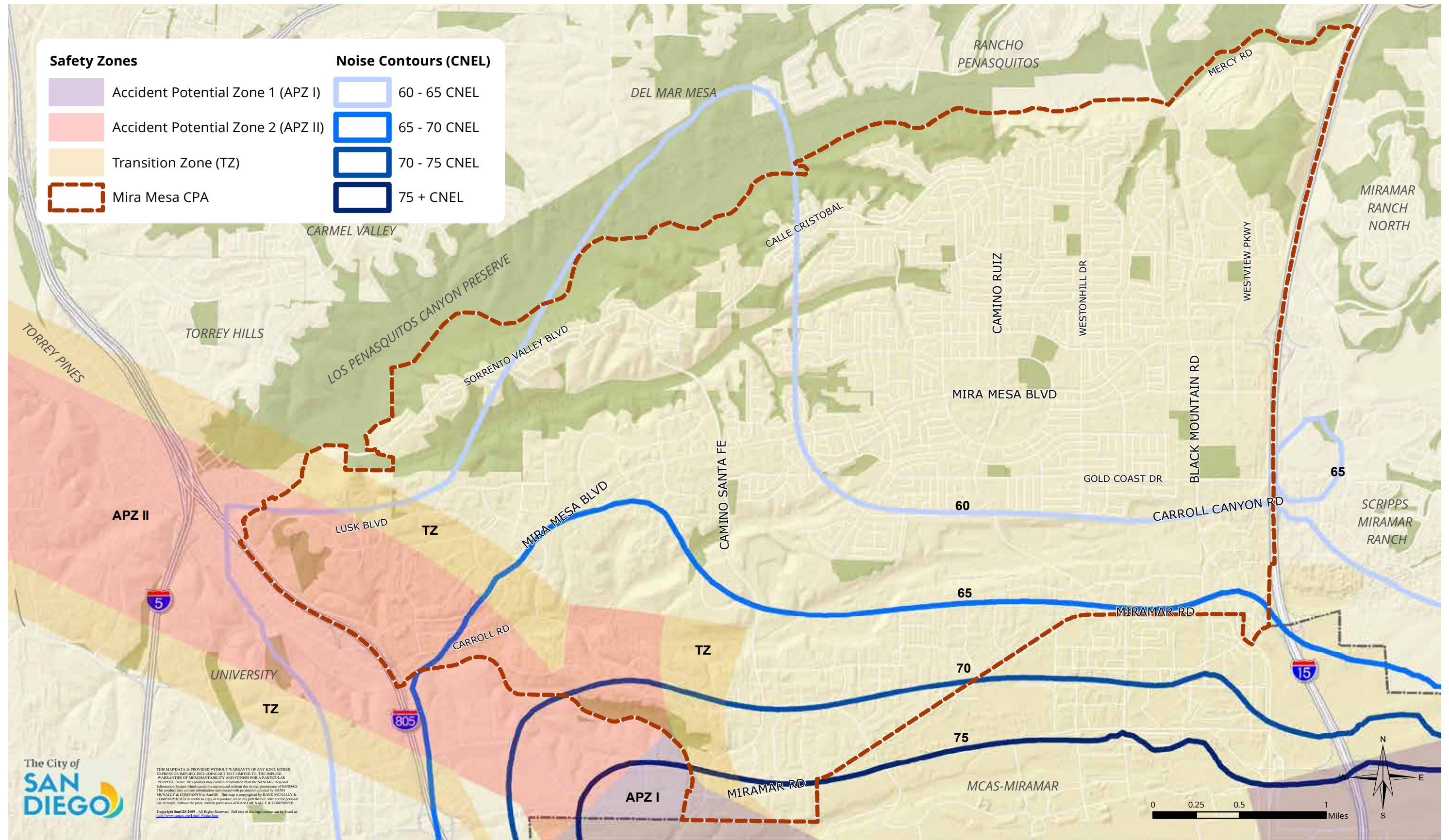


Figure 2-9: Airport Influence Areas



3. Economic Setting

3.1 EMPLOYMENT

According to the most current estimate by SANDAG, companies in Mira Mesa community plan area employed 75,275 people in 2012, approximately 10 percent of the City of San Diego’s civilian jobs. SANDAG’s employment projections indicate that Mira Mesa may see a compound annual growth rate (CAGR) of 0.3 percent between 2020 and 2035 across all sectors with the highest increase in the education and healthcare, government, and leisure and hospitality (see Table 3-1) based on regional trends and the currently adopted community plan. Biggest industry sector is Professional and Business Services, which includes various industries. Figure 3-1 illustrates the existing prime industrial lands in the Planning Area. The General Plan identifies Sorrento Mesa within the Mira Mesa Community Planning Area as a Subregional Employment Area and recommends the preservation of intact industrial areas with zoning that strictly limits encroachment of non-industrial uses. Areas no longer suitable for industrial use could transition to other uses.

Labor Force Commute

The most recent estimate by the Census Longitudinal Employer-Household Dynamic (LEHD) data shows a large increase in employment from 2012 to 2015 with 83,053 people employed in Mira Mesa. There may be a larger margin of error with the LEHD data compared to the SANDAG data. Approximately 91 percent of employees, lived outside the community. Overall, out of 34,737 workers living in Mira Mesa, about 21.14 percent (7,443) of workers lived and worked in Mira Mesa, while 78.6 percent (27,294) worked outside the community (Chart 3-1). About 10 percent (8,319) of workers commute from three ZIP Codes immediately north of planning area – 92130, 92129, and 92127 (Chart 3-2).

Chart 3-1: Mira Mesa Workers Inflow/Outflow Analysis



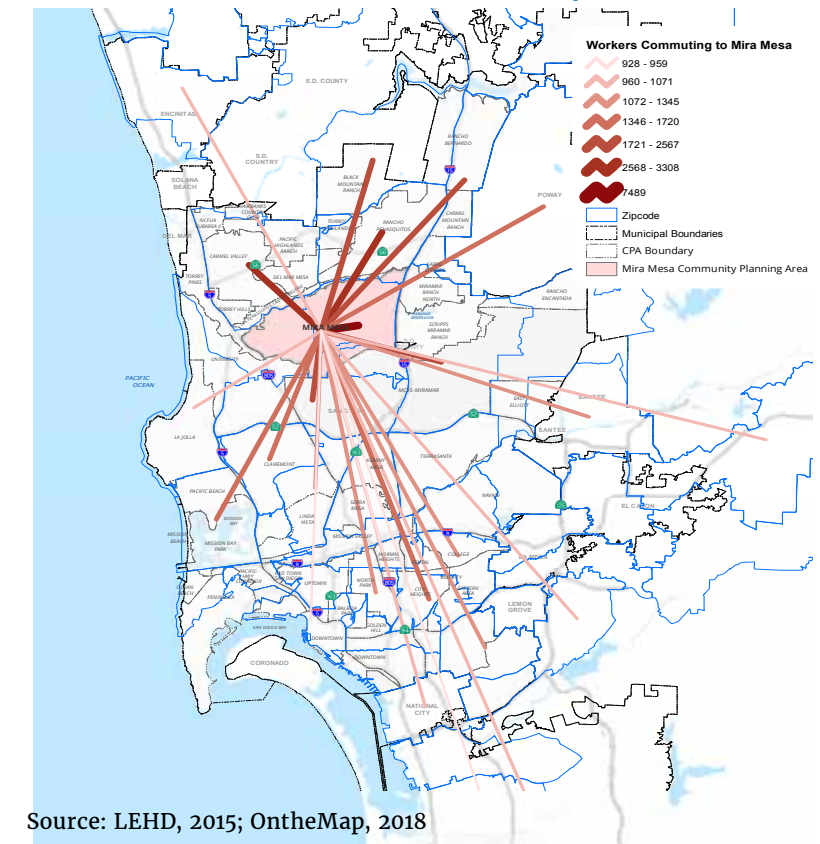
Source: LEHD, 2015; OntheMap, 2018

Table 3-1: Mira Mesa Employment History and Projections by Sector/Industry

Industry Sector	2012	2020	2035	CAGR
Agriculture and Mining	111	105	100	-0.3%
Construction	4,589	4,988	5,255	0.4%
Education and Healthcare	2,848	3,700	4,236	1.0%
Finance and Real Estate	3,141	3,951	4,185	0.4%
Government	2,567	3,319	3,821	1.0%
Information Systems	4,520	4,915	5,233	0.4%
Leisure and Hospitality	3,912	5,400	6,216	1.0%
Manufacturing	9,603	9,860	9,742	-0.1%
Office Services	1,707	2,055	2,255	0.6%
Professional and Business Services	27,287	29,040	29,305	0.1%
Retail Trade	5,143	5,652	5,928	0.3%
Self-Employed	2,956	3,257	3,524	0.5%
Transportation, Warehousing, and Utilities	2,023	2,379	2,631	0.7%
Wholesale Trade	4,868	5,261	5,513	0.3%
Total	75,275	83,882	87,944	

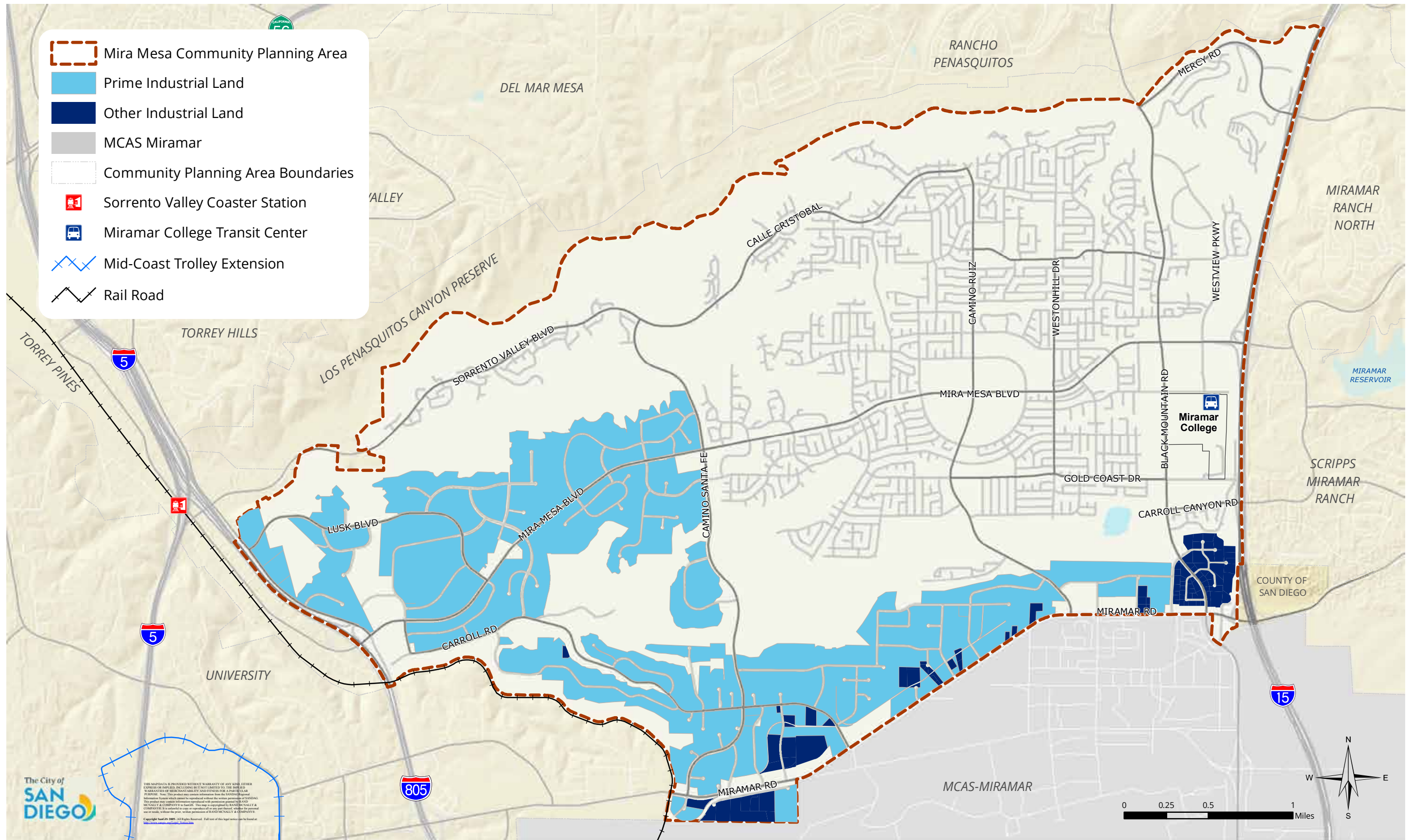
Source: SANDAG Regional Growth Forecast, March, 2018

Chart 3-2: Commuter Flow (Top 25 ZIP Code)



Source: LEHD, 2015; OntheMap, 2018

Figure 3-1: Prime Industrial Land



3.2 BUSINESS LANDSCAPE

Figure 3-2 illustrates the Mira Mesa employment density and the selected locations of major industry clusters. The highest concentration and intensity of jobs are in the Sorrento Mesa employment area.

Information and Communications Technologies (ICT)

The ICT industry cluster includes communications, computer and electronics, and software industries. This industry commonly uses mid-rise and high-rise structures. Qualcomm, a semiconductor and telecommunications equipment company, is a Fortune 500 company with a concentration of offices in Sorrento Mesa. The company began in San Diego in 1985 and employs more than 12,000 people, making it the 5th largest employer in the city of San Diego.

Life Science/Biotechnology

The life science subsector includes bio-renewables, biopharmaceutical manufacturing, medical devices & diagnostic equipment, wholesale, research & lab services. Most of the City's device and diagnostic production occurs in Mira Mesa. According to Biocom - Life Science Industry Trade Group - the life science industry in the City of San Diego continues to be a leader among other clusters around the world. The life science sector in the city provides 32,000 jobs and supports an additional 73,000 jobs. Mira Mesa contain a significant portion of the life science sector in the region. The average wage of \$113,128 in 2016 for life science job in the city is greater than the overall average wage of life science jobs in California.

Manufacturing

Mira Mesa is home to a vibrant manufacturing cluster that spans across many industries, including: defense, clean energy, aerospace, medical devices, electronics, sports and active lifestyle industries. Specific industries include composite materials, engines and engine components, avionics and guidance systems, microelectronics, metal plating and coating, and other parts and sub-assemblies. The vast majority of these businesses use 1-2 story buildings with "high-bay" first floors.

Craft Beer and Spirit

According to San Diego Regional Economic Development Corporation, San Diego is consistently recognized as the Craft Beer Capital of America, with brewing scene growing at rapid pace over the past two decades. Companies such as White Labs produce brewing yeast, while several brewers and spirit distillery call Mira Mesa home.



Ballast Point



Landmark at Miramar Metroplex

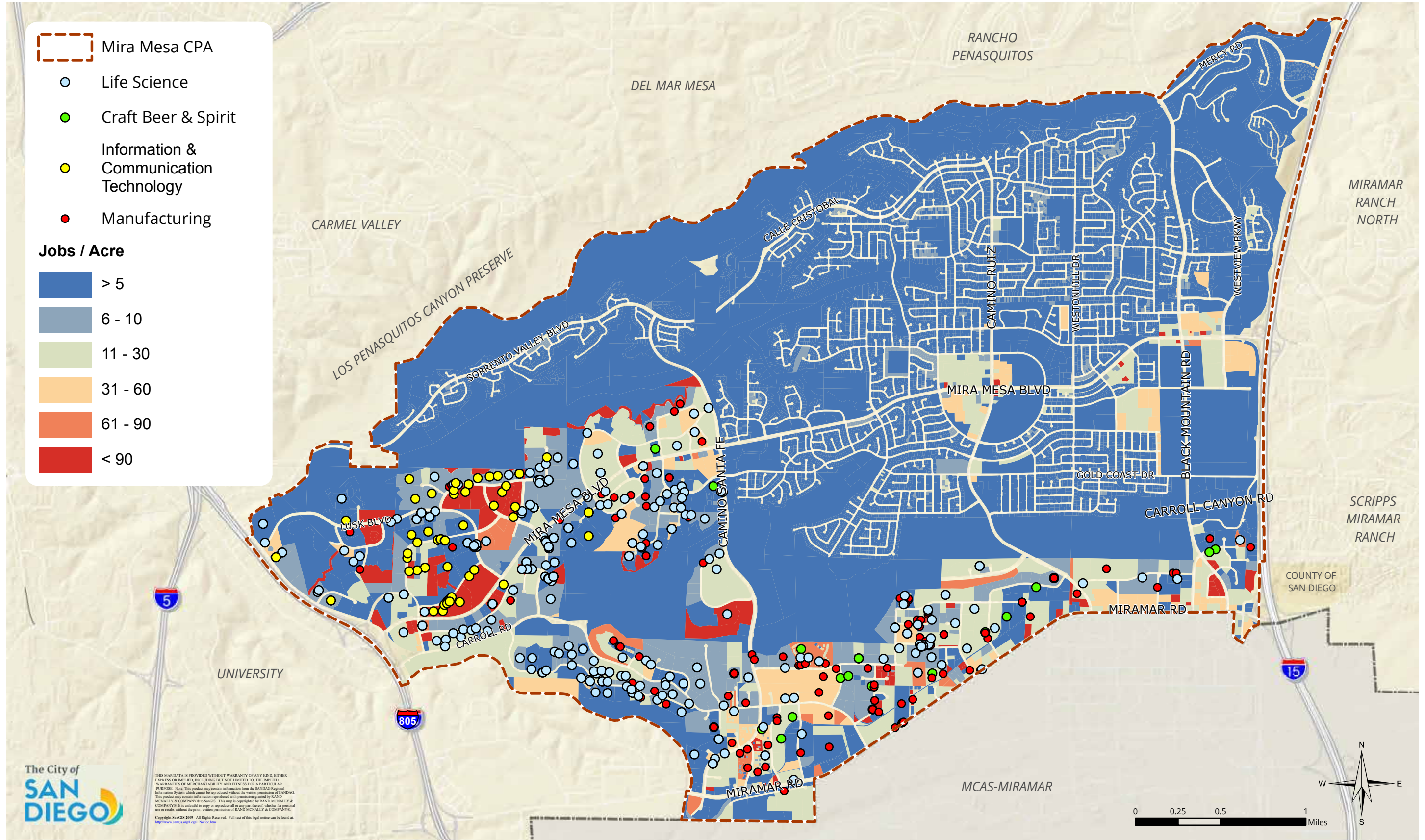


Office complex on Top Gun Street



Arris in Sorrento Mesa

Figure 3-2: Business Locations



3.3 ECONOMIC VALUE BY LAND USE

Assessed Value of Existing Land Use

Table 3-2 shows the assessed value of existing land use categories subject to property tax by land, improvement, and total assessed value. In most cases, county assessors determine the value of property within the county. For a subset of property—like natural gas pipelines—the state determines the value of the property.

In Mira Mesa, the total assessed value of taxable property is over \$14.4 billion. Residential land use category has the highest total assessed value of \$6.26 billion, followed by Office (\$3.36 billion) and Industrial (\$3.11 billion) land use category. The high-tech and life science offices in Sorrento Mesa and multi-family dwelling units are typically the most productive and fiscally responsible land uses in Mira Mesa today.

Revenue Per Acre

The Figure 3-3 shows the estimated property taxes paid per acre of assessed value for homes and nonresidential use in Mira Mesa in 2018. Property taxes are based on the assessed value, which typically grows more slowly than market value. Because of this, significant differences arise among property owners solely because they purchased their properties at different times.

Property tax revenue is the City’s large revenue source, representing 39 percent of total General Fund revenue. According to the County of San Diego Assessor’s Office, for every \$100 collected in Fiscal Year 2018, the allocation to the cities in San Diego County total \$18.00 (Chart 3-3). Estimate of 18% is used to derive the revenue generation per acre in Figure 3-3.

At 1 percent property tax rate, properties in Mira Mesa Planning Area generate \$144.9 million a year for collection by County of San Diego, while about \$26 million is distributed to the City of San Diego.

Table 3-2: Assessed Value (AV) of Existing Land Use

Existing Land Use Categories	Land	Improvement	Total
Residential	\$3,021,168,304	\$3,240,509,204	\$6,261,677,508
Commercial	\$568,901,394	\$704,961,684	\$1,273,863,078
Office	\$846,557,842	\$2,522,045,199	\$3,368,603,041
Industrial	\$1,480,114,443	\$1,632,962,810	\$3,113,077,253
Public and Community Facilities	\$41,042,989	\$123,196,810	\$164,239,814
Open Space	\$7,018,646	\$205,593	\$7,224,239
Cemetery	\$2,175,639	\$11,275,509	\$270,256,468
Parking Lot	\$117,046,406	\$153,210,062	\$270,256,468
Vacant/Undeveloped	\$14,374,908	-	\$14,374,908
Transportation, Communication, Utilities	\$4,427,030	-	\$4,427,030
Total	\$6,102,827,601	\$8,388,366,886	\$14,491,194,487

Source: City of San Diego, 2018; County of San Diego, 2018

Chart 3-3: Fiscal Year 2018 Countywide Property Tax Distribution

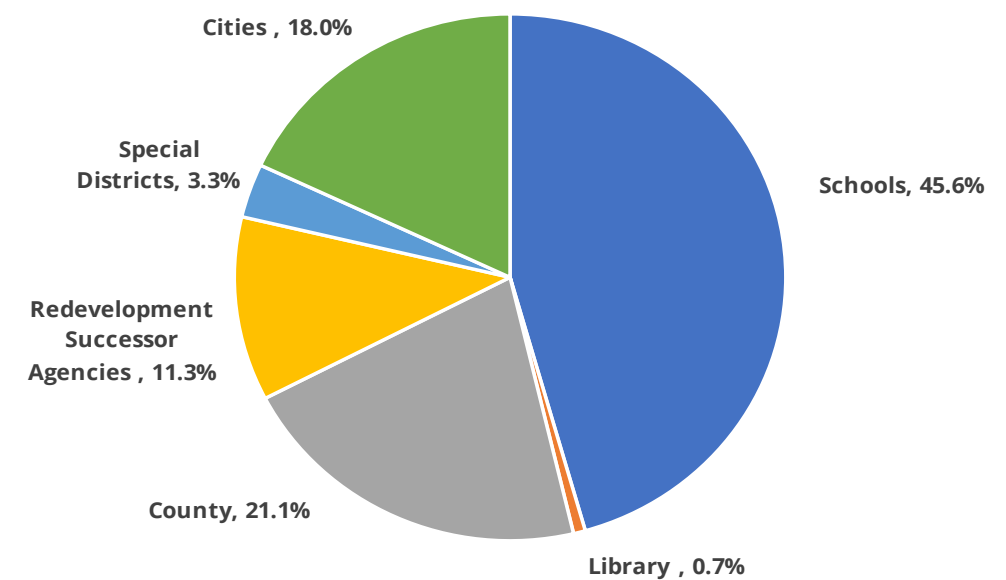
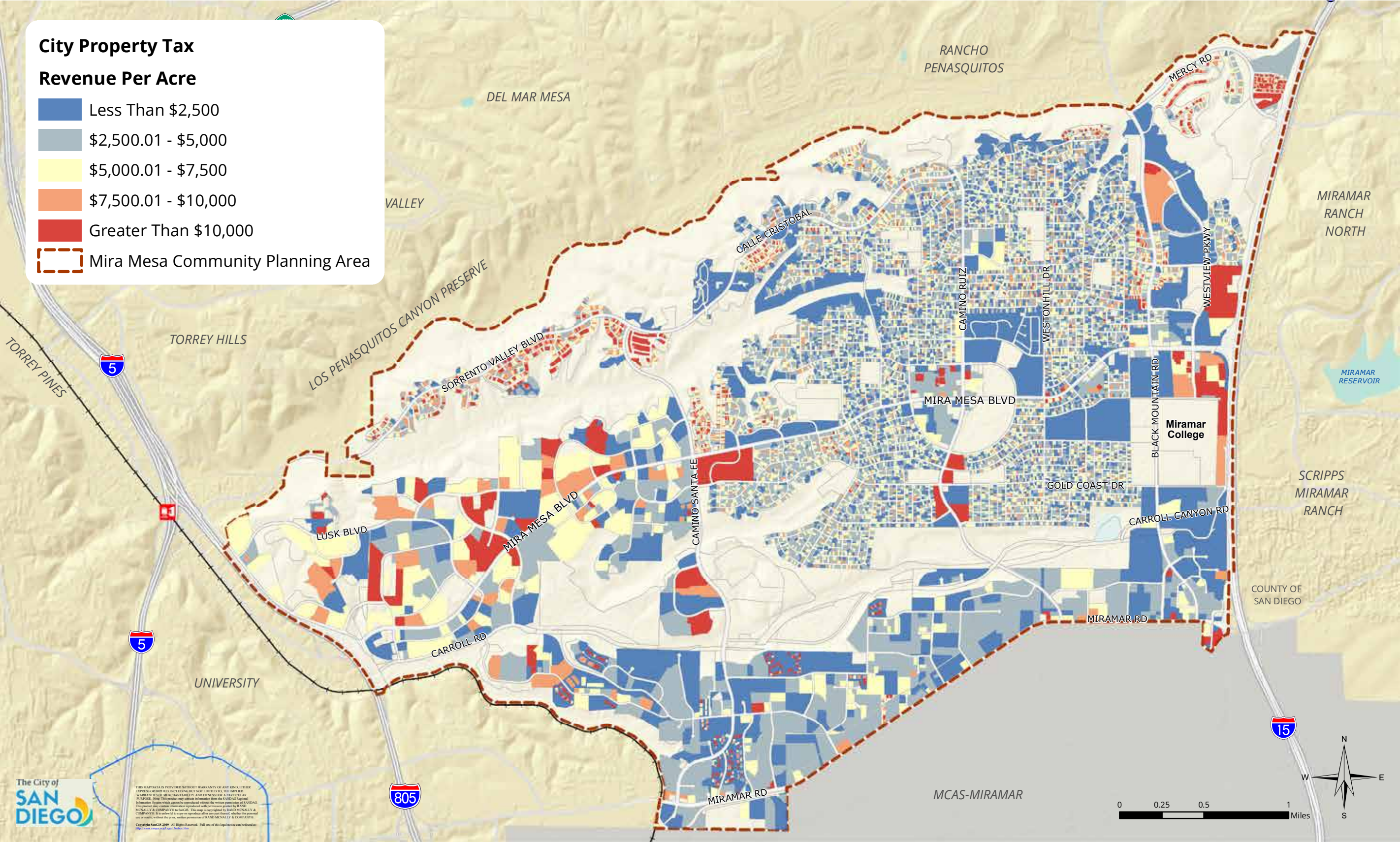


Figure 3-3: Property Tax Revenue Per Acre



3.4 PARCEL ECONOMIC ANALYSIS

The following method was used to analyze parcels with low assessed value ratio, low FAR, and vacant site sites, as shown on Figure 3-4.

Vacant Sites - sites that contain no development.

Assessed Building Value/Land Value Ratio - the assessed building value was compared to the land value for each site. This assessed value ratio (building value/ land value) indicates whether the site is being used up to its potential. Building values that are less than their land values indicate that there is potential for redevelopment. Building values that exceed land values indicate that redevelopment is likely unnecessary and inappropriate. Sites where the assessed value ratio was less than or equal to 1.5 were identified as having potential for redevelopment or expansion.

Building Intensity - sites with low intensity uses, which may indicate a potential for intensification in the future, were identified. This may mean that buildings are small compared to the overall site (e.g., low in height, small in size, or contain large surface parking lots or unused land). The ratio of building floor area to overall site area—the FAR value, as defined in Chapter 2—provides a metric. Sites with FAR values of 0.70 or less were identified as having potential for redevelopment or expansion.

Finally, sites where new development has been approved, is currently under review, or under construction were removed as opportunity sites. Many sites, regardless of their relatively low FAR value or assessed value ratio, may not see development in the coming years. The planning process helps identify locations where property owners are more likely to opt to develop, reinvest in, and intensify their land. Potential sites have been classified into four tiers.

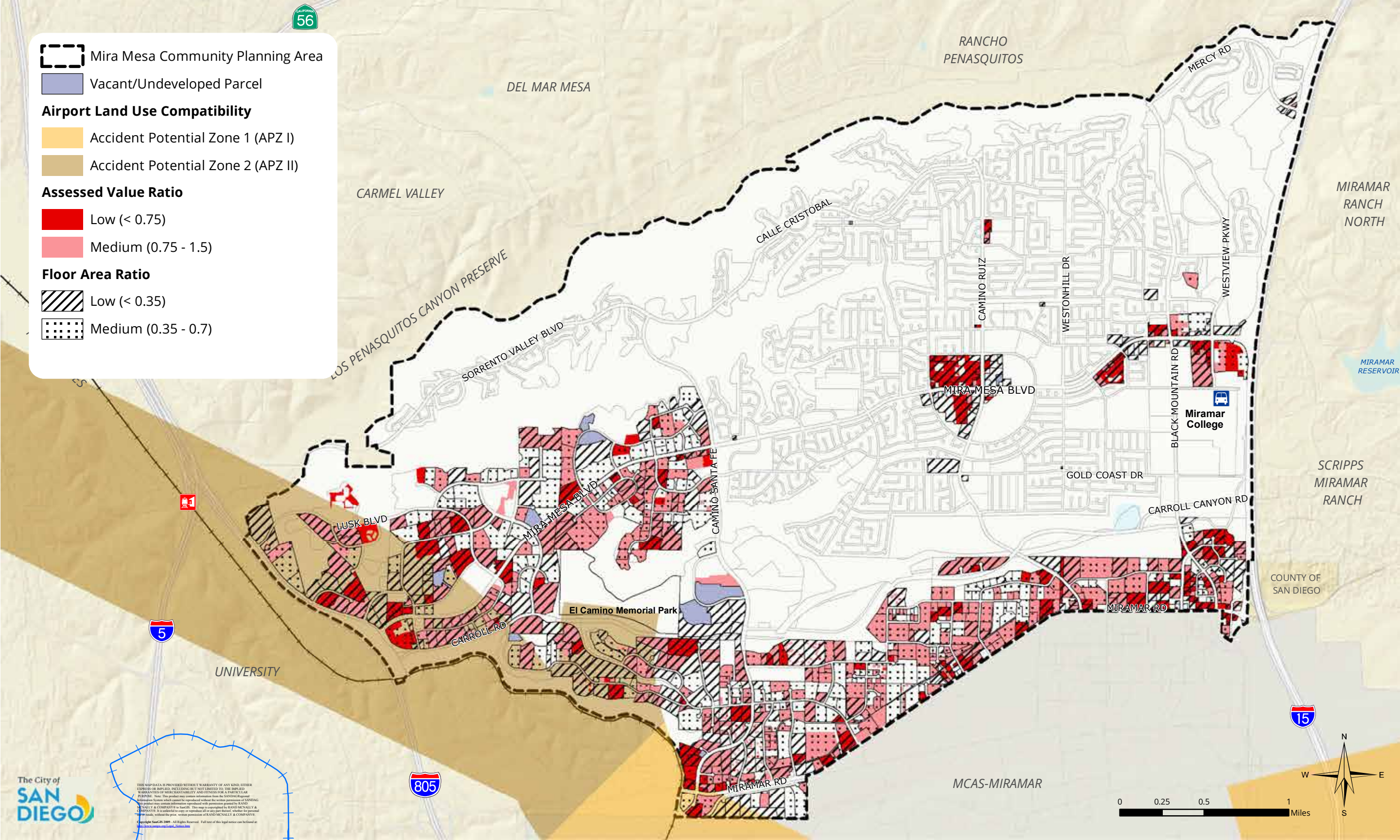
- **Tier 1.** This is the tier that is most conducive to potential future development. Vacant land and sites that have both a low FAR value (less than 0.35) and a low assessed value (AV) ratio (less than 0.75). 318.65 acres
- **Tier 2.** Sites that have both a low FAR value (less than 0.35) and medium AV ratio (0.75 to 1.50). 545.63 acres.
- **Tier 3.** Sites that have both a medium FAR value (0.35 to 0.70) and a medium AV ratio (0.75 to 1.50) or sites that have either a low FAR value (less than 0.35) or a low AV ratio (less than 0.75). 1,071,21 acres.
- **Tier 4.** This is the tier in which, of all the opportunity sites, development is least likely to occur. Sites that have either a medium FAR value (0.35 to 0.70) or a medium AV ratio (0.75 to 1.50). 794.45 acres.

In total, this analysis identifies 1,935 non-residential acres (Tier 1 to Tier 3), or 32 percent of total buildable land acreage in Mira Mesa with the potential for full or partial development or redevelopment.



New office development on Camino Santa Fe

Figure 3-4: Vacant Land, Assessed Value Ratio, and Low FAR Analysis



4. Community Form

4.1 LANDFORM AND NATURAL FEATURES

Landform and natural features contribute to Mira Mesa's sense of place. As shown in figure 4-1, Mira Mesa is characterized by steep slopes on the west overlooking Sorrento Valley, trending eastward to a gradually rising series of flat mesas. Several steep-sided canyons border and cup through the area.

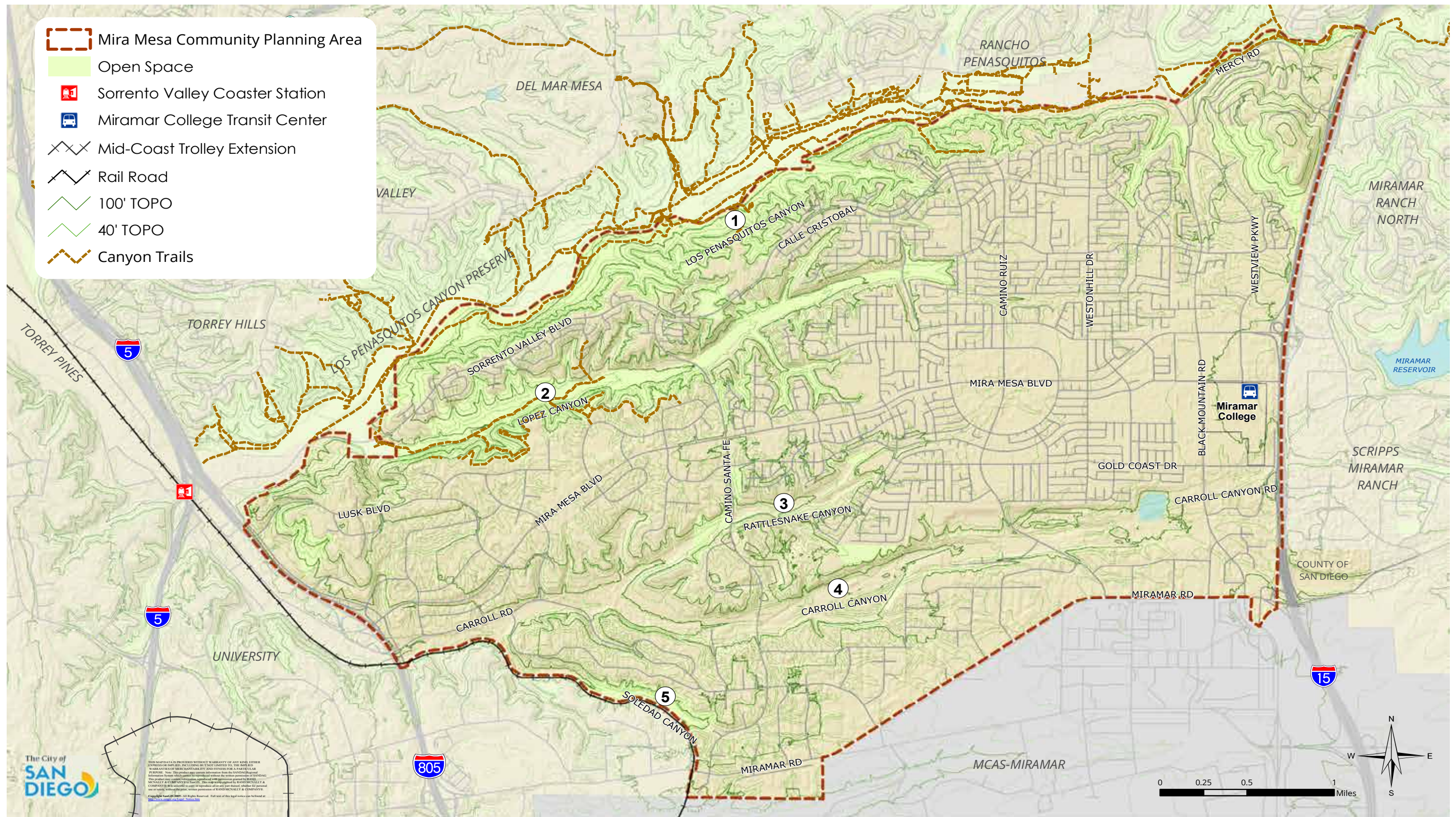
Mira Mesa is defined by five major canyons:

1. Los Peñasquitos Canyon;
2. Lopez Canyon;
3. Rattlesnake Canyon;
4. Carroll Canyon; and
5. Soledad Canyon

Los Peñasquitos, Lopez and Carroll Canyons are over 1,000 feet wide from rim to rim. In addition to the major canyons, many tributary cuts and washes extend in a general north-south direction creating small, separate mesas with very limited access. Land elevation above sea level range from 50 feet at a point in the westerly portion of Los Peñasquitos Canyon to 850 feet at Canyon Hills Park in the northeast portion of the planning area. Elevations of the mesas range from 350 feet to 500 feet from west to east.



Figure 4-1: Topography and Natural Features



4.2 STREET NETWORK

Streets and Highways

Highways

Three freeways border Mira Mesa and shape its community form, as shown in Figure 4-2. They are, from West to East, as follows:

- I-5;
- I-805; and
- I-15.

Primary Street Network

Mira Mesa's primary street network is depicted in Figure 4-2. Four primary streets cross Mira Mesa in the north-south direction: Vista Sorrento Pkwy, Camino Santa Fe, Camino Ruiz, and Black Mountain Road.

Vista Sorrento Pkwy and Black Mountain Road continue north to the adjacent communities. Mira Mesa Blvd and Miramar Road are the two primary streets that traverse Mira Mesa in the east-west direction. Sorrento Valley Blvd and Calle Cristobal provides access to residential developments in the north and partially traverses along the east-west direction in the Planning Area.

These are the only two streets that connect the east and west portions of Mira Mesa, which are physically separated by I-805 and I-15. Kearny Villa Road continue as a southern connection along MCAS Miramar to Kearny Mesa.

Secondary Street Network

Mira Mesa's secondary street network, depicted in Figure 4-2, provides access to and between employment and residential areas in the Planning Area.

The local street network includes many cul-de-sacs and loops, which do not allow a fluidity of movement across Mira Mesa's neighborhoods. This street pattern also exerts pressure on the major and primary street network. A connective system of secondary streets does exist in portions of the community.

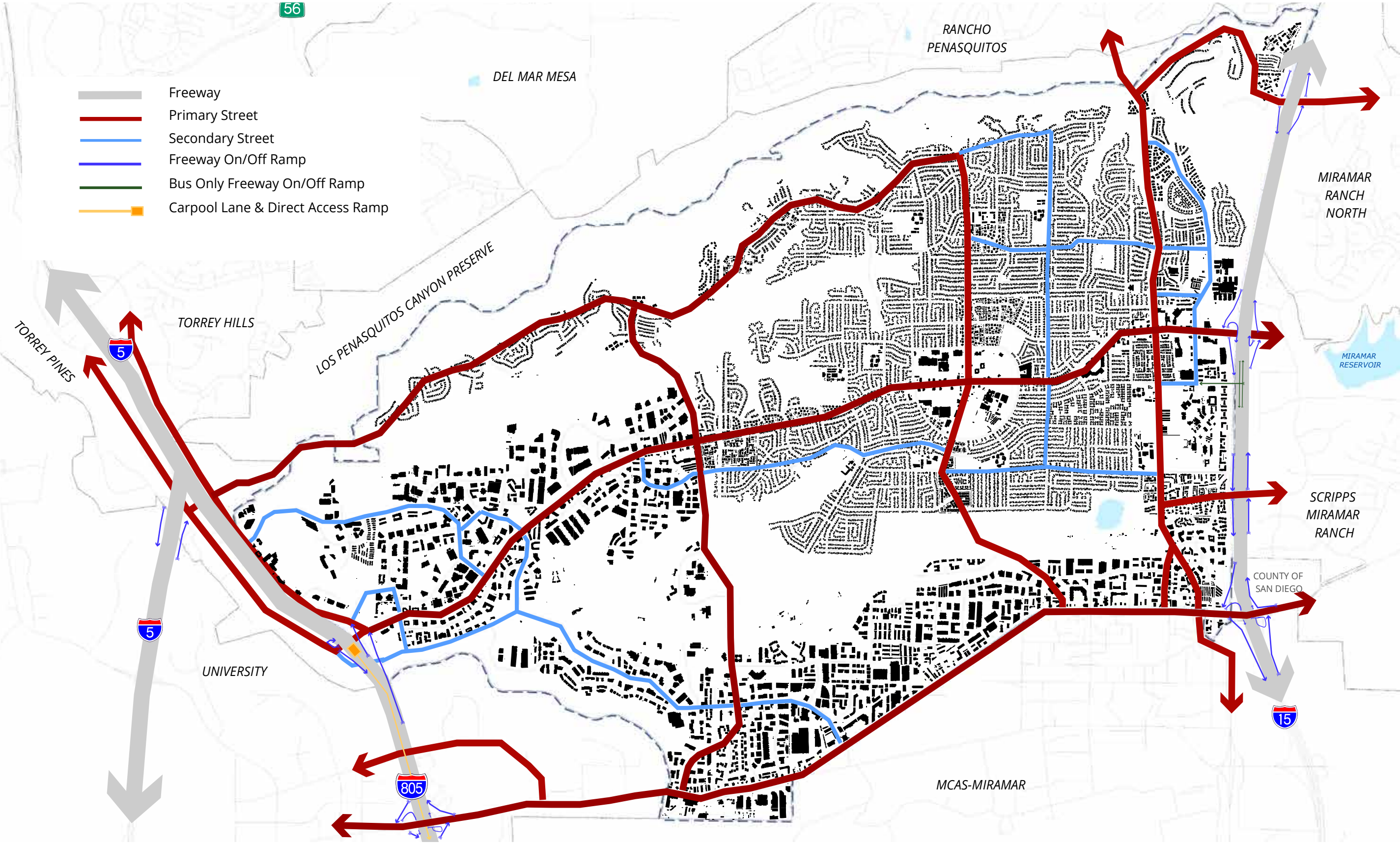


Interstate 15 - Looking North



Mira Mesa Blvd

Figure 4-2: Streets and Highways



4.3 STREET, BLOCK, AND BUILDING FOOTPRINT

In general, Mira Mesa’s blocks are large in size and intended to be traversed by automobile. Four types of blocks are found in Mira Mesa, described below (Figure 4-3).

- “Super” blocks are situated along Black Mountain Road and Miramar Road. These blocks are primarily associated with large scale-auto-oriented uses and offer limited interconnectivity to surrounding blocks. They typically have one means of entrance and egress, as well as limited internal connectivity.
- “Mono-oriented” blocks are generally located in employment areas in Sorrento Mesa and Miramar Road. These blocks are accessible from only one frontage. A row of long and narrow lots is typically located within these blocks.
- “Mixed” blocks are generally located along Mira Mesa Boulevard. These blocks host a variety of uses. Notably, these blocks are partially divided by dead end streets. They do not provide an efficient secondary street network.
- “Urban” blocks are few in number and generally located near core shopping areas along Mira Mesa Boulevard. These blocks are more compact than the blocks described above and provide a more gridded circulation network. These blocks are more permeable and navigable by individuals utilizing a variety of transportation modes (e.g., pedestrians, bicycle, transit, automobile). In many cases, internal circulation is only for pedestrians and bikes; the network of actual streets remains limited.

Figure 4-4 illustrate the relationship between street, block and building footprint within Mira Mesa. The intersection density by census block group highlight the levels of accessibility and connectivity. In general, intersection density can correspond closely to block size. Smaller blocks make a neighborhood more walkable. Research by Ewing and Cervero (2010) finds, of all the built environment characteristics, intersection density is one of the most important factor for walking, increasing transit use and reducing vehicles miles driven.

Figure 4-3: Block Pattern Detail

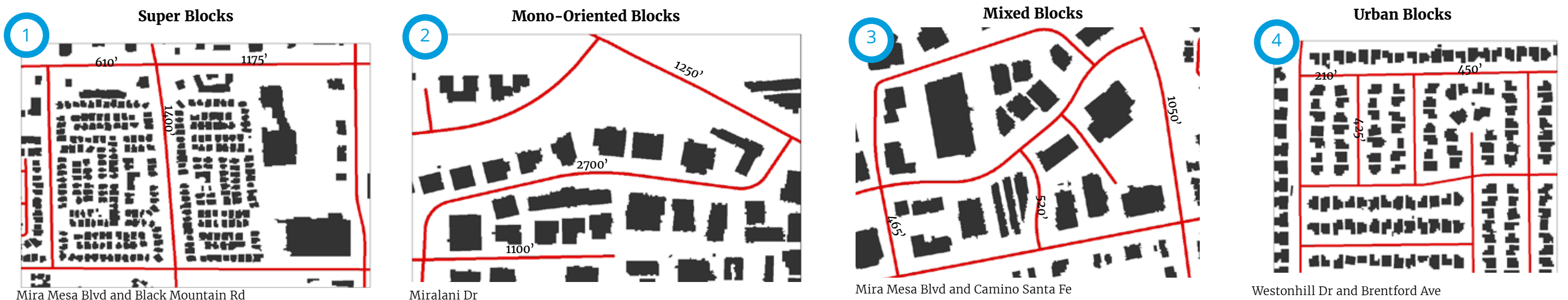
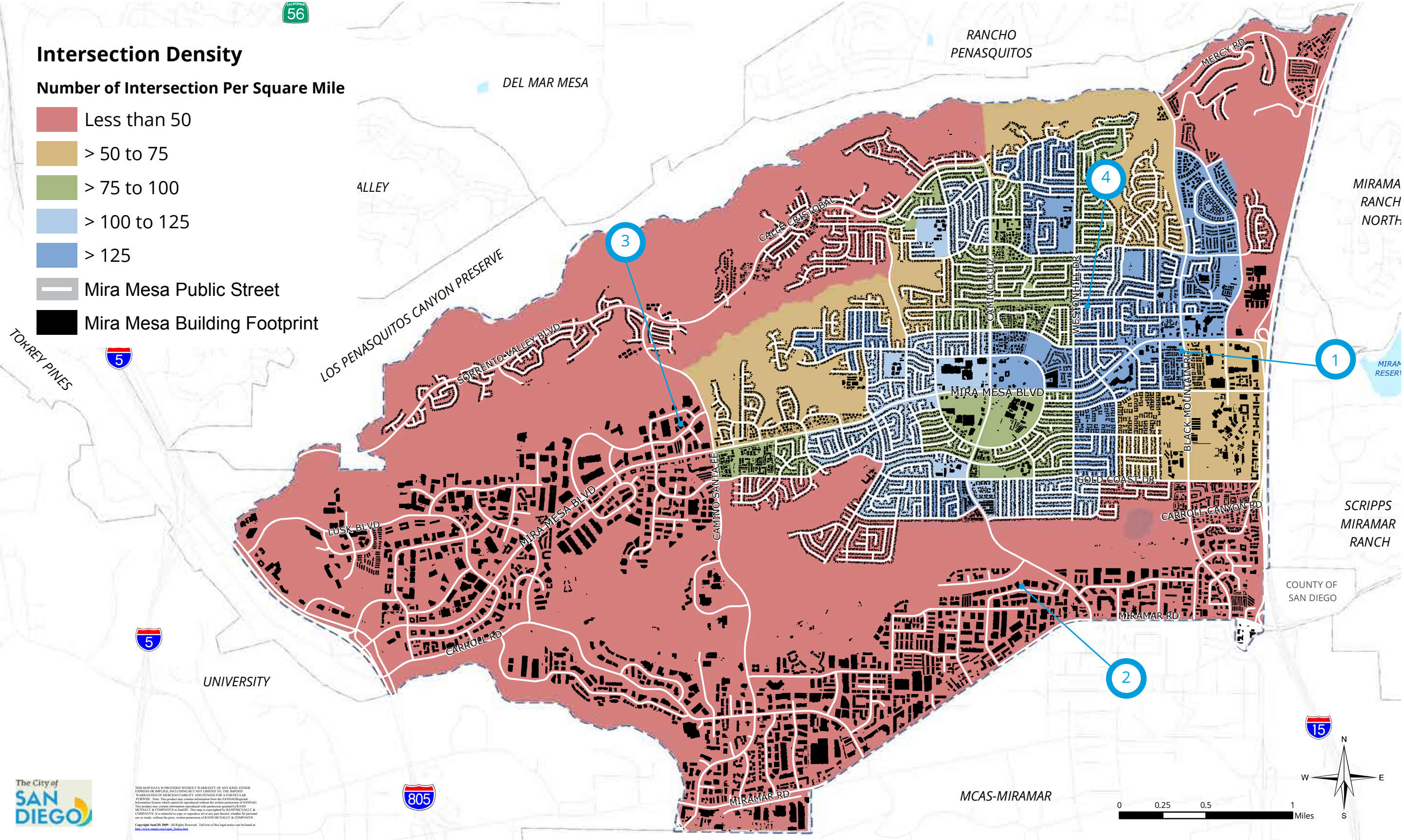


Figure 4-4: Streets, Blocks, and Buildings



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4.4 BUILDINGS

Residential

Residential buildings in Mira Mesa are diverse in their design and layout. While nearly all residential buildings in Mira Mesa are single family, the community still offers a range of building types, including townhomes, stacked flats, garden apartments, and wrap apartments.

- **Townhomes** typically provide parking in the rear. Parking may be accessed from an alley, and/or arranged in a motor court. They are typically two stories high and dwelling units share demising walls.
- **Stacked Flats** often take the form of townhomes, but with single-story dwelling units that are stacked.
- **Garden Apartments** are two or three-story walk-up buildings with a combination of surface and tuck-under garage parking. Dwelling units are stacked with shared stairs, elevators and walkways.
- **Wrap Apartments** are four to five-story building with residential units and/or retail wrapping around an above-grade parking structure.

As shown in Chart 4-1 and Figure 4-5, 67 percent of residential units in the community were built between 1970 to 1989. Most residential buildings in Mira Mesa are constructed of wood and range in height from one to five stories. Apartment and condo complexes typically provide common open space and amenities, such as a pool, gymnasium, community lounge and playground.

Mixed Use

Mira Mesa has a very few examples of mixed-use developments. Developments are mixed both vertically (as in the Casa Mira View) or horizontally (as in proposed conceptual rendering of 3 Roots). Many housing developments in Mira Mesa are adjacent to strip commercial providing close proximity to retail services.



Townhomes



Stacked Flats



Garden Apartments

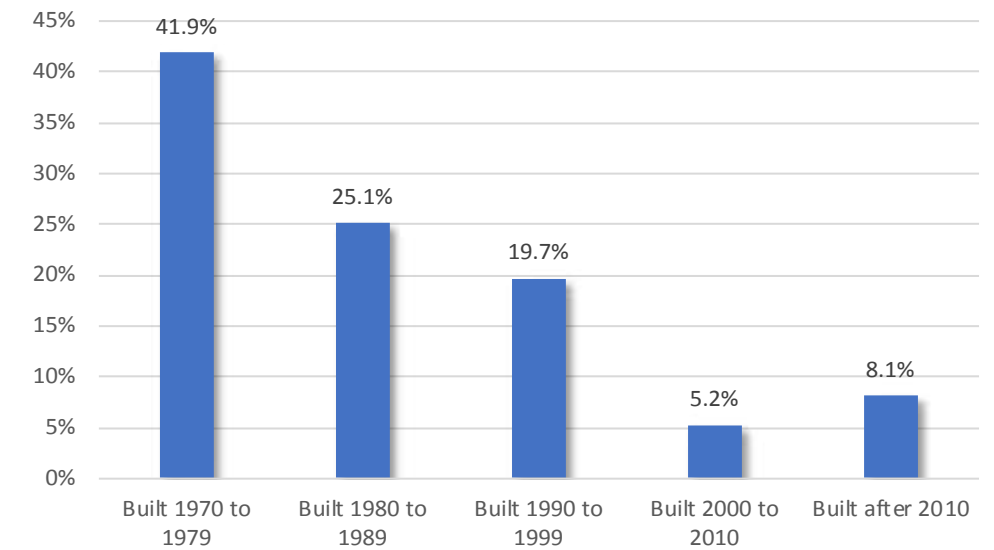


Wrap Apartment/Mixed-Use (Casa Mira View)



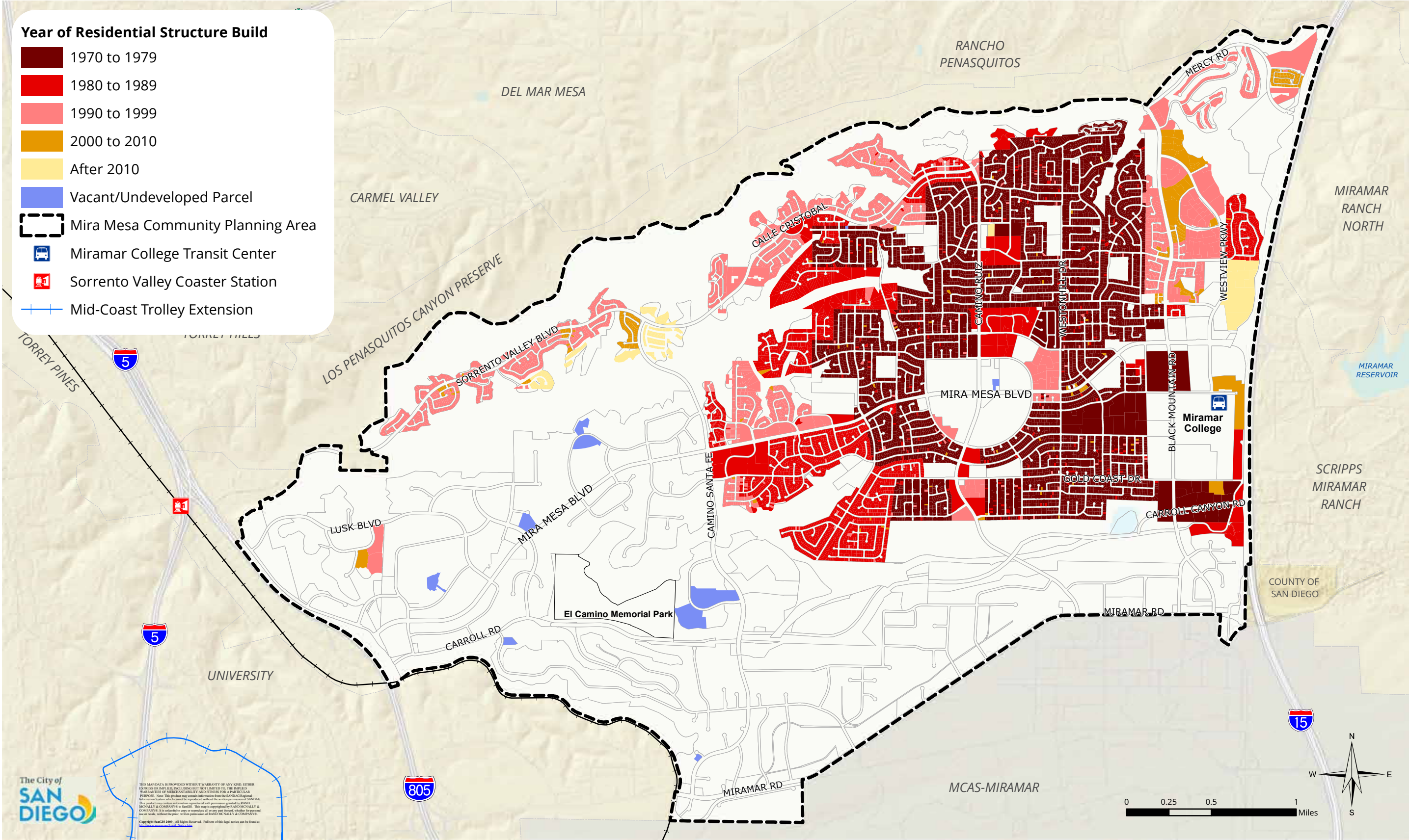
Proposed Horizontal Mixed-Use (3 Roots)

Chart 4-1: Residential Building Age



Source: City of San Diego, 2018; County of San Diego, 2018

Figure 4-5: Residential Building Age



Non-residential

Chart 4-2 and Figure 4-6 shows, 65.7 percent of non-residential buildings in Mira Mesa were built between 1970 to 1989.

Office

Mira Mesa is a major employment center for the region, with low, mid, and high rise office buildings distributed throughout the community. Concentration of major office buildings are in Sorrento Mesa area.

Industrial/Warehouse

Industrial buildings and warehouses are a major land use in Mira Mesa. The building type is characterized by tilt-up concrete and metal frame buildings with long, expansive bays and flat roofs. They are often surrounded by access drives and alleys and exist predominantly along Miramar Road and Black Mountain Road.

Hotel/Motel

Hotels in Mira Mesa are predominantly focused adjacent to the I-15 at Miramar road and near I-805 in Sorrento Mesa, with good visibility from the highway. They range in scale from two-story motels to mid-rise and high-rise buildings. Majority of hotels target business, military, and visitor crowd.

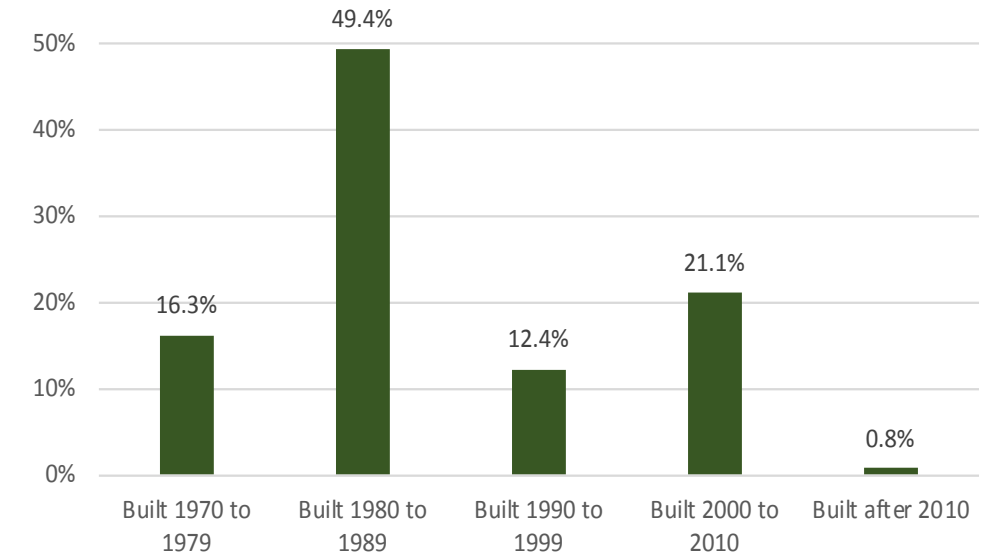
Commercial Retail

Retail use in Mira Mesa is represented by three predominant building types. Strip commercial centers are characterized by “big box” buildings set back behind surface parking lots and with in-line shops. Shopping malls are characterized by anchor stores (such as large department stores) and internal circulation. A third type is smaller-scale retail in a mixed-use format.

Auto-Oriented Service

Mira Mesa is home to several auto-oriented and service businesses, and these are typically represented by a unique building type that is designed for that use. Most often, buildings in this category are focused along the I-8 corridor with good visibility from the highway. Signage is a key component of the building as well as colors and forms designed to attract the attention of fast-moving traffic.

Chart 4-2: Non-residential Building Age



Source: City of San Diego, 2018; County of San Diego, 2018



Low-Rise Industrial



Mid-Rise Hotel



Business Park



Qualcomm High-Rise Tower



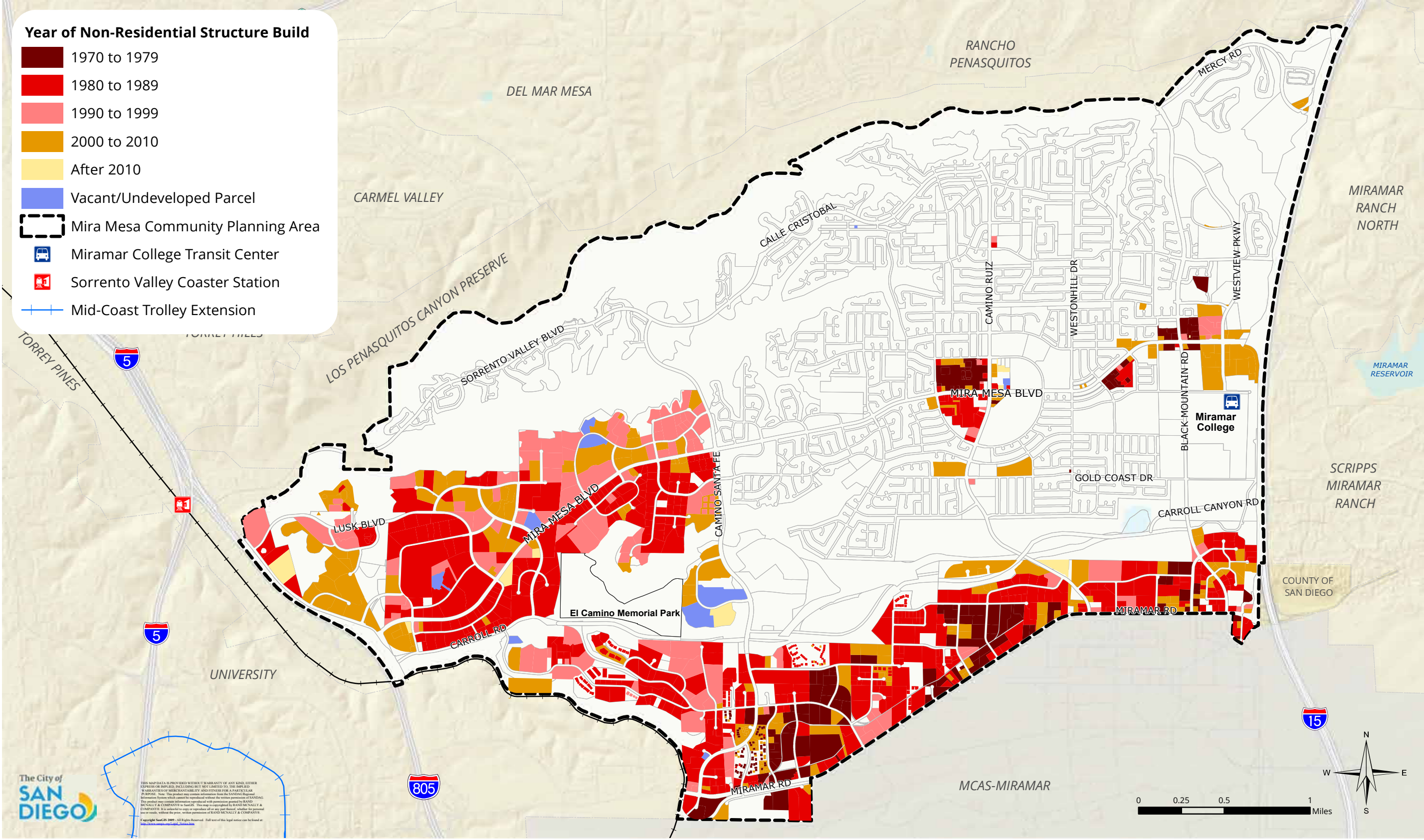
Mira Mesa Shopping Mall



Strip Center

Source: Google Streetview

Figure 4-6: Non-residential Building Age



4.5 PLACE TYPE

There are distinct districts within Mira Mesa. These are defined by their use characteristics—single-family residential, multi-family residential, retail/commercial, office, light industrial, and community college areas—as well as by their location in Mira Mesa (Figure 4-7). In general, residential areas are located on top of flat mesa tops, while offices are situated in the areas of the Planning Area with steeper slopes. Retail/Commercial are generally located along Mira Mesa Boulevard and Miramar Road.



Canyon Ridge Single-Family Area



Multi-Family Area near Mira Mesa Community Park



Miramar College Area



Sorrento Mesa Office/R&D Area



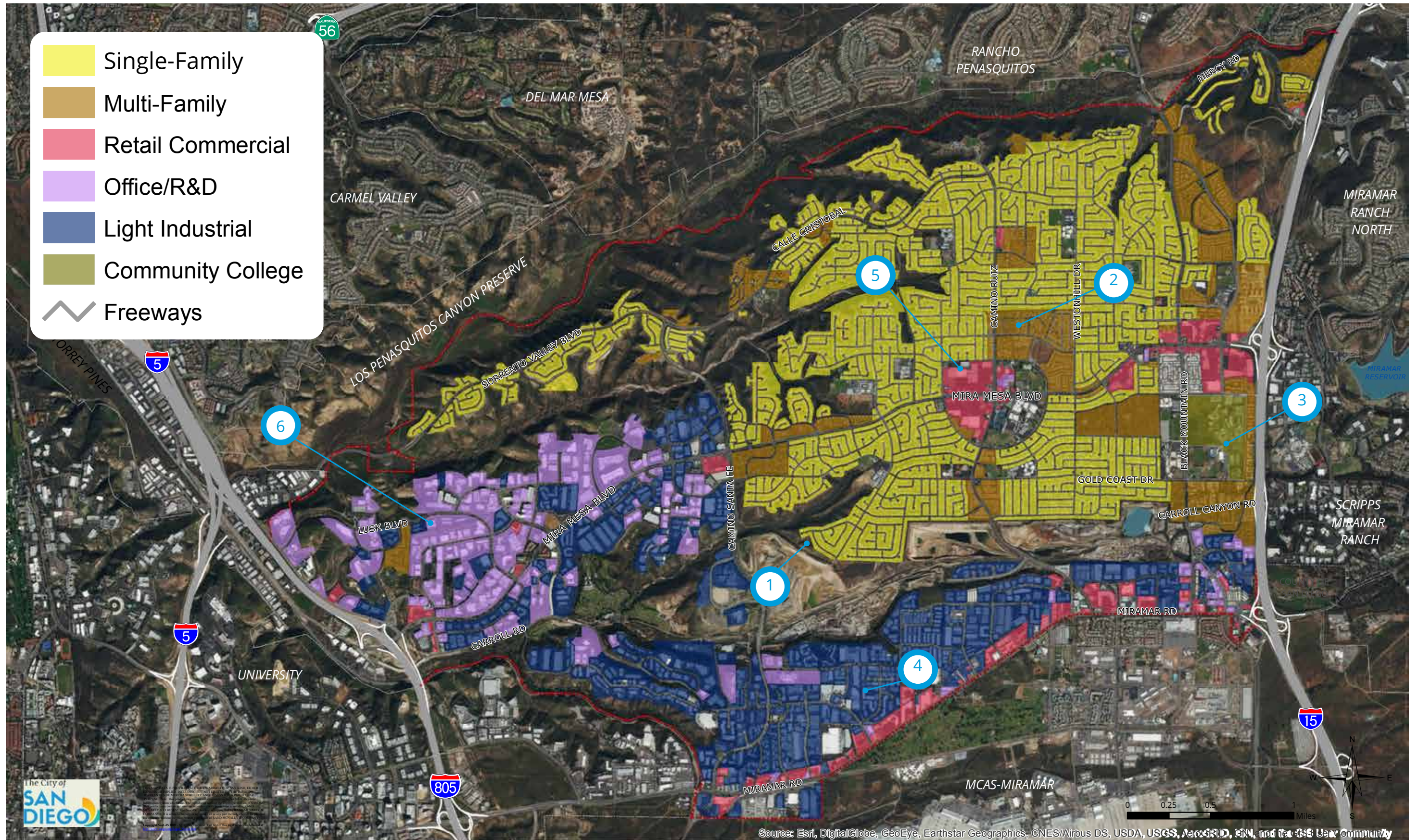
Mira Mesa Shopping Mall



Miramar Industrial Area

Source: Google Earth Pro

Figure 4-7: Suburban Place Type



5. Mobility

5.1 STREET AND FREEWAY

Streets and freeways comprise the framework of our transportation system and play a major role in shaping the form of and quality of life within the community. When the street system is plagued by congestion and collisions it can have a major impact on the community. The roadways classification and average weekday traffic volume (2015) are shown in Figure 5-1. Mira Mesa Blvd west of I-15 has the highest weekday average traffic volume in Mira Mesa with over 84,000 vehicles passing thru near the freeway ramps, while western entrance I-15 to Miramar Road accommodates 60,000 vehicles and entrance to Sorrento Mesa at Mira Mesa Blvd east of I-805 handles 59,600 vehicles. The future Carroll Canyon Road segments will be completed in concurrence with the proposed developments in Carroll Canyon area (shown in Figure 5-4).

Freeways

The three freeways that serve Mira Mesa are I-5, I-805, and I-15. These freeways are utilized by residents and employees of Mira Mesa as well as significant pass-through regional trips.

Arterials/Collector

Although Mira Mesa is readily accessible by freeway, travel to specific points within the community by means of the surface street system can be difficult during the peak hours. In the morning and evening peak hours, congestion occurs on the freeways as workers living in other communities travel to jobs in Mira Mesa. In the evening, the surface street system backs up due to Mira Mesa commuters accessing the freeways, plus motorists coming into the Planning Area to frequent the restaurants, bars, shops and theaters after work.



Freeway Ramp Sign to I-15

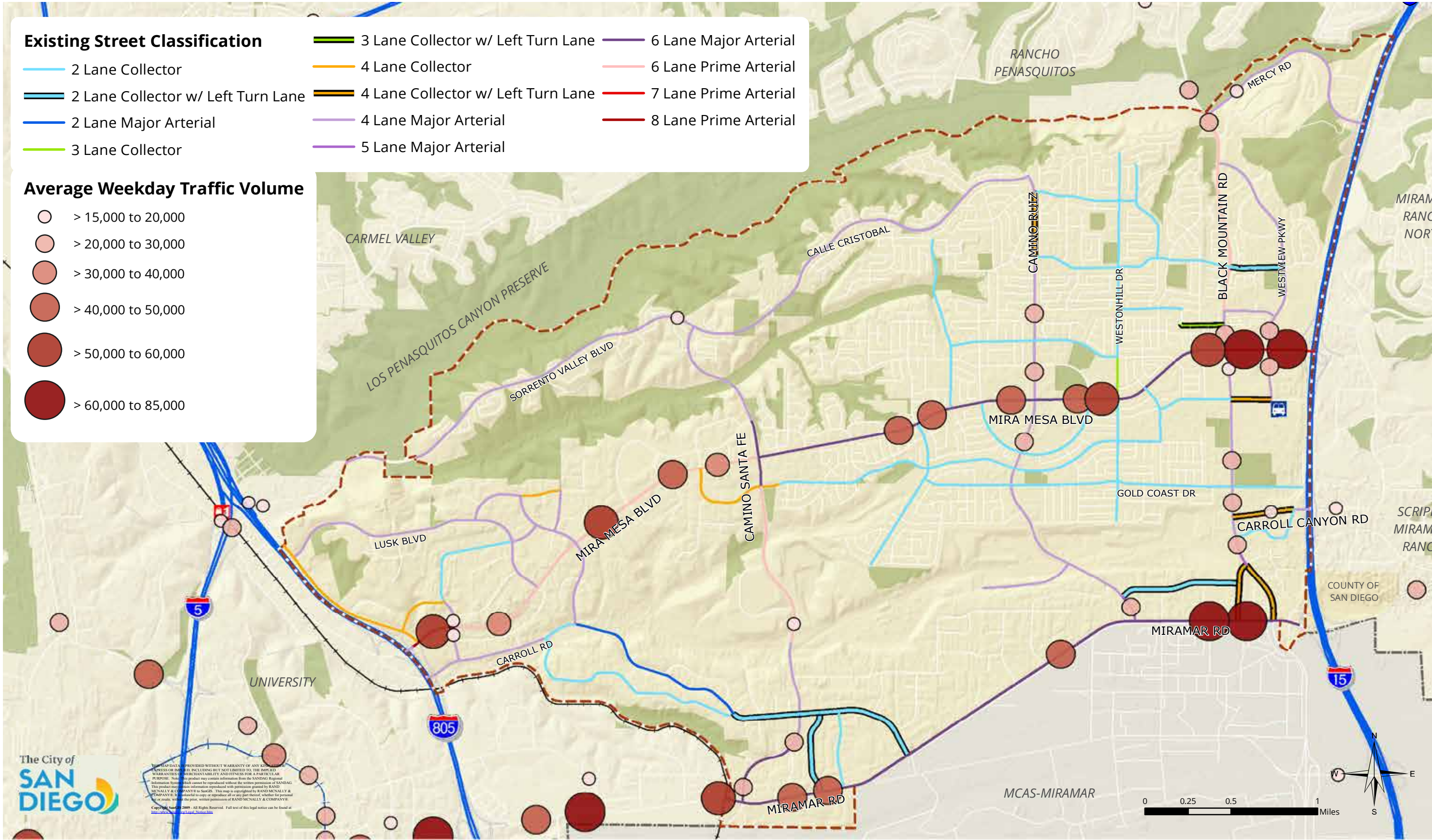


I-15 looking north



Mira Mesa Boulevard

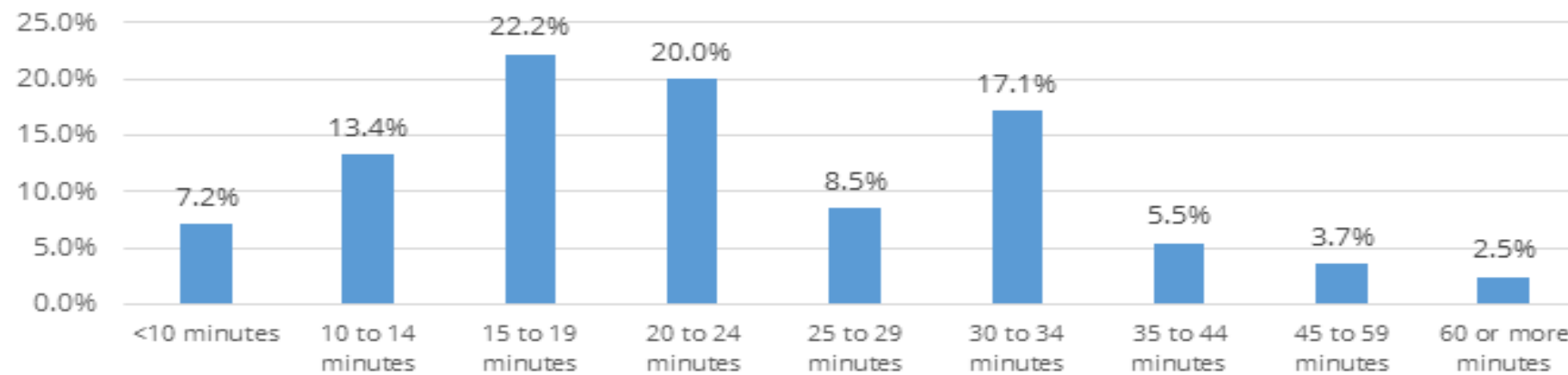
Figure 5-1: Existing Street Classification and Volume



5.2 TRANSPORTATION TO WORK

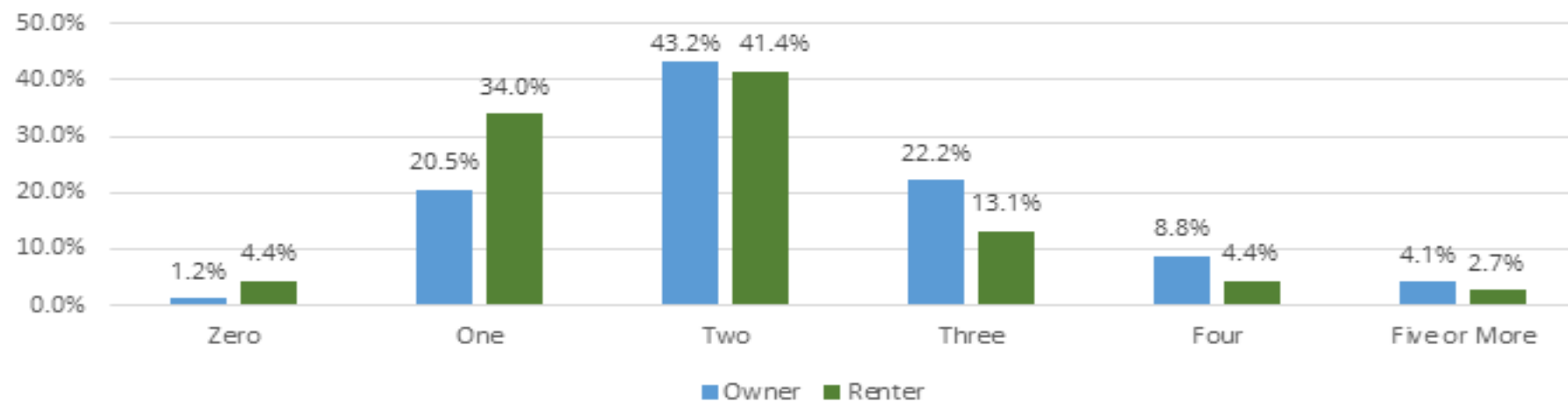
Approximately 78.7 percent of workers living in Mira Mesa drove alone to work, while 12.5 percent carpooled, 1.6 percent took public transportation, 1.4 percent walked to work, and 0.9 percent biked to work. Overall, a typical household in Mira Mesa spends over \$10,000 annually in transportation expense as shown in Figure 5-2. According to Chart 5-1, 22.2 percent of worker commute 15 to 19 minutes to work, closely followed by 20 to 24 minutes (20%), and 30 to 34 minutes (17.1%). Little over 40 percent of household (both owner and renter) own two vehicles (Chart 5-2). Overall, households that rent own less vehicles compared to homeowners.

Chart 5-1: Average Commute Time



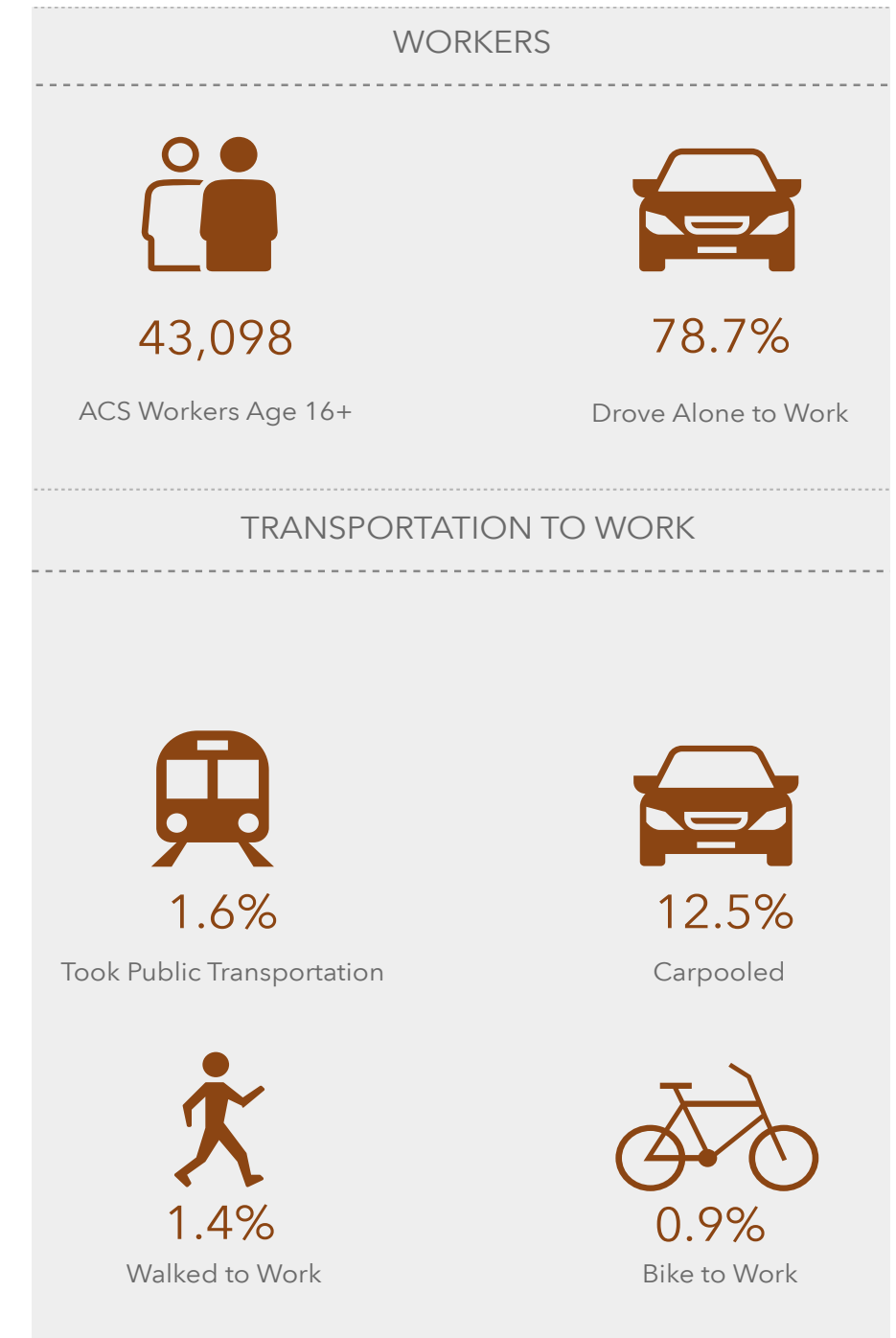
Source: ACS 2016

Chart 5-2: Vehicle Available by Tenure



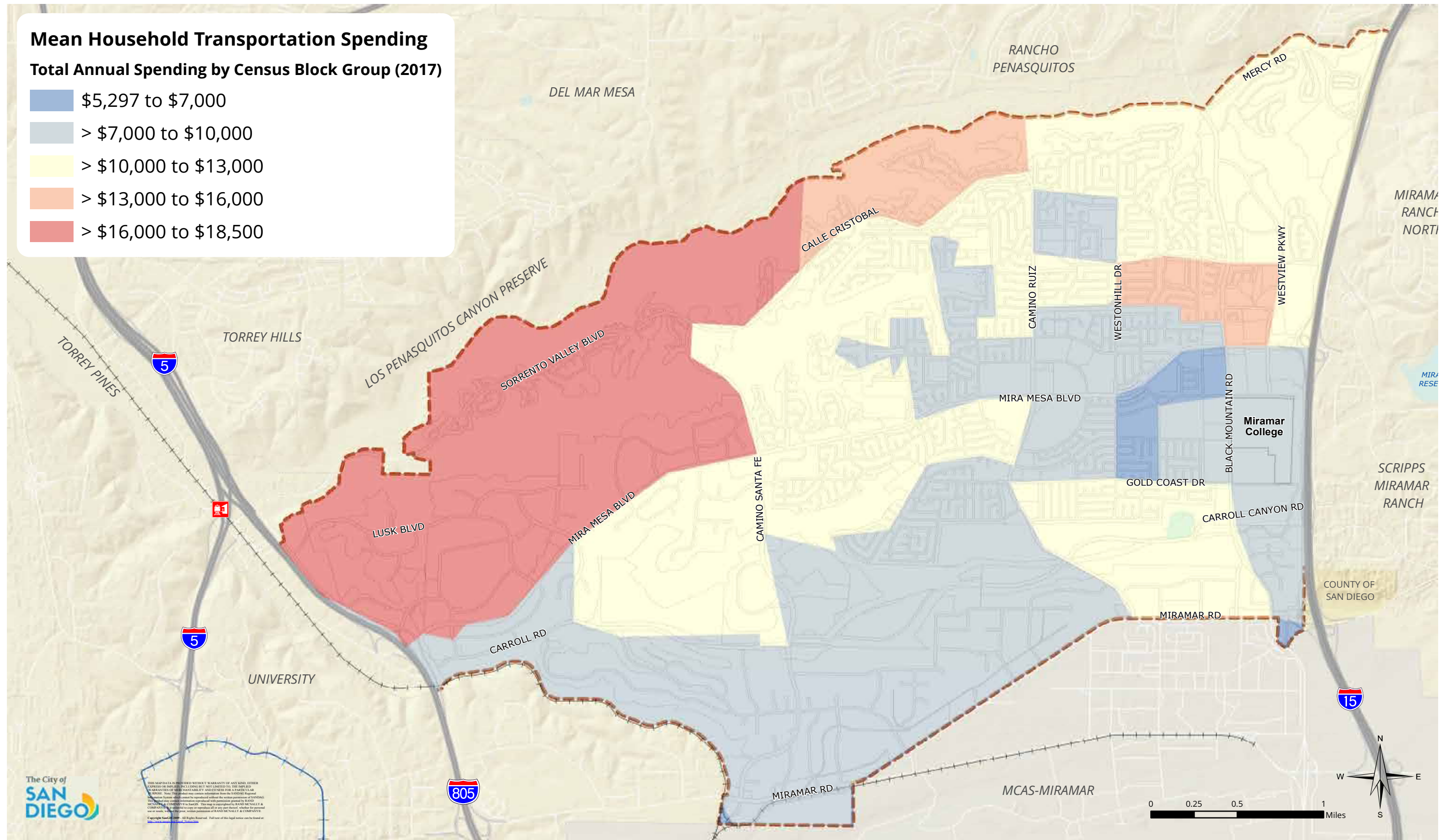
Source: ACS 2016

Chart 5-3: Journey to Work Mode Share



Source: ACS 2015; ESRI 2018

Figure 5-2: Household Transportation Expense



Source: ESRI, 2017

5.3 TRANSIT

The City of Villages strategy supports expansion of the transit system by calling for villages, employment centers, and other higher-intensity uses to be located in areas that can be served by high quality transit services. This will allow more people to live and work within walking distance of transit.

Most of the community in Mira Mesa is within a half mile of a transit stop, except for residences living along Sorrento Blvd and Calle Cristobal (Figure 5-3). Ten bus lines connect Mira Mesa to the surrounding communities, including two Rapid Routes that connect to job centers in Downtown and UTC, and two limited-service shuttles that connect Sorrento Mesa and Carroll Canyon to the Sorrento Valley Coaster Station and future SANDAG Mobility Hub, respectively. Except for the two shuttle routes to and from the Sorrento Valley Coaster Station, all of the routes running through Mira Mesa connect, at some point, to the Miramar College Transit Station. The \$58 million transit center, completed in October of 2014, also includes direct access ramps to bus lanes on the I-15 for the two bus routes that run through Mira Mesa along this expressway.

As of 2018, there are no direct transit connections between the Miramar College Transit Station and the Sorrento Valley Coaster Station. However, the eight routes that go through the Miramar College Transit Station provide Mira Mesa with direct transit links to Downtown, UTC, UCSD, the VA Medical Center, Kearny Mesa, City Heights, Fashion Valley, Sabre Springs, Rancho Bernardo, and the City of Escondido. For more detailed information about Mira Mesa transit, including hours of operation, frequency, and connections, see Table 5-1.

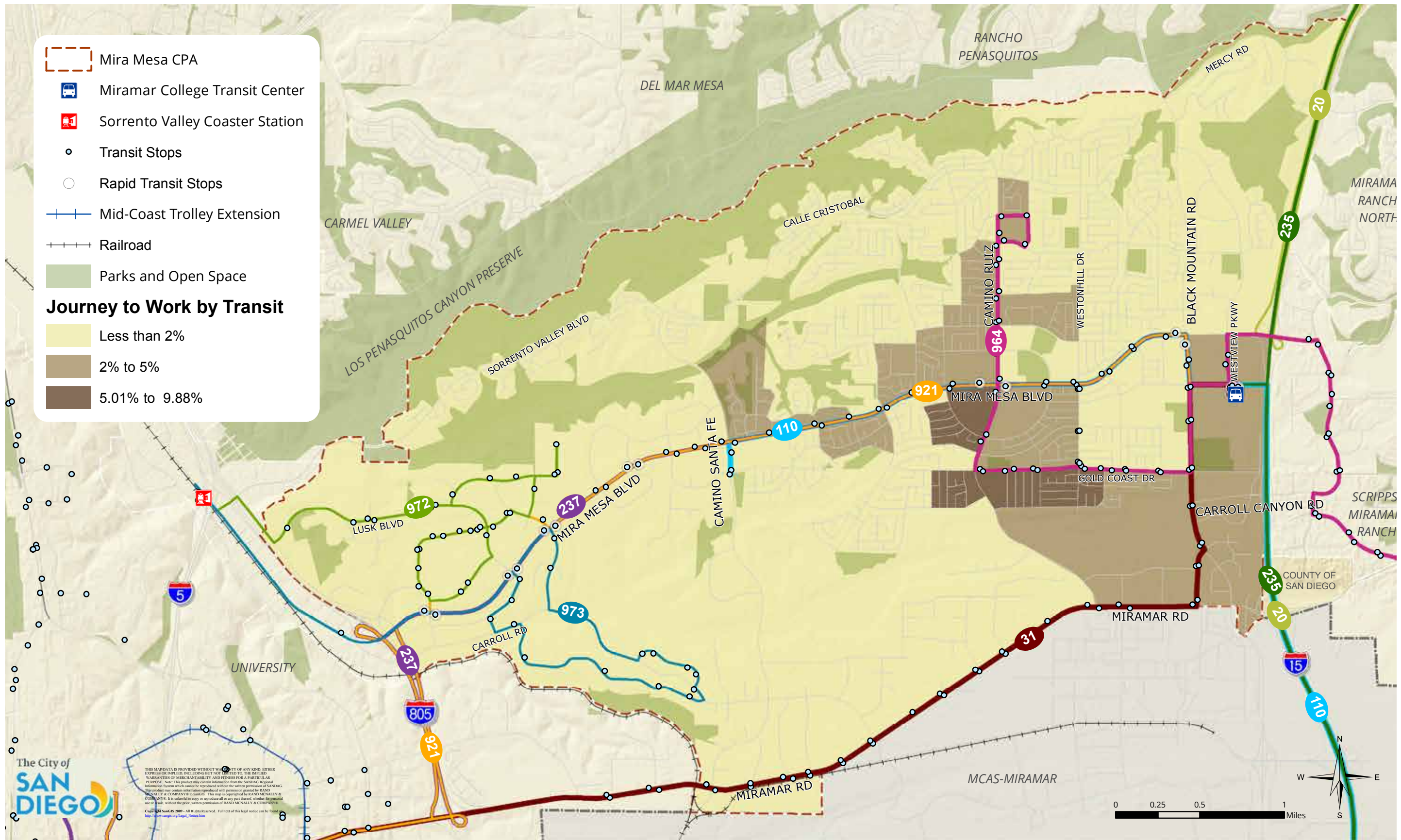


Table 5-1: Existing Transit Routes

Type	Route	Hours of Operation		Riders*	Frequency (MTS)	Thoroughfare	Direct Connections of Note
		Earliest	Latest				
Rapid Bus Routes	235	5:00am	11:59pm	2,512	Every 15 minutes peak; every 30 minutes off-peak	I-15	Escondido, Rancho Bernardo, Sabre Springs, Kearny Mesa, Normal Heights/Rapid 215, City Heights, and Downtown
	237 (am)	6:00am	10:30am	2,005	Every 15 minutes peak; every 30 minutes off-peak	Mira Mesa Boulevard	UTC/Superloop Rapid/future Midcoast Trolley, VA Medical Center, and UCSD
	237 (pm)	2:00pm	8:30pm	2,006	Every 15 minutes peak; every 30 minutes off-peak	Mira Mesa Boulevard	UTC/Superloop Rapid/future Midcoast Trolley, VA Medical Center, and UCSD
Local Bus Routes	110 (am)	6:00am	7:20am	334	Every 20 minutes	Mira Mesa Boulevard and I-15	Downtown
	110 (pm)	4:00pm	5:30pm	335	Every 30 minutes	Mira Mesa Boulevard and I-15	Downtown
	20	5:00am	10:00pm	4,242	Every 30 minutes	I-15	Kearny Mesa, Fashion Valley, Downtown
	921	5:30am	7:45pm	9,821	Every 30 minutes	Mira Mesa Boulevard	UTC/Superloop Rapid/future Midcoast Trolley
	921a	7:00am	7:45pm		Every 60 minutes	Mira Mesa Boulevard	921 connections above plus UCSD and VA Medical Center
	964	5:45am	8:15pm	4,422	Every 30 minutes	Camino Ruiz, Gold Coast Drive, Black Mountain Road	Scripps Ranch/Alliant International University
	31 (am)	5:30am	9:00am	1,521	Every 30 minutes	Miramar Road	UTC/Superloop Rapid/future Midcoast Trolley
	31 (pm)	2:30pm	7:00pm	1,521	Every 30 minutes	Miramar Road	UTC/Superloop Rapid/future Midcoast Trolley
COASTER Connection Shuttle Routes	972 (am)	6:30am	9:15am	486	Every 40 minutes	Lusk Boulevard and Morehouse Drive	Sorrento Valley COASTER Commuter Rail Station
	972 (pm)	3:30pm	6:40pm	486	Every 40 minutes	Lusk Boulevard and Morehouse Drive	Sorrento Valley COASTER Commuter Rail Station
	973 (am)	6:30am	9:15am	291	Every 40 minutes	Mira Mesa Boulevard and Nancy Drive	Sorrento Valley COASTER Commuter Rail Station
	973 (pm)	3:30pm	6:40pm	291	Every 40 minutes	Mira Mesa Boulevard and Nancy Drive	Sorrento Valley COASTER Commuter Rail Station
COASTER Commuter Rail	N/A	5:35am	12:33am	402	Varies widely, but usually one per hour	N/A	Oceanside, Carlsbad, Encinitas, Solana Beach, Oldtown San Diego, Downtown San Diego

*Total average weekday ridership in 2016

Figure 5-3: Transit Routes



Opportunities and Constraints

Most of the community in Mira Mesa is within a 10 minute walk from a bus stop (Figure 5-4). The highest public transit ridership within the community occurs at the Miramar College Transit Station serving transit routes 20, 31, 110, 235, 237, 921, and 964. Other high ridership stops include:

- Mira Mesa Boulevard at Camino Ruiz
- Black Mountain Road at Gold Coast Drive
- Mira Mesa Boulevard at Pacific Heights Boulevard
- Barnes Canyon Road at Pacific Heights Boulevard

These areas are located near large employers (such as Qualcomm), near the community core, near schools such as Miramar College as well as near businesses.

Most transit users access transit stops by walking or biking. Therefore high numbers of bicycle and pedestrian collisions near a transit stop may discourage transit riders at these locations. There are seven locations within the community where four or more collisions involving pedestrians or cyclists were reported during the five year study period (October 2012 – September 2017). These locations include:

- Three intersections along Camino Ruiz
- Three intersection along Mira Mesa Boulevard (one of which is at Camino Ruiz)
- Two intersections along Black Mountain Road (one of which is at Mira Mesa Boulevard)
- One intersection along Miramar Road

In addition to evaluating the current needs of transit it is also important to understand the future transit investments within the community to ensure that needed connections and improvements are in place to take advantage of the transit system. Planned transit investments such as the Aerial Skyway from UCSD to the Sorrento Valley employment areas, as well as a High Speed Rail Line anticipated along the eastern boundary of Mira Mesa, would significantly expand future transit service to Mira Mesa and will provide transit alternatives for residents, employees, and visitors. Other planned transit improvements such as future transit stops and Mobility Hubs throughout the community will provide additional transit coverage areas and create areas where residents can live, work and play. SANDAG's long-range transportation plan included in the San Diego Forward: The Regional Plan, anticipates providing increased services for local bus routes and support for active transportation projects that provide first-mile/last-mile connections to transit.

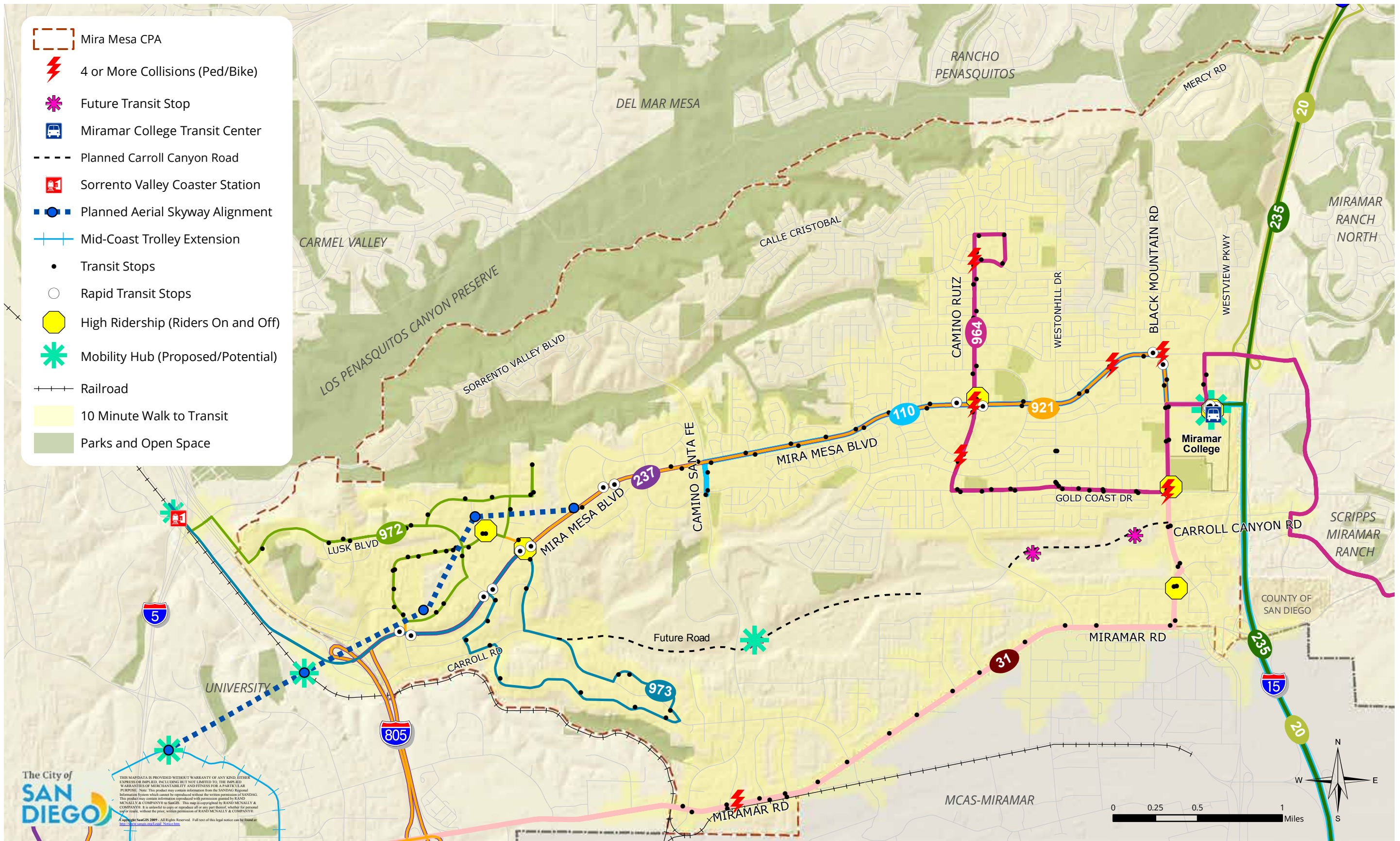


MTS Bus Route 964



Aerial Skyway proposed by SANDAG will connect UCSD to Sorrento Mesa
Photo: Portland Aerial Tram

Figure 5-4: Transit Opportunities & Constraints



5.4 BICYCLE

Bicycle infrastructure should provide for the safety and comfort of its users, and the bicycle network should be very well connected across a community. Safety and comfort are paramount considerations, since by nature, active travelers are more exposed than those inside a vehicle. Unsafe or uncomfortable conditions discourage the decision to make a trip by bike. Network connectivity is also paramount, since safe, comfortable infrastructure will not be useful if destinations cannot be reached. Journey to Work by Bicycle, Existing and Proposed Bicycle Facilities are depicted in Figure 5-5. Despite the auto-centric land use patterns in Mira Mesa, there are people that bike to work due to proximity of employment areas.

Existing and Proposed Bicycle Facilities

There are three general classifications of bicycle facilities, including:

Class I - Bike Path (also termed shared-use or multi-use paths)

Bike paths are paved right-of-way for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway right-of-way or exclusive right-of-way. There are no Class I bike paths in Mira Mesa.

Class II - Bike Lane

Bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel. Bike lanes are one-way facilities on either side of a roadway. There are Class II bike lanes in Mira Mesa along Mira Mesa Blvd, Sorrento Valley Blvd, Calle Cristobal, Miramar Road, Black Mountain Road, Mercy Road, Camino Santa Fe, and Camino Ruiz

Class III - Bike Route

Bike routes provide shared use with motor vehicle traffic within the same travel lane and are frequently marked with a sharrow. Designated by signs and/or pavement markings, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand. There are Class III bike routes in Mira Mesa along Gold Coast Drive.

Class IV - Cycle Track

Cycle track is a bicycle facility within the roadway with a physical separation. Cycle tracks have different forms, the physical separation can include a raised median, flexible pavement markers, bollards, and on-street parking. There are currently no Class IV cycle tracks within Mira Mesa.

Bicycle Boulevards are roadways where physical improvements such as traffic calming and diversions are intended to provide priority for bicyclists. Bicycle Boulevards are typically installed on local roads with low volume of vehicles and residential speeds. There are currently no bicycle boulevards within Mira Mesa.



Bike Rack

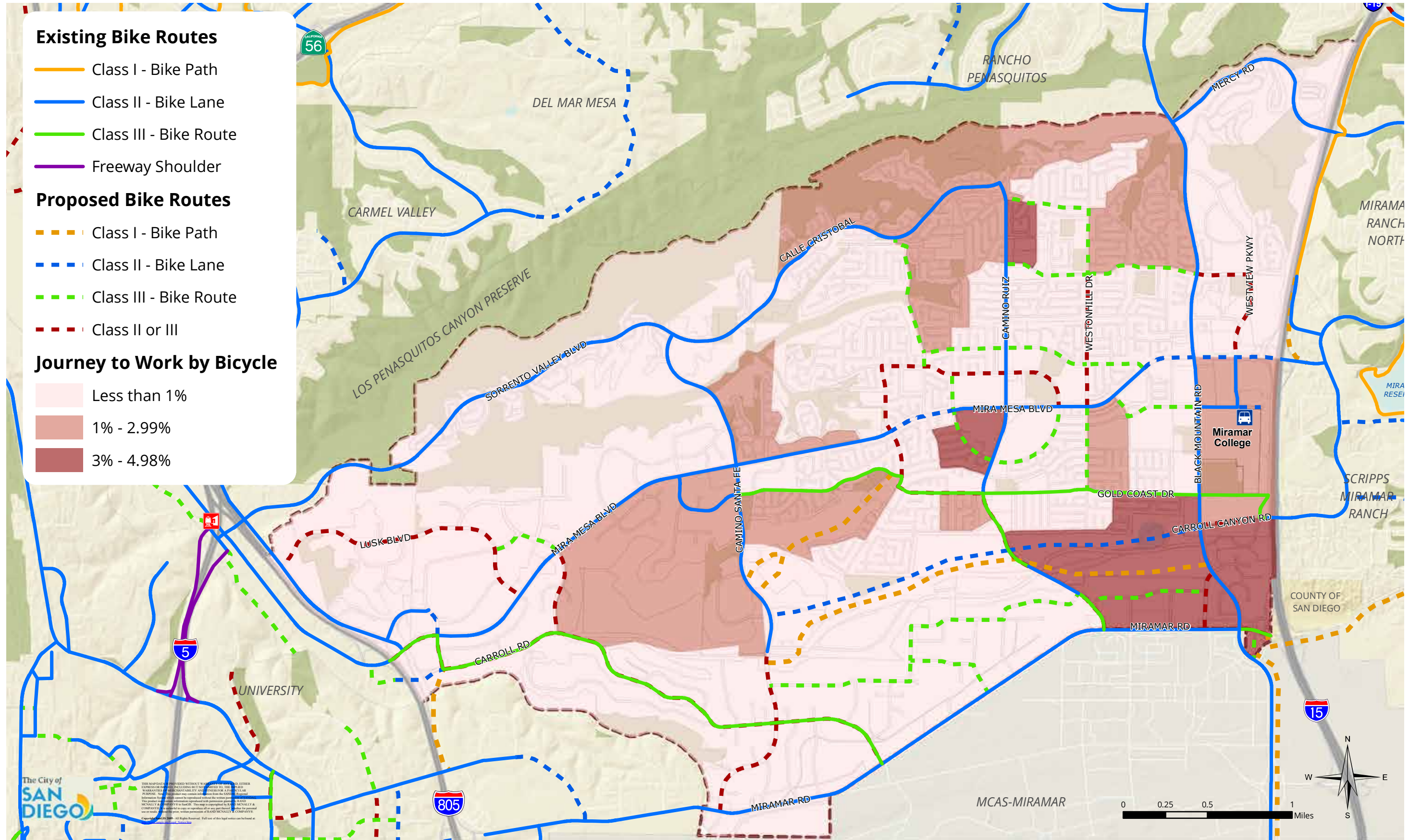


Bike Storage



Man walking with his bike on a narrow sidewalk

Figure 5-5: Bicycle Facilities



Opportunities and Constraints

The bicycle network should also be well connected across the community providing routes for residents, employees, and visitors to get to and from their destination. The decision to ride a bike for travel primarily relies on a person's perception of distance of travel, comfort (or safety) along your travel, options (or connections) to your destination and the overall experience along the bikeway.

As shown in Figure 5-6, the majority of the roadways in Mira Mesa provide high stress facilities, especially along the major east-west and north-south corridors within the community. Bicycle Level of Stress (LTS) measures the level of comfort a cyclist would experience on a roadway, taking into account speed of adjacent traffic, presence of a physical barrier from traffic, width of the bicycle facility, number of vehicular travel lanes and intersection control. This measurement classifies streets and intersections from LTS 1 (suitable for children) through LTS 4 (suitable for riders who are comfortable sharing the road with vehicles travelling at 35 mph or higher). In general, a lower stress bicycle facility is the preference for those considering the bike for travel.

Figure 5-6 also identifies locations within the community with 3 or more reported bicycle-involved collisions during the five-year study period (October 2012-September 2017). Four of which were located along Mira Mesa Boulevard near retail on the eastern portion of the community. These intersection include:

- Mira Mesa Boulevard at Camino Ruiz
- Mira Mesa Boulevard at Westmore Road
- Mira Mesa Boulevard at Black Mountain Road
- Mira Mesa Boulevard at Westview Parkway
- Miramar Road at Commerce Avenue/Milch Road
- Acama Street at Acama Court

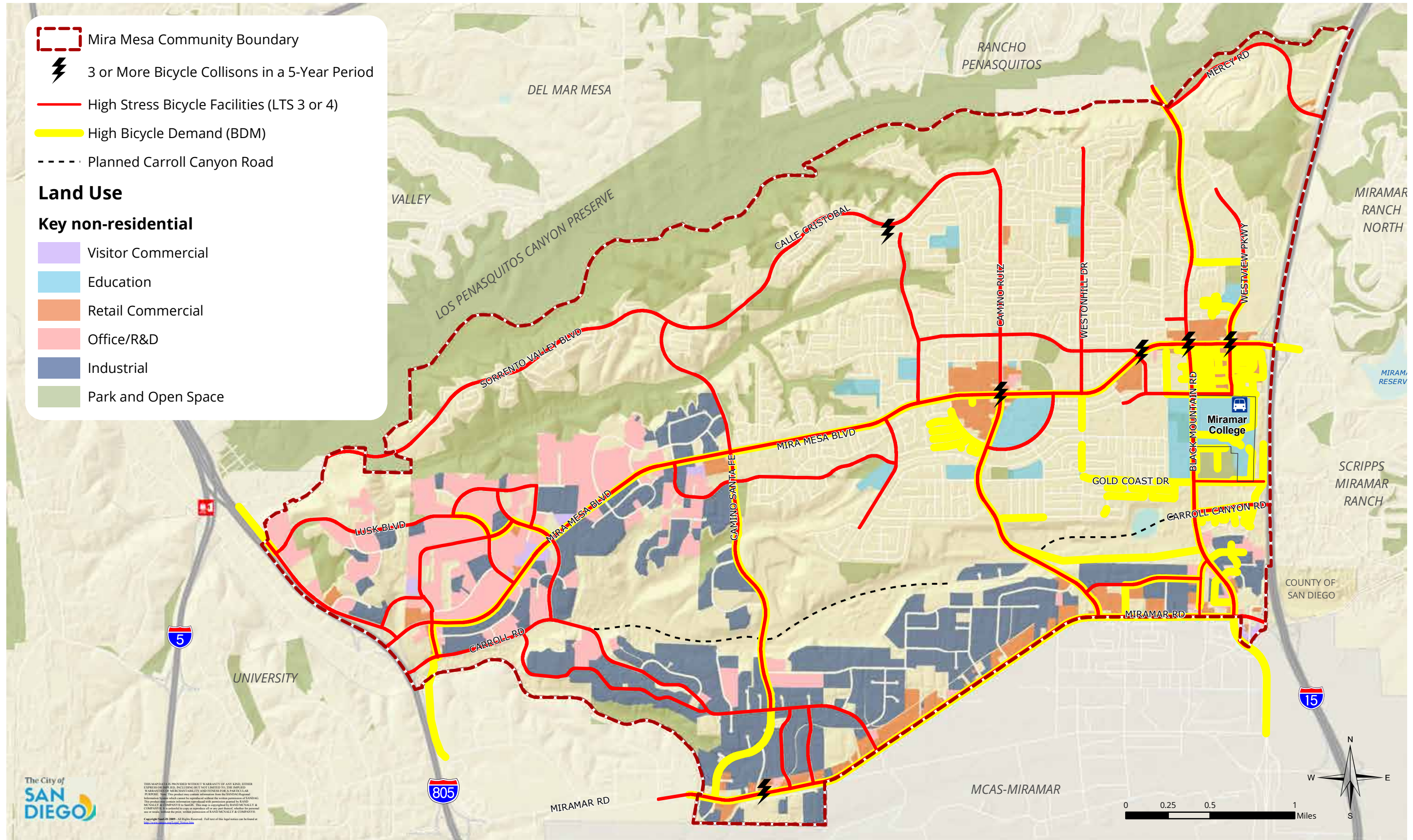


Buffered bike lane on Mira Mesa Boulevard



Students biking on sidewalk

Figure 5-6: Bicycle Opportunities and Constraints



5.5 PEDESTRIAN

Opportunities and Constraints

The pedestrian environment affects us all whether we are walking to transit, a store, school, or simply walking from a parked car to a building. Most people prefer walking in places where there are sidewalks shaded with trees, lighting, interesting buildings or scenery to look at, other people outside, neighborhood destinations, and a feeling of safety. Pedestrian improvements in areas with land uses that promote pedestrian activities can help to increase walking as a means of transportation and recreation. Land use and street design recommendations that benefit pedestrians also contribute to the overall quality, vitality, and sense of community of neighborhoods. Figure 5-7 illustrates the percentages of people walking to work in Mira Mesa.

Figure 5-8 indicates the overall pedestrian needs in the Mira Mesa. The eastern portion of the community experiences the greatest concentration of pedestrian collisions within the community. In particular, there are nine intersections where three or more pedestrian collisions were reported during the five year study period (October 2012 – September 2017).

These intersections include:

- Five intersections along Mira Mesa Boulevard (at Westview Parkway, Black Mountain Road, Westmore Road, Shopping Center Driveway west of Camino Ruiz, Sequence Drive/Huennekens Street)
- Two intersections along Camino Ruiz
- One intersection at Carroll Canyon Road and Maya Linda Road
- One intersection at Black Mountain Road and Gemini Avenue



School sign



Students walking home

Figure 5-7: Pedestrian Mode Share

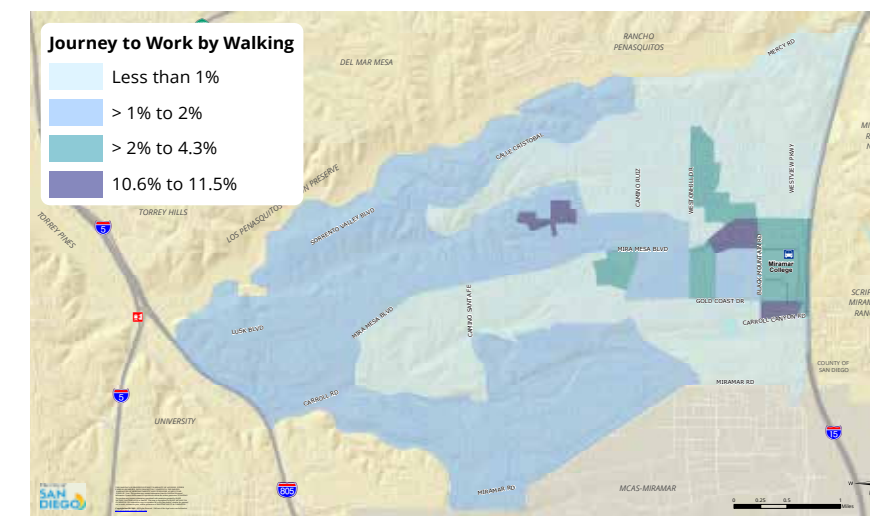
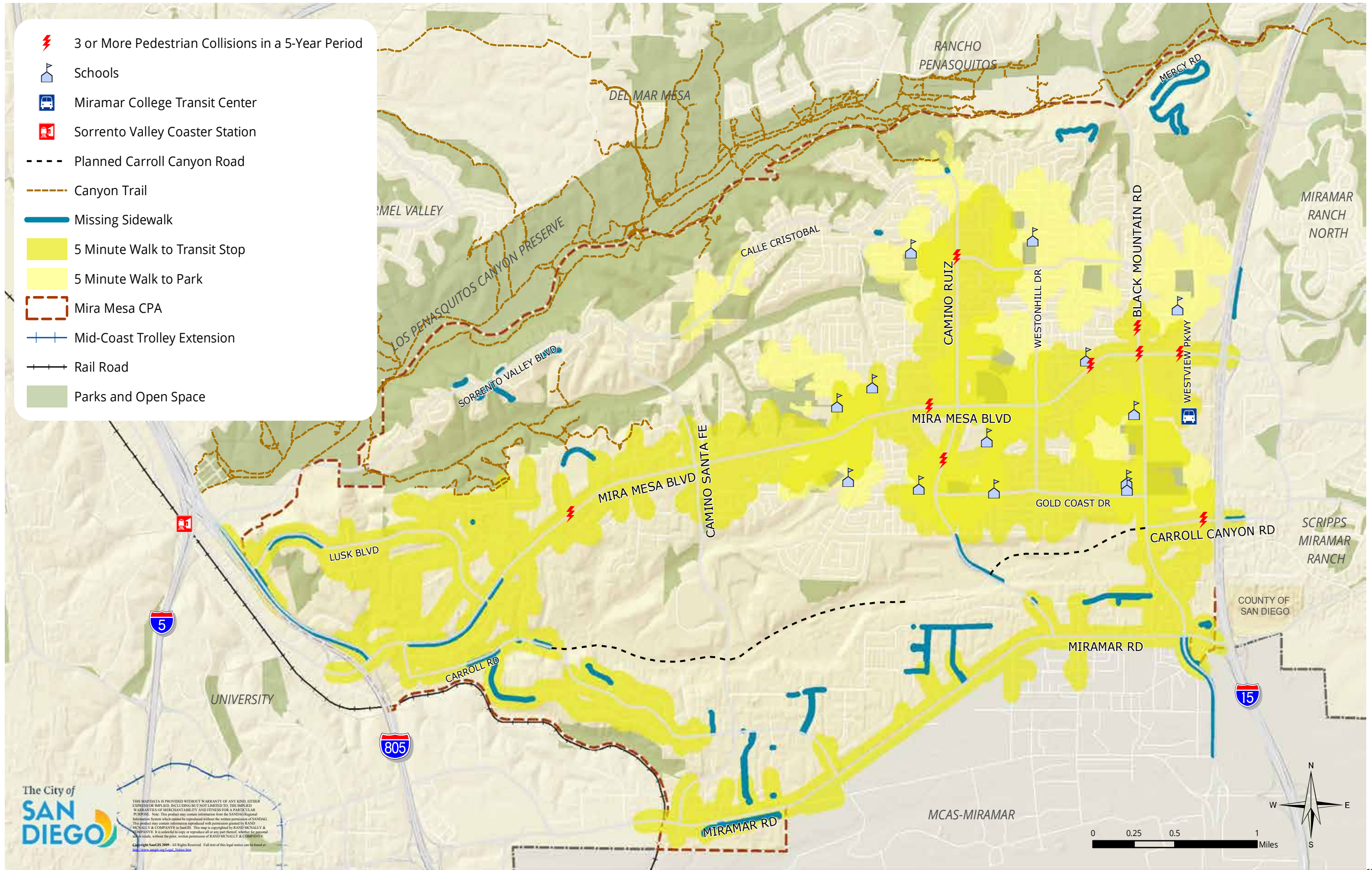


Figure 5-8: Pedestrian Opportunities and Constraints



6. Natural Environment and Open Space

6.1 BIOLOGICAL RESOURCES

Vegetation and Habitat

As Mira Mesa's has been extensively developed, the vast majority of the Planning Area consists of disturbed or developed areas (see Figure 6-1). Still undisturbed areas of vegetation are present, particularly along the Lost Peñasquitos Canyon and Lopez Canyon. Most of Mira Mesa's undisturbed vegetation is located in San Diego's Multi-Habitat Planning Area, the City's planned habitat preserve. Within the Multi-Habitat Planning Area, development is limited to protect and ensure the viability of "covered" species, as well as to preserve a network of open space and habitat in San Diego.

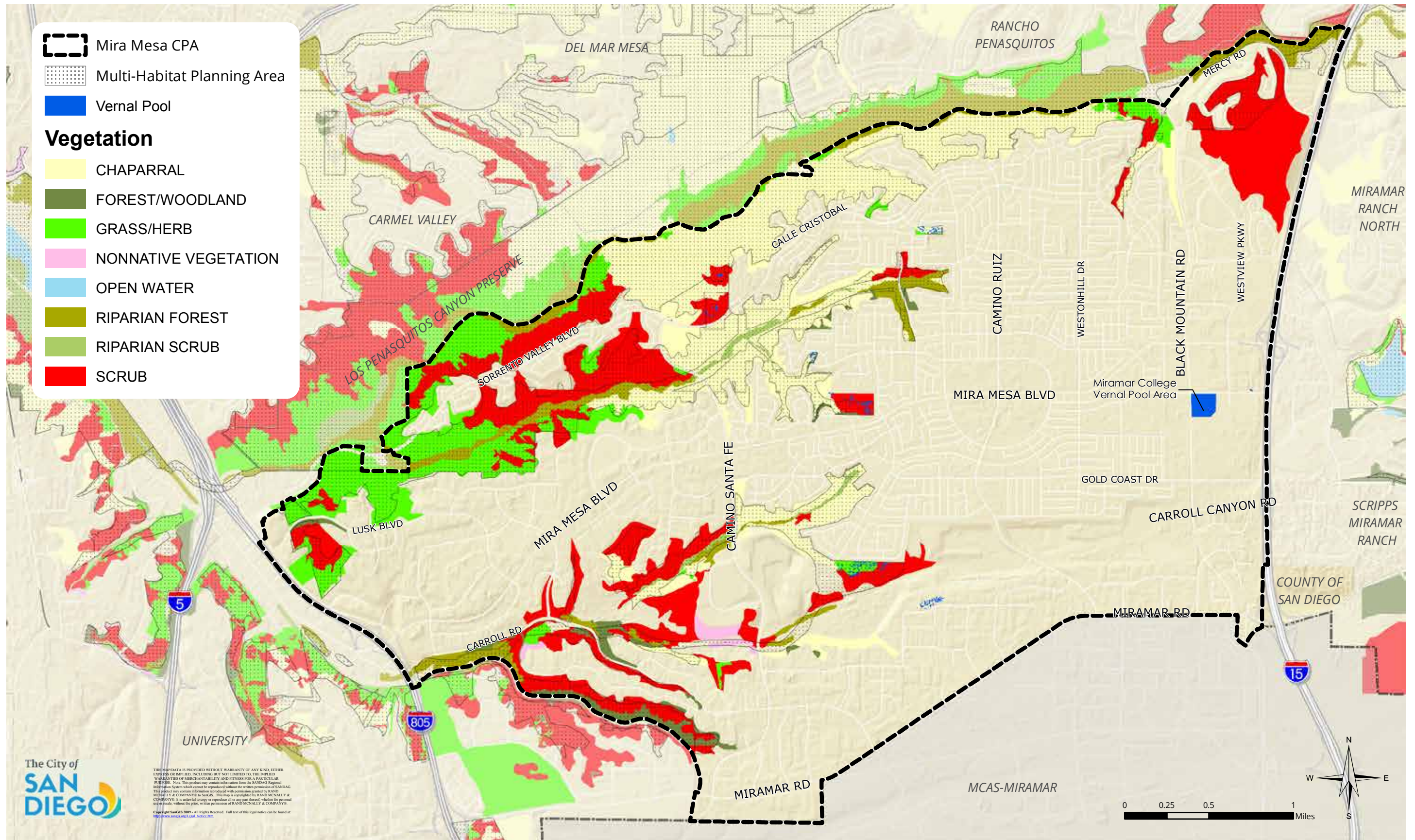
Vernal Pool

Vernal pools are depressions in the soil that fill with water during the winter rainy season. The pools create a unique habitat that contains several rare and endangered plant species. The City has adopted the Vernal Pool Habitat Conservation Plan (VPHCP). The VPHCP provides a framework to protect, enhance, and restore vernal pool resources. The North VPHCP planning unit is north of SR 52. Mesa tops containing vernal pools in this area include Carmel Mountain, Del Mar Mesa, and Mira Mesa.



Entrance to Los Peñasquitos Canyon

Figure 6-1: Vegetation and Multi-Habitat Planning Area



Special Status Species

Special status species are those plants and animals that, because of their acknowledged rarity or vulnerability to various causes of habitat loss or population decline, are recognized in some fashion by federal, state, or other agencies as deserving special consideration. According to records maintained by the California Natural Diversity Database (CNDDDB), there are records of seven endangered species occurring in Mira Mesa: coastal dunes milk-vetch, least Bell's vireo, San Diego button-celery, San Diego fairy shrimp, San Diego thorn-mint, willowy monardella, Del Mar manzanita. Figure 6-2 illustrates the potential occurrence area for the species located within Mira Mesa, and Table 6-2 provides details regarding their listing status and occurrence type.

More detailed analysis of habitat and sensitive plant and animal species are conducted as part of environmental impact analysis of specific projects, and avoidance and/or mitigation measures are identified to minimize potential impacts.

Table 6-2: Special Status Species

Common Name	Occurrence Type	Federal Listing
Coastal Dunes milk-vetch	Natural/native occurrence	Endangered
Least Bell's vireo	Natural/native occurrence	Endangered
San Diego button-celery	Natural/native occurrence	Endangered
San Diego fairy shrimp	Natural/native occurrence	Endangered
San Diego mesa-mint	Natural/native occurrence	Endangered
Willowy Monardella	Natural/native occurrence	Endangered
Del Mar manzanita	Natural/native occurrence	Endangered

Data Source: City of San Diego, 2018; SANGIS Regional GIS Data Warehouse, 2018. (www.sangis.org); National Hydrology Dataset (NHD) Flowline, Date Range: 2001 - 2011; California Natural Diversity Database (CNDDDB), Biogeographic Data Branch, Department of Fish and Wildlife, 2018.



Del Mar manzanita

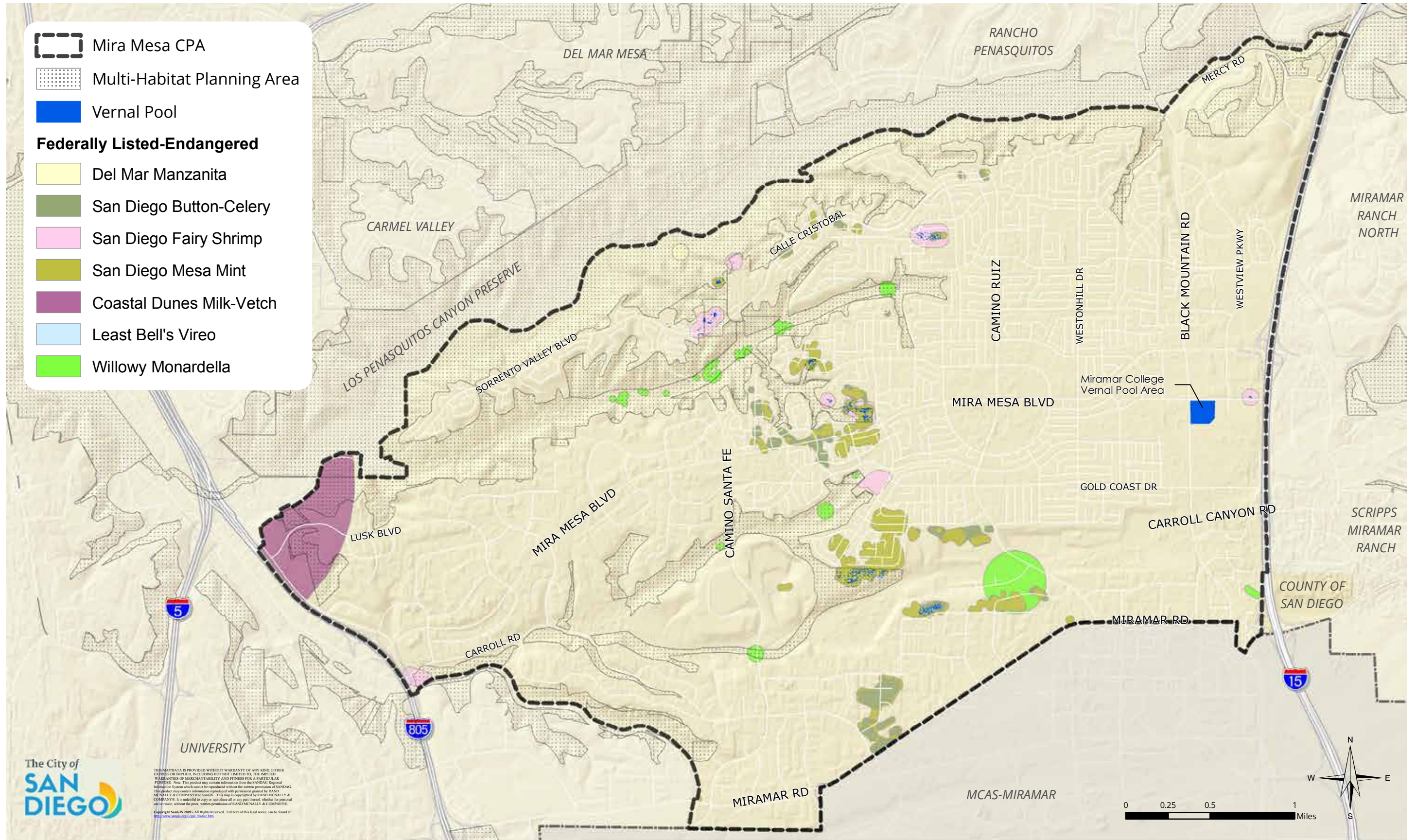


Least Bell's vireo



San Diego fairy shrimp

Figure 6-2: Habitat and Potential Areas of Occurrence of Special Status Species



6.2 HYDROLOGY, FLOODING AND WILDFIRE

Hydrology

Mira Mesa is entirely within Los Peñasquitos Watershed Management Area (WMA). There are two Hydrologic Subarea Miramar Reservoir and Poway Subareas. The Los Peñasquitos WMA has an area of approximately 94 square miles, making it the second smallest WMA in San Diego County. It has a population of 260,000 and contains portions of the cities of San Diego, Poway, and Del Mar. Rainfall to the area primarily drains through Los Peñasquitos Creek, which stretches east to west and originates near the City of Poway. The creek eventually discharges to the Pacific Ocean near the community of Del Mar at the Los Peñasquitos Lagoon. The WMA also supplies locals with potable water sourced from Miramar Reservoir, which store mainly Colorado River water, owned and operated by the City of San Diego.

Flooding

The 100-year floodway, 100-year flood plain, and 500-year flood plain for Mira Mesa are delineated by the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate maps and illustrated in Figure 6-3. Mira Mesa sits on a mesa top, providing unobstructed views of the surrounding communities from certain properties. In addition, canyon areas provide open space and visual relief from the built environment. This topographic position also has value in containing hydrologic and flooding issues in the community. Floodways and floodzones are primarily limited to the canyon areas.

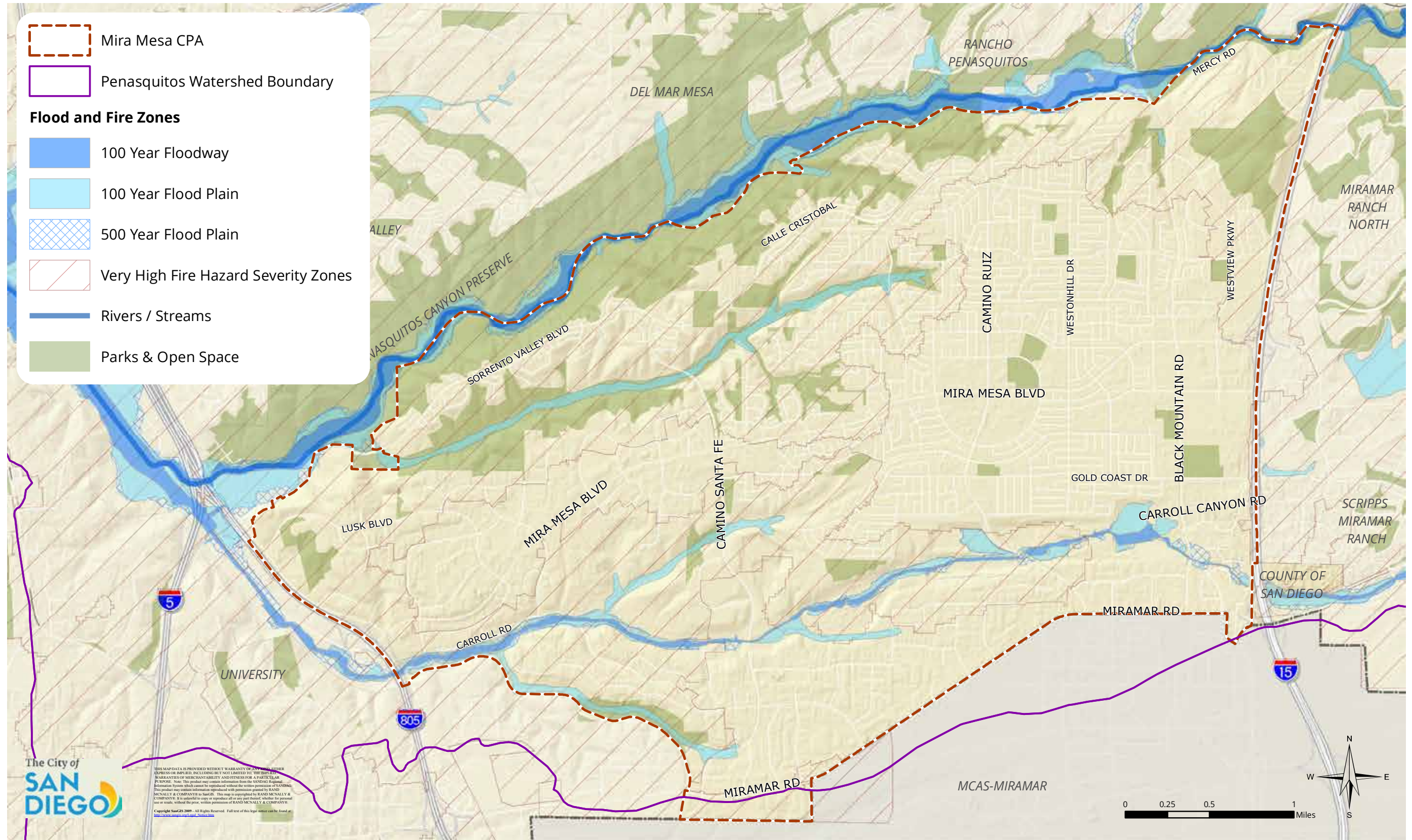
Wildfire

Portions of the community generally near naturally-vegetated open spaces are identified as being within a Very High Fire Hazard Severity Zone by CAL FIRE due to potential hazard from wildland fires. Residents of these areas should take additional measures to be prepared for threat of wildland fire. The San Diego Fire-Rescue Department provides information that should be used when safeguarding homes and responding during a fire emergency.



Trees in floodway

Figure 6-3: Hydrology, Flooding and Wildfire



6.3 STORM WATER INFRASTRUCTURE

Storm water runoff from Mira Mesa generally stays within the boundaries of the Planning Area until it drains through storm drain pipes, streets, gutters, cross gutters, or open channels into the Los Penasquitos Creek and from there into the Pacific Ocean. Because Mira Mesa is mostly developed and highly impervious—with the exception of the Canyons—nearly all rainfall landing on Mira Mesa can be expected to become runoff. Storm drains, an important mechanism for conveying storm water runoff in Mira Mesa, are depicted in Figure 6-4.

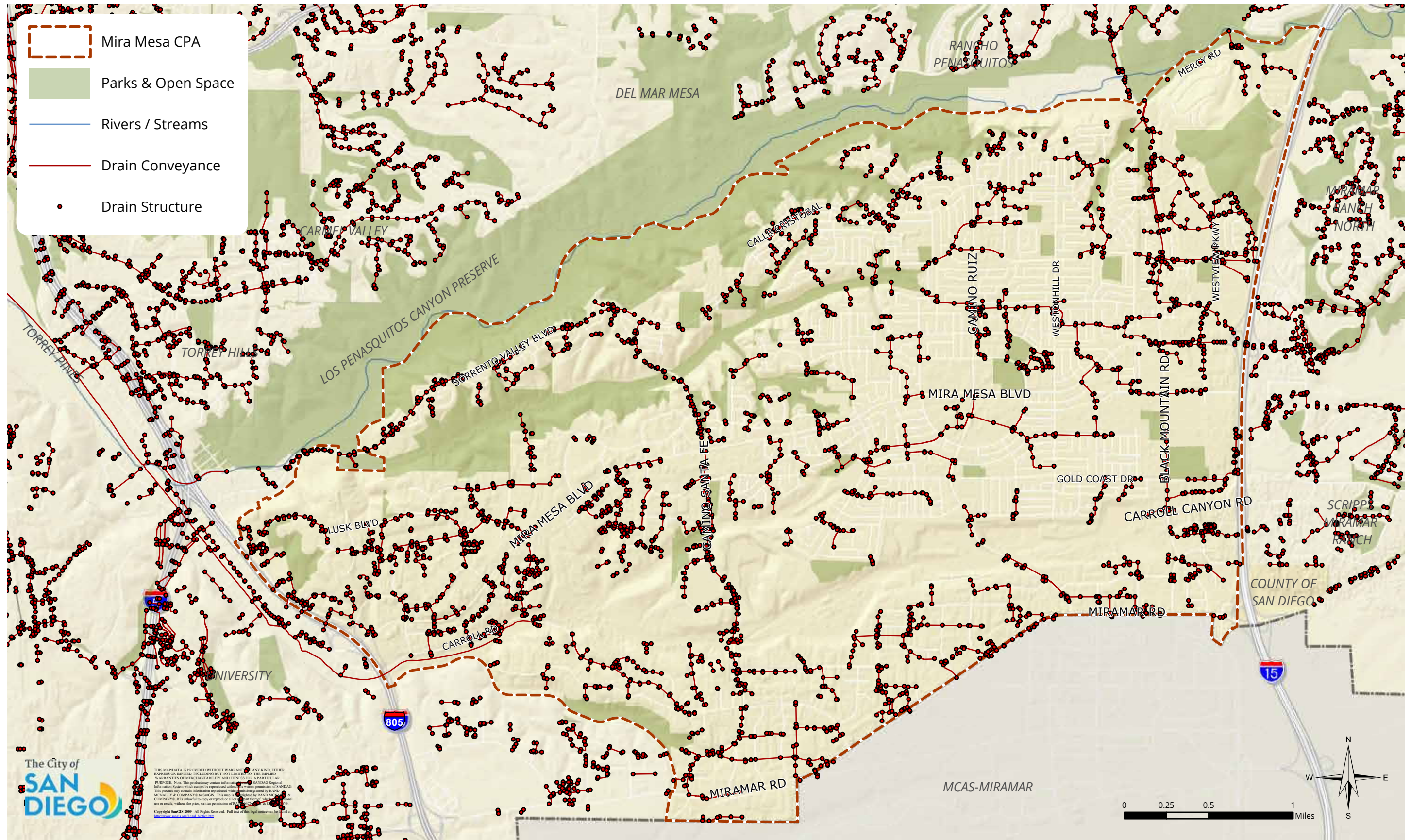
The City of San Diego maintains adequate drainage facilities to facilitate the removal of storm water runoff in an efficient, economic, environmentally and aesthetically acceptable manner. In order to maintain the storm water system's effectiveness, the City has developed the Master Storm Water System Maintenance Program (Master Program) for storm water channels in neighborhoods across San Diego, including Mira Mesa. The Master Program identifies specific storm water channels and detailed methods for maintaining them. The City's Fiscal Year 2017-2021 Five-Year Capital Infrastructure Planning Outlook, outlines an estimated \$4.24 billion capital infrastructure needs exist over the next five fiscal years. An estimated additional \$1.2 billion would be required to meet all of the needs outlined.

Storm water pollution affects human life and aquatic plant and animal life. Oil and grease from parking lots and roads, pesticides, cleaning solvents, and other toxic chemicals can contaminate storm water and be transported into water bodies. The city's Storm Water Pollution Prevention Program identifies actions to reduce pollutants in urban runoff and storm water. These actions include, but are not limited to, public education, employee training, water quality monitoring, source identification, code enforcement, watershed management, and Best Management Practices development/implementation within the City of San Diego jurisdictional boundaries. The Storm Water Pollution Prevention Program represents the City on storm water and National Pollutant Discharge Elimination System (NPDES) storm water permit issues before the principal permitted, the County Department of Environmental Health and the Regional Water Quality Control Board. Compliance with the Permit requirements are tracked and monitored by the Storm Water Pollution Prevention Program and the Regional Water Quality Control Board.



Drainage

Figure 6-4: Stormwater Infrastructure



6.4 URBAN FOREST

Trees provide shade and beauty, support neighborhood identity, and help balance the density of development with greenery. The current street tree canopy, as tracked by the City, is illustrated in Figure 6-5. As the map shows, while some stretches of some streets provide a continuous street canopy, many street segments lack trees entirely or have sparse tree plantings. This increases the urban heat island effect (where temperatures in urban area are higher than in surrounding non-urban areas) and provides little respite from the summer sun for pedestrians.

Healthy trees mean healthy people. Trees remove many pollutants from the atmosphere, including nitrogen dioxide, sulfur dioxide, ozone, carbon monoxide, and particulate matter.

Each year, 100 large, mature trees have the potential to:

- Remove 7 tons of carbon dioxide; 328 pounds of other air pollutants; and catch approximately 215,000 gallons of rainwater.

Healthy trees mean healthy communities. Statistics show that tree-filled neighborhoods are:

- Safer and more sociable; and help to reduce body and mind stress.

Healthy trees mean better business. In tree-lined business districts, shoppers report:

- More frequent shopping, longer shopping trips, and a willingness to pay more for parking.

Finally, healthy trees mean homeowner savings. One well-placed large shade tree can provide an average savings of \$9 on home air conditioning costs each year. Street trees provide enormous cooling benefits for people that walk, bike, skate, and scoot.



Tree canopy provide shade on a hot day



Birdseye view looking north. The vast majority of Mira Mesa is suburban hardscape.



Sycamore on Maya Linda Road

Figure 6-5: Tree Canopy Coverage

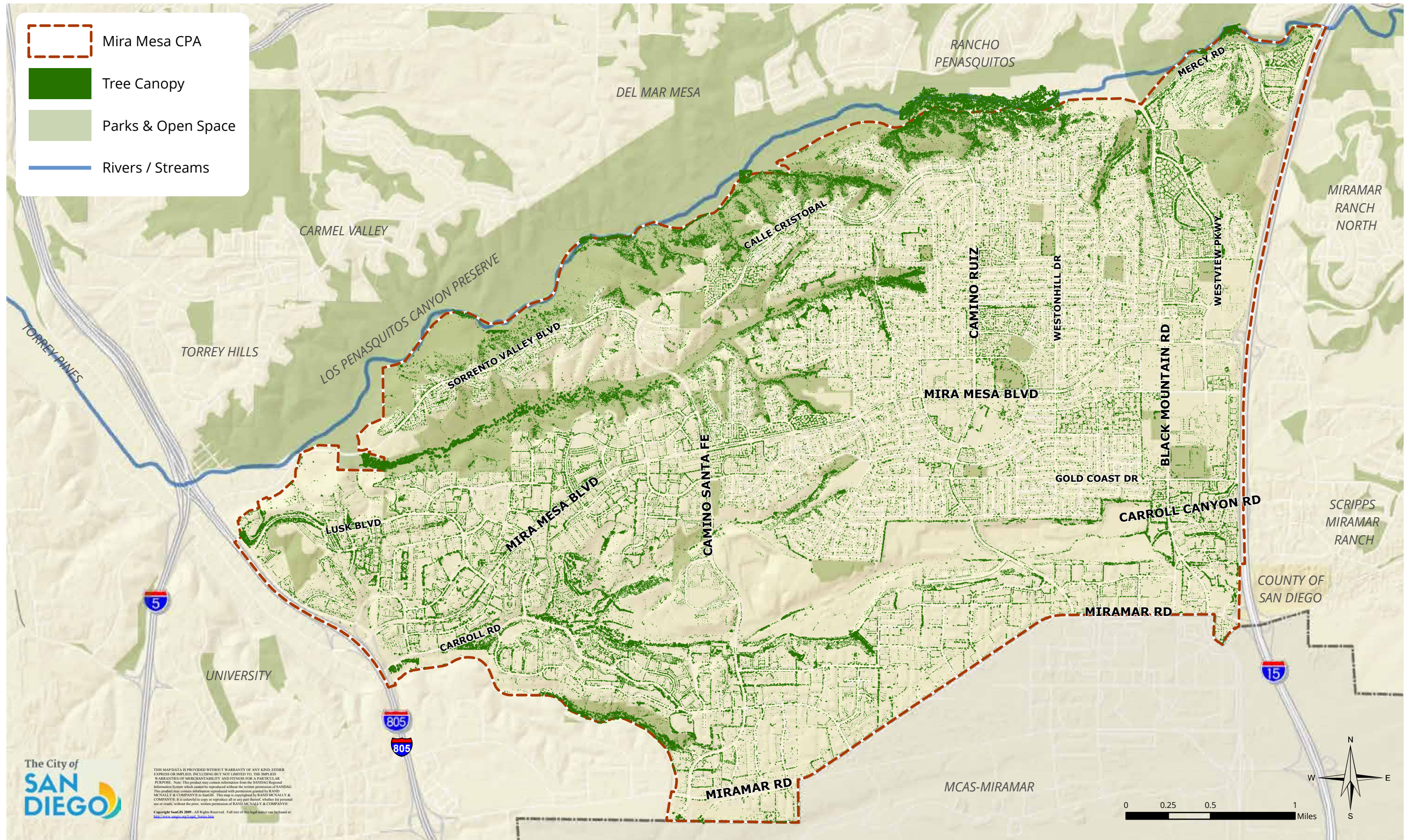


Figure 7-1: Clean Up Sites

7. Environmental Hazards, Pollution, and Community Health

7.1 HAZARDOUS MATERIALS AND POLLUTION EXPOSURE

As shown in Figure 7-1 and Figure 7-2, Mira Mesa has significant numbers of hazardous waste sites and clean up sites compared to other census tracts in California. Many census tracts score above 80 percentile, which means the average number of these sites are higher than 80 percent of the census tracts in the state.

Past or present industrial, light industrial or commercial sites commonly have hazardous materials released to the subsurface soil and/or groundwater.

Figure 7-3 highlight Mira Mesa traffic density, a measure of total traffic volumes divided by the total road length for the year 2013, by Census Tract. The map also illustrates known or potential contaminated and toxic release sites as identified by EnviroStor.

California has the biggest network of freeways in the country and its cities are known for heavy traffic.

While California has strict vehicle-emissions standards:

- Exhaust from cars and trucks is the main source of air pollution in San Diego;
- Exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult and cause low birth weight and premature births; and
- Children who live or go to schools near busy roads have higher rates of asthma and other lung diseases than children in areas farther from roads.

Census tracts along the I-15 have heavy traffic volume, exceeding 80 percentile of census tracts in the state.

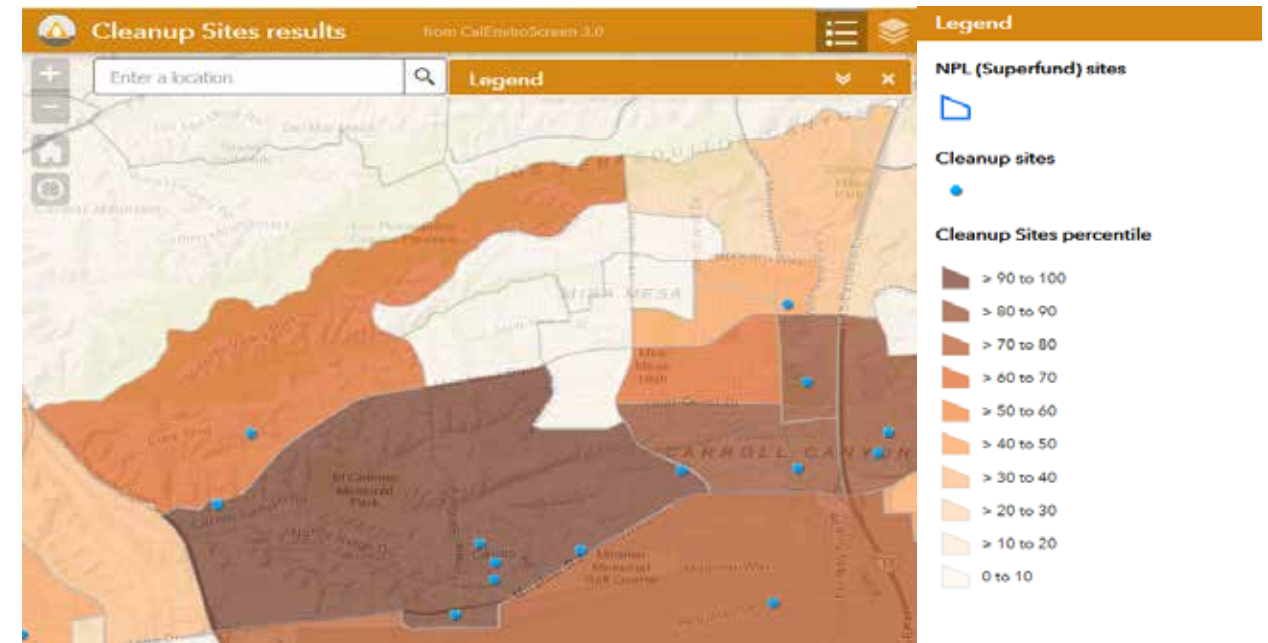


Figure 7-2: Hazardous Waste Sites

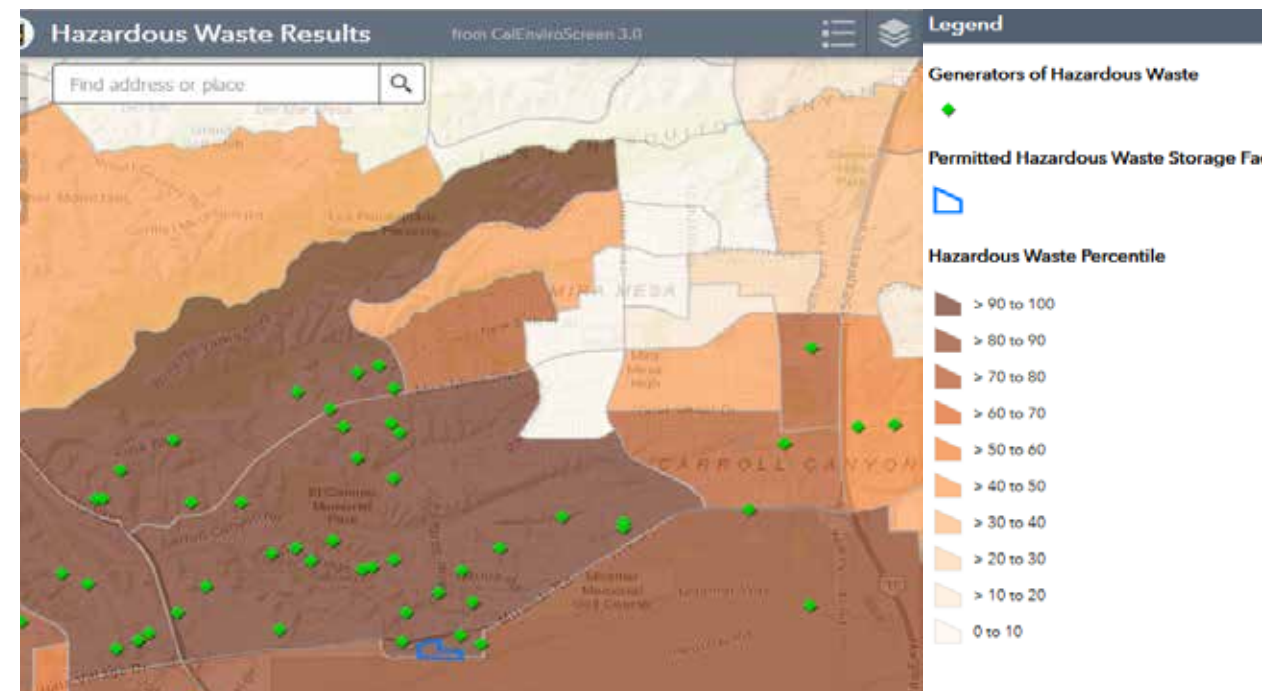
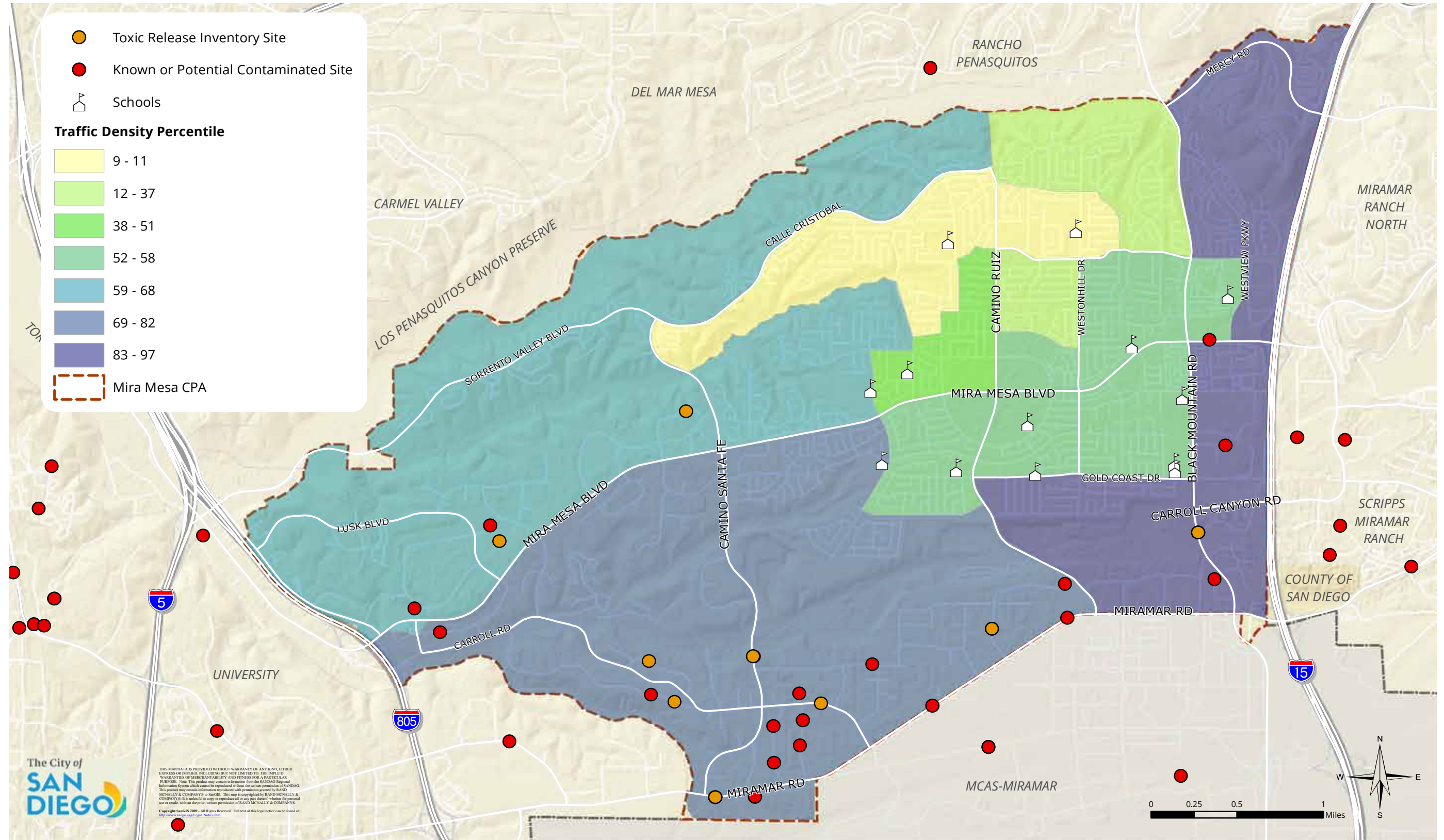


Figure 7-3: Traffic Density and Known or Potential Contaminated Sites



7.2 COMMUNITY HEALTH

Access to Healthy Lifestyle

Many factors contribute to a community's ability to live healthily. One key factor is whether community members can safely and conveniently access parks and recreational facilities. Close-to-home opportunities to exercise and experience nature contribute to individuals' health and feelings of well-being. Indeed, people who live within walking distance (1/4 mile) of a park are 25 percent more likely to meet their minimum weekly exercise recommendation.³

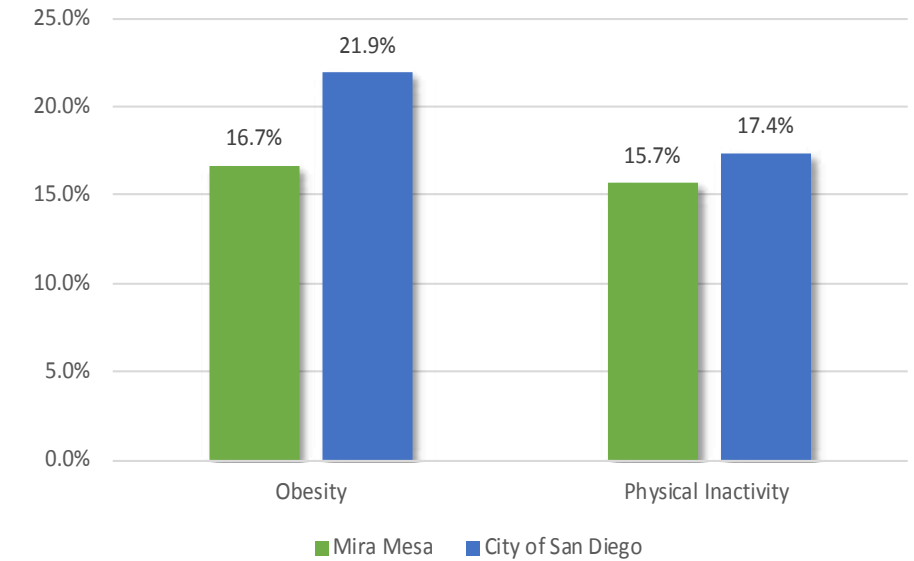
In turn, regular physical activity has many physical health benefits, including a reduced risk of coronary heart disease, hypertension, strokes, some cancers, and premature mortality.⁵ Regular physical activity also has many attendant emotional health benefits; it reduces depression, anxiety, stress, as well as improves mood and the ability to perform tasks.⁶

As shown in Figure 7-4, the vast majority of residential area in Mira Mesa is within walking distance of an existing park. There are other indoor gymnasiums and recreational facilities in Mira Mesa, which provide additional opportunities for residents to exercise and recreate.

Although walking to community amenities is possible, the auto-centric design of much of Mira Mesa, make walking unpleasant and unsafe. As previously discussed in Section 3.2 and illustrated in Figures 3-3 and 3-4, Mira Mesa is largely comprised of large blocks and wide, multi-lane roads that cater to cars rather than bicyclists and pedestrians and large extents of streets without shade trees. This type of development is not inviting to bicyclists and pedestrians and disincentivizes these modes of travel for day-to-day activities.⁶

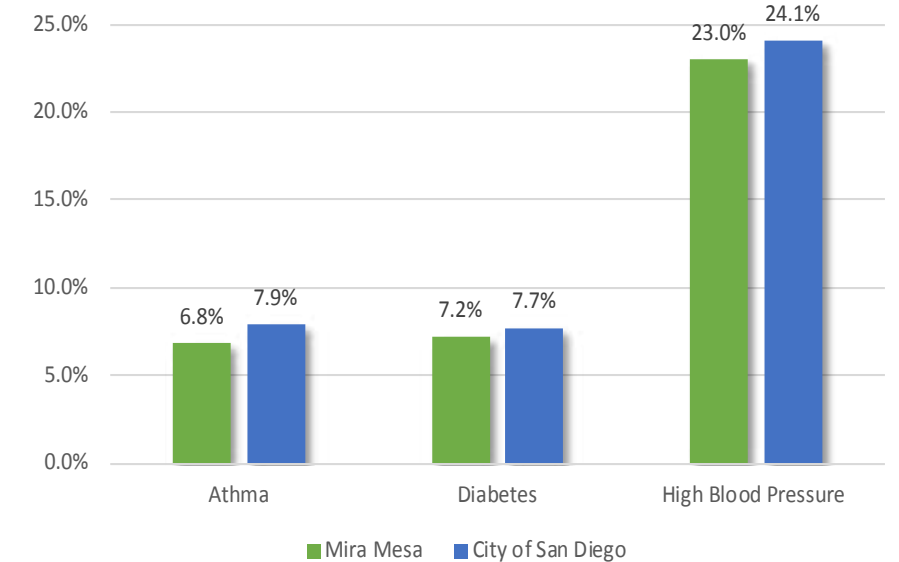
Chart 7-1 and 7-2 illustrates unhealthy behavior and selected health outcome of adults aged 18 years and older in Mira Mesa and the City of San Diego. Overall, residents of Mira Mesa have a better community health behavior and outcomes compared to citywide average.

Chart 7-1: Unhealthy Behavior



Note: Model-based estimates among adults aged >=18 years - 2015
Source: CDC 500 Cities Project: Local Data for Better Health

Chart 7-2: Health Outcomes



Note: Model-based estimates among adults aged >=18 years - 2015
Source: CDC 500 Cities Project: Local Data for Better Health

³ L. Frank et al., "Linking Objectively Measured Physical Activity with Objectively Measured Urban Form: Findings from SMARTRAQ", Vol. 28, Issue 2, *American Journal of Preventative Medicine*, at 117-125 (February 2005).

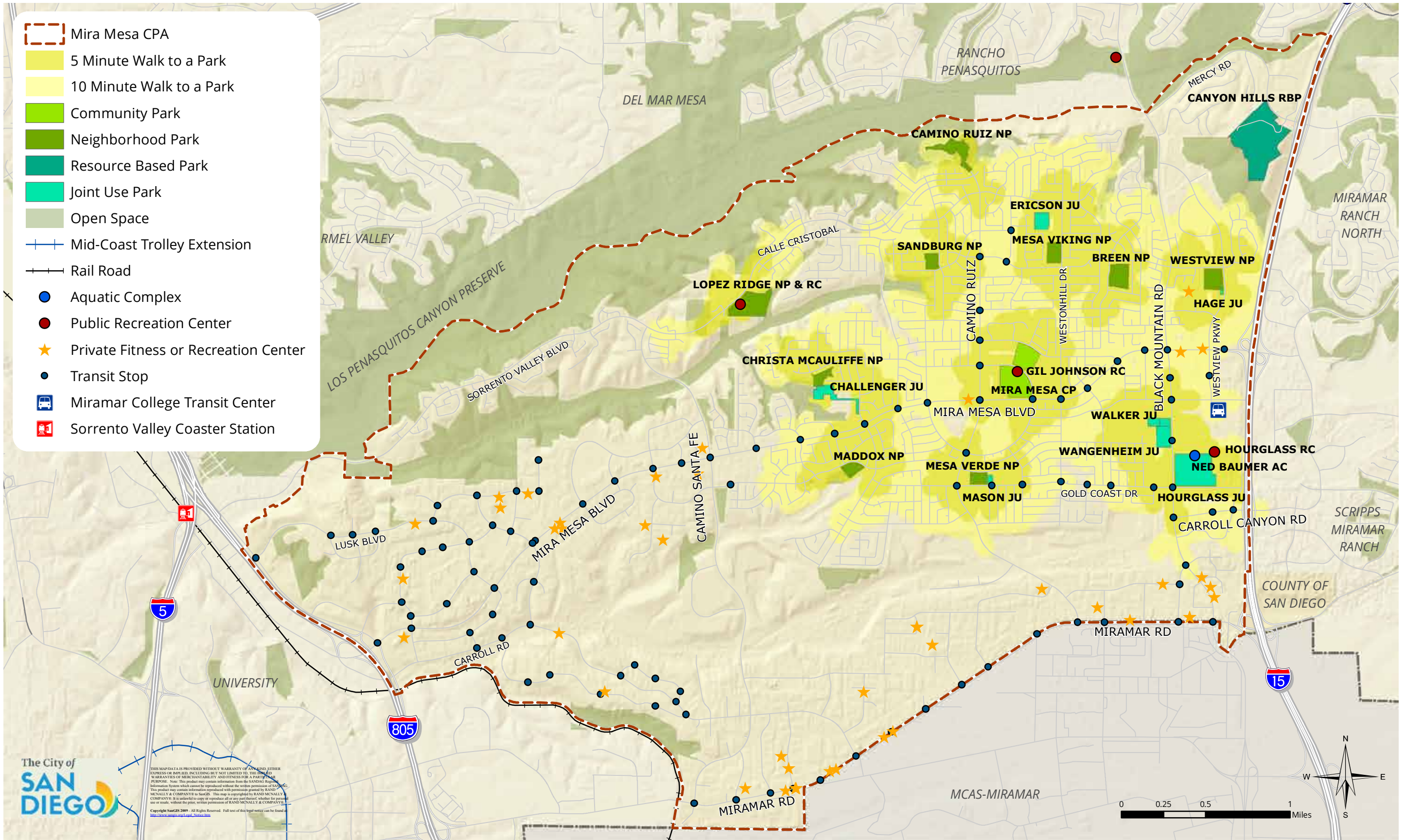
⁴ L. Besser and A. Dannenberg, "Walking to Public Transit: Steps to Help Meet Physical Activity Recommendations". Vol. 32, Issue 4, *American Journal of Preventive Medicine*, at 273-280 (November 2005).

⁵ U.S. Department of Health and Human Services, *Physical Activity and Health: A Report of the Surgeon General* (Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996), 4-8, <http://www.cdc.gov/nccdphp/sgr/pdf/sgrfull.pdf>.

⁶ Ibid., 8.

⁷ P. Swift, et al., *Residential Street Typology and Injury Accident Frequency*, originally presented at the Congress for the New Urbanism, Denver CO, (June 1997; updated 2006).

Figure 7-4: Access to Parks, Fitness and Recreation Centers



Access to Transit, Schools & Amenities

Convenient access to public transit also helps community members bring healthy living into their daily routines. Almost one-third of Americans who commute to work via public transit meet their daily requirements for physical activity (30 or more minutes a day) by walking as a part of their daily life, including to and from the transit stop.⁴

Walkable access to healthy foods is important to community's health. The presence of a supermarket in a neighborhood is linked to higher fruit and vegetable consumption, as well as a reduced incidence of obesity.⁸ A healthy community also provides convenient access to schools. Proximity to schools makes it easier for children to walk or bike to school, which, in turn, is associated with higher overall physical activity throughout the day.

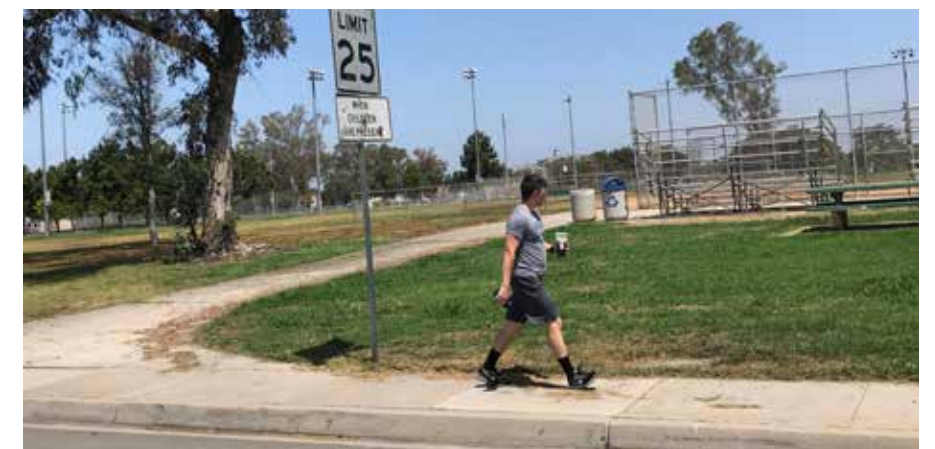
Figure 7-5 depicts access to transit stops, schools and amenities that support a healthy community in Mira Mesa, although, it should be noted, it is not possible to show all services and facilities that provide a benefit to the community and its members. Many employment areas are accessible via public transit. As Figure 7-5 indicates, there are eight grocery stores, sixteen schools, and forty-six fitness and recreation centers that can be easily accessed through public transit. Many of Mira Mesa's residences are within a half-mile walk of a grocery store, schools, and fitness facilities, but there is a limited access to grocery store and school in the western side of the planning area.



Mira Mesa High School Mascot



Ethnic grocery store



Pedestrian walking back from a cafe

⁸ Inagami, S., et al., "You Are Where You Shop: Grocery Store Locations, Weight, and Neighborhoods", Vol. 31, Issue 1, American Journal of Preventative Medicine, at 10-17 (2006). See also K. Morland et al., "Supermarkets, Other Food Stores, and Obesity: The Atherosclerosis Risk in Communities Study", Vol. 30, Issue 4, American Journal of Preventative Medicine, at 333-339 (2006).

8. Opportunities and Constraints

8.1 OPPORTUNITIES AND CONSTRAINTS

All of the natural, physical, and economic systems analyzed in earlier sections shape how people in Mira Mesa live, work, play and move. Figure 8-1 combines these many factors to identify areas of opportunity where policies may most effectively reinforce and build on existing community assets and highlight areas of transition where change can contribute to an evolving long-term vision for the community.

Three major community features impose site constraints on development in Mira Mesa.

1. Aviation operations at MCAS Miramar generate noise and potential safety impacts on surrounding area. The resulting land use compatibility policies focus on limiting or avoiding new land uses that are sensitive to aircraft noise, minimizing the concentration of people in the event of an off-airport aircraft accident or emergency landing, and ensuring that tall structures and other uses of land do not cause hazards to aircraft in flight. The noise contours and safety zones shown in Figure 8-1 represent these constrained areas. Similarly, contiguous areas of prime industrial land limit development potential for surrounding areas.
2. Prime industrial land (PIL) policy seeks to maintain or expand industrial land use designations, preserve or apply strict industrial zoning, and limit public assembly and sensitive receptor uses.
3. Naturalized slope, canyon and sensitive habitat protect the area's natural assets from future development.

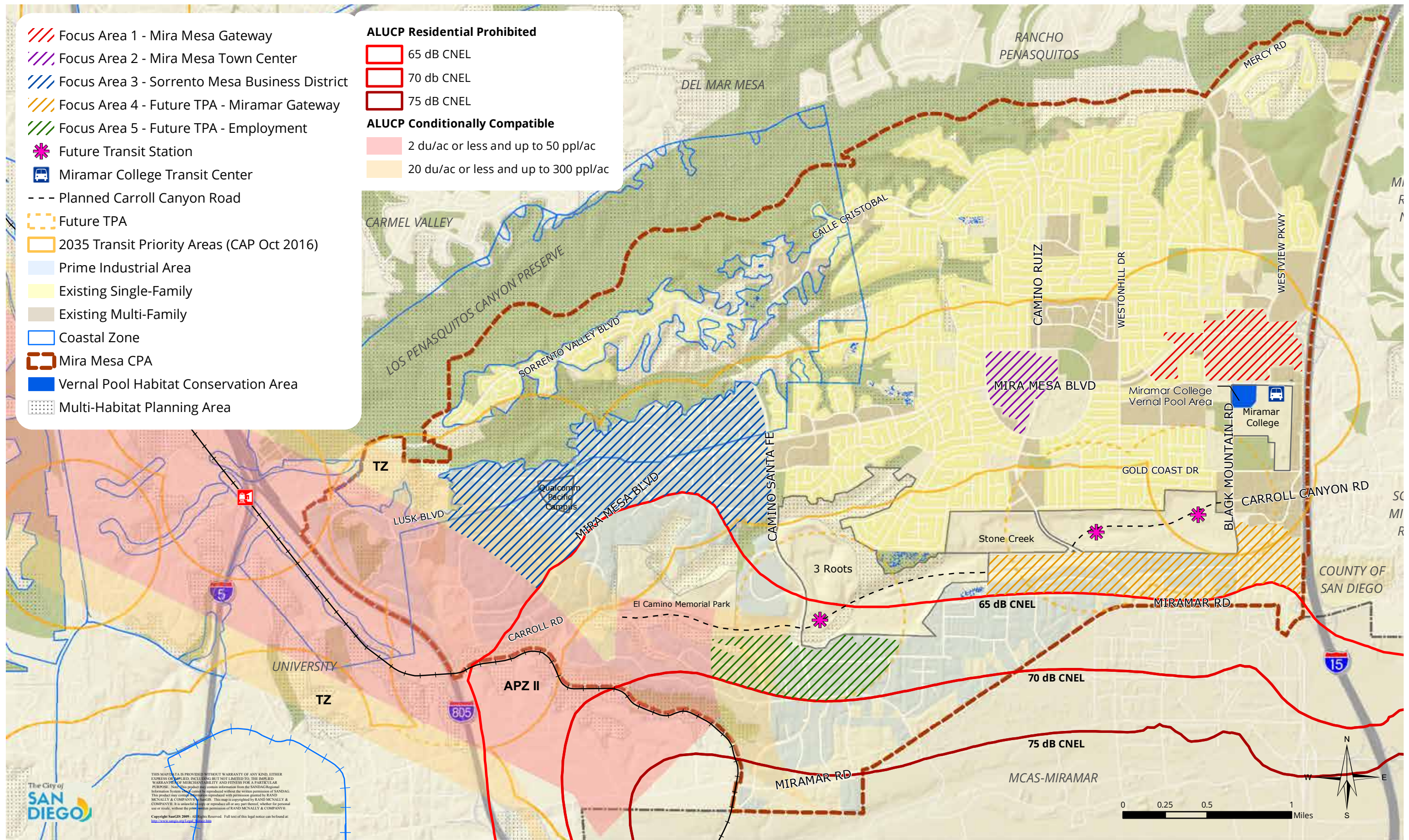
While these areas face development constraints of varying degrees, other portions of Mira Mesa could more readily adapt to potential land use change.

Figure 8-1 highlights five potential focus areas to update policies related to land use, mobility, and community design. Focus areas are intended to address a generalized area where additional analysis and consideration is warranted to support existing city policies and the goals of the community by building on the overall strength of Mira Mesa as an employment center and an inclusive family-oriented neighborhood.



Multi-level land use analysis help identify focus areas

Figure 8-1: Opportunities & Constraints



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