

Attachment No. 1
MoVal 2040 Vision and Guiding Principles

MoVal 2040 Vision and Guiding Principles

Dynamic Economy

- **Diversify the local economy**, building on strengths in health care, education and attracting new businesses
- Create a **flexible land use framework** that facilitates job growth and livability
- Create **well-paying jobs** for locals in Moreno Valley to reduce the need for long commutes
- Ensure **adequate infrastructure** to support local job growth
- Partner with business, industry and educational institutions on **training and workforce preparedness** programs
- Promote **tourism and attract visitors**, leveraging natural assets like Lake Perris
- Improve **socio-economic conditions** for all MoVal residents

Vibrant Gathering Places

- Foster **Town Centers** as places for locals and visitors to shop, dine, do business, and have fun
- Create **inviting gateways** into Moreno Valley from freeways and major roadways
- Provide **sports, recreation, and cultural facilities** that provide a range of options for youth, families, and seniors and attract visitors to Moreno Valley
- Design and program public spaces that reflect MoVal's **cultural diversity**

Community Identity

- Build local pride and a **strong sense of place** (with attractive neighborhoods, design standards, and drought tolerant landscaping)
- Make Moreno Valley a **Destination City** with a modern, innovative brand and become a model community where people choose to live, work, and play
- Provide **activities for youth and families** to build community bonds
- Support churches, community groups, and non-profit organizations to deliver **community services** and address homelessness.

Livable Neighborhoods

- Recognize that **housing affordability** is critical so people can grow up and grow older in Moreno Valley
- Provide housing adapted to our **future needs and lifestyles**
- Create opportunities for **neighborhood interaction** (ex: farmers' markets, community gardens)
- Prioritize **safety** on roads, near schools, in public places and neighborhoods
- Promote **active lifestyles** with trail connections, parcourse courses, and other recreational amenities
- Prioritize clean air, water, fresh food, and **community health**
- Maintain roads in good condition, improve traffic circulation, and plan for new technology that **optimizes mobility**
- Ensure Moreno Valley is **livable and welcoming** for seniors, veterans and other special needs groups.

Attachment No. 2
ECR Chapter 1: Introduction

1

INTRODUCTION

This chapter summarizes the purpose and organization of the Existing Conditions, Opportunities, and Constraints Report, the General Plan’s purpose and the updating process, and describes the Planning Area and regional setting.

1.1 INTRODUCTION AND REPORT PURPOSE

The City of Moreno Valley is preparing an update of its General Plan, which will establish the city’s overall approach to development, transportation, environmental quality, housing, and other key topics through 2040. The city’s current General Plan dates to 2006 and needs to be updated to reflect opportunities, challenges, and approaches that have emerged in recent years.

This Existing Conditions, Opportunities, and Constraints Report represents the first major step in the process of updating the City of Moreno Valley’s General Plan. The report, representing conditions as of December 2019, provides a baseline of information that will be used at multiple stages throughout the process including:

- Facilitating community input on planning issues, priorities, and visions for the future;
- Preparing alternative land use and transportation planning scenarios;
- Formulating policies and implementation actions for the General Plan; and
- Creating the environmental setting portion of the Environmental Impact Report for the General Plan.

1.2 GENERAL PLAN PURPOSE AND PROCESS

PURPOSE OF THE GENERAL PLAN

The general plan is a statement of the community's vision of its long-term or ultimate physical form and development policies. The State of California mandates that “...each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning.” (Govt. Code 65300). A city's general plan has been described as its development constitution—the set of policies within which development regulations and decisions must fit.

The State mandates that all general plans cover at least seven “elements”: land use, circulation, housing, conservation, open space, noise, and safety. Per requirements of Senate Bill 1000, “The Planning for Healthy Communities Act,” the Moreno Valley General Plan Update will also discuss and address environmental justice issues for identified disadvantaged communities. In addition, a city or county may include other “optional” elements; examples of these that jurisdictions have adopted include air quality, health, sustainability, community design, economic development, energy, water and wastewater, and parks and recreation. The Moreno Valley General Plan Update will include the preparation of an Economic Development element. All elements, regardless of whether they are mandatory or optional, carry equal weight.

The general plan must be “internally consistent;” that is, it should “...comprise an integrated, internally consistent and compatible statement of policies for the adopting agency.” (Govt. Code 65300.5). Furthermore, all actions relating to physical development need to be consistent with an adopted general plan. This requirement implying “vertical consistency” means that subdivisions, capital improvements, development agreements, specific plans, zoning, and other land use regulatory actions must be consistent with the general plan.

The purpose of the Moreno Valley General Plan Update is to establish the city’s long-term blueprint for the community’s vision of future growth. This General Plan Update will be the second comprehensive update in the city’s history. In 1984, the communities of Edgemont, Sunnymead, and Moreno combined with nearby areas to form the relatively young City of Moreno Valley. At the time of incorporation, the population was 49,702. By 1988, when the first General Plan was adopted, the population had grown to 90,675.

By the last General Plan Update in 2006, the city’s population was 165,328. As the City embarks on this comprehensive General Plan Update, the city’s current population is 208,297.

PROCESS OF THE GENERAL PLAN UPDATE

The General Plan Update process will take place in four main phases. **Phase 1** will encompass project initiation, citywide visioning, and issue identification. In **Phase 2**, the planning team will propose alternatives to address the issues and opportunities identified in the first phase. **Phase 3** will see draft documents created, and in **Phase 4**, the City Council and Planning Commission will hold hearings for final adoption. Community input will be vital to the process in every phase, from identifying the big themes for the plan to providing input on the final plans.



1.4 REPORT ORGANIZATION

This Existing Conditions, Opportunities, and Constraints Report is divided into multiple chapters. Chapters in the report are organized by topic. Analysis on each topic is communicated through text, tables, and figures. Key findings and planning implications are summarized at the end of each chapter. Chapters are as follows:

Chapter 1: Introduction/Community Overview outlines the purpose and organization of the Existing Conditions, Opportunities, and Constraints Report, summarizes the General Plan's purpose and the updating process, and describes the Planning Area and regional setting.

Chapter 2: Land Use discusses existing land uses in the Planning Area, describes the existing General Plan and other planning efforts, and gives an overview of major recent developments and potential opportunity areas.

Chapter 3: Neighborhood Character examines the existing character of the Planning Area, including an analysis of the existing street grid and architecture in different neighborhoods.

Chapter 4: Public Safety, Services, and Facilities describes key public services, including parks, recreation, trails, and open space; public safety services; and schools, libraries, and cultural and civic facilities.

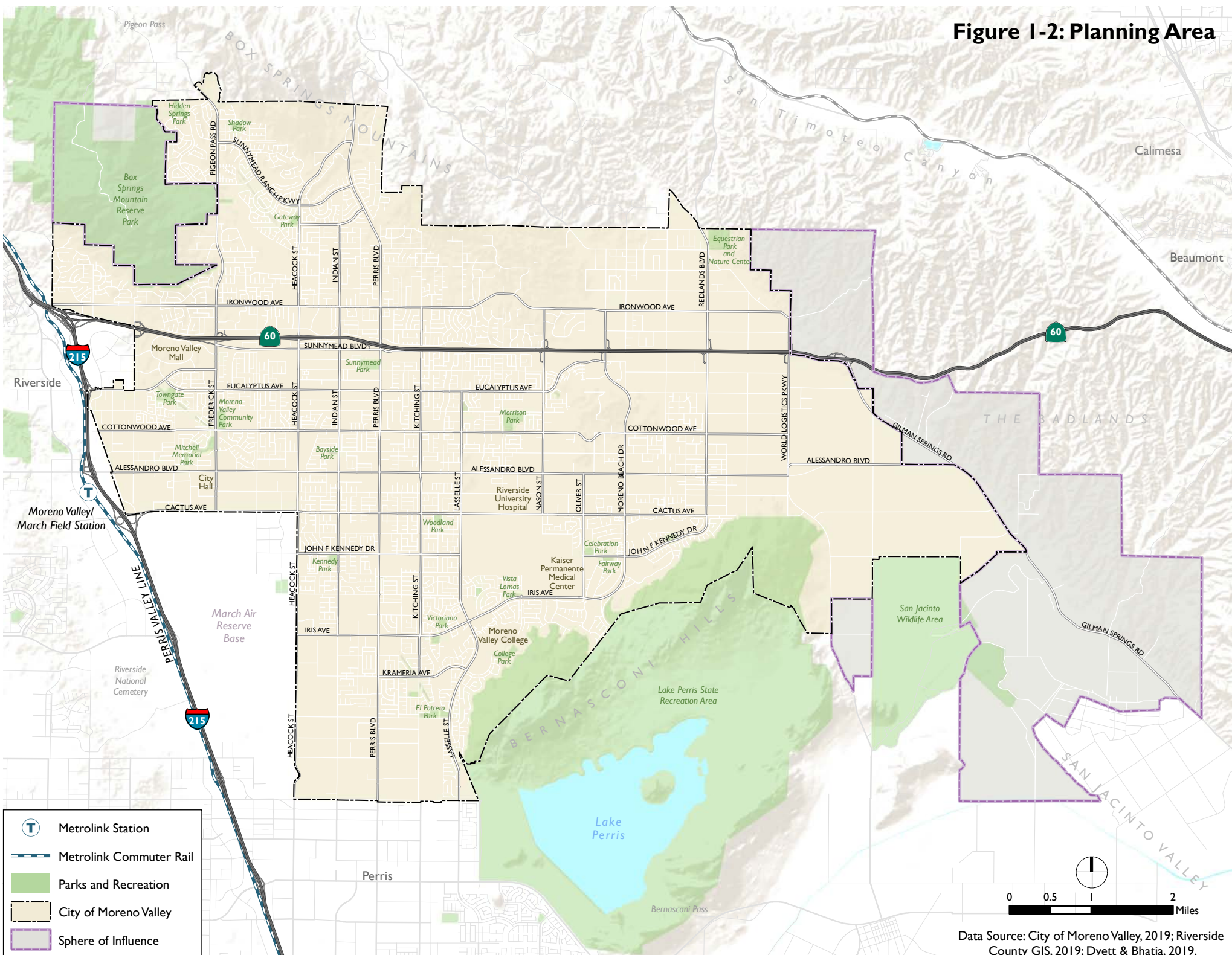
Chapter 5: Traffic and Circulation discusses the Planning Area's existing transportation infrastructure, including roadways, bicycle and pedestrian facilities, and transit. It also describes truck routes and traffic distribution patterns throughout the city.






Chapter 6: Infrastructure and Utilities summarizes the capacities of wet utilities (water, wastewater, recycled water, storm drainage) given existing and planned growth in the city.

Chapter 7: Environmental Conditions provides an overview of environmental conditions in the Planning Area, including air quality; biological resources; hydrology, flooding and watersheds; hazards and hazardous materials; geology and soils; greenhouse gases and climate action planning; and noise.

A separate market analysis document will be provided to complement the Existing Conditions, Opportunities, and Constraints Report. The market analysis will provide an overview of the market characteristics exhibited by the residential, office, industrial, hospitality, and retail uses in the market area. The analysis will also identify development opportunities and constraints for these varied land uses based on assessment of current market conditions.

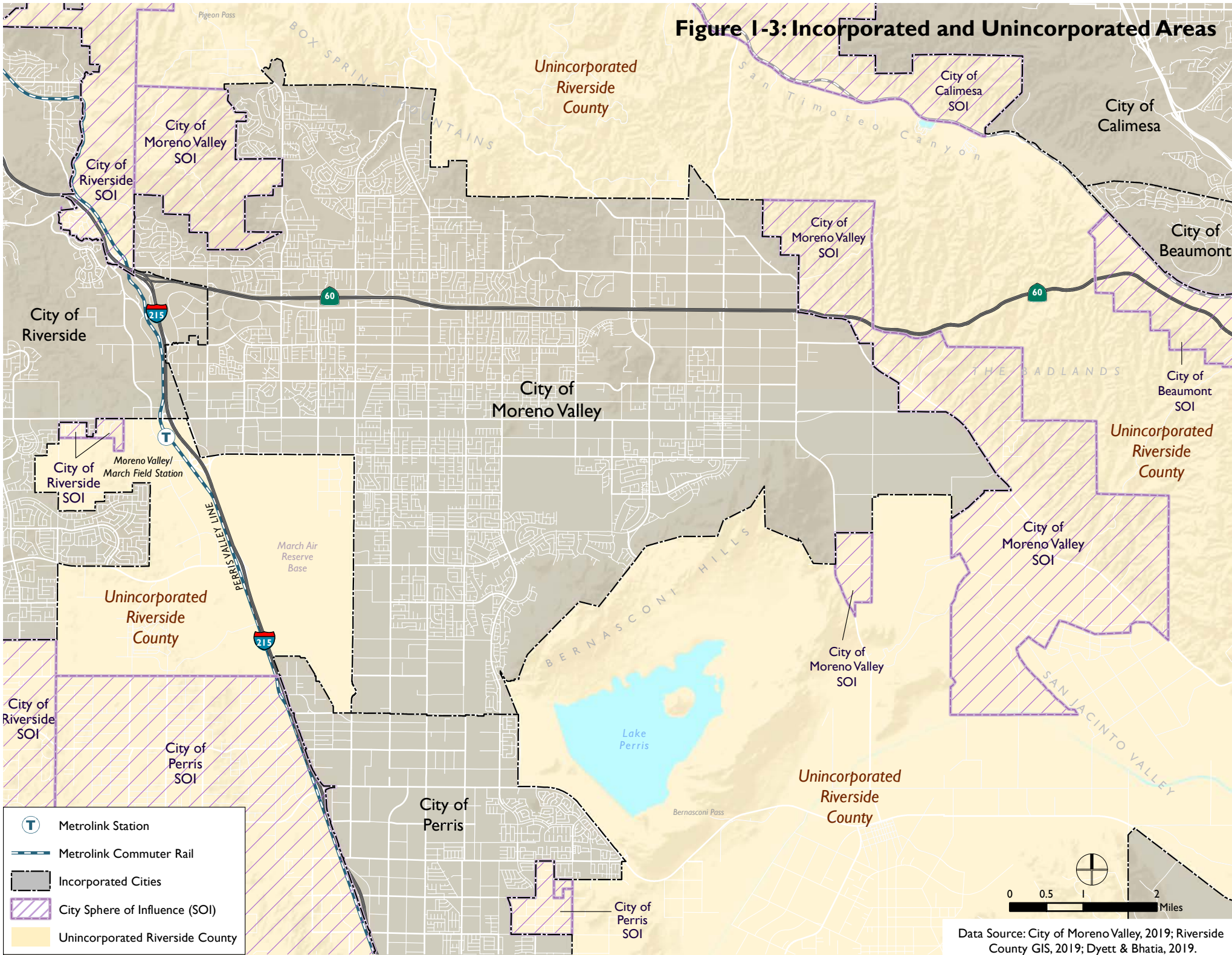
Figure I-2: Planning Area



-  Metrolink Station
-  Metrolink Commuter Rail
-  Parks and Recreation
-  City of Moreno Valley
-  Sphere of Influence

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Figure 1-3: Incorporated and Unincorporated Areas



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Attachment No. 3
ECR Chapter 2: Land Use

2

LAND USE

This chapter summarizes existing conditions and issues relevant to land use in the Planning Area. It also describes the existing General Plan and other planning efforts and gives an overview of major recent developments. A summary of findings and implications is provided at the end of the chapter.

2.1 EXISTING LAND USE

The total area of land in the Planning Area is approximately 42,900 acres or 67 square miles, of which 33,000 acres are within the City limit. Land outside of the City limit but within the Sphere of Influence (SOI) is largely undeveloped natural open space or in use for agricultural purposes. A summary of existing land uses is displayed in Table 2-1 based on data from the City of Moreno Valley and Riverside County. Figure 2-1 provides a map of existing land use.

Residential land uses account for nearly 32 percent of land (10,479 acres) within the City limit, concentrated primarily in the western and central portions of the city where most development has historically occurred. Single-family housing accounts for the bulk of all residential uses within the city, while multi-family housing accounts for less than 3 percent. Established single-family neighborhoods include Hidden Springs, Sunnymead Ranch, and Moreno Valley Ranch. Single-family attached and multi-family housing is generally present in all residential neighborhoods, with the highest concentrations just south of the commercial stretch of Sunnymead Boulevard between Heacock Street and Perris Boulevard.

Commercial land uses, including retail, office, and lodging, account for 2.3 percent of the land within the Planning Area. Within the City limit, commercial land uses account for 3 percent of citywide land use (994 acres). Commercial uses are primarily concentrated in shopping centers such as the Moreno Valley Mall, TownGate, Moreno Valley Plaza, The District, Stoneridge Towne Center,

Moreno Valley Auto Mall, Moreno Beach Plaza, Alessandro Plaza, and Sunnymead Towne Center. These areas include a mix of restaurants, retail stores, hotels, and personal services depending on the location. The Moreno Valley Mall and TownGate Highlands, Crossing, and Promenade at the western end of the city have the largest concentrations of commercial development.

Industrial land uses, including light industrial and general industrial, represent 3.7 percent (1,584 acres) of the Planning Area. Within the City limit, industrial land uses account for 4.8 percent of citywide land use (1,584 acres). Industrial land uses in Moreno Valley are clustered around three main areas: between Alessandro Boulevard and Cactus Avenue, and Heacock Street and Elsworth Street (including the area formerly known as Centerpointe Business Park) (Harbor Freight Tools location; west), Moreno Valley Industrial Area (Amazon location; south), and the SR-60 Business Park Area (Skechers location; east). These existing industrial land uses are sited near the periphery of the city, proximate to freeway network access.

Public and Community Facilities land uses occupy 1,756 acres or approximately 4.1 percent of the Planning Area. Within the City limits, public and community facilities land uses account for 5.3 percent of citywide land use (1,752 acres). This includes a variety of public or semi-public lands, such as hospitals/care facilities, churches/religious facilities, schools/educational facilities, branches of government, and utilities. Schools/education facilities comprise the majority of this existing land use category with 866 acres of land, followed by utilities with 505 acres of land. The varied land uses of this category are dispersed throughout the city with more locations in the western and southern portions of the city.

Parks and Recreation land uses, including parks and recreation spaces, greenways and open space, conserved lands, and golf courses, comprise 8,317 acres or approximately 19.4 percent of the Planning Area. In the city, parks and recreation land uses account for about 12.4 percent of citywide land (4,100 acres), mostly conserved lands and greenways/open space. Moreno Valley has many parks such as Gateway Park, Sunnymead Park, Woodland Park, Kennedy Park, the Equestrian Park and Nature Center, and the Hound Town Dog Park. These parks and other recreation areas are dispersed throughout the city. As of December 2019, the once popular golf facility, Moreno Valley Ranch Golf Course, in the southern portion of Moreno Valley is not in operation.

Agriculture land accounts for approximately 3,969 acres or 9.2 percent of Planning Area. Almost all of the agriculture lands in the Planning Area are located outside the City limit to the east. Within Moreno Valley, there is less than 1 percent of agriculture land located primarily in the northern portion of the city above SR-60.

Vacant land accounts for 27 percent of the land within the City limit (8,901 acres). Vacant land is primarily located in the eastern part of the city, both north and south of SR 60; however, there are several major approved/in-progress but as-yet unconstructed developments, summarized as follows.

- Aquabella is a gated active-adult community approved for 2,900 dwelling units on 685 acres between Brodiaea Avenue and Iris Avenue, part of the Rancho Belago neighborhood. The Aquabella Specific Plan was adopted in 2005.

- The World Logistics Center (WLC) is a master-planned development encompassing up to 40.6 million square feet of building area specifically designed to support large-scale logistics operations. The WLC Specific Plan covers 2,610 acres (7.9 percent of citywide land) in the eastern portion of the city, south of SR-60.
- The Moreno Valley Logistics Center is located in the southern portion of the city, south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street, and west of Indian Street. The Moreno Valley Logistics Center includes four buildings providing 1.7 million total square feet of building space on approximately 89 acres of land.
- The Brodiaea Commerce Center is located in the central-western portion of the city north of Brodiaea Avenue, west of Heacock Street, and south of Alessandro Boulevard. The Brodiaea Commerce Center includes one industrial warehouse with approximately 262,000 square feet of building space on 12 acres of land.

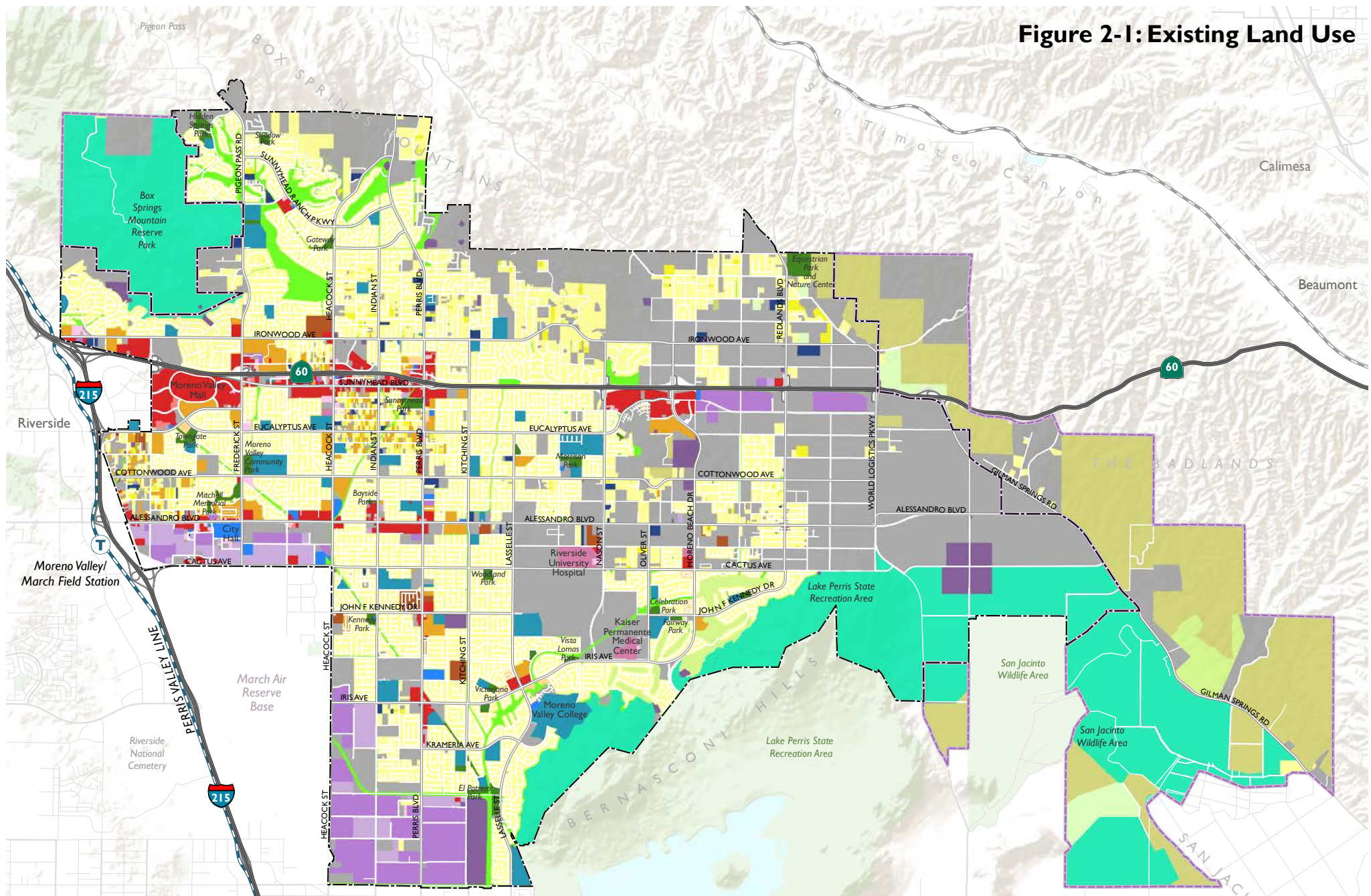
Table 2-1: Existing Land Use

Existing Land Use Category	City of Moreno Valley		Sphere of Influence		Total Planning Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Residential	10,479.4	31.8%	337.4	3.4%	10,816.8	25.2%
Single-Family Residential	9,375.2	28.4%	59.8	0.6%	9,435.0	22.0%
Multi-Family Residential	621.8	1.9%	-	0.0%	621.8	1.4%
Duplex/Two-Family Residential	234.6	0.7%	-	0.0%	234.6	0.5%
Mobile Home Parks	146.0	0.4%	-	0.0%	146.0	0.3%
Condominium/Townhomes	70.7	0.2%	-	0.0%	70.7	0.2%
Ag Residential	31.0	0.1%	277.7	2.8%	308.6	0.7%
Commercial	993.7	3.0%	-	0.0%	993.7	2.3%
General/Retail Commercial	852.0	2.6%	-	0.0%	852.0	2.0%
Office	89.7	0.3%	-	0.0%	89.7	0.2%
Service Station	28.9	0.1%	-	0.0%	28.9	0.1%
Hotel/Motel/Lodging Commercial	23.0	0.1%	-	0.0%	23.0	0.1%
Industrial	1,583.6	4.8%	-	0.0%	1,583.6	3.7%
General Industrial	1,119.4	3.4%	-	0.0%	1,119.4	2.6%
Light Industrial	464.1	1.4%	-	0.0%	464.1	1.1%
Public and Community Facilities	1,752.4	5.3%	3.3	0.0%	1,755.7	4.1%
Schools/Educational Facilities	866.3	2.6%	-	0.0%	866.3	2.0%
Utilities	502.0	1.5%	3.3	0.0%	505.4	1.2%
Church/Religious Facilities	161.3	0.5%	-	0.0%	161.3	0.4%
Public Facilities	115.0	0.3%	-	0.0%	115.0	0.3%
Hospitals/Care Facilities	107.8	0.3%	-	0.0%	107.8	0.3%
Parks and Recreation	4,114.5	12.5%	4,217.4	42.5%	8,331.9	19.4%
Conserved Lands	2,702.8	8.2%	3,973.0	40.1%	6,675.7	15.6%
Greenways/Open Space	861.3	2.6%	-	0.0%	861.3	2.0%
Golf Course	273.8	0.8%	244.5	2.5%	518.3	1.2%
Park Facilities ¹	276.7	0.8%	-	0.0%	276.7	0.6%
Agriculture	189.4	0.6%	3,779.2	38.1%	3,968.6	9.2%
Agriculture ²	189.4	0.6%	3,779.2	38.1%	3,968.6	9.2%
Other	13,885.7	42.1%	1,582.3	16.0%	15,468.0	36.0%
Vacant	8,902.3	27.0%	1,361.8	13.7%	10,264.1	23.9%
Transportation/Roads/Rights-of-Way	4,983.4	15.1%	220.5	2.2%	5,203.9	12.1%
Total	32,997.0	100.0%	9,919.8	100.0%	42,916.7	100.0%

1. According to the City's Parks and Community Services Department, there are approximately 545 total acres of park land citywide. This figure includes City-owned golf facilities such as the Cottonwood Golf Course.

2. Agricultural data is based on available information from the County Assessor and may not reflect existing conditions.

Figure 2-1: Existing Land Use



	Agriculture		Service Station		Public Facilities		Utilities
	Ag Residential		Hotel/Motel/Lodging Commercial		Schools/Educational Facilities		Vacant
	Single Family Residential		General/Retail Commercial		Church/Religious Facilities		Metrolink Station
	Duplex/Two Family Residential		Office		Parks and Recreation		Metrolink Commuter Rail
	Condominium/Townhomes		Light Industrial		Greenways/Trails/Open Space/Flood Control		City of Moreno Valley
	Multi Family Residential		General Industrial		Regional Parks and Open Space/Conserved Lands		Sphere of Influence
	Mobile Home Parks		Hospitals/Care Facilities		Golf Course		

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

2.2 Current Land Use Plans and Regulations

The Moreno Valley area was originally settled by European inhabitants who began farming in the area in the 1850s after California joined the union. Urban development began after the establishment of the March Air Force base in 1927, and the unincorporated communities of Sunnymead, Moreno and Edgemont grew up around the base. From 1957 to 1989, the present-day Moreno Valley Mall was the site of the Riverside International Raceway, a motorsports race track and road course considered one of the finest in the country in its day.

The area experienced a period of rapid population growth between 1970 and 1992, fueled by the construction of new homes and businesses. During that period, the population went from approximately 19,000 residents to over 118,000. In 1984, the communities of Edgemont, Sunnymead, and Moreno came together to form the City of Moreno Valley and the first general plan was adopted in 1986 to guide future growth and development.

This section describes the current, adopted General Plan, Housing Element and Zoning Code, as well as past planning efforts and major recent planning initiatives.

EXISTING GENERAL PLAN (2006)

Adopted in 2006, the existing Moreno Valley General Plan provides goals, objectives, policies, and programs that guide the future character of the city. Acting as the “constitution” for the physical development of the city, the General Plan forms the basis of decisions concerning the development of property. The current, adopted General Plan includes all seven elements required by California

State law in 2006: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. Certain mandatory elements are combined to minimize redundancy and an optional Economic Development Element (Chapter 3) was planned for but not completed. The General Plan reflects the community vision developed through a robust public participation program that included stakeholder interviews, meetings and workshops, questionnaires and community surveys, multimedia advertisement, and input from the Planning Commission and City Council.

The existing General Plan is accompanied by a preamble that outlines the overall vision of development within Moreno Valley:

The City of Moreno Valley embraces the interests of its residents and strives to meet their needs by creating a sense of community. The commitment to this vision encourages attractive amenities and a full range of public services, while promoting a safe and healthy environment. It is the goal of the City to improve the quality of life by creating this “sense of place” and working together to encourage involvement and volunteerism while endeavoring to function in an effective, responsible, efficient and visionary manner.

All of the existing General Plan goals, objectives, policies, and programs are located in a singular chapter, Chapter 9, and serve the following purposes:

- **Goals** are general expressions of conditions that the City would like to attain.
- **Objectives** are specific conditions that the City would like to achieve.
- **Policies** are principles or guidelines intended to direct future activities and decisions in order to achieve the goals and objectives.

- **Programs** are plans of action to implement or advance the goals, objectives, and policies.

In 2006, eight “ultimate goals” were identified for the existing General Plan, detailed below.

The ultimate goals of the General Plan are to achieve a community which...

1. *Exhibits an orderly and balanced land use pattern that accommodates a range of residential, cultural, recreational, business and employment opportunities.*
2. *Is clean, attractive and free of blight and deteriorated conditions.*
3. *Provides public services and public facilities that are needed and desired by the community, including, but not limited to, a library(s) and library services.*
4. *Enjoys a healthy economic climate that benefits both residents and businesses.*
5. *Provides recreational amenities, recreation services and open space, including, but not limited to, parks, multi-use trails, community centers and open space.*
6. *Enjoys a circulation system that fosters traffic safety and the efficient movement of motor vehicles, bicycles and pedestrians.*
7. *Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.*
8. *Recognizes the need to conserve natural resources while accommodating growth and development.*

General Plan Land Use

The current, adopted General Plan land use designations are described in Table 2-2 and mapped in Figure 2-2.

Pending General Plan Amendments

As of December 2019, there are several pending General Plan Amendments in process, summarized/numbered below and depicted in Figure 2-3.

1. A General Plan Amendment from R5 Residential to R30 Residential and R2 Residential to Business Park/Light Industrial (BP) located on the east side of Merwin Street and bisected by Brodiaea Avenue. The total project area covers approximately 70 acres of land.
2. A General Plan Amendment from Residential/Office (R/O) to Community Commercial (CC) for a proposed 3,000 sq. ft. drive-thru restaurant and 3,000 sq. ft. convenience store at the northeast corner of Dracaea Avenue and Perris Boulevard. The total project area covers approximately 2.4 acres of land.
3. A General Plan Amendment from R2 Residential to Business Park (BP) for a 1.4 million sq. ft. warehouse/distribution building located at the southwest corner of the intersection of Eucalyptus Avenue and Redlands Boulevard. The total project area covers approximately 72.6 acres of land.
4. A General Plan Amendment from R5 Residential to Business Park/Light Industrial (BP) for the development of two industrial tilt-up buildings located at the southeast corner of the intersection of Heacock Street and Gentian Avenue. The total project area covers approximately 37.2 acres of land.

Figure 2-2: Existing General Plan Land Use Designations

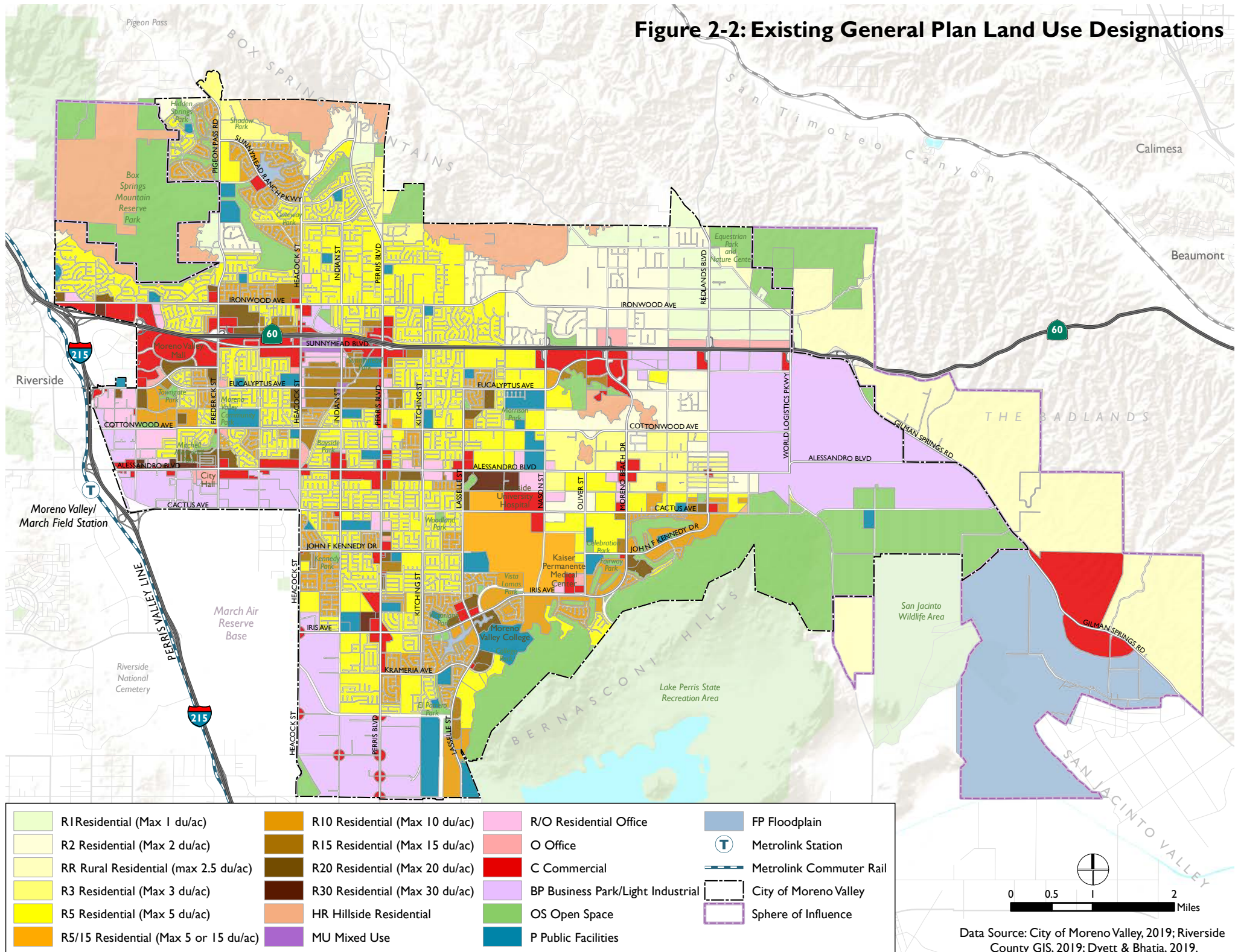


Table 2-2: General Plan Land Use Designations

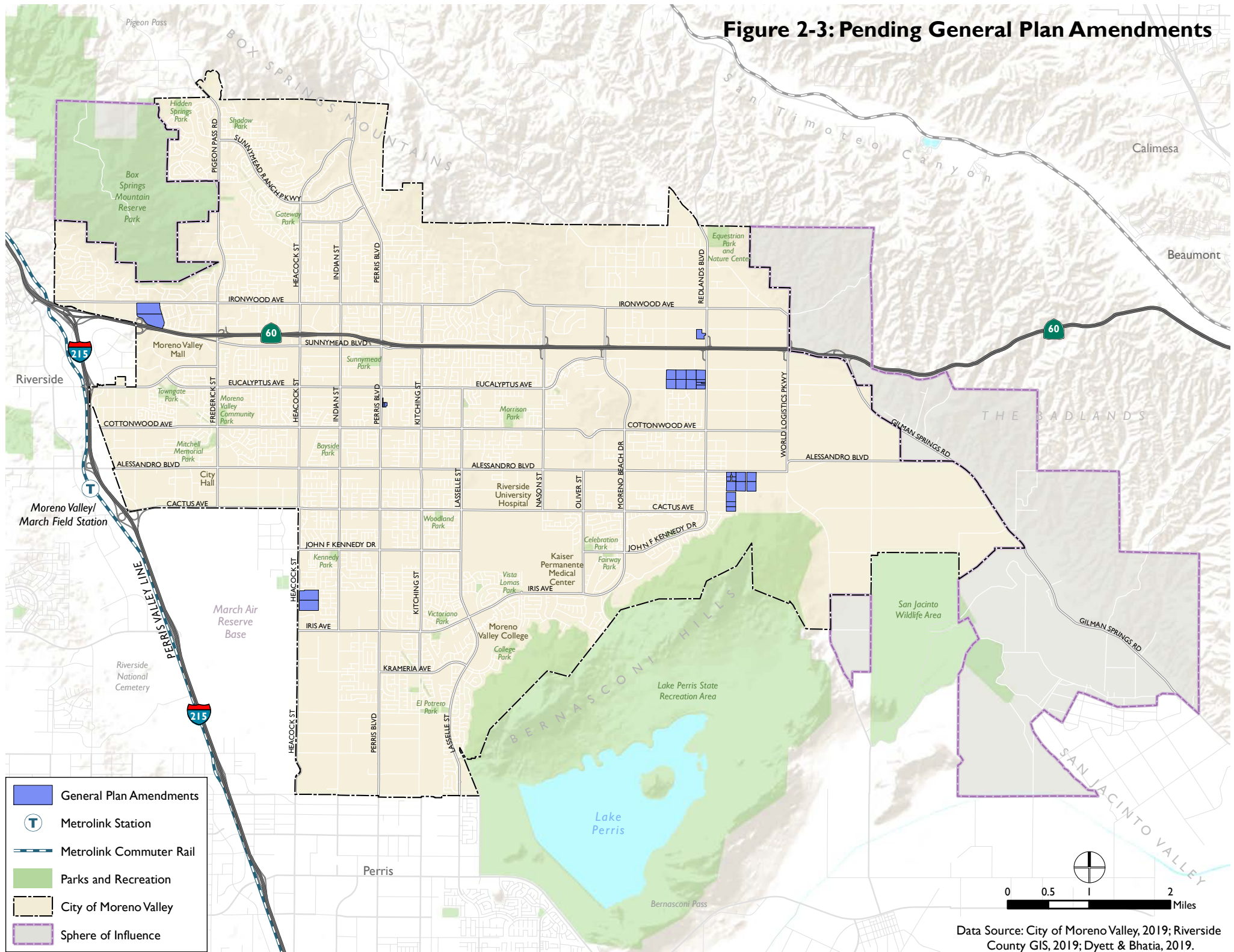
<i>General Plan Land Use</i>	<i>Primary Purpose</i>	<i>Maximum Density</i>
Residential		
Hillside Residential (HR)	Balance the preservation of hillside areas with the development of view-oriented residential uses.	1 du/ac
Rural Residential (RR)	Provide for and protect rural lifestyles, as well as to protect natural resources and hillsides in the rural portions of the City.	2.5 du/ac
Residential 1 (R1)	Provide for and protect rural lifestyles.	1 du/ac
Residential 2 (R2)	Provide for suburban lifestyles on residential lots larger than commonly available in suburban subdivisions and to provide a rural atmosphere.	2 du/ac
Residential 3 (R3)	Provide a transition between rural and urban density development areas, and to provide for a suburban lifestyle on residential lots larger than those commonly found in suburban subdivisions.	3 du/ac
Residential 5 (R5)	Provide for single-family detached housing on standard sized suburban lots.	5 du/ac
Residential 10 (R10)	Provide for a variety of residential products and to encourage innovation in housing types. Developments within Residential 10 areas are typically expected to provide amenities not generally found in suburban subdivisions, such as common open space and recreational areas.	10 du/ac
Residential 15 (R15)	Provide a range of multi-family housing types for those not desiring dwellings on individual lots that include amenities such as common open space and recreational facilities.	15 du/ac
Residential 20 (R20)	Provide a range of high-density multi-family housing types. Developments within Residential 20 areas shall also provide amenities, such as common open spaces and recreational facilities.	20 du/ac

Table 2-2: General Plan Land Use Designations

<i>General Plan Land Use</i>	<i>Primary Purpose</i>	<i>Maximum Density</i>
Commercial		
Commercial (C)	Provide property for business purposes, including, but not limited to, retail stores, restaurants, banks, hotels, professional offices, personal services and repair services.	1.0 FAR
Office (O)	Provide for office uses, including, administrative, professional, legal, medical and financial offices.	2.0 FAR
Industrial		
Business Park/Light Industrial (BP)	Provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities.	1.0 FAR
Open Spaces		
Open Space (OS)	Provide areas that are substantially unimproved, including, but not limited to areas for outdoor recreation, the preservation of natural resources, the grazing of livestock and the production of crops.	0.10 FAR
Floodplain (FP)	Designate floodplain areas where permanent structures for human occupancy are prohibited to protect of the public health and safety.	0.05 FAR
Other		
Mixed Use (MU)	Provide for the establishment of commercial and office uses and/or residential developments.	1.0 FAR, 20 du/ac
Residential/Office (R/O)	Provide areas for the establishment of office-based working environments or residential developments.	1.0 FAR, 15 du/ac
Public/Quasi-Public	Provide property for civic, cultural and public utility uses, including, but not limited to schools, libraries, fire stations, museums, and government offices.	1.0 FAR

Source: City of Moreno Valley General Plan, 2006

Figure 2-3: Pending General Plan Amendments



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

5. A General Plan Amendment from R1 Residential to Commercial (C) for the development of a gas station, multi-tenant retail/service spaces, and motel located at the northeast corner of the intersection of Redlands Boulevard and Spruce Avenue. The total project area covers approximately 6.8 acres of land.
6. A General Plan Amendment from R15 Residential and Community Commercial (CC) to adjust existing boundaries between the two designations located at the southeast corner of Ironwood Avenue and Day Street. The total project area covers approximately 54.2 acres.

Some of the aforementioned projects will have planning implications to consider in light of California’s adoption of Senate Bill 330, the Housing Crisis Act of 2019. Through the General Plan Update process, redesignation and rezoning of affected sites may be studied in the context of plan alternatives.

2014-2021 HOUSING ELEMENT

The Housing Element is one of nine required elements of the General Plan. It provides an analysis of a community’s housing needs for all income levels and includes strategies to address those housing needs. Pursuant to State law, it is updated every eight years and must be approved by the State’s Department of Housing and Community Development. The City of Moreno Valley’s Housing Element for the period from 2014 through 2021 is published as a standalone document.

A critical input for the Housing Element is the Regional Housing Needs Assessment (RHNA), a process required under State housing law to determine projected and existing housing need for all jurisdictions in California. RHNA quantifies the “fair share” of regional housing need for a jurisdiction, breaking it out into four household income level categories utilized in federal and State programming. Moreno Valley’s share of the RHNA is determined by the Southern

California Council of Governments (SCAG) in consultation with jurisdictions throughout the region.

For the 2014-2021 planning period, the City of Moreno Valley’s “fair share” allocation is 6,169 units, broken down by income level categories as follows:

- Very Low-Income: 1,500 units (24.3 percent of total)
- Low-Income: 993 units (16.1 percent of total)
- Moderate-Income: 1,112 units (18.0 percent of total)
- Above Moderate-Income: 2,564 units (41.6 percent of total)

Every jurisdiction must plan for its RHNA allocation in the housing element of its General Plan by ensuring there are enough sites and adequate zoning in place to accommodate its RHNA allocation. To meet the RHNA allocation, the 2014-21 Housing Element identifies potential housing opportunity sites, depicted in Figure 2-4. The majority of housing opportunity sites are located in the eastern and northern portions of the city. In total, the Housing Element identifies sites that can accommodate 19,988 units across all income level categories—significantly more than the RHNA allocation.

It can be highlighted that the approved, not-yet-constructed World Logistics Center would displace approximately 249 sites (parcels) and 9,966 units previously identified by the 2014-21 Housing Element as housing opportunity sites. Further, following the adoption of the 2014-21 Housing Element, the Riverside County Airport Land Use Commission adopted the Airport Land Use Compatibility Plan (ALUCP), subsequently discussed, for the public-use and military airport located southwest of the city. Within the city limit, the plan affects over 250 sites (parcels) previously identified by the 2014-21 Housing Element as housing opportunity sites. It can be noted that there are some rezoned R30 Residential higher density sites included in the 2014-21 Housing Element that are inconsistent

with the ALUCP which places lower density restrictions on new residential development.

As of December 31, 2018, 1,182 units of the City's total RHNA of 6,169 have been constructed, leaving 4,987 remaining to be constructed. Moreno Valley is on a list of 298 California jurisdictions that have not made sufficient progress toward their Above Moderate income RHNA, and as such the City is subject to SB 35 (Chapter 366, Statutes of 2017) streamlining for proposed developments with at least 10 percent affordability. Enacted in 2017, SB 35 streamlines the approval process for infill developments in communities that have not met their RHNA. Under these provisions, proponents of projects that meet the requirements of the statute may apply for ministerial processing when proposed multi-family developments satisfy objective development standards established by the community in which the development is proposed. Objective standards are those which "involve no personal or subjective judgment by a public official and are uniformly verifiable by reference to an external and uniform benchmark or criterion." Such requirements must be available and "knowable" by both the applicant or project proponent and public officials and staff before the application is submitted.

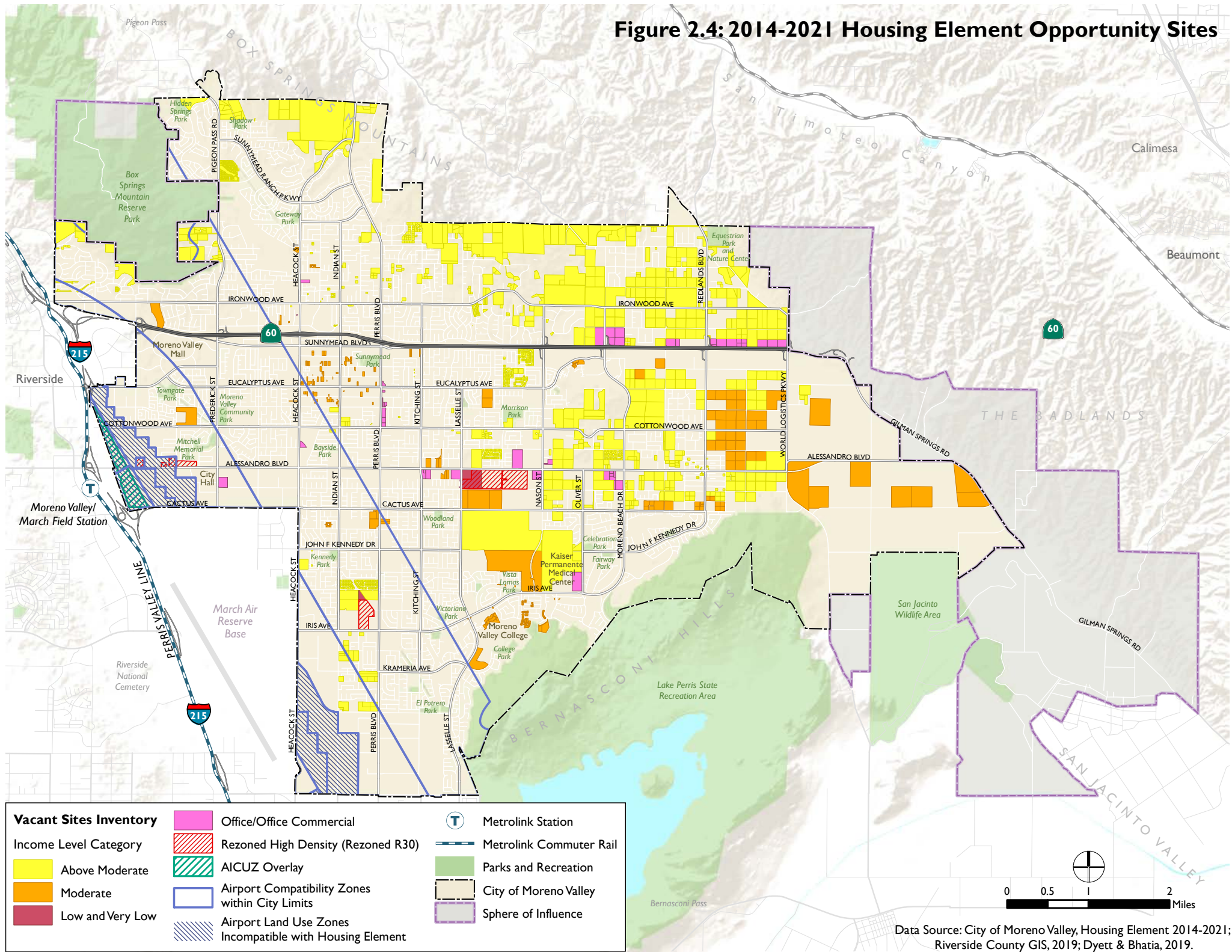
SCAG has released the 6th cycle RHNA allocation plan which covers the planning period October 2021 through October 2029. For the upcoming planning period, the City of Moreno Valley's RHNA is 13,495 units, broken down by income level categories as follows:

- Very Low-Income: 3743 units (28 percent of total)
- Low-Income: 2,032 units (15 percent of total)
- Moderate-Income: 2,145 units (16 percent of total)
- Above Moderate-Income: 5,574 units (41 percent of total)

Government Code Section 65583.2(c) stipulates that the inventory of housing element opportunity sites for the 2021-2029 Housing Element may not include a non-vacant site identified in a prior housing element or a vacant site identified in two or more consecutive planning periods that was not approved for developing housing to meet housing need unless it meets certain additional criteria. The additional criteria includes the site being able to be developed at a higher density and also subject to a program in the housing element requiring rezoning within three years of the start of planning period to allow residential-by-right for housing in which at least 20 percent of the units are affordable to lower income households.

The sites inventory included in the 2008-2014 Housing Element and the 2014-2021 Housing Element relied heavily on the use of vacant sites. Therefore, any lower income vacant sites that were listed in the prior housing elements and also planned for use in the upcoming 2021-2029 Housing Element will be subject to the by-right and 20 percent inclusionary requirements. The intention of this requirement is to incentivize residential development on sites previously deemed suitable for housing but that have not seen development by increasing allowable density and streamlining the approval process.

Figure 2.4: 2014-2021 Housing Element Opportunity Sites



Vacant Sites Inventory	Office/Office Commercial	Metrolink Station
Income Level Category	Rezoned High Density (Rezoned R30)	Metrolink Commuter Rail
Above Moderate	AICUZ Overlay	Parks and Recreation
Moderate	Airport Compatibility Zones within City Limits	City of Moreno Valley
Low and Very Low	Airport Land Use Zones Incompatible with Housing Element	Sphere of Influence

Data Source: City of Moreno Valley, Housing Element 2014-2021; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

ZONING CODE

The Moreno Valley Development Code, included as Title 9 of the Municipal Code, controls the physical development of land and the kinds of uses allowed on each individual property within the City limit. The Code implements the General Plan, providing specific requirements for lots size, building placement, density of development, and height in addition to regulating allowable uses. As with the General Plan land use designations, zoning designations do not always coincide with existing land uses and development intensities as built. Moreno Valley's Zoning Code only applies within the City limit, whereas the sphere of influence is under Riverside County zoning regulations. Figure 2-5 maps the existing zoning districts for the Planning Area. Table 2-3 provides zoning descriptions for Moreno Valley.

Moreno Valley's residential areas, as stipulated in the Development Code, are characterized by a mix of minimum lot sizes that range from 4,500 square feet up to 1 acre or more. Larger lots are generally located in the northern portion of the city above SR-60 and multi-family zoning is more prevalent in the western portion of the city below and surrounding SR-60, west of Kitching Street. Single-family residential zoning is the overwhelming majority of current land zoning and development within the City limit; approximately 10,220 acres or 31 percent of citywide land is zoned single-family residential. The maximum allowable building height in single-family zones is 2 stories or 35 feet maximum and the maximum allowable building height in multi-family zones is 50 feet. Maximum lot coverages, when prescribed, range from 25 to 50 percent—this means that yard spaces for residences are relatively large and extensive landscaping is required. Such requirements may add to the cost of purchasing homes and present a barrier to first-time home buyers. As such, reduced lot sizes in certain areas may be an option to explore as part of the General Plan Update in the interest of providing housing that is “affordable by design” and within reach for

young people who may wish to buy their first home in Moreno Valley.

Commercial areas in the city have Zoning Code-required minimum lot sizes ranging from 10,000 sq. ft. to one acre. Industrial and business park areas have minimum required lot sizes ranging from one acre to five acres. No height limits are prescribed as long as appropriate setbacks are followed. Maximum lot coverage of 60 percent is provided only for Office (O) and Office Commercial (OC) zoning districts. There are no specific Floor Area Ratio (FAR) maximums for commercial and industrial areas—other development guidelines for parking, height, setbacks, and the discretionary review process control development intensity. Commercial areas are generally clustered together with most commercial-zoned area located on the western portion of the city surrounding the Moreno Valley Mall and Sunnymead Boulevard and on the eastern portion of the city surrounding the Moreno Valley Auto Mall. Industrial areas are located generally near the peripheries of the city, concentrated around the March Air Reserve Base in the western and southern portions of the city and the approved, not-yet-constructed World Logistics Center in the eastern portion of the city, east of Redlands Boulevard. Overall, citywide commercial and industrial zoning regulations allow the development of large buildings on large lots generally near the edges of the city.

Table 2-3: Zoning Descriptions for Moreno Valley

<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
Residential				
Rural Residential (RR)	It is the intent of the RR district to provide for and protect rural lifestyles involving large lots growing fruits and vegetables, and animal keeping. It is the further intent of this district to protect natural resources and hillsides in the rural portions of the city.	Slopes of 10% or less: 1 dwelling unit per 2.5 acres; may be reduced by approved slope analysis	None	30 ft. overall height; slopes of less than 10%: 35 ft.
Hillside Residential (HR)	The primary purpose of the HR district is to balance the preservation of hillside areas with the development of view oriented residential uses. It is the further intent of this district to provide regulations for the limited development of those hillside areas in a manner that will maintain natural open space areas, protect significant landforms and other natural resources, protect views from existing development, retain opportunities for views from development sites, preserve and enhance vistas from public places, minimize the extent and occurrence of erosion and other potential hazards of development in areas of steep topography, and generally protect the public health, safety and welfare. The keeping of animals is permitted, however, the keeping of large animals may be prohibited subject to compatibility with local urbanization and topographic constraints.	Slopes of 10% or less: 1 dwelling unit per 1.0 acre; may be reduced by approved slope analysis	None	30 ft. overall height; slopes of less than 10%: 35 ft.
Residential 1 (R1)	The primary purpose of the R1 district is to provide for and protect the rural and agricultural atmosphere, including the keeping of animals, that have historically characterized these areas. This district is intended as an area for development of low density, large lot, single-family residential dwelling units at a maximum density of one dwelling unit (DU) per net acre.	40,000 sq. ft.	25%	2 stories not to exceed 35 ft.
Residential 2 (R2)	The primary purpose of the R2 district is to provide for suburban lifestyles on residential lots larger than are commonly available in suburban subdivisions, and to allow non-equestrian residential	20,000 sq. ft.	30%	2 stories not to exceed 35 ft.

Table 2-3: Zoning Descriptions for Moreno Valley

<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
Residential				
Rural Residential (RR)	It is the intent of the RR district to provide for and protect rural lifestyles involving large lots growing fruits and vegetables, and animal keeping. It is the further intent of this district to protect natural resources and hillsides in the rural portions of the city.	Slopes of 10% or less: 1 dwelling unit per 2.5 acres; may be reduced by approved slope analysis	None	30 ft. overall height; slopes of less than 10%: 35 ft.
Hillside Residential (HR)	The primary purpose of the HR district is to balance the preservation of hillside areas with the development of view oriented residential uses. It is the further intent of this district to provide regulations for the limited development of those hillside areas in a manner that will maintain natural open space areas, protect significant landforms and other natural resources, protect views from existing development, retain opportunities for views from development sites, preserve and enhance vistas from public places, minimize the extent and occurrence of erosion and other potential hazards of development in areas of steep topography, and generally protect the public health, safety and welfare. The keeping of animals is permitted, however, the keeping of large animals may be prohibited subject to compatibility with local urbanization and topographic constraints.	Slopes of 10% or less: 1 dwelling unit per 1.0 acre; may be reduced by approved slope analysis	None	30 ft. overall height; slopes of less than 10%: 35 ft.
Residential 1 (R1)	The primary purpose of the R1 district is to provide for and protect the rural and agricultural atmosphere, including the keeping of animals, that have historically characterized these areas. This district is intended as an area for development of low density, large lot, single-family residential dwelling units at a maximum density of one dwelling unit (DU) per net acre.	40,000 sq. ft.	25%	2 stories not to exceed 35 ft.
Residential 2 (R2)	The primary purpose of the R2 district is to provide for suburban lifestyles on residential lots larger than are commonly available in suburban subdivisions, and to allow non-equestrian residential developments in a rural atmosphere. This district is intended as an area for development of large lot, single-family residential development at a maximum allowable density of two DUs per net acre.	20,000 sq. ft.	30%	2 stories not to exceed 35 ft.

Table 2-3: Zoning Descriptions for Moreno Valley

<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
Residential Agriculture 2 District (RA2)	The primary purpose of the RA2 district is to provide for suburban lifestyles on residential lots larger than are commonly available in suburban subdivisions and to provide for and protect the rural and agricultural atmosphere, including the keeping of animals, that have historically characterized these areas. This district is intended as an area for development of large lot, single-family residential development at a maximum allowable density of two dwelling units (DU) per net acre.	20,000 sq. ft.	30%	2 stories not to exceed 35 ft.
Residential 3 (R3)	The primary purpose of the R3 district is to provide a transition between rural and urban density development areas, and to provide for a suburban lifestyle on residential lots larger than those commonly found in suburban subdivisions. This district is intended as an area for development of large lot, single-family residences at a maximum allowable density of three DUs per net acre.	10,000 sq. ft.	40%	2 stories not to exceed 35 ft.
Residential 5 (R5)	The primary purpose of the R5 district is to provide for residential development on common sized suburban lots. This district is intended as an area for development of single-family residential and mobile home subdivisions at a maximum allowable density of five DUs per net acre in accordance with the provisions outlined in the Zoning Code.	7,200 sq. ft.	40%	2 stories not to exceed 35 ft.
Residential Single-Family 10 (RS10)	The primary purpose of the RS10 district is to provide for residential development on small single-family lots with amenities not generally found in suburban subdivisions. The district is intended for subdivisions at a maximum allowable density of ten (10) dwelling units per net acre.	4,500 sq. ft.	50%	2 stories not to exceed 35 ft.
Residential 10 (R10)	The primary purpose of the R10 district is to provide for a variety of residential products and to encourage innovation in housing types with enhanced amenities such as common open space and recreation areas. This district is intended as an area for development of attached residential dwelling units, as well as mobile home parks at a maximum allowable density of ten (10) dwelling units per net acre in accordance with the provisions outlined in the Zoning Code.	1 acre	40%	50 ft.
Residential 15 (R15)	The primary purpose of the R15 district is to provide a broadened range of housing types for those not desiring	1 acre	45%	50 ft.

Table 2-3: Zoning Descriptions for Moreno Valley

<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
	detached dwellings on individual parcels, and with open space and recreational amenities not generally associated with typical suburban subdivisions. This district is intended as an area for development of attached residential dwelling units, as well as mobilehome parks, at a maximum allowable density of fifteen (15) DUs per net acre in accordance with the provisions outlined in the Zoning Code.			
Residential 20 (R20)	The primary purpose of the R20 district is to provide a broadened range of housing types in a more urban setting than is typically found within other areas of the city. This district is intended as an area for development of multifamily residential dwelling units, as well as mobilehome parks, at a maximum allowable density of twenty (20) DUs per net acre in accordance with the provisions outlined in the Zoning Code.	1 acre	50%	50 ft.
Residential 30 (R30)	The primary purpose of the R30 district is to provide a broadened range of housing types in an urban setting than is typically found within other areas of the city. This district is intended as an area for development of multifamily residential dwelling units at a maximum allowable density of thirty (30) DUs per net acre in accordance with the provisions outlined in the Zoning Code.	1 acre	50%	None
Commercial				
Office (O)	The primary purpose of the O district is to provide areas for the establishment of park-like, office-based working environments for general business, corporate, professional and administrative offices. It is the further intent of this district to provide setbacks, landscaping and architectural treatments that ensure the location of such uses is relatively compatible with residential development in the vicinity.	10,000 sq. ft.	60%	No limit provided additional setbacks are provided per Municipal Code
Office Commercial (OC)	The primary purpose of the OC district is to provide for the establishment of business, corporate and administrative office, as well as commercial services which are supportive to major business developments. Retail facilities which support the office	10,000 sq. ft.	60%	No limit provided additional setbacks are

Table 2-3: Zoning Descriptions for Moreno Valley

<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
	developments are permitted, subject to limitations specified in the Zoning Code.			provided per Municipal Code
Village Commercial (VC)	The primary purpose of the VC district is to provide for office related and commercial development within the original Moreno townsite. It is the further intent of this district to promote development which recognizes the historic significance of the site and projects a “turn-of-the-century” architectural atmosphere yet provides limited retail commercial services that are compatible with the surrounding residential community.	10,000 sq. ft.	None	No limit provided additional setbacks are provided per Municipal Code
Neighborhood Commercial (NC)	The primary purpose of the NC district is to satisfy the daily shopping needs of Moreno Valley residents by providing construction of conveniently located neighborhood centers which provide limited retail commercial services. These centers must be compatible with the surrounding residential communities.	10,000 sq. ft.	None	No limit provided additional setbacks are provided per Municipal Code
Community Commercial (CC)	The primary purpose of the CC district is to provide for the general shopping needs of area residents and workers with a variety of business, retail, personal and related or similar services.	1 acre	None	No limit provided additional setbacks are provided per Municipal Code
Industrial				
Business Park (BP)	The primary purpose of the BP district is to provide for light industrial, research and development, office-based firms and limited supportive commercial in an attractive and pleasant working environment and a prestigious location. This district is intended to provide a transition between residential and other sensitive uses and more intense industrial and warehousing uses.	1 acre	None	No limit provided additional setbacks are provided per Municipal Code
Light Industrial (LI)	The primary purpose of the LI district is to provide for light manufacturing, light industrial, research and development, warehousing and distribution and multi-tenant industrial uses, as well as certain supporting administrative and professional offices and commercial uses on a limited basis. This district is	1 acre	None	No limit provided additional setbacks are

Table 2-3: Zoning Descriptions for Moreno Valley

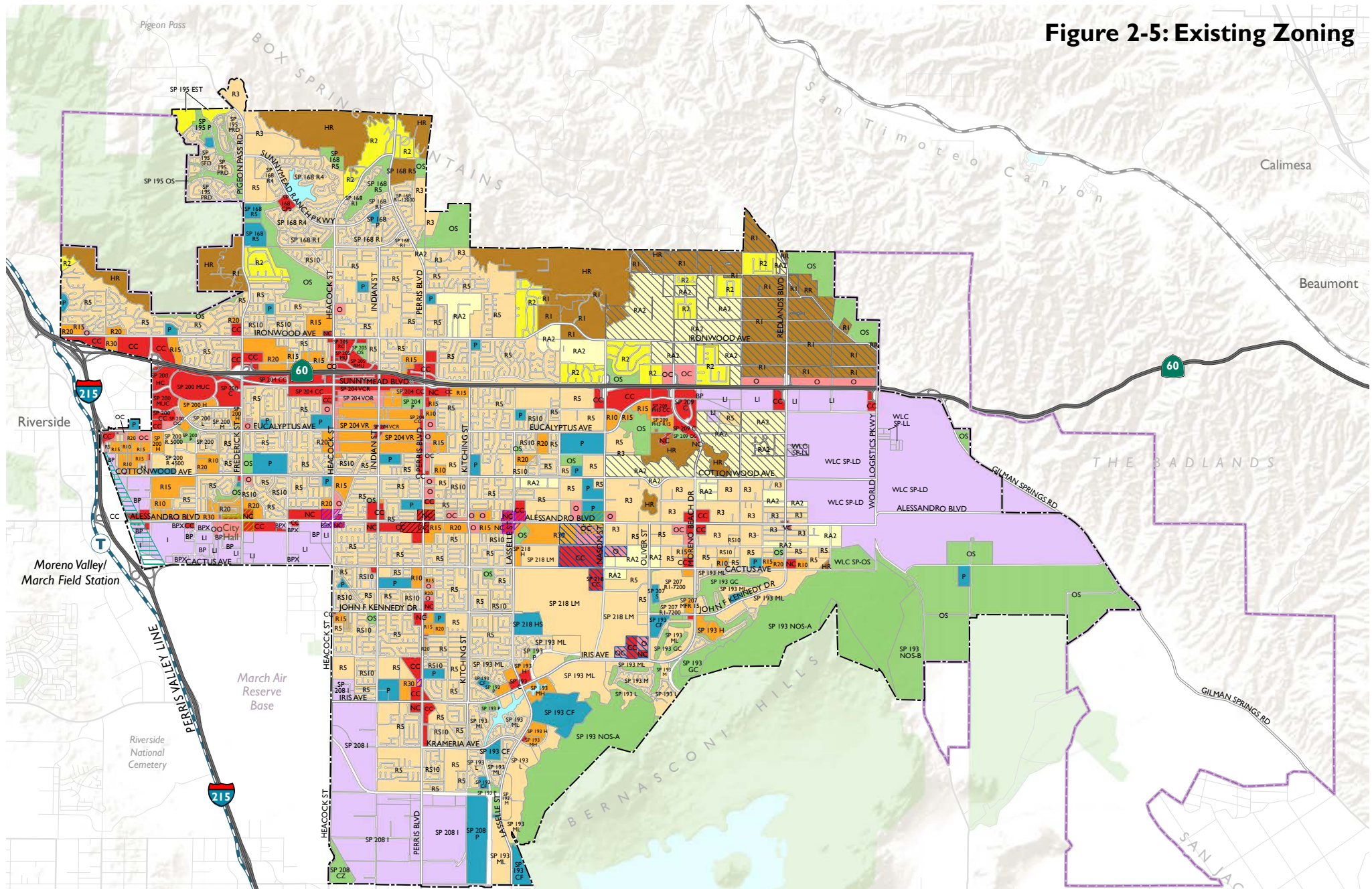
<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
	intended as an area for light industrial uses that can meet high performance standards.			provided per Municipal Code
Industrial (I)	The primary purpose of the I district is to provide for manufacturing, research and development, warehousing and distribution and multi-tenant industrial uses, as well as certain supporting administrative and professional offices and commercial uses on a limited basis. This district is intended as an area for industrial uses that can meet high performance standards but that frequently do not meet site development standards appropriate to planned research and development parks.	5 acres	None	No limit provided additional setbacks are provided per Municipal Code
Business Park-Mixed Use (BPX)	The purpose of the BPX district is to provide locations for limited convenience commercial and business support services within close proximity to industrial and business park uses.	1 acre	None	No limit provided additional setbacks are provided per Municipal Code
Open Space				
Open Space (OS)	The primary purposes of the OS district are to provide for low intensity, outdoor-oriented recreational facilities, preserve unique natural and environmentally sensitive areas, and protect and preserve the public health, safety and welfare.	None	None	None
Special Districts				
Public (P)	The primary purpose of the P district is to provide for the conduct of public and institutional activities, including providing protected designated areas for public and institutional facilities.	1 acre	45%	35 ft.
Medical Use Overlay (MUO)	The primary purpose of the MUO overlay district is to implement the general plan concept of creating a medical corridor by limiting land uses to those that are supportive of and compatible with the city's two existing hospitals.	Office (O) and Office Commercial (OC) underlying zoning areas: OC permitted uses and development standards apply; additional uses without a Conditional Use Permit allowed per MUO district	-	-

Table 2-3: Zoning Descriptions for Moreno Valley

<i>District</i>	<i>Purpose/Description</i>	<i>Minimum Lot Size</i>	<i>Maximum Coverage</i>	<i>Maximum Height</i>
Air Installation Compatibility Use Overlay (AICUZ)	It is the intent and purpose of this AICUZ overlay district to limit public exposure to aircraft accidents and noise and to encourage future development that is compatible with the continued operation of March Air Force Base.	Underlying zoning district development standards apply; land use restrictions apply including prohibition for residential uses and other high density public assembly uses	-	-
Primary Animal Keeping Overlay (PAKO)	The primary purpose of the primary animal keeping overlay district is to maintain animal keeping and the rural character of the areas noted within the overlay district and designate a portion of the parcel for medium and large animal keeping.	Primary Animal Keeping Area: 3,000 sq. ft.	-	-
Mixed-Use Institutional Anchor Overlay (MUI)	The MUI overlay district applies to areas around prominent anchor institutions, such as civic centers, medical centers, and educational campuses. The intent is to build upon the role of the institutions by providing opportunities for urban, high-intensity development that serves the needs of visitors, employees, and residents affiliated with the anchor institution and the surrounding region.	-	-	5 stories and 60 ft. height
Mixed-Use Community Overlay (MUC)	The MUC overlay district applies to areas along major arterials and arterials. The intent is to provide opportunities for the development of pedestrian-oriented blocks with medium-intense development that serves the needs of residents, visitors, and employees from the surrounding community.	-	-	4 stories and 55 ft. height
Mixed-Use Neighborhood Overlay (MUN)	The MUN overlay district applies to areas along arterials and minor arterials. The intent is to provide an area for low-rise mixed-use development that serves the needs of residents, visitors, and employees from the surrounding immediate neighborhood.	-	-	3 stories and 45 ft. height

City of Moreno Valley Municipal Code, 2019

Figure 2-5: Existing Zoning



City Zoning		Commercial	Mixed Use Districts	Special Districts	Metrolink Station
	Residential Agriculture 2 Dwellings/Acre				
	Residential 2 Dwellings/Acre				
	Suburban Residential				
	Multi-family				
	Large Lot Residential				

Note: Zoning colors show general land use groupings and labels indicate zoning classifications.

0 0.5 1 2 Miles

Data Source: City of Moreno Valley GIS, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

PAST PLANNING EFFORTS: 1986-2005

Since incorporation of the City in 1984, growth and development in the community has been guided by the General Plan and a number of specific plans that pertain to focused geographic areas of the city. Figure 2-6 shows the location of adopted specific plans, many of which were prepared by real estate developers as part of the development approval process. A specific plan is a comprehensive planning and zoning document that implements the General Plan by providing a special set of development standards applied to a particular geographic area. Select, adopted specific plans are herein highlighted.

The Moreno Valley Auto Mall Specific Plan (SP 209, SP 209 PH3)

The Moreno Valley Auto Mall Specific Plan was prepared by a developer and adopted by the City in 1988, last amended in 2009. The planning area is approximately 140 acres of land located south of SR-60 at the Moreno Beach Drive off-ramp. The specific plan is intended to provide for the development of automobile sales uses, auto-related uses, and commercial uses. The General Plan designates the area as Commercial (C) on the General Plan Land Use Map.

The specific plan has resulted in the successful development of the Moreno Valley Auto Mall, the Inland Empire's largest dealership network. A KIA automobile dealer was recently approved for one of the remaining sites within the Auto Mall. Adjacent to the west of the Auto Mall, on the opposite side of Moreno Beach Drive, are portions of Moreno Beach Plaza (Walmart Supercenter location), which is located within a subsequent phase (SP 209 PH3) of the original specific plan. The Stoneridge Towne Center is located to the immediate west of Moreno Beach Plaza.

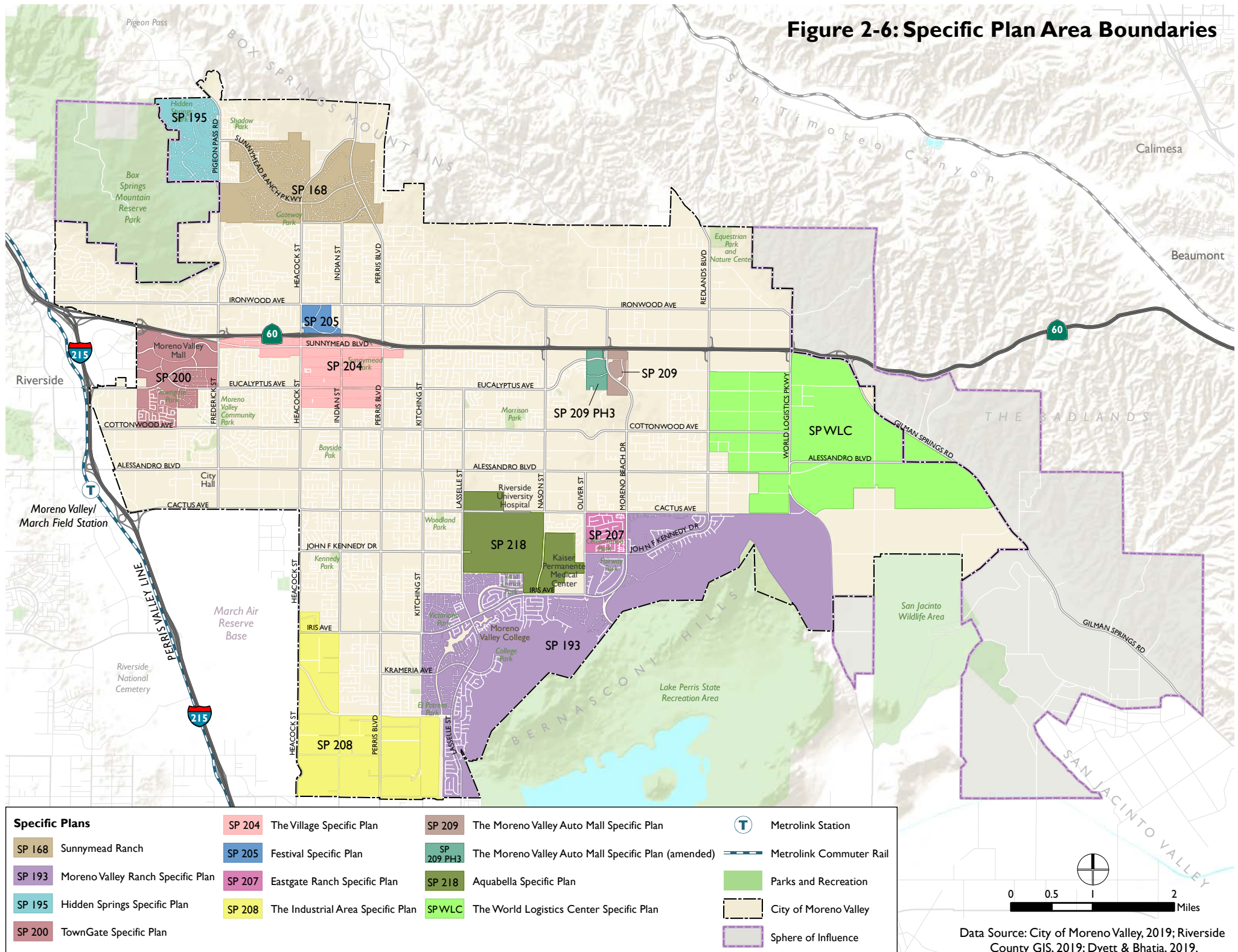
The Industrial Area Specific Plan (SP 208)

The Industrial Area Specific Plan was prepared by the City and adopted in 1989, last amended in 2002. The planning area is approximately 1,380 acres in southwestern Moreno Valley adjacent to the March Air Reserve Base with I-215 located to the west. The Moreno Valley Industrial Area is envisioned as a major site for the development of industrial and related land uses, economic development, and expansion of its employment base. To date, this specific plan has resulted in large industrial buildings housing well-known companies such as Amazon, O'Reilly Auto Parts, Walgreens, Proctor and Gamble, and Ross. The Industrial Area Specific Plan Area is nearly built-out. Two development projects, the Moreno Valley Logistics Center (87 acres of vacant land) and the Indian Street Commerce Center (20 acres of already developed land), are in-progress.

The Village Specific Plan (SP 204)

The Village Specific Plan was prepared by the City and adopted in 1994 to cover a planning area of approximately 580 acres bounded by SR-60 to the north, Dracaea Avenue to the south, Frederick Street to the west, and Kitching Street to the east. The plan was developed as a response to revitalize Sunnymead Boulevard and surrounding areas that were guided by the City's first specific plan in 1987 ("Sunnymead Boulevard Plan"). The overall goal of the Sunnymead Boulevard Plan and the Village Specific Plan is to promote and improve economic viability along the boulevard which acts as a freeway-oriented commercial focal point and provides a wide variety of office, retail, and service-related uses and employment opportunities. One of the major anchor tenants of this planning area was the Stater Bros. grocery store on Sunnymead Boulevard; this location (one of four in Moreno Valley) closed in early 2020. This specific plan has partially achieved its goals and the General Plan Update will look at ways to strengthen and enhance existing development.

Figure 2-6: Specific Plan Area Boundaries



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Sunnymead Ranch (SP 168)

This specific plan was prepared by a developer and adopted by the City in 1992 and covers an area of approximately 880 acres known as Sunnymead Ranch in the northwestern portion of the city, with Pigeon Pass Road to the west and Perris Boulevard to the east. The vision was a high-quality planned neighborhood with residential and general/retail commercial uses. The majority of the planning area is built-out with single-family residences. The Lakeshore Village Marketplace, an 80,000 square-foot shopping center that was formerly anchored by a Ralph's grocery store until 2013, sits on a 14-acre parcel within this planning area. In 2018, the shopping center was sold to a new Southern California-based investor—no new redevelopment has occurred.

Moreno Valley Ranch Specific Plan (SP 193)

This specific plan was prepared by a developer and adopted by the City in 1986, last updated in 2001. The planning area is approximately 3,640 acres and is nearly built-out with Ranch single-family residences located in the southern portion of the city near the Lake Perris State Recreation Area. The plan has design guidelines for the development of the family-oriented community. The Moreno Valley campus of Riverside Community College is located within this planning area and the Kaiser Permanente Medical Center and some commercial areas are immediately adjacent. There is currently a multi-family project approved and under construction within the planning area and another that is approved but not yet constructed.

Hidden Springs Specific Plan (SP 195)

This specific plan was prepared by a developer and adopted by the City in 1986 and includes approximately 340 acres of built-out single-family residential neighborhood development in the northwestern portion of the city adjacent with the Box Springs Mountain Reserve Park to the west and Pigeon Pass Road to the east.

TownGate Specific Plan (SP 200)

This specific plan was prepared by a developer and adopted by the City in 1986. The planning area is approximately 500 acres located on the western portion of the city bounded by SR-60 to the north, Cottonwood Avenue to the south, and Frederick Street to the east. The planning area includes the Moreno Valley Mall, the city's major shopping center. More recent commercial developments in this planning area include TownGate Crossing, TownGate Promenade, TownGate Square, and TownGate Center/Plaza. New commercial/retail developments continue to this day. The Quarter project, which is a commercial development including two hotels, is adjacent to the Specific Plan. The residential portions of the Specific Plan which included single-family and multi-family are built-out.

Festival Specific Plan (SP 205)

This specific plan was prepared by a developer and adopted by the City in 1987 for mixed-use development with residential, retail/commercial, and office/commercial uses. The planning area is approximately 70 acres and is located on the north side of SR-60, east of Heacock Street, and south of Ironwood Avenue. The planning area allowed for general/retail commercial, including the existing shopping center. The plan was amended in early 2018 to allow a wider range of uses including Business Park/Light Industrial in some planning areas. The commercial center is now known as the District and redevelopment is underway with completion of a Floor and Décor which recently opened replacing a former big box tenant; the building had been vacant for nearly 25 years. Business Park uses (approximately 400,000 square feet on 19 acres) are under construction. A hotel is also approved within the southeastern portion of the Specific Plan just north of Route 60.

Eastgate Ranch Specific Plan (SP 207)

This specific plan was prepared by a developer and was adopted by the city in 1991 and amended in 2004. It includes approximately 150 acres of single-family residential neighborhood development near the Kaiser Permanente Medical Center bounded by Oliver Street to the west, Moreno Beach Drive to the east, Cactus Avenue to the north, and John F. Kennedy Drive to the south. La Jolla Elementary School and Celebration Park are located within this planning area. Landmark Middle School and Fairway Park are on the opposite side of John F. Kennedy Drive at the southern border of the Eastgate Ranch.

Aquabella Specific Plan (SP 218)

This specific plan prepared by a developer and was adopted by the City in 2005 for the development of a gated active-adult community containing 2,900 dwelling units on approximately 730 acres near the Kaiser Permanente Medical Center between Brodiaea Avenue and Iris Avenue, part of the Rancho Belago neighborhood. Site grading began two years following specific plan adoption but the project was put on hold due to economic recession and slowdown of the housing market.

RECENT PLANNING EFFORTS: 2010-2019

Since 2010, planning efforts have focused on key transportation corridors in the developed portion of the city and employment-oriented development in the east. Major recent planning efforts include City initiatives and those of private landowners.

Momentum MoVal (2016)

In 2016, the City adopted **Momentum MoVal**, the City's first Strategic Plan to guide the community's growth in a three to five year timeframe from 2016 forwards. The City's top priorities are

grouped into 6 categories: Economic Development; Library; Public Safety; Infrastructure; Youth Programs; and Beautification, Community Engagement, and Quality of Life. Through the General Plan Update process, the priorities identified in Momentum MoVal will be incorporated to guide the community's growth, with particular attention to land use, towards year 2040.

Momentum MoVal prioritized the establishment of the city as the worldwide model in logistics development and also promoted small business development and entrepreneurship. As such, the quantity, location, and character of general/light industrial and commercial/office land uses will require consideration. Through project outreach, some community members have relayed desires for increased library services—this could potentially translate into plans for increased service/facilities on existing library sites or entirely new sites. Quality of life and community interaction can be enhanced through the creation of a town center that offers “Third Space” gathering opportunity outside of the workplace or home to encourage social exchange in a live, work, and play atmosphere. The aforementioned examples highlight some of the priorities of Momentum MoVal linked to land use considerations for the General Plan Update.

Other Recent Planning Efforts

The **Alessandro Boulevard Corridor Vision Plan** (2010) focuses on the properties fronting the Alessandro Boulevard corridor between Old Highway 215 to the west and Nason Street to the east, a distance of approximately 5.5 miles. The plan also discusses adjacent properties to the north and south within a half mile of the corridor, specifically their role in and benefit from revitalization of the corridor that has a mix of vacant properties, general/retail commercial, single/multi-family residential, general/light industrial, and public facilities such as the Moreno Valley City Hall. The plan envisions a series of transit-ready nodes served by a planned Bus Rapid Transit (BRT) line extending from Nason Street to the

Metrolink Station along I-215. Residential uses of the planning area include primarily existing single-family residences and some multi-family residences that are located generally immediately adjacent to Alessandro Boulevard. Retail and restaurant uses focused at transit-ready nodes are encouraged if higher levels of change are desired. Streetscape improvements focused on active transportation, such as walking and biking, and beautified landscaping are also highlighted by the plan.

The **SR-60 Corridor Study** (2014) is a vision for the State Route 60 highway corridor stretching from Nason Street east to Theodore Street. The plan identifies land use scenarios, including strategies connecting surrounding land uses, and supports a pedestrian oriented development scenario along the regional transit corridor. This plan only includes a small area of land at Nason Street and SR-60, the planning process highlighted the gap in developed walkable town center places in Moreno Valley and the community's desire for having such places locally. The land use vision of the plan is organized into four areas, summarized below.

- Area 1: Single-family residential uses, commercial uses focused on retail but allowing office; storm water detention basins to provide visual/physical buffer for residences/freeway and potential recreation area for nearby residents
- Area 2: commercial retail uses for additional car dealerships for Moreno Valley Auto Mall expansion; industrial and logistics uses along Eucalyptus Avenue; multi-family residential uses between the industrial uses and Auto Mall expansion
- Area 3: area remains commercial and includes one hotel and dine-in restaurants; a portion of Area 3 has subsequently been developed as a Hyundai dealership; the other pads remain vacant

- Area 4: experiential commercial uses that attract residents and visitors; office commercial uses; hotel; single and multi-family residential uses

The **Nason Street Corridor Plan** (2015) covers a planning area of approximately 2,133 acres and has overlapping areas from the Alessandro Boulevard Corridor Vision Plan (2010) and the SR-60 Plan (2014). These earlier plans were the first two pieces in creating a connected city center in Moreno Valley and the Nason Street Corridor Plan (2015) is the integrating plan that joins the three central areas and their land use plans within Moreno Valley and creates concepts for design and a way to implement in the future. The 2015 Nason Street Corridor Plan envisions the planning area as a town center, a mixed-use district that includes a combination of various land use types such as vertical mixed-use, retail, office, public parks and plazas, civic uses, and a mix of residential types. Within the planning area, the City owns approximately 60 acres of vacant land at the northwest corner of Nason Street and Alessandro Boulevard, adjacent to multiple vacant, privately-owned parcels. The focus of the Nason Street Corridor Plan is on the City-owned property and the parcels bounded by Nason Street, Alessandro Boulevard, and Cottonwood Avenue. The City-owned property is the planning area for **Destination MoVal: Town Center** (2019), a recent planning effort discussed below.

The most recent, significant step in the creation of a town center for the city is **Destination MoVal: Town Center** (2019), a City of Moreno initiated project that published in November 2019 a Request for Proposals (RFP) to transform an approximately 56.42-acre City-owned site at the northwest corner of Nason Street and Alessandro Boulevard. Surrounded by the city's expanding medical corridor, the land use vision for the town center is a new landmark and identity for Moreno Valley—a vibrant, walkable downtown scene that attracts residents, daytime professionals, and visitors to experience a high-quality work/shop/stay/play atmosphere. Residential

(apartments and/or condominiums) and corporate headquarter(s) campus are considered acceptable, flexible land use types. The City desires to enter into a Public-Private Partnership in order to achieve sustainable long-term economic and community benefits. The City would contribute its acreage to a project that would be developed consistent with the City Council's vision at private expense. The due date for submittal of proposals is in February 2020 with a projected timeline for City Council deliberation and direction in May 2020.

The **World Logistics Center Specific Plan** was prepared by a developer and was adopted by the City in 2015. The World Logistics Center (WLC) is a master-planned development encompassing up to 40.6 million square feet of building area specifically designed to support large-scale logistics operations. The WLC Specific Plan covers 2,610 acres (7.9 percent of citywide land) in the eastern portion of the city, bounded by SR-60 to the north, Cactus Avenue to the south, Redlands Boulevard to the west, and Gilman Springs Road to the east. The WLC Specific Plan implements all applicable elements of the General Plan and includes detailed information about the area's infrastructure improvements such as roads, water, sewer, utilities, and flood control facilities.

Complementary to the aforementioned corridor planning efforts, the City recently completed the **Gateway & Streetscape Framework Plan** (2019). The plan describes the hierarchy of city gateway entrances, along with concepts and strategies that can foster enhancement of the city's curb appeal, such as improved landscaping, monument signage, expansion of medians, and crosswalk and sidewalk treatment. Five categories of recommendations are offered: Gateway Treatment and Streetscape Policies, Partnering with Local Agencies, Landscaping Standards and Maintenance, Place Making and Branding, and Capital Improvements. The recommendations presented are intended to help foster economic growth and investment in the city. The Gateway & Streetscape Framework Plan is a planning tool, not a regulatory document, and is not a final implementation plan. The concepts and strategies would be considered

over an extended period (e.g. 20 years) and implemented only if and where funding resources are available and authorized. This document serves as a valuable, informative resource for the General Plan Update.

The **Kaiser Permanente Moreno Valley Medical Center Master Plan Project** is an expansion of the existing medical center campus on 30 acres of land located in the southern portion of the city on the north side of Iris Avenue, west of Oliver Street, and east of Nason Street. The project includes a multi-phased, state-of-the-art medical center campus anticipated for realization by 2038. Highlighted developments include an approximately 460-bed hospital, hospital support buildings, outpatient medical office buildings, an energy center, and surface and structured parking. This plan/project is located within the city's Medical Use Overlay (MUO) District. The primary purpose of the MUO District is to create a medical corridor by limiting land uses to those that are supportive of and compatible with the city's two existing hospitals. Through the General Plan Update process, the plan for a town center can be linked to the city's expanding medical corridor for mutually beneficial synergy. Applications for the Kaiser Master Plan Project are currently in the review process, and are expected to be considered by decision makers in 2020.

The **Moreno Valley College Comprehensive Master Plan** describes the college's long-term education and facilities visions from 2019-2030. The Facilities Master Plan—one of two separate master plans that form the Comprehensive Master Plan—addresses the college's infrastructure/facilities needs. The plan identifies approximately 400,000 gross square feet of new construction and 55,000 gross square feet of building reconstruction at the college campus located south of Iris Avenue, east of Lasalle Street, and north of the Lake Perris Recreation Area.

The **Civic Center Amphitheater and Park Project** is located on a City-owned vacant lot at the southeast corner of Veterans Way and

Alessandro Boulevard, west of the Conference and Recreation Center. The project includes a 7-acre site with a 500-600 seat outdoor amphitheater and parking. Anticipated completion of the project is in 2020. Upon completion, the city's parks and recreation land use will increase from 245 acres to approximately 252 acres and it is envisioned that the amphitheater will be a popular attraction for local residents and visitors with a variety of City-sponsored events and private events.

OTHER RELEVANT PLANS

In addition to the planning efforts of the City of Moreno Valley, outside agencies have their own unique objectives and plans.

March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

In November 2014, the Riverside County Airport Land Use Commission adopted the Airport Land Use Compatibility Plan (ALUCP) for the public-use and military airport located southwest of Moreno Valley bordering the southwestern area of the city. The ALUCP is primarily based upon the U.S. Air Force's *Air Installation Compatibility Use Zones Study* for the March Air Reserve Base (AICUZ). The ALUCP incorporates noise and safety protection measures equivalent to or greater than recommended in the AICUZ. While no modifications to the existing airport runways or approaches are anticipated, the ALUCP studied potential future military and civilian aircraft activity to inform the development of unique Airport Compatibility Zones each with their own land use restrictions in consideration of projected future use by both military and civilian aircraft. The compatibility zones and their associated restrictions plan for noise and overflight factors as well as safety and airspace protection factors.

Within the City limit, there is a special zoning overlay for the AICUZ with the following description: *It is the intent and purpose of this AICUZ overlay district to limit public exposure to aircraft accidents and noise and to encourage future development that is compatible with the continued operation of March Air Force Base.* The ALUCP's Airport Compatibility Zones that occur within the City limit are summarized as follows and depicted in Figure 2-7.

Zone A – Clear Zone

- Acreage within City limit: 47.8 acres (approximate)
- Residential Land Use: No new dwellings allowed
- Prohibited Land Uses: All non-aeronautical structures; assemblages of people; objects exceeding Federal Aviation Regulations' height limits (Part 77); all storage of hazardous materials; hazards to flight

Zone B1 – Inner Approach/Departure Zone

- Acreage within City limit: 164.1 acres (approximate)
- Residential Land Use: No new dwellings allowed
- Prohibited Land Uses: Children's schools, day care centers, libraries; hospitals, congregate care facilities, hotels/motels, restaurants, places of assembly; buildings with greater than 1 aboveground habitable floor in Accident Prone Zone (APZ) I or greater than 2 floors in APZ II and outside of APZs; hazardous materials manufacture/storage; noise sensitive outdoor non-residential uses; critical community infrastructure facilities; hazards to flight; uses listed in AICUZ as not compatible in APZ I or APZ II

Zone B2 – High Noise Zone

- Acreage within City limit: 210.4 acres (approximate)

- Residential Land Use: No new dwellings allowed
- Prohibited Land Uses: Children’s schools, day care centers, libraries; hospitals, congregate care facilities, hotels/motels, places of assembly; buildings with greater than 3 above-ground habitable floors; noise sensitive outdoor non-residential uses; critical community infrastructure facilities; hazards to flight

Zone C1 – Primary Approach/Departure Zone

- Acreage within City limit: 656.8 acres (approximate)
- Residential Land Use: Less than or equal to 3.0 dwelling units per acre.
- Prohibited Land Uses: Children’s schools, day care centers, libraries; hospitals, congregate care facilities, places of assembly; noise-sensitive outdoor non-residential uses; hazards to flight

Zone D – Flight Corridor Buffer

- Acreage within City limit: 2,069.1 acres (approximate)
- Residential Land Use: No limit
- Prohibited Land Uses: Hazards to flight

Zone E – Other Airport Environs

- Acreage within City limit: 6,093.5 acres (approximate)
- Residential Land Use: No limit
- Prohibited Land Uses: Hazards to flight

High Terrain Zone

- Acreage within City limit 1,848.2 acres (approximate)
- Residential Land Use: Same as underlying zone

- Prohibited Land Uses: Hazards to flight; other uses restricted in accordance with criteria for underlying zone

Within the City limit, there are approximately 657 acres of land within Zone C1. The current land uses in Zone C1 include general/light industrial, general/retail commercial, office, public facilities, single-family residential, multi-family residential, church/religious facilities, limited and vacant land. Existing residential area in Zone C1 represents approximately 95 acres, detailed below with maximum density limits for dwelling units per acre (du/ac).

- Residential 30 (R30 – 30 du/ac): 17 acres
- Residential 15 (R15 – 15 du/ac): 30.63 acres
- Residential 10 (R10 – 10 du/ac): 38.42 acres
- Residential 5 (R5 – 5 du/ac): 9.03 acres

Within the City limit, the ALUCP affects over 250 sites (parcels) previously identified by the 2014-21 Housing Element as housing opportunity sites. Approximately 75 out of the 95 acres of residential area located within Zone C1 are located within the southwestern area of the city commonly referred to as Edgemont. There are 19 rezoned multi-family R30 Residential higher density sites covering approximately 15.6 acres located in Edgemont that are inconsistent with the ALUCP which places lower density restrictions on new residential development, but needed to satisfy housing needs identified in the 2014-21 Housing Element. Table 2-4 summarizes the 2014-21 Housing Element opportunity sites located in Zone C1. In total, approximately 267 units associated with these 19 sites rezoned R30 Residential sites are affected.

In order to ensure compatibility of the General Plan Update with the ALUCP, residential densities within Zone C1 will need to be studied for alternative, less intensive land use designations, such as Business Park (BP) or R3 Residential. Residential density of 3 du/ac or less would be consistent with the ALUCP. Existing non-conforming land uses are not considered to be inconsistent with the

ALUCP but any future development/expansion of uses would be subject to meet the ALUCP.

Within the City limit, there are approximately 164 acres of land within Zone B1. The current land uses in Zone B1 include general industrial, general/retail commercial, office, a mix of residential types, and vacant land. With consideration to the ALUCP and future development, no new residential dwellings would be allowed or other specified land uses identified as prohibited in the ALUCP.

Within the City limit, there are approximately 210 acres of land within Zone B2. The current land uses in Zone B2 include general/light industrial. With consideration to the ALUCP and future development, no new residential dwellings would be allowed or the other specified land uses identified as prohibited in the ALUCP.

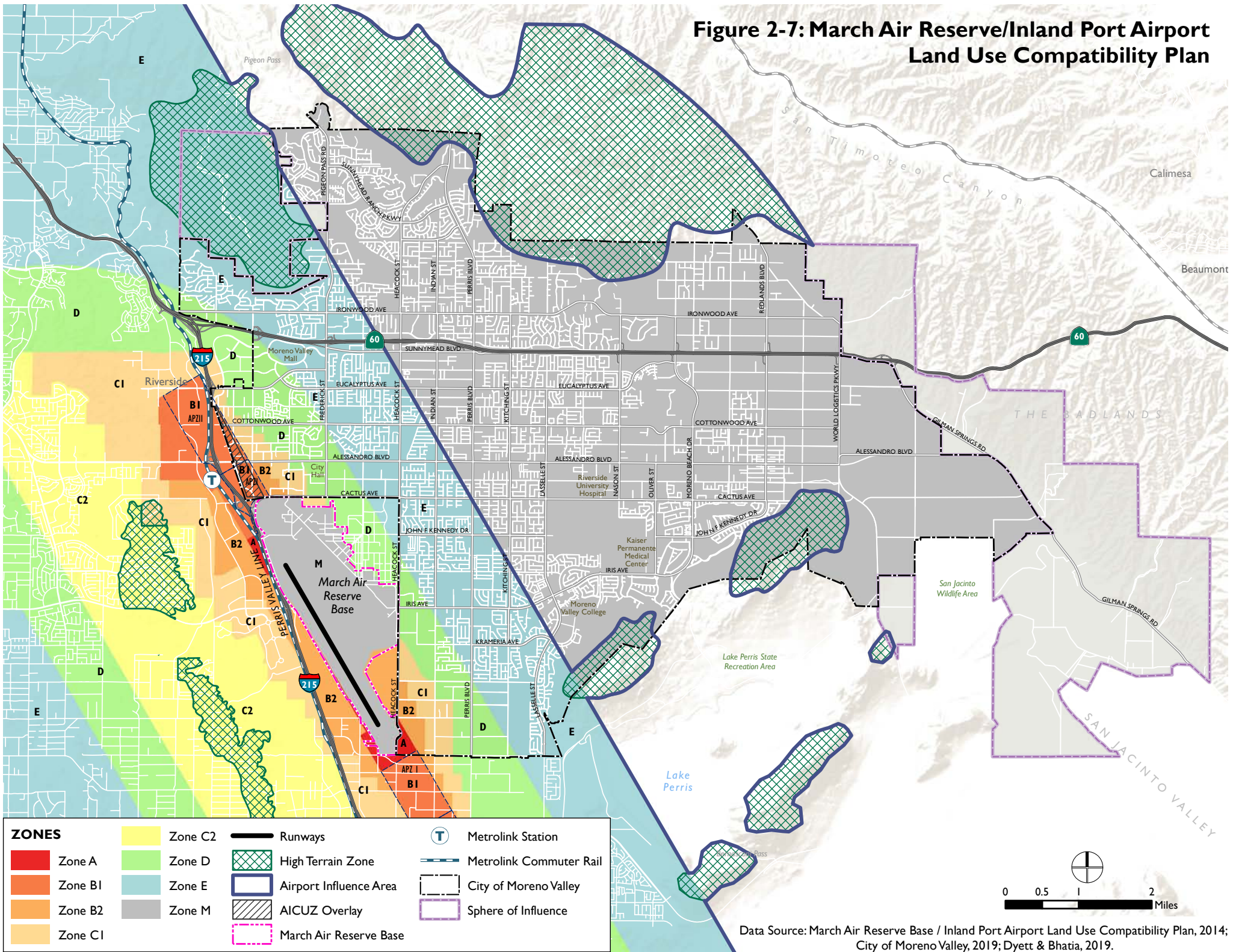
Riverside County General Plan

Within the sphere of influence in the Planning Area lies 9,919 acres of land (23 percent of total planning area) that is unincorporated and under the direction of the Riverside County General Plan, depicted in Figure 2-8. Moreno Valley’s General Plan has authority over territory within the City limit. The Riverside County General Plan has jurisdiction over unincorporated territory within the County. Lands within Moreno Valley’s sphere of influence can be given land use designations by both the City and the County, but the City’s designation applies only if the land is annexed into the city, otherwise, the County’s designation/plans prevail. The majority of the unincorporated Planning Area is designated by Riverside County as Open Space Rural, Conservation Habitat, and Conservation. Small pockets of Commercial Retail and Light Industrial designations are located adjacent Gilman Springs Road at the city’s eastern limits, adjacent to the approved World Logistics Center.

Table 2-4: 2014-2021 Housing Element Opportunity Sites Located in ALUCP Zone C1

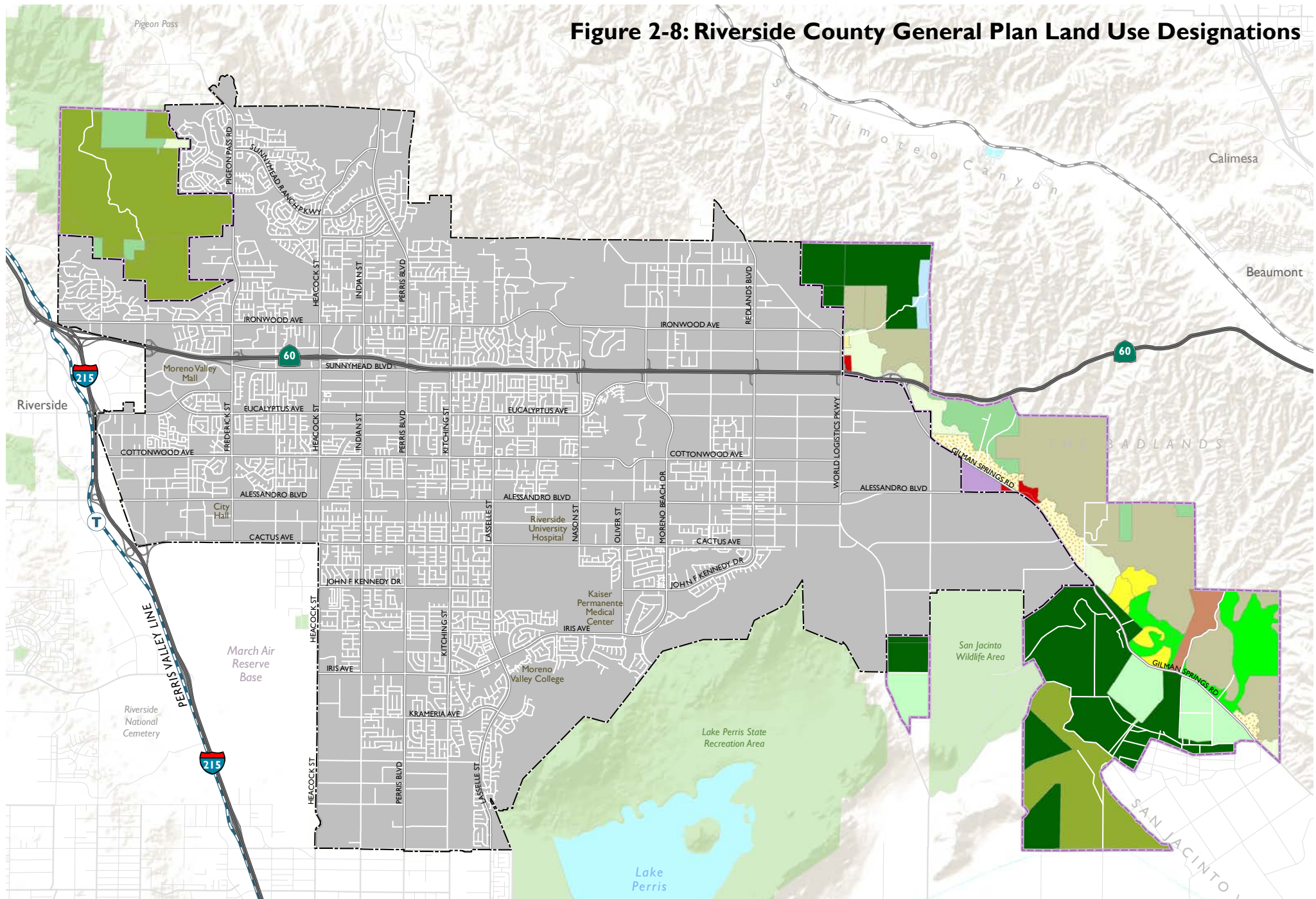
<i>APN</i>	<i>Acres</i>	<i>Capacity (Units)</i>	<i>Existing Land Use</i>
291191026	0.1	2	Vacant
291191010	0.9	24	Vacant
291200024	2.5	60	Vacant
291191025	0.2	5	Vacant
291191027	0.8	19	Vacant
291191030	0.3	-	Vacant
291191028	0.3	7	Vacant
291200025	1.6	4	Multi-Family Residential
			Duplex/Two-Family Residential
291200030	0.4	1	Residential
291191029	0.3	8	Vacant
291191007	0.3	7	Vacant
291191008	1.5	38	Vacant
291191009	1.5	37	Vacant
291191011	1.0	24	Vacant
291200038	0.3	1	Single-Family Residential
291200039	0.9	23	Vacant
291200040	0.4	1	Office
291200023	1.5	4	General/Retail Commercial
291200027	0.8	2	General/Retail Commercial
Total	15.6	267	

Figure 2-7: March Air Reserve/Inland Port Airport Land Use Compatibility Plan



Data Source: March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan, 2014; City of Moreno Valley, 2019; Dyett & Bhatia, 2019.

Figure 2-8: Riverside County General Plan Land Use Designations



Riverside County General Plan Land Use			
	Rural Community - Estate Density Residential		Commercial Retail
	Rural Community - Very Low Density Residential		Light Industrial
	Low Density Residential		Public Facilities
	Rural Residential		Agriculture
	Conservation		Open Space Rural
	Conservation Habitat		Mineral Resources
	Open Space Recreation		City

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

2.3 RECENT PIPELINE PROJECTS

As of December 2019, based on available data from the City, there are 92 recent pipeline projects either under construction, in plan check, approved, or under review in Moreno Valley. These projects are summarized in Table 2-5 and their locations are shown in Figure 2-9.

Of the 92 pipeline projects, 56 are residential projects, accounting for 999 acres of land within the City limit. Consistent with existing land use pattern, single-family residential is the primary development type, representing 36 of the 56 residential projects (64 percent).

Multi-family residential development accounts for 19 of the 56 residential projects (34 percent), representing 161 acres of land within the City limit. This type of housing appears to be gaining traction in comparison to existing land use where single-family residential and multi-family residential development represents 28.4 percent and 1.8 percent of citywide land, respectively. In total, approximately 4,850 new housing units are in the city's project pipeline (2,385 single-family residential units and 2,465 multi-family residential units). A cluster of single-family residential development is located near the city's medical corridor and elsewhere dispersed in the northern portion of the city above SR-60 and in the southern portion of the city adjacent to the in-progress World Logistics Center.

Of the 92 pipeline projects, 25 are commercial projects, accounting for 69 acres of land within the City limit. These projects are dispersed throughout the city and in varying sizes. This is consistent with the level of commercial activity over the last few years.

Of the 92 pipeline projects, 5 are industrial projects, accounting for 137 acres of land within the City limit. These projects are located

generally near the peripheries of the city. This activity is consistent with the increased activity over the last few years. A total of 20,000 permanent jobs were created in the last six years. In addition, unemployment rates have dropped from 6.7% in 2016 to 3.8% in October 2019. Future industrial activity may be affected by the limited availability of remaining land designated for industrial uses within the City. Almost all property within the Moreno Valley Industrial Area is developed, and there are limited remaining lands designated for industrial within the City.

2.4 POTENTIAL OPPORTUNITY AREAS

Opportunity Areas are locations where significant physical change is foreseeable in Moreno Valley. These are typically areas with clusters of vacant and underutilized parcels that present an opportunity for redevelopment. From a planning perspective, it makes sense to focus on these areas and develop a community wide vision for how they should evolve, and then to update the general plan to achieve that vision.

To identify potential opportunity areas within the city, a land use analysis was conducted using data from the Riverside County Assessor. The analysis considered several factors that indicate how likely a property is to be redeveloped, including vacant parcels, underutilized parcels, parcels with low building intensity, and City-owned property.

First, County Assessor data was used to identify and map the location of parcels within the city that are current vacant and not in use. Next, underutilized land was identified on the basis of assessed value ratio, or AV ratio. AV ratio is the ratio of the value of existing permanent improvements (i.e., buildings and structures) to the value of the land on which they sit. Where this ratio is less than one,

a parcel may be considered underutilized. A ratio of less than 0.5 indicates even greater potential for redevelopment. In other words, where the value of the land is worth substantially more than the value of the structures on it, there is an incentive for the owner to redevelop with new uses that command higher rents or sales prices.

Another indicator that a site may be a candidate for redevelopment is low intensity of existing commercial development. Building intensity can be measured by calculating Floor Area Ratio (FAR), the ratio of building floor area to overall site area. A low FAR means that the square footage of buildings is small compared to the overall size of the site – for example a 1,000 square foot building on 10,000 square foot commercial or industrial lot would have a 0.1 FAR, indicating the potential for redevelopment with other uses. Sites with FAR values of 0.2 or less were identified as having potential for redevelopment or intensification of uses and buildings.

It is important to note that sites identified in this analysis as potential opportunity sites are just that—potential opportunities. These sites are likely to have greater propensity for change if the right set of land use designations and/or development incentives are provided. However, because development decisions will ultimately be made by the individual property owners, it is possible that some of these potential sites may not experience change over the next 20 years. Conversely, some sites not identified in this analysis may undergo redevelopment. This analysis is merely a tool to identify and quantify areas in Moreno Valley where future development is most likely to occur in the next 20 years. Possibilities for the future would be examined in further detail as part of the alternatives process of the General Plan Update.

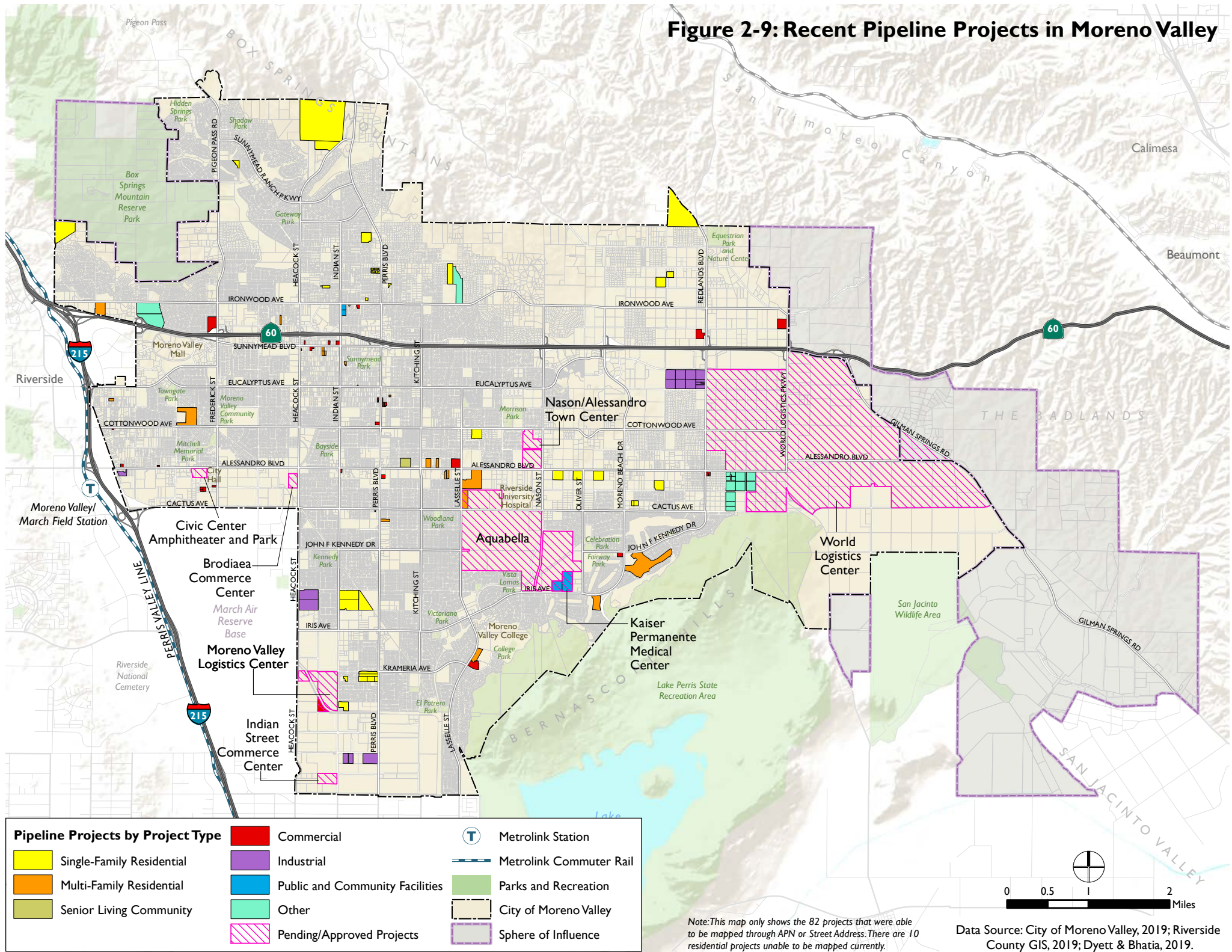
Table 2-5: Recent Pipeline Projects in Moreno Valley

<i>Project Status and Category</i>	<i>Count</i>	<i>Percent</i>	<i>Acres¹</i>	<i>Units</i>
Under Construction	11	12.0%	316.0	1,369
Residential	11	12.0%	316.0	1,369
Single-Family Residential	10	10.9%	303.9	1,103
Multi-Family Residential	1	1.1%	12.2	266
Plan Check	12	13.0%	108.9	1,096
Residential	12	13.0%	108.9	1,096
Single-Family Residential	7	7.6%	32.6	706
Multi-Family Residential	5	5.4%	76.3	390
Approved	22	23.9%	473.4	2,040
Residential	22	23.9%	473.4	2,040
Single-Family Residential	14	15.2%	382.8	755
Multi-Family Residential	8	8.7%	90.6	1,285
Under Review	47	51.1%	484.4	345
Commercial	25	27.2%	68.6	-
Commercial	10	10.9%	46.9	-
Dispensary	13	14.1%	10.2	-
Office	2	2.2%	11.5	-
Industrial	5	5.4%	137.5	-
Industrial	5	5.4%	137.5	-
Other	3	3.3%	142.7	-
Not Available	3	3.3%	142.7	-
Public and Community Facilities	3	3.3%	35.0	-
Child Care Center	1	1.1%	2.6	-
Church/Religious Facilities	1	1.1%	2.5	-
Medical Office	1	1.1%	29.9	-
Residential	11	12.0%	100.6	345
Single-Family Residential	7	7.6%	65.9	137
Multi-Family Residential	3	3.3%	25.8	208
Senior Living Community	1	1.1%	8.9	0
Total	92	100.0%	1,382.8	4,850

1. This table shows the acreage of 75 projects that were able to be mapped through APN or Street Address. There are 18 residential projects with unknown acreage.

City of Moreno Valley, 2019

Figure 2-9: Recent Pipeline Projects in Moreno Valley



VACANT SITES 10 ACRES AND LARGER

As logistics/warehousing is a growing industry for Moreno Valley, some stakeholders have relayed that large lots 50 acres in size and greater are desirable. Within the City limit, there are 16 vacant lots that are 50 acres in size and greater. These lots, however, are located in areas that have topographic constraints such as steep terrain or sited immediately adjacent to clusters of existing residential development. Further, there are potential challenges concerning non-residential development north of SR-60 where the existing pattern of development is large, single-family lots with a rural atmosphere.

With consideration to the constraints of lots 50 acres in size and greater, this report widened the analysis to consider vacant sites 10 acres and larger. Within the City limit, there are 173 vacant sites that are 10 acres and larger. Out of the 173 sites, 75 sites have common ownership (i.e. adjacent sites with the same owner). The vacant sites 10 acres and larger are depicted in Figure 2-10 and listed in Table 2-6. Some of the identified lots are the sites of pending/approved projects, such as Aquabella and the World Logistics Center, or located in close proximity.

VACANT SITES IN SOUTHWESTERN AREA OF CITY

At the southwestern edge of the city near the March Air Reserve Base, approximately 75 acres of land is currently zoned for multi-family residential development and this is inconsistent with the Riverside County Airport Land Use Commission's Airport Land Use Compatibility Plan (ALUCP) as previously described.

Vacant sites for possible development are depicted in Figure 2-11 and listed in Table 2-7. Within the area, there are 152 vacant sites totaling 141.8 acres. Of these vacant sites, 20 sites totaling 49.3 acres

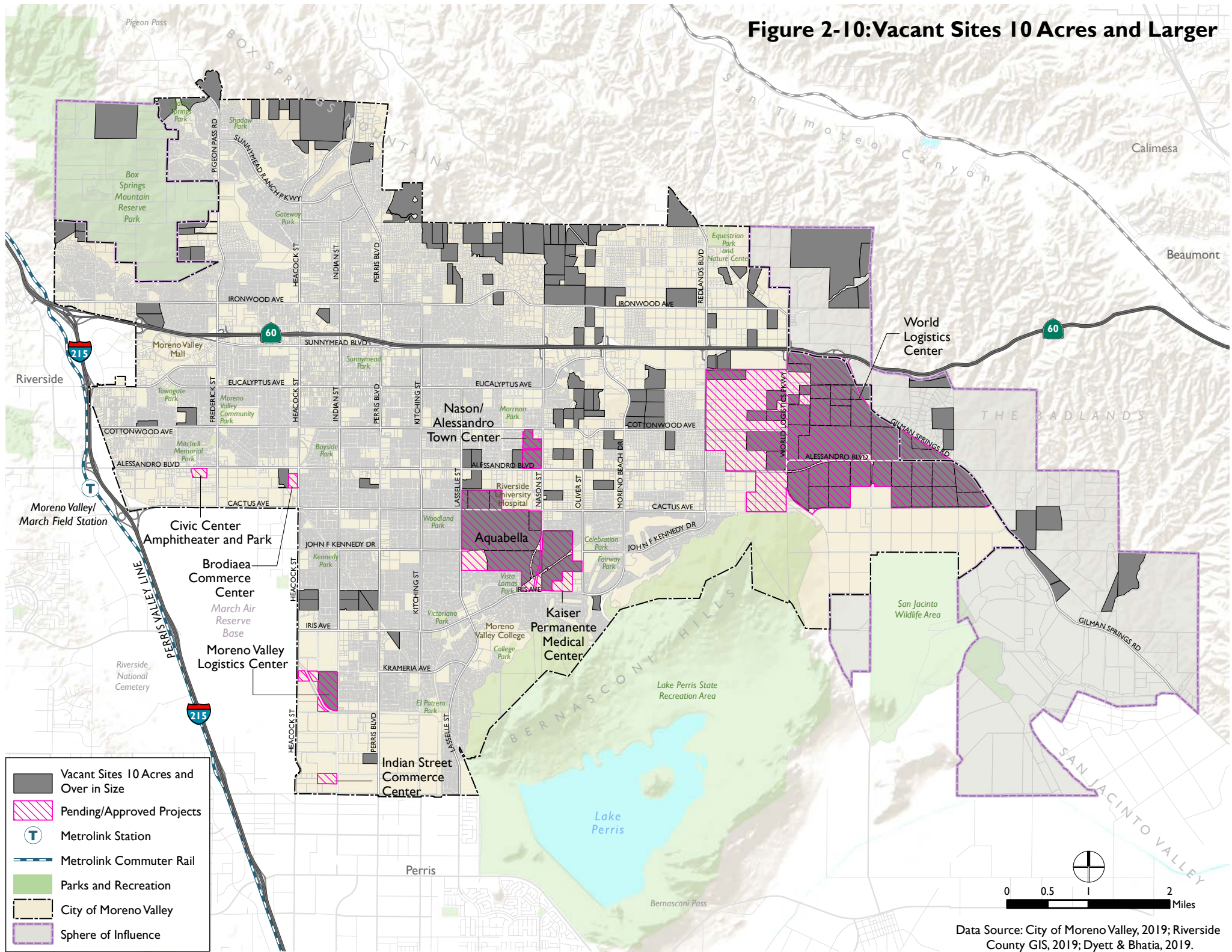
are under common ownership (i.e. adjacent sites with the same owner)—Moreno Valley Housing Authority, SLCW Inv., and Apollo Development Group represent the top three property owners of vacant sites with adjacent ownership in the area.

The current land uses in Zone C1 include general/light industrial, general/retail commercial, office, public facilities, a mix of residential types, church/religious facilities, and vacant land. With consideration to the ALUCP and future development, residential development less than or equal to 3.0 dwelling units per acre are allowed and the following uses are prohibited: *Children's schools, day care centers, libraries; hospitals, congregate care facilities, places of assembly; noise-sensitive outdoor non-residential uses; hazards to flight.*

The current land uses in Zone B1 include general industrial, general/retail commercial, office, a mix of residential types, and vacant land. With consideration to the ALUCP and future development, no new residential dwellings would be allowed and the following uses are prohibited: *Children's schools, day care centers, libraries; hospitals, congregate care facilities, hotels/motels, restaurants, places of assembly; buildings with greater than 1 above-ground habitable floor in Accident Prone Zone (APZ) I or greater than 2 floors in APZ II and outside of APZs; hazardous materials manufacture/storage; noise sensitive outdoor non-residential uses; critical community infrastructure facilities; hazards to flight; uses listed in AICUZ as not compatible in APZ I or APZ II.*

The current land uses in Zone B2 include general/light industrial. With consideration to the ALUCP and future development, no new residential dwellings would be allowed and the following uses are prohibited: *Children's schools, day care centers, libraries; hospitals, congregate care facilities, hotels/motels, places of assembly; buildings with greater than 3 aboveground habitable floors; noise sensitive outdoor non-residential uses; critical community infrastructure facilities; hazards to flight.*

Figure 2-10: Vacant Sites 10 Acres and Larger



- Vacant Sites 10 Acres and Over in Size
- Pending/Approved Projects
- T Metrolink Station
- Metrolink Commuter Rail
- Parks and Recreation
- City of Moreno Valley
- Sphere of Influence

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Table 2-6: Vacant Sites 10 Acres and Larger

APN	Adjacent Ownership	Acres
474100003	Yes	10.22
474200014	Yes	10.25
488180027	Yes	10.30
422070022	Yes	10.47
473150011	Yes	10.85
488350027	Yes	11.00
422130003	Yes	11.76
488160002	Yes	11.80
422070019	Yes	13.27
473150048	Yes	13.33
474220065	Yes	13.38
485220040	Yes	14.91
488180024	Yes	15.02
473150049	Yes	15.58
422110001	Yes	17.49
485220042	Yes	17.98
478220016	Yes	18.15
478220015	Yes	18.19
488150007	Yes	18.28
485230027	Yes	18.44
488150005	Yes	18.65
485230028	Yes	18.87
485220032	Yes	19.46
488160001	Yes	19.50
478020024	Yes	19.59
488350035	Yes	20.52
474100002	Yes	20.77
422150009	Yes	20.78
486320010	Yes	20.92
478020025	Yes	21.08

Table 2-6: Vacant Sites 10 Acres and Larger

APN	Adjacent Ownership	Acres
423080005	Yes	21.33
478020030	Yes	21.86
478020027	Yes	23.42
486300012	Yes	23.48
474200025	Yes	23.92
471201011	Yes	24.14
478020023	Yes	24.51
422230008	Yes	24.84
422070018	Yes	26.17
422070020	Yes	26.84
478020026	Yes	27.07
474220070	Yes	29.92
423080003	Yes	31.68
473160017	Yes	32.58
422070010	Yes	39.77
423260008	Yes	40.47
423260007	Yes	40.80
423310002	Yes	41.29
423250011	Yes	41.41
423250007	Yes	41.97
422070006	Yes	42.49
423250012	Yes	43.83
422120014	Yes	44.05
423310001	Yes	44.07
422080002	Yes	47.37
422070021	Yes	47.49
423250009	Yes	48.70
423260004	Yes	48.78
423260003	Yes	48.95
423260009	Yes	49.25

Table 2-6: Vacant Sites 10 Acres and Larger

APN	Adjacent Ownership	Acres
423250008	Yes	51.71
422070017	Yes	52.33
423260005	Yes	54.21
422210010	Yes	57.55
474210003	Yes	59.89
474210004	Yes	60.20
422130002	Yes	64.80
422190003	Yes	68.99
422240001	Yes	85.76
422130001	Yes	91.89
486320009	Yes	98.53
486310035	Yes	151.32
471201008	Yes	172.10
422080003	Yes	223.69
486300013	Yes	283.51
474250003	No	10.02
474210008	No	10.04
422070014	No	10.11
304260007	No	10.20
488210006	No	10.48
488210007	No	10.51
256160017	No	10.56
422070033	No	10.58
422030012	No	10.66
473150014	No	10.68
259260004	No	10.69
256160002	No	10.81
486280054	No	10.82
312020025	No	10.85
473220018	No	11.43

Table 2-6: Vacant Sites 10 Acres and Larger

APN	Adjacent Ownership	Acres
291120041	No	11.64
473150063	No	11.89
488160004	No	12.22
473220044	No	12.42
488080025	No	12.69
264040003	No	12.76
260040030	No	12.78
488260003	No	12.85
482210095	No	12.90
481020020	No	12.96
474250015	No	13.34
473150002	No	13.54
316210098	No	14.36
422070024	No	14.37
259260001	No	15.34
473220017	No	15.83
473150051	No	15.90
473150079	No	16.45
488260031	No	16.73
486290037	No	16.82
297170083	No	16.83
488080022	No	16.91
473160001	No	17.37
259240062	No	17.50
487470025	No	17.55
474500002	No	17.60
488220001	No	17.85
487470028	No	17.86
422040010	No	17.86
478250001	No	17.9

Table 2-6: Vacant Sites 10 Acres and Larger

APN	Adjacent Ownership	Acres
488180028	No	18.39
264040028	No	18.48
487470022	No	18.68
488080024	No	18.78
486240011	No	18.82
264110009	No	18.98
488260027	No	19.26
473150053	No	19.95
259260003	No	20.10
264110010	No	20.21
423250002	No	20.26
259260006	No	21.09
473150052	No	21.36
485220041	No	22.23
486280057	No	22.59
473220020	No	23.73
291100055	No	24.59
291120066	No	24.71
291100054	No	25.55
487470031	No	26.39
486280058	No	26.91
488200025	No	27.63
478220001	No	27.74
474110004	No	27.74
473160008	No	28.07
474100025	No	28.13
259240090	No	31.66
413140036	No	31.83
422030013	No	32.30
413140034	No	33.22

Table 2-6: Vacant Sites 10 Acres and Larger

APN	Adjacent Ownership	Acres
256150001	No	33.51
488350015	No	33.64
487470030	No	34.18
478230008	No	35.70
473160007	No	35.84
488330051	No	36.94
474210001	No	39.27
486280056	No	39.78
474490026	No	41.42
413140035	No	44.76
423260010	No	45.81
259230024	No	46.36
473310001	No	55.44
473150064	No	59.84
316100060	No	62.77
423250018	No	64.51
473120069	No	65.33
478230007	No	73.17
473160004	No	78.54
474040038	No	104.75
422040009	No	128.42
257230006	No	145.44
413140032	No	348.68
Total		6114.79

Figure 2-11: Vacant Sites in Southwestern Area of City

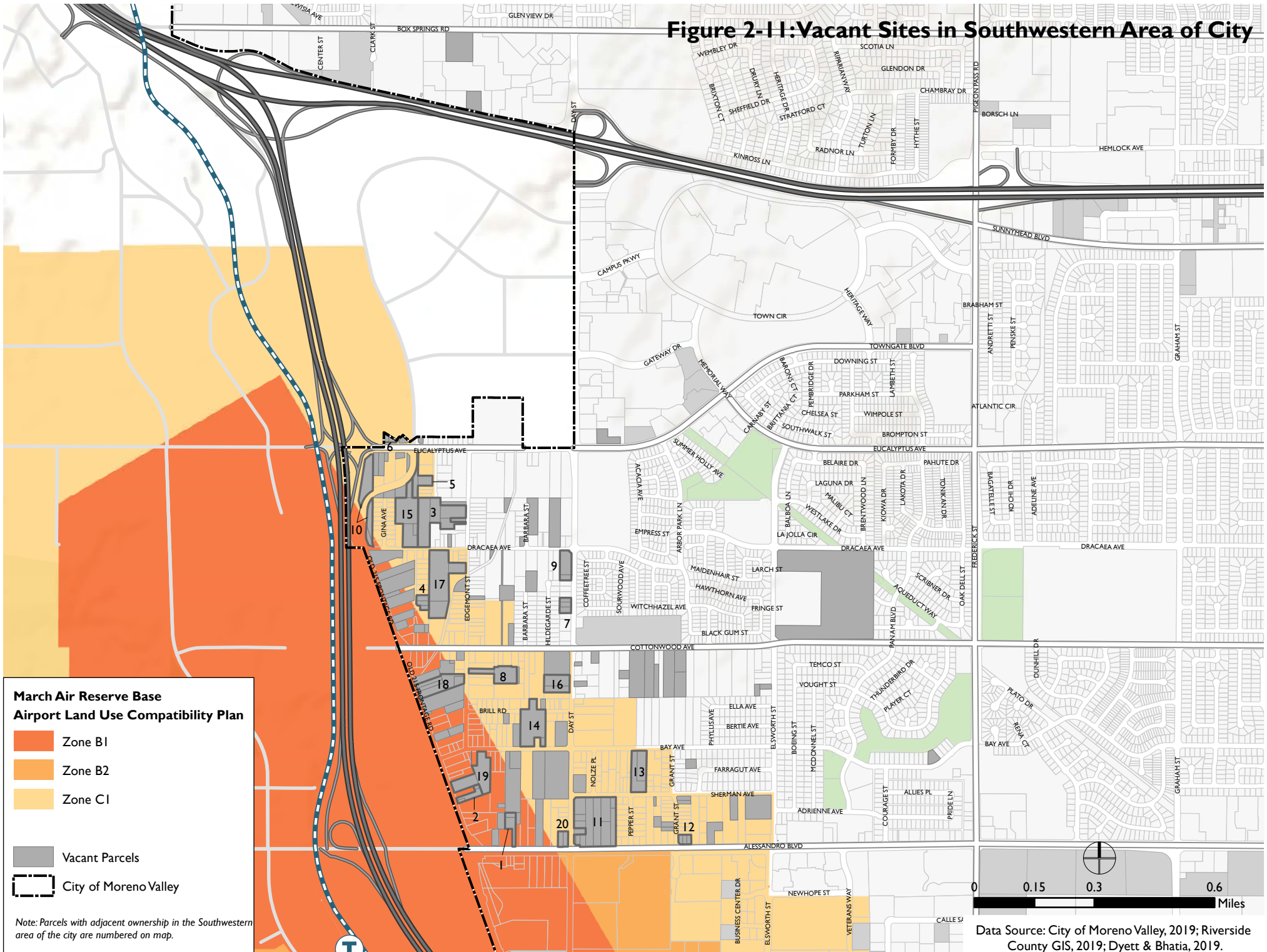


Table 2-7: Vacant Sites in Southwestern Area of City

<i>ID #</i>	<i>Acres</i>	<i>Percent</i>
With Adjacent Ownership	49.3	34.8%
1	0.9	0.7%
2	0.7	0.5%
3	5.3	3.8%
4	0.7	0.5%
5	1.2	0.8%
6	0.3	0.2%
7	0.7	0.5%
8	2.0	1.4%
9	1.4	1.0%
10	2.8	1.9%
11	7.9	5.6%
12	0.5	0.3%
13	2.5	1.8%
14	3.8	2.7%
15	4.2	2.9%
16	1.8	1.3%
17	5.9	4.2%
18	2.7	1.9%
19	3.3	2.3%
20	0.6	0.4%
No Adjacent Ownership	92.5	65.2%
Total	141.8	100.0%

Source: Riverside County Assessor, 2019

OPPORTUNITY SITES IN GENERAL

Within the City limit, there are approximately 8,302 acres of vacant land with development potential and 836 acres of underutilized land (low AV Ratio and/or Low FAR). In total, vacant and underutilized land covers approximately 9,136 acres or 27.7 percent of the city. The potential opportunity sites are depicted in Figure 2-12. Table 2-8 provides a summary of attributes.

City-owned properties identified as potential opportunity sites represent approximately 168 acres and are mostly vacant land owned by the City of Moreno Valley or its related agencies such as the Moreno Valley Housing Authority. City-owned properties will play a key role in future development. These properties are dispersed throughout the city and come in varying sizes. The largest vacant City-owned parcel is a 56.42-acre site at the northwest corner of Nason Street and Alessandro Boulevard. As previously described in this chapter, the City has initiated a recent planning effort called Destination MoVal: Town Center (2019) with a vision to transform this vacant City-owned parcel into a vibrant town center that is as a new landmark and refreshed/branded identity for Moreno Valley, serving local residents and attracting visitors from around the region.

The majority of vacant opportunity sites are located near the center of the city surrounding the city’s medical corridor close to the intersection of Nason Street and Alessandro Boulevard (location of proposed town center) and also north of SR-60 by the eastern stretch of Ironwood Avenue. Further, it can be highlighted that large clusters of vacant land have pending/approved projects sited on them, such as the Moreno Valley Logistics Center, Aquabella, and the World Logistics Center. Should these pending/approved projects not come to fruition, there may be opportunity to reconsider alternative development.

The majority of low intensity/low FAR sites are located in the western portion of the city west of Kitching Street, near the Civic Center, the Moreno Valley Mall, and the primary commercial areas along Sunnymead Boulevard and Alessandro Boulevard. There are also low intensity/low FAR sites south of where SR-60 intersects with Moreno Beach Drive, near the Stoneridge Town Center and the Moreno Valley Auto Mall.

Underutilized/low AV ratio sites are relatively few and dispersed throughout the city, mostly south of SR-60. Overall, most of the opportunity sites within the City limit identified in this analysis are in areas of existing light/general industrial and general/retail commercial uses and zoned accordingly, suggesting that the city may have greater potential for these types of non-residential uses in the future if consistent with the General Plan Update.

Table 2-8: Potential Opportunity Sites

<i>Opportunity Category</i>	<i>Total Acres</i>	<i>City of Moreno Valley (Acres)</i>	<i>Sphere of Influence (Acres)</i>
Recent Pipeline Projects in Moreno Valley¹	734.8	734.8	-
Low Assessed Value (AV) Ratio	229.9	229.9	-
AV Ratio Below 0.5	103.1	103.1	-
AV Ratio Between 0.5 and 0.99	126.8	126.8	-
Low Floor Area Ratio (FAR) 0.2 or Below	605.7	605.7	-
Low AV Ratio (Below 1.0) and Low FAR (0.2 or Below)²	89.9	89.9	-
Vacant	9,199.0	8,301.6	897.4
City-Owned Properties³	168.0	168.0	-
Vacant	141.1	141.1	-
Undeveloped/Underutilized Land within City-Owned Properties	26.9	26.9	-

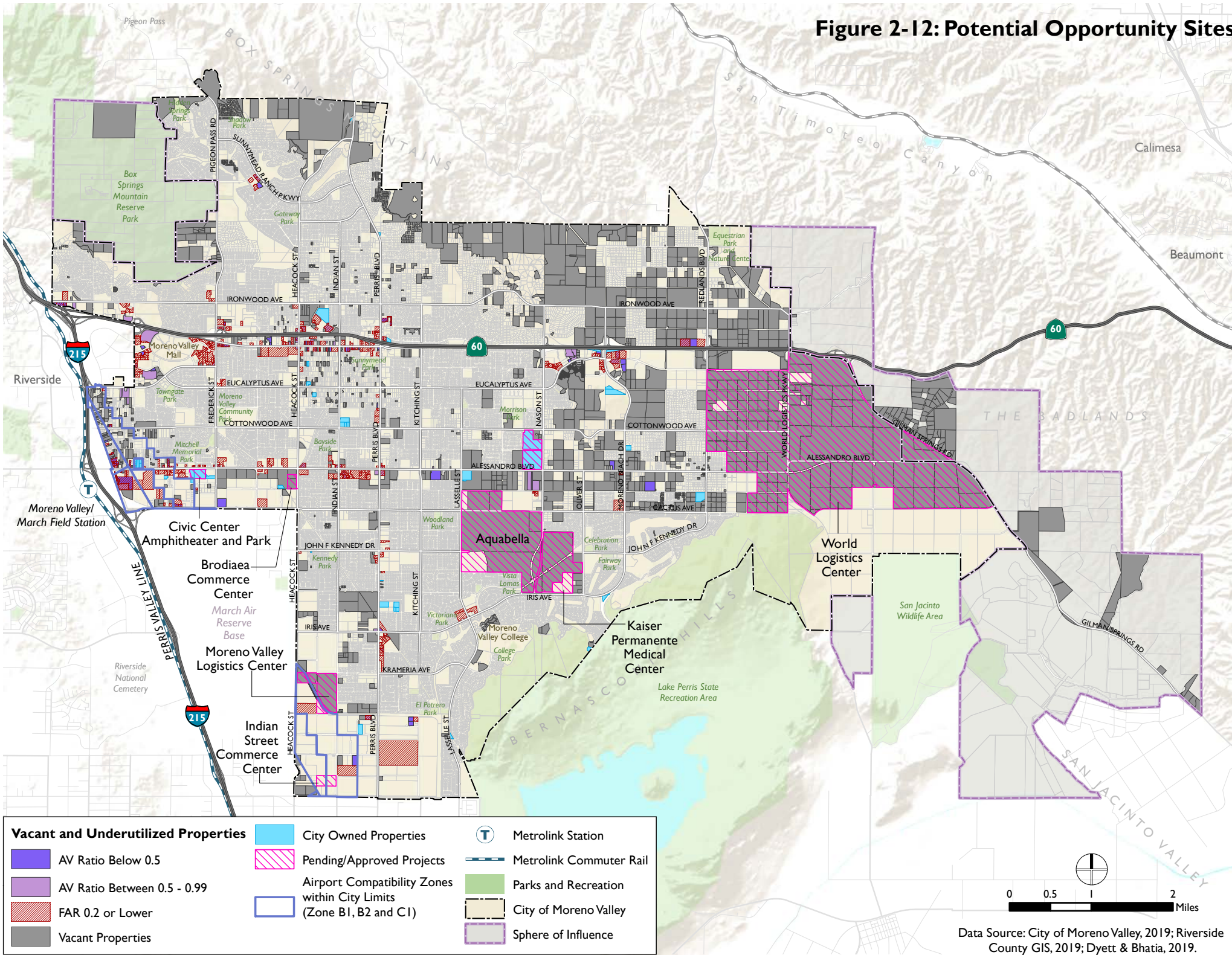
1. Vacant and underutilized Sites (AV Ratio below 0.5, AV Ratio 0.5-0.99, and FAR 0.2 or below) that already have a pipeline project assigned on it are excluded from this calculation and associated map.

2. This category includes acreage previously factored in the AV Ratio and FAR breakdown and is provided for reference to show areas of overlap.

3. City-owned properties are mostly vacant land owned by the City of Moreno Valley and its related agencies such as the Moreno Valley Housing Authority.

City of Moreno Valley, 2019; Riverside County Assessor, 2019

Figure 2-12: Potential Opportunity Sites



Vacant and Underutilized Properties	City Owned Properties	Metrolink Station
AV Ratio Below 0.5	Pending/Approved Projects	Metrolink Commuter Rail
AV Ratio Between 0.5 - 0.99	Airport Compatibility Zones within City Limits (Zone B1, B2 and C1)	Parks and Recreation
FAR 0.2 or Lower	City of More Valley	Sphere of Influence
Vacant Properties		

0 0.5 1 2 Miles

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

2.5 KEY FINDINGS AND PLANNING CONSIDERATIONS

- The urban structure of the city is defined by the pattern of existing land uses. Residential development is generally concentrated in the central and western portions of the community and surrounded by open space uses to the southeast and northwest, and by industrial uses and the March Air Reserve Base to the south and southwest. Commercial uses are concentrated adjacent to Highway 60 and along key corridors, including Alessandro, Sunnymead, and Perris Boulevards.
- Residential land uses account for nearly 32 percent of the existing land use within the City limit, of which 28.5 percent are single-family residential uses and 3.5 percent are multi-family residential uses. According to California Department of Finance estimates, 81 percent of the existing homes in the city are single-family detached residences and approximately 2 percent of the homes are single-family attached. Multi-family units account for approximately 15 percent, and mobile homes account for the remainder.
- Vacant land accounts for 27 percent of all land within the City limit, a significant amount. Vacant, undeveloped land is largely concentrated in the eastern part of the planning area, both north and south of Highway 60.
- Real estate development industry representatives have indicated that logistics businesses are increasingly interested in larger sites with a minimum size ranging from 10 acres up

to 50 acres. There are 15 vacant parcels over 50 acres in size and over 100 vacant parcels over 10 acres within the City; however, many of these are located on steep terrain that would pose a constraint to development or in areas adjacent to existing residential development where neighbors have expressed concerns with further logistics development. There are large vacant parcels available in the southern part of the City and there are clusters of adjacent vacant parcels over five acres in size that could be assembled to satisfy demand for logistics development.

- Developer initiated specific plans have guided growth in many areas of the city since incorporation. There are several specific plans which date back to the 1980s and 1990s, many of which are largely built out or may have served their useful purpose. As part of the General Plan Update, there is an opportunity to retire these older plans and incorporate any relevant policies or components into the updated General Plan and Zoning Code.
- Based on an analysis of land use conditions, including identification of underutilized parcels and an examination of ownership patterns, several broadly defined "opportunity areas" can be identified where change is foreseeable over the horizon of the General Plan. These include key corridors such as Sunnymead Boulevard, Alessandro Boulevard, and Moreno Beach Drive as well portions of the Moreno Valley Mall, Stoneridge Towne Center, and Moreno Beach Plaza. There is an opportunity to work with property owners, community members, and other stakeholders, to develop a long-range vision for these areas and update the land use designations and supporting policy framework accordingly as part of the General Plan update.

- The City owns a number of large, vacant parcels adjacent to other vacant or underutilized land under private ownership. These City-owned parcels could be redeveloped in coordination with private parcels as a way of catalyzing development in key areas. The City owned parcels at the northwest corner of the Alessandro and Nason intersection, under consideration for development of a Town Center, represents one prominent example.
- Within the Municipal Code, there is a mixed use overlay zone but it only covers limited areas. In the interest of promoting activity nodes that can serve as focal points for surrounding neighborhoods, there is an opportunity to explore mixed use along key corridors. Mixed use does not necessarily mean a mix of uses on every site; rather land use designations and policies can be crafted to promote a mix of uses within an area or along a corridor. In developing and vetting land use alternatives, options for mixed use development will be tested with property owners, community members, and other stakeholders and evaluated in view of current and projected market conditions.
- The City's RHNA allocation for the 2014-21 planning cycle included 6,169 housing units, of which 1,182 have been constructed as of December 2019. There are an additional 5,000 housing units in the pipeline pending approval or construction; however, the California Department of Housing and Community Development (HCD) has included the City of Moreno Valley on a list of jurisdictions that have not made sufficient progress toward their Above Moderate income RHNA, and as such the City is subject to SB 35 streamlining for proposed developments with at least 10 percent affordability. Further, State Housing law stipulates that the inventory for the upcoming RHNA cycle may not include a non-vacant site identified in a prior housing

element or a vacant site identified in two or more consecutive planning periods that was not approved for developing housing to meet housing need unless the site is designated for development at a higher density than in previous planning periods. The intention of this requirement is to incentivize residential development on sites previously deemed suitable for housing but that have not seen development by increasing allowable density and streamlining the approval process.

- In November 2014, out of safety concerns and in view of projected air traffic volumes, the Riverside County Airport Land Use Commission adopted new airport land use compatibility zones which affect land use within the City of Moreno Valley. The newly created Primary Approach/Departure Zone (Zone C1), which covers 75 acres of land in the southwestern area of the city, limits the density of residential development to equal or less than 3 dwelling units per acre and prohibits a range of sensitive land uses. The density limits conflict with the City's adopted 2014-21 Housing Element, which identifies sites for the potential development of units suitable for Low and Very Low Income classes. Specifically, there are 19 housing opportunity sites from the 2014-21 Housing Element with a yield of 267 units located in the C1 Zone which cannot be developed as envisioned in view of the newly adopted compatibility zones. The 2014-21 Housing Element inventory contains sufficient sites to satisfy the City's 2014-21 RHNA without these 267 units; however, the sites will need to be rezoned and additional Low and Very Low sites in other locations will need to be found to meet the City's RHNA allocation for the upcoming 2021-29 Housing Element planning cycle.

Attachment No. 4
Neighborhood Character

3

NEIGHBORHOOD CHARACTER

This chapter summarizes existing conditions and issues relevant to the existing character of the Planning Area. It also describes the existing street grid and architecture in different neighborhoods. A summary of findings and implications is provided at the end of the chapter.

3.1 Neighborhood Character

TOPOGRAPHY AND VIEWS

Moreno Valley is located in Riverside County in an east-west oriented valley bordered by the Box Spring Mountain Range to the north, the Badlands Mountain Range, also known as San Timoteo Badlands, to the northeast, and the Bernasconi Hills with Lake Perris to the southeast. Moreno Valley connects to the San Jacinto Valley in the southeast between the Badlands Mountain Range and Bernasconi Hills. To the west, lower hill ranges including Sycamore Canyon are located between Riverside and Perris, and the Saddleback formation, which is part of the Santa Ana Mountain Range, lies further in the west beyond Lake Mathews.

Within the City of Moreno Valley, several hills and rock formations present natural landmarks, particularly on the east side between Moreno Beach Drive and Nason Street just south of the Moreno Valley Freeway, at Alessandro Boulevard and Lasselle Street, and along the northern edge of the city near Ironwood Avenue. The terrain gradually slopes from north to south, starting from the northern mountain range to the southern border of the city with an elevation change of approximately 300 feet between State Route 60 and Iris Avenue. The nearest mountain ranges as well as the more distant San Bernardino Mountains, Santa Ana Mountains, and San Gabriel Mountains are visible from many locations in Moreno Valley, particularly higher elevations in the city.

A notable landmark is the 3,083 feet tall Box Springs Mountain on the northeast side of Moreno Valley, which features a prominent “M” marker at its peak facing Moreno Valley. The “M” is lit at night during holidays and special events.

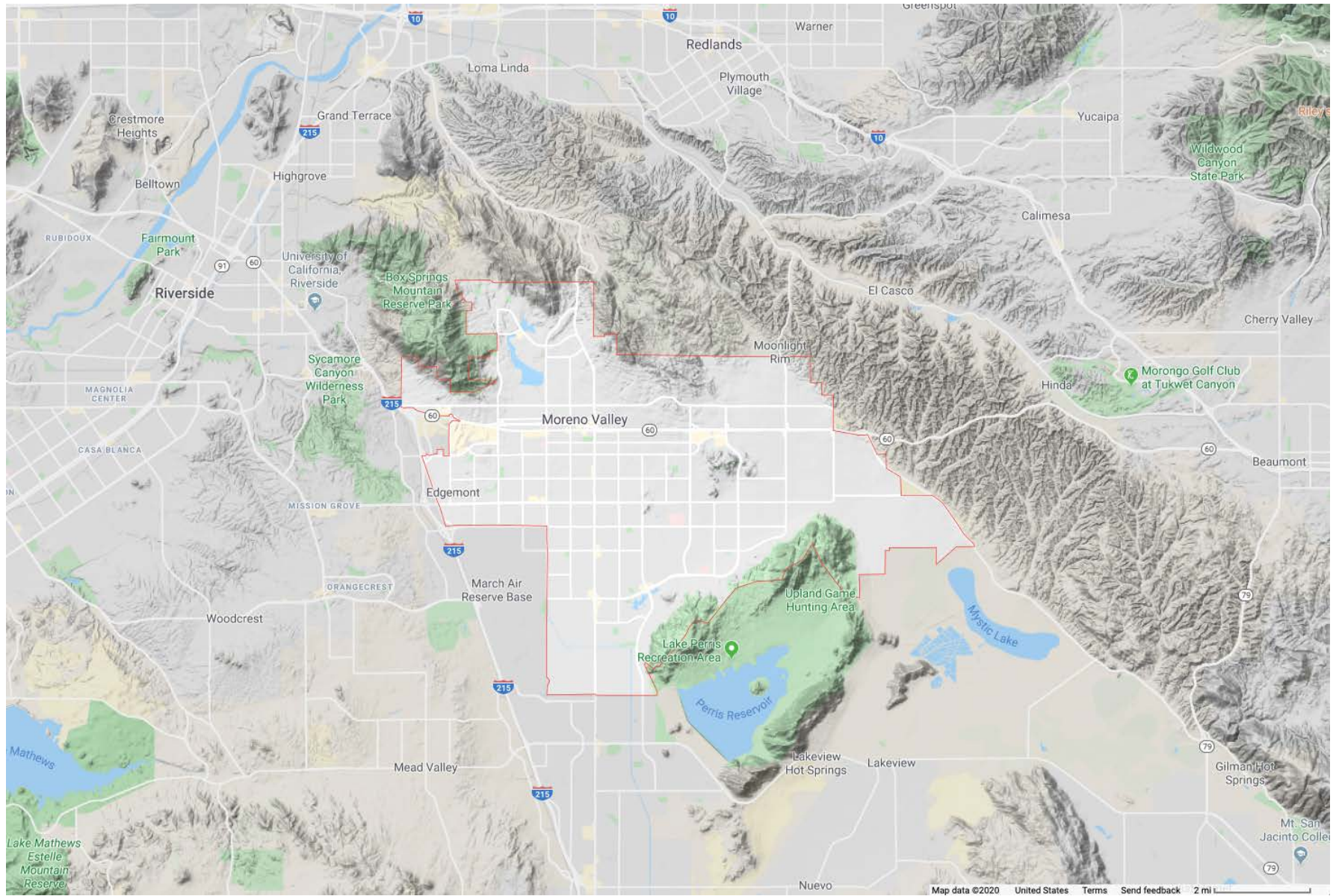


Box Springs Mountain with “M” marker, San Gabriel Mountains in the background



Rock formation near Nason Street and Alessandro Boulevard

Figure 3-1: Topographic Map of Moreno Valley



CITY STRUCTURE AND URBAN FORM

Overall City Structure

Moreno Valley's structure is based on the north-south and east-west oriented one square mile gridiron plan laid out at the end of the 19th century as part of the settlement expansion to the American West. Much of this layout remains with some modifications, resulting in "superblocks" defined by major arterial roads. Most of Moreno Valley is organized half-mile squares that are sometimes divided in half or four quarters by continuous roads, while some half-mile squares contain an irregular street grid within. One-mile squares or even larger blocks exist on the east side of the city. Refer to Figure 3-2 to view the city's structure.

A finer grained urban fabric with a smaller street grid exists in the Sunnymead and Edgemont area, where Moreno Valley's development first started.

The grid structure is broken up to follow the natural topography at the Lake Perris area in the southeast and along the northern hills and mountains. Although not located within the city limits, March Air Reserve Base forms the southwestern edge of the city and the street grid ends at the Base's northern and eastern boundary.

State Route 60 traverses Moreno Valley in an east west direction with most of the city located on the south side of the highway. Interstate 215 runs on the west side of the city, touching the westerly border of the city. Moreno Valley is served by four exits from Interstate 215 and eight exits from State Route 60.

Moreno Valley is served by the Metrolink Perris Line at the Moreno Valley/ March Field Station, which is located just outside of the city limits at Meridian Parkway near Interstate 215 and the Meridian Business Park.

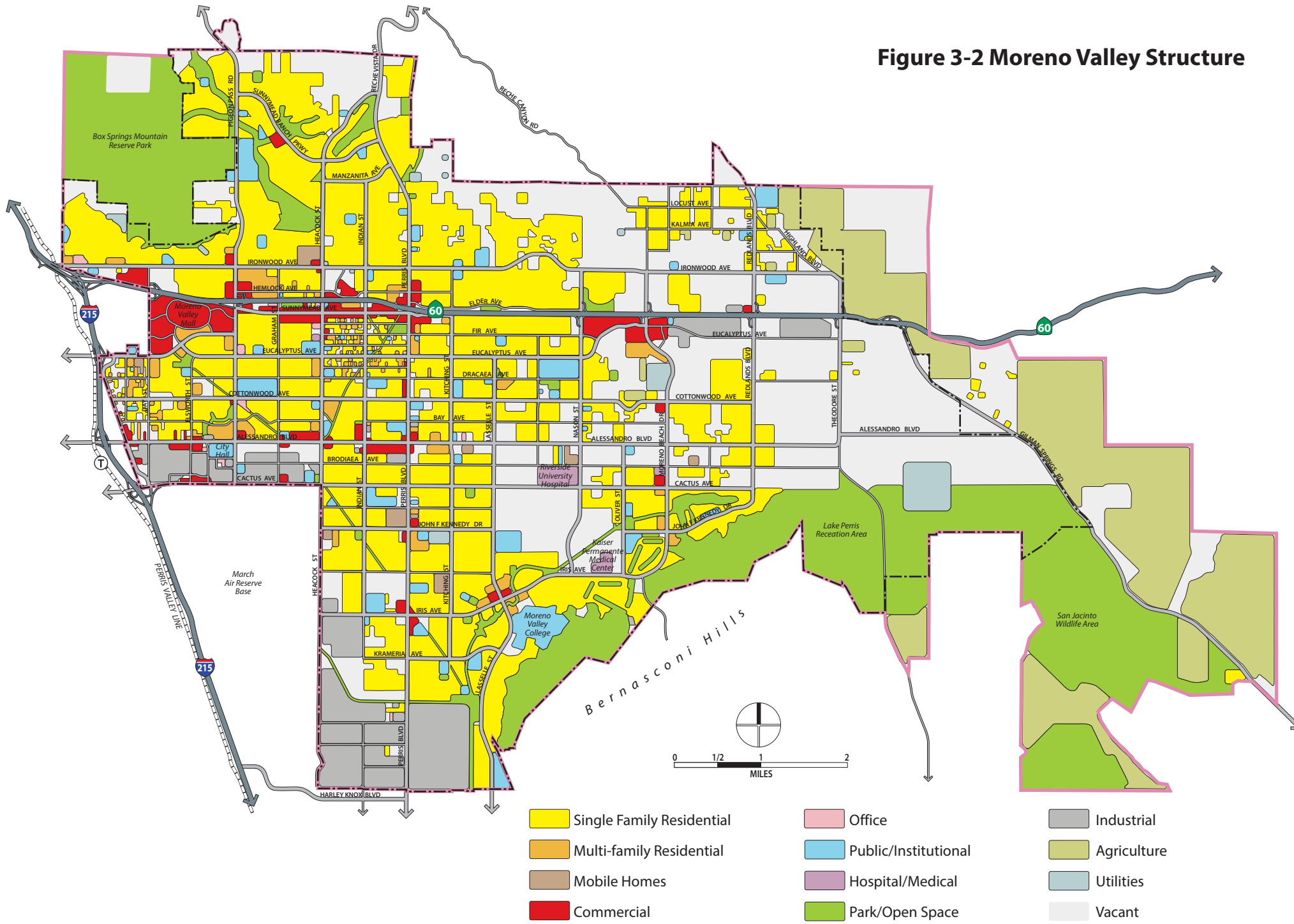


Moreno Valley/ March Field Station



March Air Reserve Base

Figure 3-2 Moreno Valley Structure



Moreno Valley has a decentralized structure with commercial, retail, public and institutional uses distributed across the city area, typically located along major arterials and at intersections of major arterials. Large-scale retail centers are concentrated along State Route 60, with smaller neighborhood retail centers interspersed throughout the city fabric. Residential uses are spread out within the grid pattern, mainly consisting of single-family home subdivisions, some older small parcel residential areas, as well as a number of multi-family complexes. Light Industrial areas are located along the southern boundaries near the March Air Reserve Base and south of SR-60 on the east side of the city and are home to a variety of industries including large scale distribution centers.

Large areas of vacant land are located on the city's east side beyond Lasselle Street. Here, some areas still remain rural in character with stand-alone buildings or compounds accessed by narrow roads, which in some cases are unpaved roads. Open land, a limited amount of which is used for agriculture, is lining Gilman Springs Road at the eastern edge of the city.

Major open spaces are the Lake Perris Recreation Area at the southern edge of the city along the Bernasconi Hills and the Box Spring Mountain Reserve Park in the northwest. A unique feature is Juan Bautista de Anza Multi-Use Trail, formerly named Aqueduct Trail, which runs diagonally through the western part of the city along the underground California Aqueduct Pipeline from the Moreno Valley Mall to Lake Perris State Park.



View of Moreno Valley from Box Spring Mountain



Juan Bautista de Anza Multi-Use Trail

Urban Form

The City of Moreno Valley was formed in 1984, uniting the unincorporated communities of Sunnymead, Moreno, and Edgemont, during a time of significant growth. The regular street grid and amount of available land resulted in auto-oriented low-density development. Large single-family residential subdivisions were built in or within a portion of the half-mile square blocks or along the hillsides.

Interspersed auto-oriented neighborhood retail centers serve these communities and are located along major four- or six-lane arterials. Large shopping centers are located along State Route 60, namely Canyon Spring Center, TownGate Crossing, Moreno Valley Mall, TownGate Plaza, Moreno Valley Plaza, The District, Stoneridge Towne Center, Moreno Beach Plaza, and Moreno Auto Mall. In the business and industrial areas, very large distribution centers and warehouses with building footprints between 1 and 1.5 million square feet are common. Refer to Figure 3-3 to view the distribution of retail centers and business parks in the city.

With the exception of medical facility buildings, most buildings in Moreno Valley are one or two stories high, with some multi-family buildings or hotels going up to four stories. Large distributions centers have building heights of up to 50-60 feet and building lengths between 600 and 900 feet.

Block sizes are generally big and based on the half-mile grid system. Long distances between pedestrian crossings along arterials contribute to limited walkability but a finer grained street network of secondary streets, where interconnected, generates smaller block sizes within the half-mile grid system.



Typical new single-family residential development



Hotel at Towngate



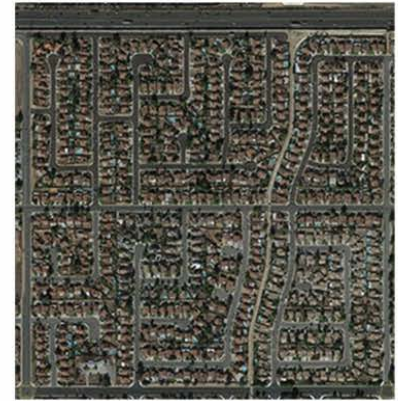
Rural with new residential and small retail (Alessandro, Moreno Beach, Cactus, Oliver)



Smaller parcels and street grid in Sunnymead (Sunnymead, Indian, Eucalyptus, Heacock)



Mix of single-family residential and apartments with aqueduct and small retail (Suncrest, Graham, Alessandro, Frederick)



Single-family residential subdivision with cul-de-sacs (Sunnymead, Laselle, Eucalyptus, Kitching)



Single-family residential subdivision and neighborhood retail center along arterial road (Alessandro, Perris, Cactus, Indian)



Schools on large parcels with single-family residential (Eucalyptus, Nason, Alessandro, Morrison)



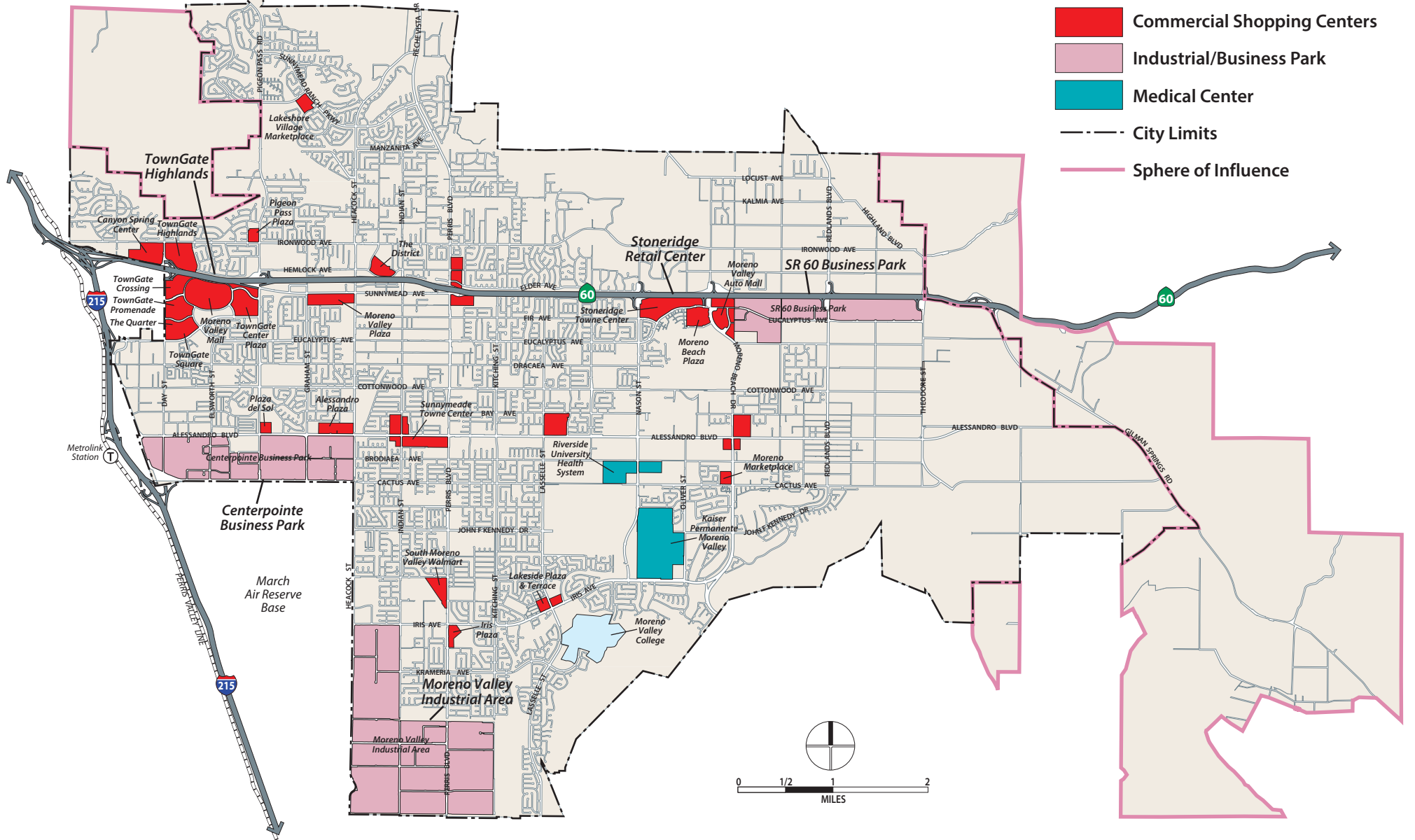
Large retail center with new single-family residential development on large parcels (SR 60, Moreno Beach, Dracaea, Nason)



Business Park with distribution centers on large parcels (Eucalyptus, Nason, Alessandro, Morrison)

Examples of urban fabric in Moreno Valley within a half-mile square

Figure 3-3: Distribution of Retail Centers and Business Parks



STREET NETWORK AND MAJOR CORRIDORS

Overall Street Network

The half-mile grid system generates an orthogonal street network in north-south and east-west direction for most of Moreno Valley except in areas where streets follow the natural topography on the city's north and south sides.

Major north-south arterials that connect to SR60 are: Day Street, Frederick Street, Heacock Street, Perris Boulevard, Nason Street, Moreno Beach Drive, and Redlands Boulevard. World Logistics Parkway and Gilman Springs Road on the east side of the city also connect to SR-60 but change direction to follow the natural topography. Old Frontage Road, Graham Street, Indian Street, Kitching Street, Lasselle Street, and Morrison Street also are major north-south streets that are not connected to SR-60.

Major east-west arterials are Ironwood Avenue and Alessandro Boulevard, the only two roads that traverse the entire width of the city. South of SR-60, Eucalyptus Avenue, Cottonwood Avenue, and Cactus Avenue are additional east-west arterials that cross large stretches of the city. Iris Avenue is another important connection in the south that connects Heacock Street with Moreno Beach Drive. Eucalyptus Avenue, Alessandro Avenue, and Cactus Avenue are connected with I-215 via on- and off-ramps. Beyond the southern border of Moreno Valley, Perris Boulevard connects to Harley Knox Boulevard, which also provides access to I-215.

Hemlock Avenue and Sunnymead Boulevard are important roads that run in parallel of SR-60 from Pigeon Pass Road/Frederick Street to Kitching Street.

Most major arterials are four-lane roads with a center median and left turn lanes, some with parking lanes or bike lanes. Alessandro, Perris Boulevard, and Iris Avenue are mostly 6-lane roads, as is

John F Kennedy Drive that connects Heacock Street with Lasselle Street. Major two-lane roads are: Day Street, Moreno Beach Boulevard, and Redlands Boulevard.

From this primary street network, continuous secondary roads connect into the neighborhoods. Tertiary roads are residential streets or rural streets that are interconnected or end in cul-de-sacs.

Many roads include bike facilities ranging from Class III bike routes to Class II bike lanes. There are no protected bike lanes along streets, except the Juan Bautista de Anza Trail is a separated multi-use trail that can be used by cyclists.

Most roads except for rural roads or roads in undeveloped areas have sidewalks on at least one side.



4-Lane Boulevard with bike lane and center median (Nason St)

Major Corridors

This section describes conditions along major corridors that serve as important connections to activity nodes and may play an important role for the consideration of future town centers.

Alessandro Boulevard

Alessandro Boulevard is the main east-west corridor that runs across the entire city and stretches 8.3 miles between I-215 and Theodore Street. Several destinations and activity centers are located in proximity to Alessandro Boulevard: The Business Park with City Hall on the west side, the public library at Kitching Street, several commercial shopping centers, and the Riverside University Health Systems Facility at Nason Street.

Planned new development will also occur along Alessandro Boulevard, namely the future World Logistics Center on the eastern edge of Moreno Valley and the Destination MoVal Town Center at Nason Street.

Alessandro Boulevard is a six-lane arterial with a center median that also accommodate left turn lanes, and a Class III or Class II bike facilities on each side. East of Kitching Street Alessandro Boulevard narrows down to two lanes with one section between Kitching Street and Lasselle Street including a center lane.

The typical width in the six-lane sections is 120 feet including six-foot wide sidewalks. In some areas the sidewalk is set back from the street by a five foot wide planting strip or is meandering in a larger green strip. In some portions, a sidewalk is missing, particularly along the business park area and in the eastern sections where Alessandro is a two-lane road. The right-of-way in the two-lane sections is typically 40 feet wide. Street trees exist in some center medians and along some blocks on private property or in a landscape strip next to the curb.

A wide variety of uses line Alessandro Boulevard, including commercial and retail, single- and multi-family residential, public, churches, schools, industrial, office, and vacant land.

Building heights are low, with most buildings being one or two stories high. The Ridgeview multifamily residential development at Kitching Street includes 3-story buildings.

Residential and commercial uses often front on Alessandro Boulevard with a small setback ranging between 5-30 feet from the outer sidewalk edge. Some buildings, particularly when they are part of a shopping center, are set back further from the street to accommodate surface parking. Several residential developments are separated from Alessandro Boulevard with a wall.



Retail and commercial uses are mainly accessed from Alessandro Boulevard. Single-family homes are accessed from Alessandro Boulevard as well, whereas larger residential developments have one or two combined entries from Alessandro Boulevard and additional entries from side or back streets.

The depth of commercial parcels is typically 600 feet, in some areas the depth less or more. Parcels for neighborhood retail centers, office, industrial, and multi-family residential uses are larger, while smaller commercial uses and single-family homes are situated on smaller parcels.

Block lengths along Alessandro vary between 450 and 2,600 feet, with many blocks stretching 1,200 feet.

Due to the block sizes and distance between signalized crosswalks, Alessandro Boulevard is auto-oriented and not conducive to walkability. However, three bus lines operated by the Riverside Transit Authority serve Alessandro Boulevard.



Neighborhood shopping center with set back buildings and parking visible from Alessandro



Residential building with small setback on Alessandro



Alessandro Boulevard is six-lane road with a center median and a bike lane in some portions



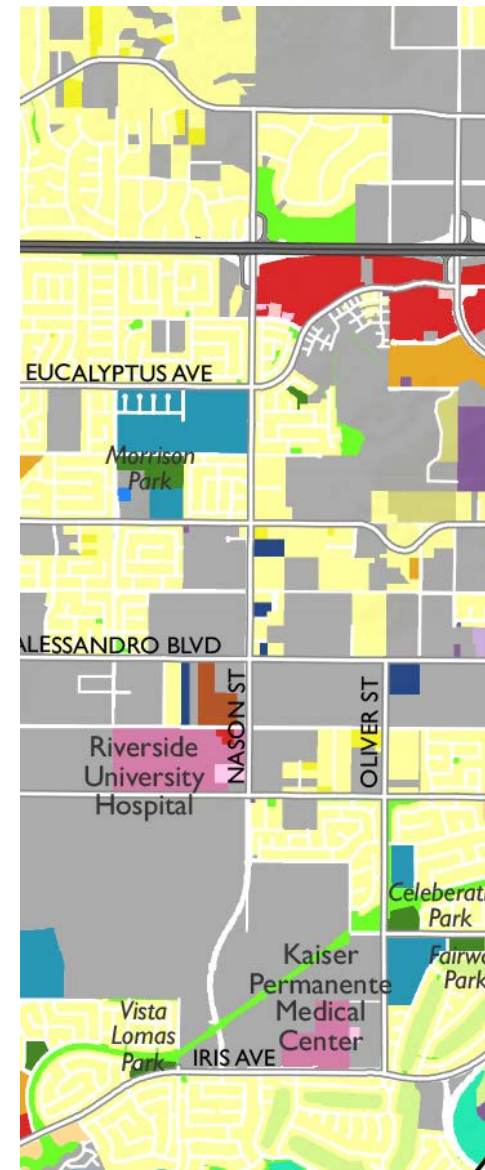
Perimeter wall along the street

Nason Street

Nason Street is one of the main north-south corridors on the City’s east side that connects to SR-60 runs for 3.6 miles between Ironwood Avenue to the north and Iris Avenue in the south. The extension between Cactus Avenue and Iris Avenue has been constructed in recent years. Nason Street connects to two larger destinations: the medical cluster, consisting of the Kaiser Permanente Medical Center at Iris Avenue and the Riverside University Health System Medical Center at Cactus Avenue, and a retail center formed by the Stoneridge Towne Center and Moreno Beach Shopping Center near SR-60. New single-family residential developments are under construction south of the Stoneridge Towne Center.

Nason Street is a four-lane arterial with a center median that accommodates left turn lanes at intersections, and a Class II bike lane on each side of the road between SR-60 and Iris Avenue, a distance of 3 miles. Recent improvements including the widening between Cottonwood and Cactus Avenue resulted in continuous sidewalks and bike lanes on both sides of Nason Street south of SR-60. North of SR-60, Nason Street has only three lanes with a sidewalk on the west side and no bike lanes.

The typical street width in the four-lane sections is 100-116 feet including six-foot wide sidewalks. In some areas, the sidewalk is 10-12 feet wide, particularly at bus stops, or is 6 feet wide with a landscape strip on one or both sides. Some landscape strips include street trees. A number of the wider medians include landscaping as well, while the narrow medians along turn lanes are improved with pavers.



Different uses and development patterns line Nason Street, including single-family residential developments and stand-alone single-family homes, a big box shopping center, a mobile home park, a school complex on a combined site that includes a high school, middle school, and elementary school, three churches, and the two medical centers with associated medical offices.

In addition to these uses, there is also approximately 1,000 acres of vacant land along the Nason Street corridor south of SR-60, some of which is currently being or planned to be developed with single-family residential, particularly along Eucalyptus Avenue and on a 686-acre site located on both sides of the southern portion of Nason Street between Cactus Avenue and Iris Avenue. In addition, new mixed-use development is envisioned on a 56-acre site at the northwestern corner of Nason Street and Alessandro Boulevard, named Destination MoVal Town Center. Large vacant parcels also exist around the Kaiser Permanente Medical Center, which are planned for the expansion of medical uses, and between Cottonwood Avenue, Alessandro Boulevard, and Cactus Avenue. North of SR-60, an approximately 16-acre vacant site is located at the southwestern corner of Ironwood Avenue and Nason Street.¹

Except for the Kaiser Permanente Medical Center and the Riverside University Health System Medical Center, which include up to 6-story and 4-story high buildings respectively, heights are low, with most buildings being one or two stories high.

All buildings are set back from the curb line with the setback ranging between 25 and 150 feet. Most new residential buildings are set back between 30 and 60 feet from the curb line. Commercial buildings are set back between 35 and 65 feet, or up to 85 feet when a surface parking lot fronts on Nason Street.

¹ Refer to the Nason Street Corridor Plan from 2015 for a more detailed analysis of existing conditions: http://moreno-valley.ca.us/pdf/nason_existing-0415.pdf

Most larger single-family residential developments have a perimeter wall along Nason Street that is set back 25-40 feet from the curb line with a landscape strip or berm in front of it. The frontage along the Stoneridge Town Centre also includes a landscaped berm as the site has a higher elevation than Nason Street. Properties with stand-alone residential or commercial buildings have fences, low walls, or no enclosure at all along Nason Street.

Smaller parcels with single buildings range between 0.5 and 2.5 acres. Larger parcels for residential subdivisions, schools, and shopping and medical centers are up to 70 acres in size. The smallest block size along Nason Street is 300 feet and the largest 1,200 feet.

Due to the block sizes and frontage conditions, Nason Street remains an auto-oriented corridor. Two bus lines serve portions of Nason Street between Eucalyptus and Cactus Avenue.



Nason Street has 4 lanes, a center median, a Class II bike lane and a landscaped sidewalk in some portions. Many residential developments have a perimeter wall along the street.

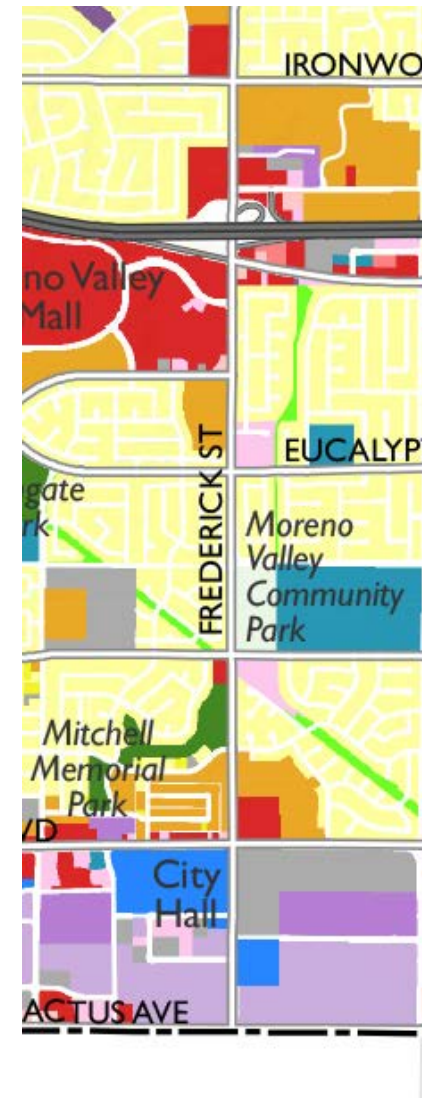
Frederick Street

Frederick Street, located in the western part of Moreno Valley, runs from SR-60 south for 2.1 miles to Cactus Avenue. It provides direct access to SR-60 via off- and on-ramps in both directions. Although not a cross-town connector, Frederick is an important street as it connects the Towngate retail district via Centerpointe Drive and Towngate Boulevard, Sunnymead Boulevard, Moreno Valley City Hall, and the Moreno Valley Conference Center at Alessandro Boulevard. In the south, Frederick Street ends at Cactus Street, which runs along the northern edge of the March Air Reserve Base. North of SR-60, Frederick Street turns into Pigeon Pass Road. The gateway into the Sunnymead Boulevard commercial corridor is at the intersection with Frederick Street and is marked with an arch and signage that crosses Sunnymead Boulevard just east of the intersection.

Frederick is a four-lane road with a wide center median that accommodates both a landscaped median and left turn lane or in some locations, two left-turn lanes in the stretch between Sunnymead Boulevard and Eucalyptus Avenue. South of Eucalyptus Avenue, Frederick Street has a center lane and short center medians near the intersection with Cottonwood Avenue and with Brodiaea Avenue. Sidewalks are continuous and typically 6 feet wide. In some portions, the sidewalk meanders in a 25-32 feet wide landscaped strip. The only street section that doesn't include a sidewalk on its east side is along the SR-60 underpass. There are no street trees in the right-of-way but trees on private property line the street in some sections.

The typical street width is 100 feet including sidewalks. South of Alessandro Boulevard the street width decreases to 76 feet.

Frederick Street is lined with different types of residential developments, the Towngate Plaza, the Moreno Valley Community Plaza, a small golf course, offices, small neighborhood retail centers, gas stations, City Hall and the Moreno Valley



Conference and Recreation Center, as well as large distribution and storage facilities at the south end of the street.

In the business park area near City Hall, formerly named Centerpointe Business Park, there is a 42-acre vacant site at the southeastern corner of Alessandro Boulevard and Frederick Street, and a 12-acre vacant site west of City Hall in the same block. The vacant land west of City Hall is owned by the City. Construction will begin soon on an amphitheater and parking lot at the City Hall complex on about seven acres. Smaller vacant sites exist on the south side of Calle San Juan De Los Lagos.

Residential developments include single-family residential and multi-family apartment buildings. Single-family developments are organized as orthogonal subdivisions or around cul-de-sacs. Apartment building complexes consist of several stand-alone multi-unit buildings that are organized around an internal open space. All residential developments include a perimeter wall or fence along Frederick Street, except for some older apartment buildings on smaller lots on the west side of Frederick Street north of Alessandro Boulevard.

Except for commercial and office uses, and small apartment buildings on single lots, most residential developments have access from side streets.

Building heights vary between one and two stories for single-family residential buildings, one to three stories for apartment buildings, one to two stories for office buildings, and one story for retail buildings. City Hall is a 2-story building and industrial buildings are up to 50 feet high.

All buildings are set back from the curb line with the setback ranging between 20 and 70 feet. In instances where surface parking lots front Frederick Street, buildings are set back further, between 100 and 280 feet.

Smaller parcels with single apartment buildings are as small as 0.17 acres. Larger residential subdivisions sit on sites ranging from 4 to over 70 acres that include internal driveways or a street network. The different retail centers including Moreno Valley Mall in the Towngate Specific Plan area are located on large parcels up to 80 acres in size, and feature large surface parking lots. Single retail building, neighborhood retail centers, or office complexes range from 1.4 to 8.5 acres. In the business park area (formerly Centerpointe Business Park), parcel sizes range between 0.5 and 80 acres.

Block sizes along Frederick Street are typically a quarter mile long, with two blocks being shorter at 500 and 550 feet.

Even though building setbacks along Frederick Street are less compared to other arterials, Frederick Street is an auto-oriented corridor to the block sizes and perimeter walls along the street. Two bus lines serve the northern portion of Frederick Street between Sunnymead and Dracaea Avenue.



Frederick Street near Towngate Boulevard. The street has four lanes, a center median, Class II bike lanes and six-foot wide sidewalks. Perimeter walls and fences line the street along residential developments.

NEIGHBORHOOD CHARACTER

Moreno Valley Neighborhoods

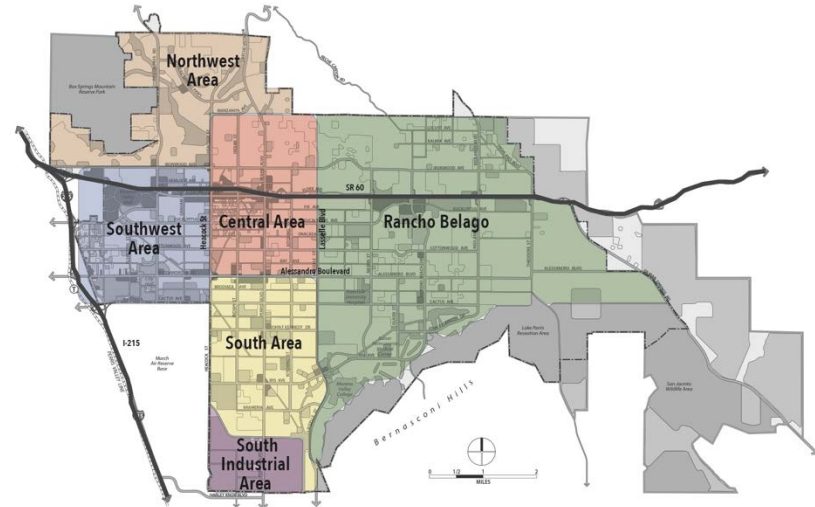
Before Moreno Valley experienced significant growth in the 1980s and became an incorporated city in 1984, three incorporated communities existed within current city limits: Edgemont, Sunnymead, and Moreno. Today, some of the original fabric is still recognizable, particularly in the area around Sunnymead Boulevard, which is characterized by smaller block and parcel sizes. Refer to Figure 3-4 to view the historic communities prior to incorporation.

Most of Moreno Valley's west side is developed with no clearly defined separation between Edgemont and Sunnymead. However, Moreno Valley is comprised of five loosely defined communities:

- The Southwest Area on the west side of the city that includes the older Edgemont area, near the junction of SR-60 and I-215 and extending to Heacock Street;
- The Central Area east of Heacock Street and north of Alessandro Boulevard, situated along Sunnymead Boulevard and stretching from Heacock Street to Lasselle Street. This area includes the older Sunnymead area.
- Rancho Belago, which comprises the eastern half of the city from Lasselle Road to Gilman Springs Road;
- The Northwest Area at the foot of the Box Springs Mountain range;
- The South Area bounded by Alessandro Boulevard, Kitching Street, Heacock Street, and the industrial area to the south;
- The South Industrial Area located along the southern portion on both sides of Perris Boulevard.

The Northwest Area includes two master planned Specific Plan areas and a newer residential area with subdivisions and a small

neighborhood shopping center, while all other neighborhoods include a mix of uses.



Moreno Valley Neighborhoods

Southwest Area

The area includes several areas with different development patterns. Initial development occurred along Alessandro Boulevard, where a mix of single-family residential areas, auto-oriented commercial centers, City Hall, other public facilities, and large distribution centers south of Alessandro Boulevard are located.

In the oldest parts east of Old 215 Frontage Road between Eucllyptus Avenue, Alessandro Boulevard, and Elsworth Street, the half-mile grid is subdivided into a quarter-mile grid or less, generating typical block widths between 180 feet and 1,300 feet. Individual parcels ranging from 0.15 and 1 acre in size, sometimes larger, with one-story residential buildings or compounds characterize the area. Vacant parcels are interspersed throughout the area. Larger streets except for arterials are typically 65 feet wide

and neighborhood streets are as narrow as 35 feet, sometimes lacking sidewalks. This structure generates the most heterogeneous urban fabric in Edgemont.

Newer subdivision-type residential developments extend to the east, occupying either a complete half-mile square as a single development or a portion of a square with an internal street grid that is interconnected or features cul-de-sacs. Single-family and multi-family buildings are one or two stories high. The single-story Moreno Valley High School, together with the Moreno Valley Community Park and another school, occupies an entire city block on a 72-acre site at Graham Street and Cottonwood Avenue. Arterial roads in this area are 100-125 feet wide, secondary streets are typically 75 feet wide, and neighborhood street widths range from 46 to 56 feet.

Large-scale regional retail centers are located on the north side of Edgemont on both sides of State Route 60. Several shopping centers form the Towngate area: Canyon Spring Plaza, Towngate Highlands, Moreno Valley Mall, Towngate Crossing, Towngate Promenade, The Quarter, Towngate Square and Towngate Center. This area also includes several hotels up to four stories high. Parcel sizes range between 5 and 80 acres. South of the Towngate retail area are several new multi-family residential developments that are up to three stories high, as well as single-family residential developments with mostly 2-story buildings. The developments typically occupy sites larger than 35 acres, which are subdivided into smaller blocks by an internal street grid. Towngate Boulevard and Eucalyptus Avenue serves as the main east-west connector that provides access to the shopping district as well as the new residential developments. These and other large streets are between 114 and 100 feet wide, while neighborhood streets range from 48 to 52 feet.

Of note is the gradual slope of the land from north to south, which creates noticeable changes in elevations in the Towngate area, for

example along portions of Towngate Boulevard, where buildings do not front the street at grade but are situated higher and a berm lines the street, or along Town Circle, where buildings are lower than the sidewalk on one side of the street. Approaching from the south on Day Street, the Box Spring prominent Mountain is in full view.

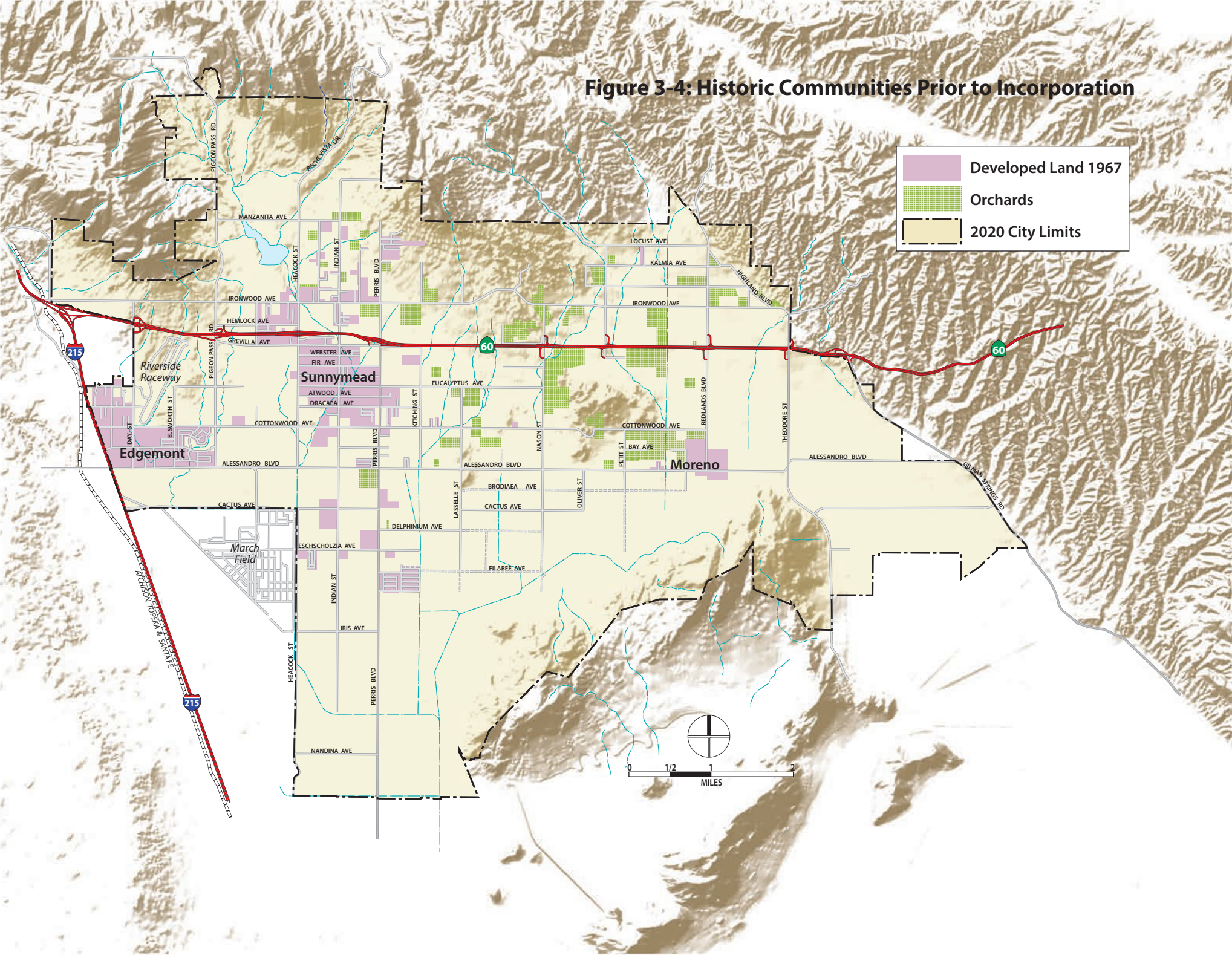
Towngate Memorial Park is the largest public park in the area and is located in a residential area south of Eucalyptus Avenue. The Juan Bautista de Anza Trail runs through the park and ends at Eucalyptus Avenue. The trail connects across the city all the way to the southeast and ends at Lasselle Street.



Elevation change at Towngate Boulevard with residential area situated lower than the street.

In the southern part of the Southwest Area are a business park area, civic uses, and some commercial uses including large distribution centers. City Hall and the Moreno Valley Conference Center are located on the south side of Alessandro Boulevard between Veterans Way and Frederick Street. This area stretches between Alessandro Boulevard and Cactus Avenue, and from Old 215 Frontage Road to Heacock Street. Parcel sizes range from 0.5 to 70 acres. Within this area, Alessandro Boulevard is 120 feet wide and most other streets are between 70 and 76 feet wide.

Figure 3-4: Historic Communities Prior to Incorporation





Ayres Hotel at Memorial Way



View north from Day Street with The Quarter Shopping Center on the right



The Villas at Towgate Apartments



Moreno Valley Mall



Fresco Apartments at Towgate Boulevard



Towgate Shopping Center



Towgate Memorial Park



Small Shopping Center on Alessandro Blvd



Conference and Recreation Center



Distribution Center



Single Family Residential

Central Area

The Central Area includes the Sunnymead area that was, like Edgemont, one of the earlier settlements in Moreno Valley. A finer grained street grid creates smaller blocks in a quadrant south of Sunnymead Boulevard between Heacock Street, Perris Boulevard, and Dracaea Avenue, with individual parcels typically sized 60 x 300 feet or 120 x 300 feet. Similar to the older part of Edgemont, this area is characterized by stand-alone one-or two-story residential buildings. Vacant parcels are interspersed in the neighborhood. Several east-west streets create rectangular blocks that are 600 x 2,600 feet. These streets are typically 50-52 feet wide.

Beyond this area, east of Perris Boulevard and south of Dracaea Avenue, single-family subdivisions with an internal street network and cul-de-sacs fill in the half-mile squares. Some larger parcels in the area are still vacant. Larger arterials like Perris Boulevard and Cottonwood Avenue are 70-100 feet wide, while secondary streets are 60 feet wide, and neighborhood streets 50 feet on average.

Commercial activity focuses on Sunnymead Boulevard and Alessandro Boulevard, with some neighborhood shopping centers also located at Perris Boulevard. Parcel sizes along Sunnymead Boulevard vary from as narrow as 60 to 2,400 feet wide, with depths between 270 and 620 feet. The area with the smaller parcels between Heacock Street and Perris Boulevard is also part of the original development of Sunnymead. Sunnymead Boulevard is typically 80 feet wide and a mix of smaller auto-oriented retail and services line the street, with most buildings set back from the street. A gateway sign to the east of the intersection with Frederick Street marks the entrance to the Sunnymead commercial area. The area has a large park, Sunnymead Park, at the corner of Fir Avenue and Perris Boulevard.

Further south, Alessandro Boulevard is a major corridor with a mix of retail, services, and residential uses with buildings set back from the street. Alessandro Boulevard is 120 feet wide except for the eastern portion, where it narrows to 80 feet. Neighborhood shopping centers are auto-oriented with surface parking lots accessed from Alessandro Boulevard and buildings set back from the street.

“The District” is a larger retail and business park center on a 20-acre site with home improvement stores and smaller services. It is located north of SR-60 at Hemlock Avenue. It is surrounded by vacant land on its west and north side. It was an underperforming center for years, and has now been redeveloped. Four business park buildings are under construction with the center southeast of Ironwood Avenue and Heacock Street. The suburban pattern with single-family homes, interspersed schools, and small retail centers, and similar street widths continues on the north side of SR-60. The main connector streets to the south are Heacock Street, Indian Street, and Perris Boulevard. Kitching Street and Lasselle Street do not cross SR-60 but serve as north-south connectors on the south side of SR-60.

Generally, building heights in the Central Area are between one and two stories. Some multi-family buildings are three stories.

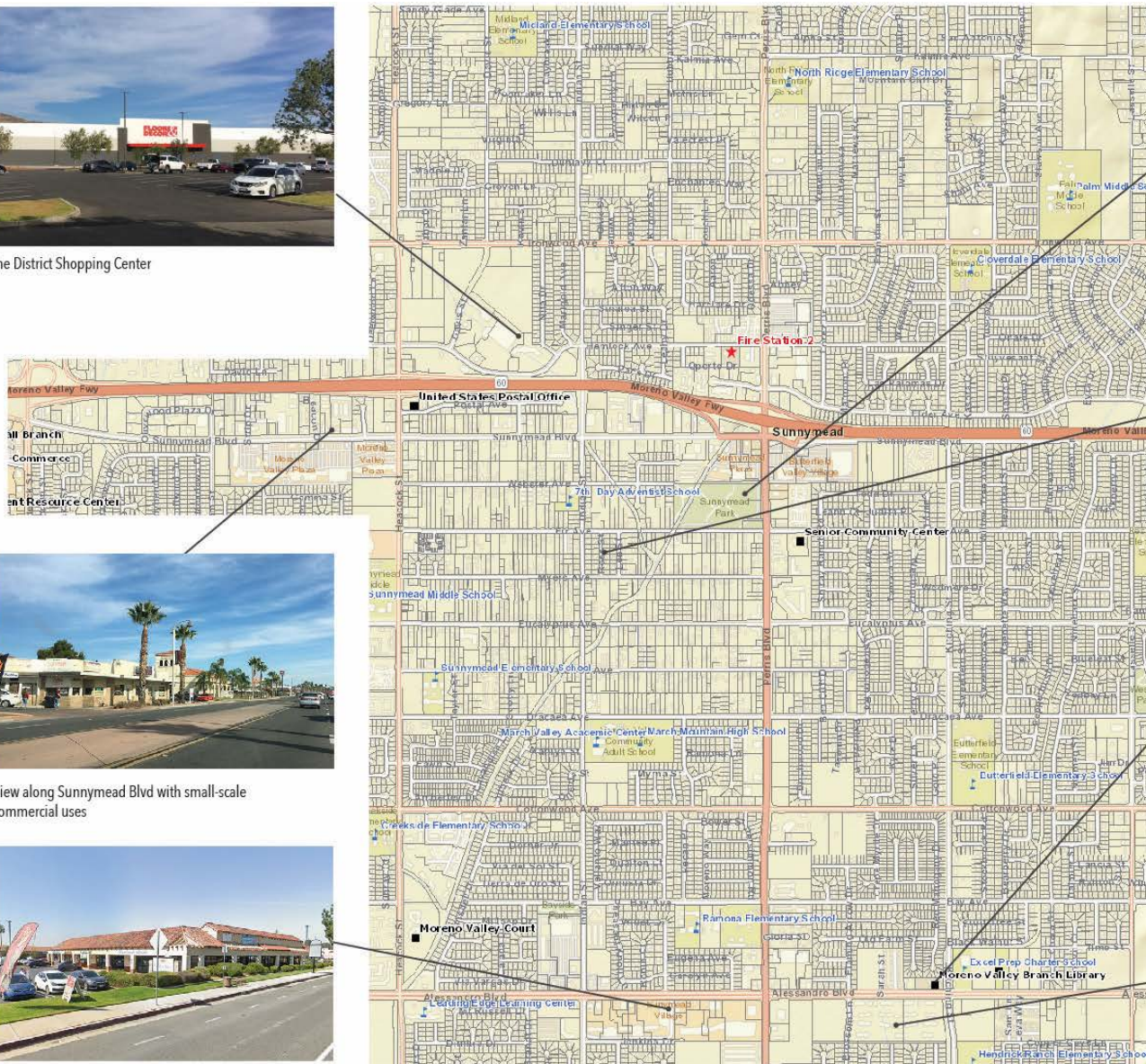




The District Shopping Center



Sunnymead Park



Single Family Residential



View along Sunnymead Blvd with small-scale commercial uses



Moreno Valley Public Library



Sunnymead Village Center



Ridgeview Apartments

Rancho Belago

Rancho Belago comprises the entire east side of the city and was established as neighborhood name in 2007. This area still has large areas of vacant land and some are in development. Parcel and block sizes are larger than in the western part of the city and can be as large as 400 acres but some rural clusters with 0.5-acre lots remain.

Areas that have been developed with new single-family residential developments follow the same pattern than on the west side, with the half-mile squares being subdivided with an internal street grid. Similar to the older areas in the Southwest and Central Areas, there is an older quadrant at Redlands Avenue and Alessandro Boulevard that is structured with individual parcels 60-100 feet wide and 150 feet deep, occupied by one-story residential buildings or compounds. This area was originally named Moreno. Streets as narrow as 26 feet form blocks that are 300 feet deep and 1,280 feet long. The streets in this area do not have sidewalks.

South of SR-60 at Moreno Beach Drive, is a large-scale commercial center. It includes the Stoneridge Towne Centre, which occupies a



Rural setting in Rancho Belago

50-acre site, the Moreno Beach Plaza, and the Moreno Auto Mall. New apartment buildings on a 25-acres site line the hill that is located just south of this retail center. New single-family development is under construction south of the Stoneridge Towne Centre.

Further to the east along SR-60 is an industrial area, which is home to several recently built large-scale distribution centers including the Skechers distribution center on a 90-acres site. This area is envisioned to expand and transform into a World Logistics Center.²

New residential development is concentrated in the southern area along Cactus Drive and John F Kennedy Drive, and along the Bernasconi Hills. These subdivisions occupy large sites and are often organized around internal open spaces.

The larger institutions of Moreno Valley are located in the southern part of Rancho Belago, and include the Riverside University Health Systems facility at Cactus Avenue and Nason Street; the Kaiser Permanente Moreno Valley Hospital at Iris Avenue and Oliver Street, and Moreno Valley College at Lasselle Street, nestled in the hillside of the Bernasconi Hills. The medical facilities partially occupy large sites ranging from 50 to 120 acres with room for expansion.

Except for the institutional buildings, distribution, and shopping centers at SR-60, all buildings are up to two stories high.

The major boulevards in the area are between 54-120 feet wide. Neighborhood streets are typically 50 feet wide and some rural roads are only 26 feet wide. Some streets including boulevards do not have any sidewalks.

² Refer to World Logistics Center Specific Plan: www.moreno-valley.ca.us/city_hall/departments/specificplans/wlc.pdf



Hyde Park Single-Family Residential



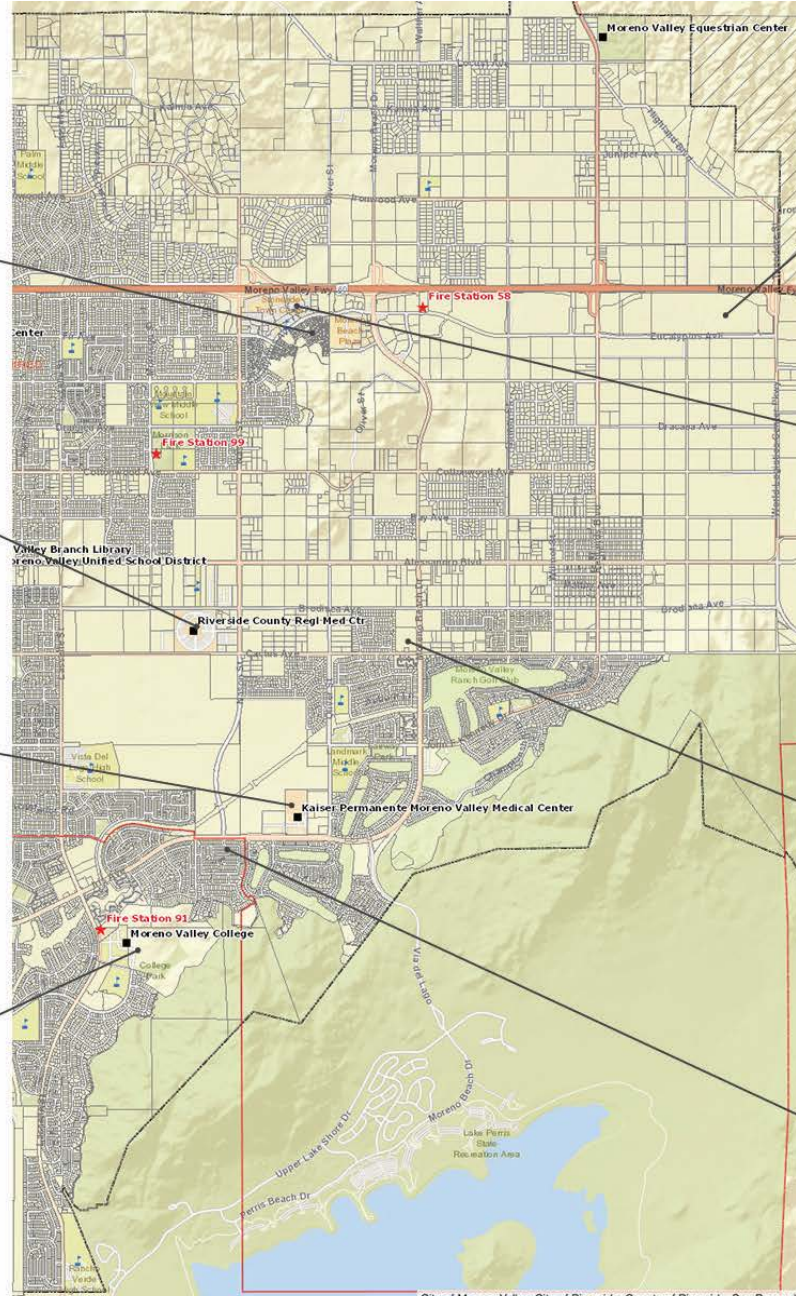
Riverside University Health Systems



Kaiser Permanente Moreno Valley



Moreno Valley College



Skechers Distribution Center



Stoneridge Towne Center



Moreno Marketplace Neighborhood Shopping Center



Moreno Ranch Single-Family Residential

South Area

The South Area extends from Alessandro Boulevard to the southern border of the city at Perris Valley Line B.

This area is more developed than the Rancho Belago area, although some larger vacant sites exist as well. Single-family residential developments as well as some mobile home communities characterize this area. Similar to the newer areas in the Sunny-mead neighborhood, single-family residential developments fill the half-mile squares with an internal neighborhood street grid.

Auto-oriented neighborhood retail centers are located at Perris Boulevard and Iris Avenue and Perris Boulevard and John F Kennedy Drive. Newer apartment buildings are located at Perris Boulevard.

Several schools occupy large sites ranging from 9 to 45 acres.

Major boulevards are 100-120 feet wide, smaller arterials are typically 80 feet wide, and neighborhood streets range between 48 and 50 feet.

The Juan Bautista de Anza Trail runs diagonally through this part of the city and ends at El Portrero Park on Lasselle Street.

Although not within city limits, the March Air Reserve Base forms a physical barrier along this area's west side. Its perimeter runs for three miles along Heacock Street.



Bethune Park at Kitching Street and Lurin Avenue

South Industrial Area

At the very south end of the area are several large distribution centers accessed via Perris Boulevard. The Eastern Municipal Water District operates a large sewage treatment facility in this area as well. Large lots of vacant land sit on the west side of Perris Boulevard between Gentian Avenue and Krameria Avenue. Waste Management of the Inland Area also has a facility within the area.



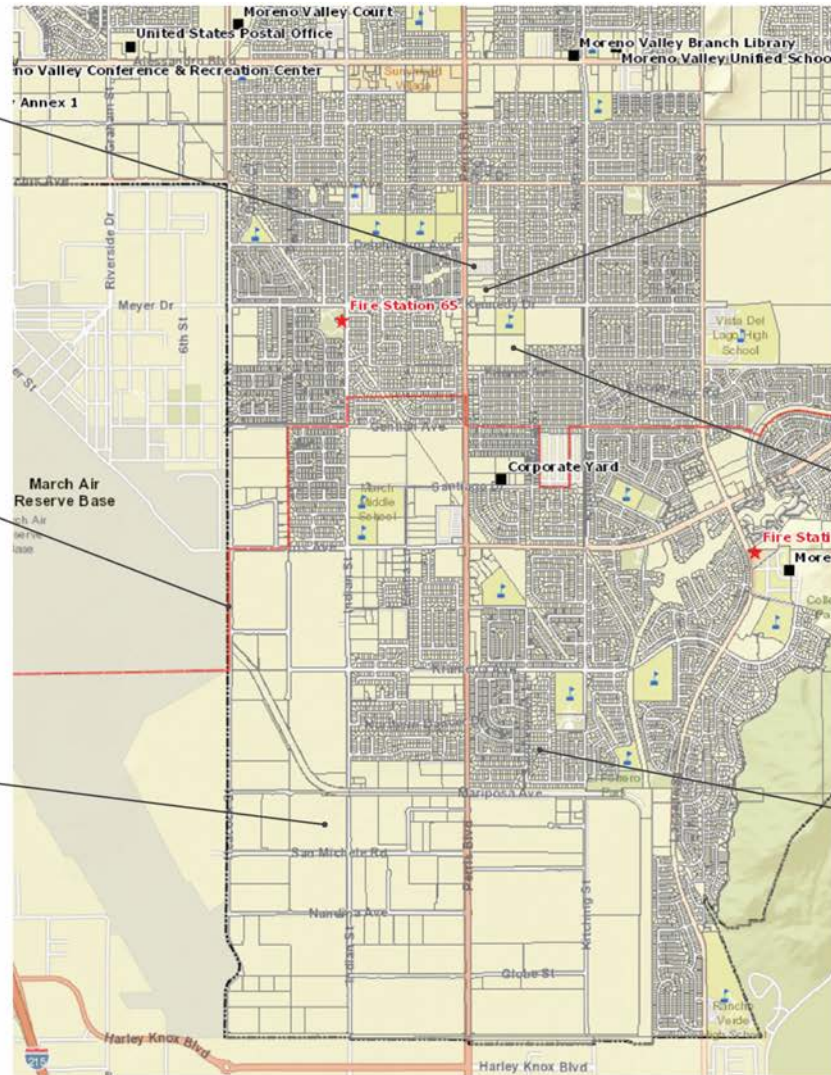
Mobile Home Park



Heacock Street looking north with March Air Reserve Base to the right



Amazon Distribution Center



Woodboro Avenue Shopping Center



Multi-Family Residential



Single-Family Residential

Northwest Area

The Northwest Area features relatively new residential development is located in the northern area of the city, and westerly in the hillsides of Box Spring Mountain.

These single-family residential developments are organized around green spaces, parks, or an artificial lake and have views to the valley and the Box Spring Mountain range. Four north-south boulevards, Pigeon Pass Road, Heacock Street, Indian Street and Perris Boulevard, and the east-west oriented Sunnymead Ranch Parkway provide access to these developments. The boulevards are between 76 and 90 feet wide.

The residential developments occupy large sites and include a variety of internal street patterns that follow the hilly topography. Neighborhood streets are typically 50 feet wide including 6 feet wide sidewalks.

A small neighborhood retail center is located on a 12-acre site at Sunnymead Ranch Parkway. A middle school and a high school are located on an approximately 60-acre site at Pigeon Pass Road.

Buildings in this area are typically one- or two-stories high.³



View from Box Spring Mountain to Hidden Springs

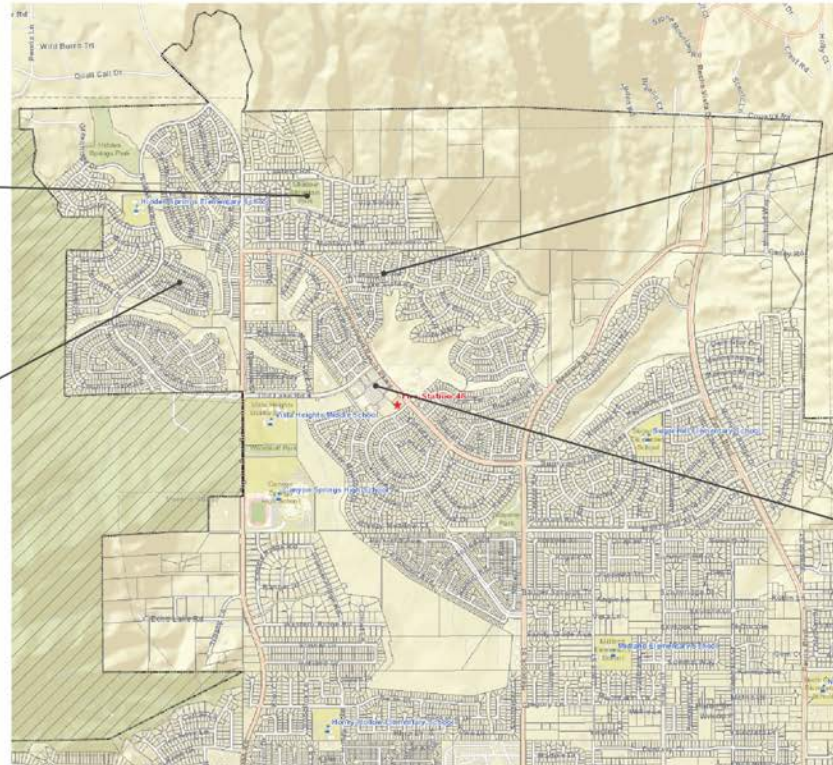
³ Refer to the Hidden Springs Specific Plan and Sunnymead Ranch Specific Plan for area-specific design guidelines and standards.



Shadow Mountain Park



Hidden Springs Single-Family Residential



Sunnymead Ranch Residential Development



Lakeshore Neighborhood Shopping Center

3.2 KEY FINDINGS AND PLANNING CONSIDERATIONS

The following is a summary of key findings and implications for the General Plan Update process related to urban design and neighborhood character:

- Moreno Valley is relatively flat with mountains defining its eastern edge and hills at its north and southeast borders. Within the City there are also several hills, which serve as landmarks for local areas.
- The structure of the city features residential areas in the center and on the west, with natural open space areas to the southeast and northwest. Major business parks are located at the north and east of March Air Base Reserve along I-215, and on the east side, there are several existing and planned business parks and a planned “World Logistics Center” on the south side of SR-60. Major retail and commercial areas are along SR-60, while smaller shopping areas are found throughout the City.
- Generally, there are five areas loosely defined within the City of Moreno Valley: the Southwest Area, the Central Area, the South Area, the South Industrial Area, the Northwest Area, and Rancho Belago. The residential areas in the Southwest and Central Area have the smallest lots, are most developed, and have the fewest cul-de-sacs of the five neighborhoods. Rancho Belago has the largest residential parcels and is the least developed, particularly in the eastern portion. Hidden Springs/Shadow Mountain and the southwestern part of Rancho Belago near Moreno Valley College have the largest residential lots and a curvilinear street pattern with more cul-de-sacs. Moreno Valley South is comprised of residential areas with a large industrial/distribution area to the south. Hidden Springs / Shadow Mountain is almost entirely residential with associated services.
- Today there are no distinct neighborhood cores or downtowns. Local and regional activity centers are distributed throughout the city. These include the areas around the Moreno Valley Mall, Moreno Valley College, Sunnymead Boulevard corridor, Stoneridge Towne Centre, Moreno Beach Plaza and Auto Mall. Two hospitals, the Kaiser Permanente Moreno Valley Hospital and the Riverside University Health System Medical Center (RUHS) are located in proximity to each other at Nason Street, Cactus Avenue, and Iris Avenue and form a medical cluster. The area north of the RUHS at the intersection of Alessandro Boulevard and Nason Street is envisioned to transform into a town center (“Destination MoVal”).⁴ This location with its available land for both the town center and potential surrounding development opportunities, proximity to the medical cluster, and connectivity to SR-60, is well positioned to create a new activity center in the Rancho Belago community.
- Much of the City has a plan based upon an agricultural grid of a one-mile by one-mile grid oriented north-south and east-west. Within the grid major streets are at the half-mile points, creating many neighborhood sub-areas of a half-mile by a half-mile in size. These sub-areas have

⁴ A request for proposals for the “Destination MoVal” destination has been issued in November 2019:

<https://www.morenovalleybusiness.com/destination-moval/>

inlet streets but few minor streets that allow for through connectivity and as a result the large size of the blocks makes walking less practical. Frontage conditions such as walls, fences, and surface parking lots are also not favorable to walking. However, the relatively flat terrain and rectilinear grid is well-suited for bicycling. The street pattern changes at the hills on the north and south of the City, so that the streets follow the land contours rather than the grid.

- Buildings are generally one or two stories tall with very few structures that exceed fifty feet in height. The highest buildings in the city are the up to five stories high buildings of the Kaiser Permanente Hospital and the RUHS, Logistics and distribution buildings are the largest in floor area in the city with many over 100,000 square feet in ground floor area, and several over one million square feet.
- The two primary east-west streets, other than SR-60, are Ironwood Avenue to the north of SR-60 and Alessandro Boulevard to the south of SR-60. Alessandro connects to the west of the City and I-215. The five major north-south streets on the half-mile grid, which have full intersections with SR-60, are Day Street, Frederick Street, Heacock Street, Perris Boulevard, Nason Street, Moreno Beach Boulevard, and Redlands Boulevard. Theodore Street and Gilman Springs Road in the very east of the city also have full intersections with SR-60 but run through currently undeveloped areas. There are fewer streets in the eastern and northeastern parts of the City, which are less developed than other areas of the City.
- A bikeway system is incorporated with the streets with primarily Class II lanes and Class III routes. Some Class I bike routes are specified in Specific Plans, for example in the Moreno Valley Ranch Specific Plan. The Juan Bautista de Anza Trail in the western part of the City runs from northwest to southeast. Other trails are mostly located in the hilly, unbuilt and park areas.

4

**PUBLIC SAFETY,
SERVICES, AND
FACILITIES**

This chapter summarizes existing conditions and issues relevant to key public services, including, parks, recreation, trails, and open space in the Planning Area. It also describes public safety services, schools, libraries, and cultural and civic facilities. A summary of findings and implications is provided at the end of the chapter.

4.1 PARKS AND RECREATION

The City of Moreno Valley Parks and Community Services Department offers a variety of parks, open space, trails, and recreational facilities for the community. Additionally, the city borders multiple State and County parks and open space, including Box Springs Regional Park and the Lake Perris State Park, that expand the broad range of recreational opportunities available in the Moreno Valley area. This section discusses distribution and accessibility of these community resources, as well as planned projects and funding for expansion of the park system.

PARKS

Existing Parks and Parkland Classifications

The City of Moreno Valley provides a total of 32 park facilities – seven Community Parks, 22 Neighborhood Parks, and three Specialty Parks – in addition to 30 Trails/Greenways contributing to the 454.18 acres of overall developed parkland, as shown in Figure 4-1 and summarized in Table 4-1. Additionally, the City owns 149 acres of undeveloped land intended for future park use.

The four categories of parks defined by the City are as follows:

- **Community Parks** are larger parks providing community-wide amenities, meeting needs of large sections of the community. Ideally about 20 to 50 acres in size, these parks have a three-mile radius service area, which represents a 20-minute drive, and often include community buildings, such as a cultural center or teen center, as well as specialty sports facilities.
- **Neighborhood Parks** range from ¼ to 20 acres in size and serve residents within a ¾-mile radius of the park. Amenities provided by a Neighborhood Park include practice sports fields, informal open play areas, children’s play apparatus, and basketball, tennis and volleyball courts.
- **Specialty Parks** provide a single use or activity and generally possess a unique character or function such as equestrian centers, trail head parks, community buildings, aquatic centers, and sport complexes.
- **Trails/Greenways** allow for uninterrupted, safe pedestrian movement through the city and play an important role in connecting the park, recreation and open space system. There are two main categories of greenways: “Natural” greenways follow existing natural resources; “man-made” greenways result from development projects and are often located in residential subdivisions, or along abandoned rail corridors, power line corridors, storm drain easements and collector parkway rights-of-way.

Table 4-1: Existing Parks and Recreational Facilities

<i>Park or Facility</i>	<i>Acres Amenities</i>	
Community Parks	166.93	
<i>El Potrero Park</i>	15.00	Barbecues, four multi-use athletic fields, fitness equipment, picnic tables, playground, soccer field
<i>Lasselle Sports Park Complex</i>	12.75	Barbecues, lit football field, picnic tables, playground, snack bar, lit tennis court
<i>March Field Park (Valley Skate Park)</i>	86.00	Picnic tables, lit skate park, snack bar, lit soccer turf arena, two lit softball/baseball fields
<i>Moreno Valley Community Park</i>	15.58	Barbecues, picnic tables, playground, skate park, snack bar, four lit soccer fields
<i>Morrison Park</i>	14.01	Barbecues, picnic tables, soccer field, snack bar, four lit softball/baseball fields
<i>Sunnymead Park</i>	15.53	Barbecues, picnic tables, playground, snack bar, four lit softball/baseball fields
<i>Towngate Memorial Park</i>	8.06	Barbecues, multi-use athletic fields, picnic tables, playground, lit softball/baseball field, walking path
Neighborhood Parks	135.31	
<i>Adrienne Mitchell Memorial Park</i>	4.43	Four lit basketball courts, barbecues, horseshoes, picnic tables, playground, walking path
<i>Bayside Park</i>	2.04	Barbecues, lit basketball court, horseshoes, picnic tables, playground
<i>Bethune Park</i>	6.00	Barbecues, picnic tables, playground, snack bar, two softball/baseball fields, two lit tennis courts, water feature
<i>Celebration Park</i>	6.65	Barbecues, lit basketball court, picnic tables, playground, walking path, water feature
<i>College Park¹</i>	25.00	Playground, soccer field
<i>Fairway Park</i>	5.50	Barbecues, multi-use athletic field, picnic tables, playground, volleyball court
<i>Gateway Park</i>	7.67	Barbecues, picnic tables, playground
<i>Hidden Springs Park</i>	7.00	Barbecues, multi-purpose trail/trailhead, picnic tables, playground
<i>John F. Kennedy Memorial Park</i>	7.69	Barbecues, picnic tables, playground, lit baseball/softball field, four lit tennis courts
<i>Parque Amistad</i>	4.24	Barbecues, lit basketball court, lit multi-use athletic field, picnic tables, playground
<i>Patriot Park</i>	0.50	Picnic tables, playground, walking path
<i>Pedrorena Park</i>	5.50	Barbecues, lit basketball court, multi-use athletic fields, picnic tables, playground, four tennis courts
<i>Ridge Crest Park</i>	5.00	Barbecues, lit multi-use athletic fields, picnic tables, playground
<i>Rock Ridge Park</i>	1.93	Barbecues, picnic tables, playground
<i>Shadow Mountain Park</i>	10.00	Barbecues, picnic tables, two lit softball/baseball fields

Table 4-1: Existing Parks and Recreational Facilities

<i>Park or Facility</i>	<i>Acres Amenities</i>	
<i>Towngate II Park</i>	8.91	Banquet facility, barbecues, picnic tables, playground, walking path
<i>Victoriano Park</i>	5.00	Barbecues, lit multi-use athletic fields, picnic tables
<i>Vista Lomas Park</i>	4.00	Barbecues, lit basketball court, picnic tables, playground
<i>Westbluff Park</i>	5.00	Barbecues, picnic tables, playground, walking path
<i>Weston Park</i>	4.14	Barbecues, lit multi-use athletic fields, picnic tables, playground, lit softball/baseball fields
<i>Woodland Park</i>	9.11	Barbecues, four lit basketball courts, pickleball court, picnic tables, playground, lit softball/baseball fields, four lit tennis courts
Specialty Parks	61.08	
<i>Cottonwood Golf Center</i>	15.83	Banquet facilities, golf course
<i>Hound Town Dog Park</i>	0.25	Dog park
<i>Moreno Valley Equestrian Park</i>	45.00	Horse arenas, multi-purpose trails
Trails/Greenways²	90.86	
<i>Aqueduct Bikeway</i>	29.61	
<i>Multi-Use/ Equestrian Trails</i>	61.25	Including: Aldi Trail, Auto Mall Trails, Cactus Trails, Cottonwood Trails, Eucalyptus Avenue Trails West, Iris Ave Trails, Nason Trails (Cold Creek), Quincy Channel Trails, Rancho Verde Trails, Relands Boulevard Trails, Sunnymead Ranch Linear Park, Via del Lago
Total	454.18	
Undeveloped/Future Sites³	149.29	
<i>Hidden Springs Passive Park</i>	17.00	
<i>Poormans Reservoir</i>	125.00	
<i>Rancho Verde Park</i>	3.44	
<i>Santiago Park</i>	3.85	

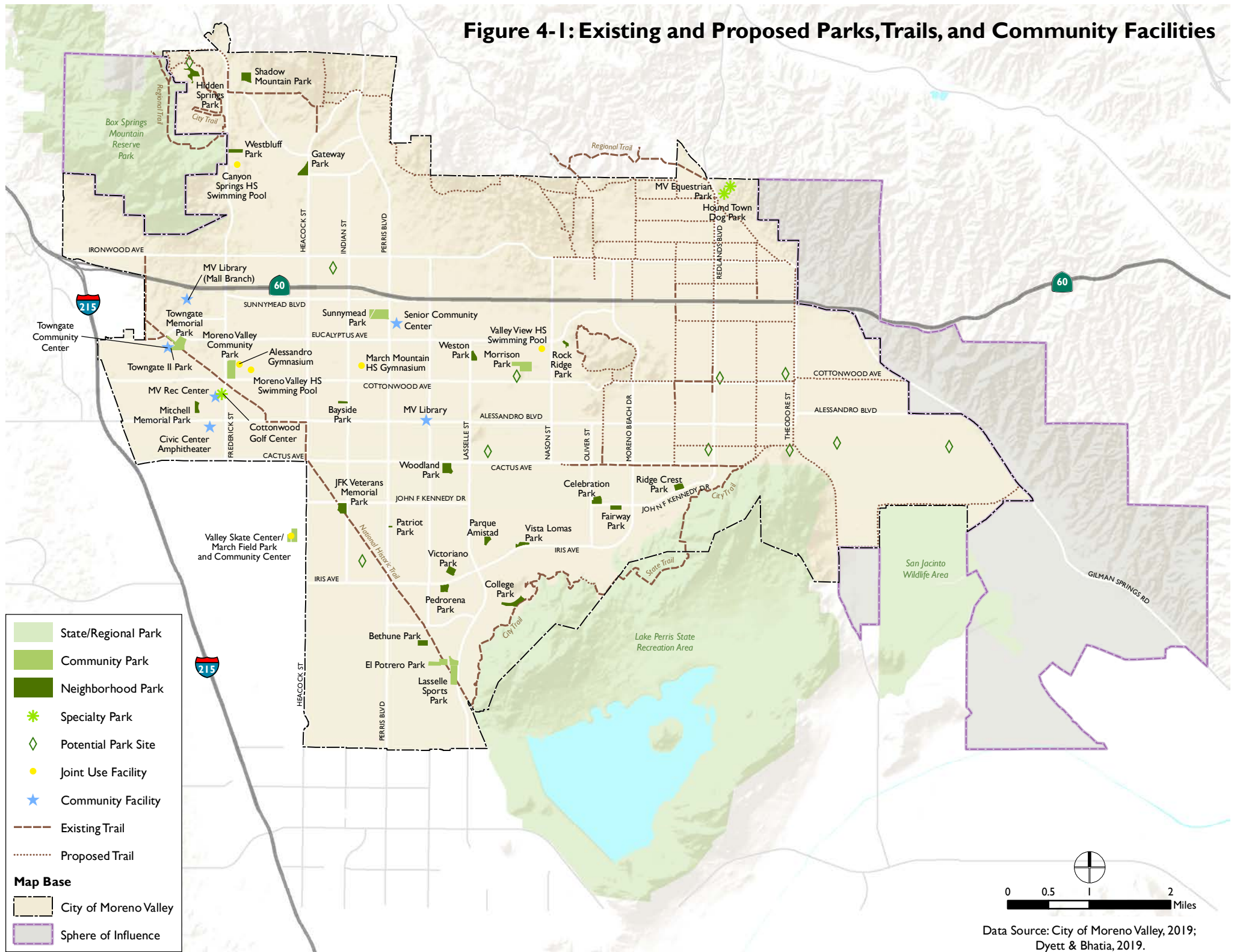
1. Joint Use Agreement.

2. Includes multiple segments per trail.

3. City-owned properties slated for park use are not included in total acreage. If these sites were to be developed, parkland service ratio would be 2.89 acres per 1,000 residents.

Source: City of Moreno Valley, 2019.

Figure 4-1: Existing and Proposed Parks, Trails, and Community Facilities



The City has established a standard of 3.0 acres of parkland per thousand residents, calculated on the basis of City-owned parkland. With a total of 454.18 acres of existing parkland and a population of approximately 209,051 residents, the City is currently providing 2.17 acres of parkland per thousand residents, below the established standard. If undeveloped land owned by the City and held in reserve for park uses were to be developed, the ratio would be 2.89 acres per thousand residents. Additionally, there are 215 acres of school fields and facilities available for recreational use in the city. If these lands were to be counted in the total parkland acreage, the ratio would be 3.20 acres per thousand residents, although there are currently not joint use agreements in place with the school districts that allow joint community use of all school facilities.

Consistent with the concentration of residential development in the City, a majority of these parks are located in the western part of Moreno Valley. Though fewer parks are located in the eastern half, trails and recreational open space may provide alternative opportunities. Joint Use Agreements with school districts in the City also provide additional park facilities available for reservation.

City of Moreno Valley Parks, Recreation and Open Space Comprehensive Master Plan

In 2010, the City adopted its first official Parks, Recreation and Open Space Comprehensive Master Plan to implement the Parks, Recreation and Open Space element of the 2006 General Plan and establish a framework for guiding development of facilities and programs through 2035. The Parks Master Plan studied community needs and identified a set of challenges and issues affecting current service delivery, including change in demographics, graffiti and vandalism, funding, access, awareness, crisis intervention, health and wellness, and water conservation and energy sustainability. The

resulting list of goals, known as the “12 Goals for Success,” and corresponding policy recommendations are summarized in Table 4-2.

The City has taken steps to implement many of the goals in the Parks Master Plan, including budgeting for park maintenance and improvement, development of March Field Park, increasing recreation for teens, leveraging park resources as revenue-generating assets, pursuit of the Master Plan of Trails, and incorporating sustainable design elements.

Planned Parks

Based on projected demand for parkland and input on the community, the Parks Master Plan included the following new projects:

- Cottonwood Park, a 12-acre site with a 6,000-square-foot community center, gazebos, covered patios, and a tot lot;
- March Field Park Family Sports Complex, further development of the 86-acre, site as a dedicated baseball complex or youth soccer complex, softball complex, and family fun sports center;
- Multi-Generational Community Park, a 40- to 50-acre park with an aquatic complex, sports complex, and a multi-generational complex containing a community center, senior community center, teen center, trail, play equipment, and special events area;
- Partial development of the Markborough Property as an eight- to 10-acre neighborhood park with practice sports fields.

4-2: Parks Master Plan "12 Goals for Success"

Goal	Recommendations
1. Recognize Park Maintenance as a budget priority.	<p><i>Leverage technology to lower maintenance costs.</i></p> <p><i>Consider decentralizing maintenance to improve efficiency.</i></p> <p><i>Implement an Asset Management database to track facility conditions and costs.</i></p>
2. Continue the successful graffiti removal program and immediate attention to vandalism programs.	<p><i>Implement more aggressive enforcement of graffiti, vandalism, and juvenile crimes.</i></p> <p><i>Collaborate with the Police Department for surveillance and investigation.</i></p> <p><i>Install surveillance cameras and implement monetary reward systems.</i></p> <p><i>Consider controlled access such as membership programs for residents.</i></p>
3. Pursue development of March Field Park as a sports complex and family recreation facility.	<p><i>Adopt one of the new March Field Park Sports Complex and Family Activity Center Concept Master Plans and proceed with development to meet projected field demands and distribute demand for existing fields.</i></p>
4. Pursue development of cultural arts venues.	<p><i>Investigate feasibility of developing the College Park Amphitheater with Community College District and non-profit performing organizations, or alternatively, expand current footprint of Civic Center Complex to include a performing arts theater and gallery space.</i></p> <p><i>Support and expand existing community centers and other venues that host cultural programs.</i></p>
5. Increase recreation and social programs for teens.	<p><i>Emphasize services on academic support, health and wellness, mentoring with emphasis on college, career and job preparation, and civic and volunteer involvement.</i></p> <p><i>Establish opportunities for youth to identify, and develop programs, services, and events, such as youth employment/volunteer opportunities.</i></p> <p><i>Explore possibility of including a dedicated Teen Center in proposed Multi-Generational Community Park, informed by a "Teen Center Advisory Committee."</i></p>
6. Expand indoor and outdoor programs for seniors.	<p><i>Improve the Senior Community Center with an outdoor space for senior events, programs, and passive use, a senior exercise facility, and more classroom and studio space.</i></p>
7. Provide Neighborhood and Community Parks.	<p><i>Prioritize provision of most-requested amenities based on community demands.</i></p> <p><i>Acquire and develop parks in northern and eastern portions of city to serve growth.</i></p> <p><i>Proactively designate possible park sites to negotiate with potential developers.</i></p> <p><i>Adopt park development standards; encourage developers to include recreational opportunities.</i></p>

4-2: Parks Master Plan "12 Goals for Success"

Goal	Recommendations
8. Provide community events for celebration and design future parks to accommodate special events.	<p><i>Provide specialized facilities in community parks for events such as fairs and concerts.</i></p> <p><i>Continue collaboration with Riverside Community College District on outdoor amphitheater project.</i></p>
9. Address the need for aquatic activities and swim lessons.	<p><i>Collaborate with competitive swim organizations, schools, YMCA, and aquatic operators to meet demand.</i></p> <p><i>Work with schools to build pools that provide school and community swim programs.</i></p> <p><i>Locate potential city-developed or private commercial aquatic facility near other facilities to share parking and administration.</i></p> <p><i>Consider development of Prototypical Concept Master Plan for multi-generational community park to include aquatic complex, especially in east side of city.</i></p>
10. Use park resources as assets to generate new revenue to deliver desired services.	<p><i>Use City resources to generate new revenue.</i></p> <p><i>Partner with other public agencies, non-profits and commercial entities.</i></p> <p><i>Continue to expand fee-based recreation programs.</i></p>
11. Complete the Moreno Valley Master Plan of Trails.	<p><i>Continue to implement Master Plan of Trails.</i></p> <p><i>Ensure future trail development adheres to City's trail design standards.</i></p> <p><i>Include walkways and trails in new commercial, industrial, and retail development projects.</i></p> <p><i>Pursue alternatives to complete trail connections crossing S.R. 60 Freeway.</i></p> <p><i>Limit use of motorized vehicles on trails to assure safe use of trails.</i></p>
12. Adopt new park landscape standards that include "Sustainable Design Elements."	<p><i>Seek use of: drought-tolerant, site-suitable, or native plants; storm-water management; facility solar access; minimal building energy consumption; recycled building materials; and water efficiency practices.</i></p>

Source: City of Moreno Valley Parks Master Plan, 2010.

As shown in Figure 4-1, the City has identified a number of locations such as City-owned undeveloped land sites for potential expansions to the park system, particularly in the eastern half of the city. These projects, detailed in Table 4-3, include a new skate park addition to the Moreno Valley Community Park that provides a venue for teen recreation, as encouraged by the Parks Master Plan, as well as a Demonstration Garden that offers educational opportunities for the public to engage in sustainable design and practices such as composting.

The Civic Center Amphitheater and Park, anticipated in the Master Plan, will be a valuable location for hosting a variety of programs. Projected to be completed in 2020, the new facility will be the first community amphitheater – a manifestation of the City’s “Momentum MoVal” strategic plan to expand arts and culture in the city, which is a major community interest - to showcase local talent and attract other performers to Moreno Valley. The location, as seen on Figure 4-1, will be next to the Conference and Recreation Center at 14075 Frederick Street, complementing other resources that the City currently provides. The amphitheater will seat up to 600 people, providing an intimate, open-air venue for Moreno Valley residents and visitors to enjoy a variety of live music performances, movies in the park and many other City-sponsored events. The seven-acre lot will feature landscaping and a stage with a backdrop and audio-visual pavilion to establish the park as a premier outdoor venue. The amphitheater will also be available to public rental, providing another exciting and convenient venue option for community groups and businesses. (City of Moreno Valley Parks & Community Services Department, 2018)

ACCESSIBILITY

Figure 4-2 shows the services areas for community and neighborhood parks. To ensure that residents have adequate access to park

facilities, the Parks Master Plan specifies a ¼-mile radius for neighborhood parks and a three-mile radius catchment for community parks. Other classifications of parks were not included in service area analysis because the range of amenities at these facilities is limited or is catered for a singular purpose. As seen in Figure 4-2, residential neighborhoods in the city are generally well-served. All residential areas fall within the established service area for community parks, and most residential neighborhoods in the south and northwestern portions of the city are within the established service area for neighborhood parks. However, residential neighborhoods in the northeast and around Sunnymead are underserved by neighborhood parks.

Another measure of access to parks is walkability, or how long it would take to get to a park on foot from home. Figure 4-3 shows access to parks on foot, accounting for the actual path of travel along existing streets and around existing development. The analysis reveals that only about a quarter of all residential neighborhoods are within a five- to ten-minute walking distance of a park, and many of these paths are circuitous due to lack of entry points, private property barriers, and other obstacles. Parks with the best access on foot tend to be clustered in the more established neighborhoods in the south and west and are most accessible where other parks are also located.

RECREATION

Recreational Facilities and Programs

In addition to parks, residents have access to recreational facilities such as the Moreno Valley Recreation and Conference Center, providing rentable event space as well as venues to house the multitude of programs that the City provides. There are six recreational facilities, as listed in Table 4-4, in addition to facilities at the Cottonwood Golf Center. As seen in Figure 4-1, most of these facilities are located adjacent to parks. Joint Use Agreements with Moreno

Valley Unified School District provide additional locations to meet community demand for swimming pools and other sports facilities.

The City Parks and Community Services Department offers sports activities for all ages, including, skateboarding instruction, basketball leagues, volleyball leagues, open gym basketball, softball leagues, billiards for seniors, and senior exercise and fitness activities, in addition to self-help and instructional classes. The Department also has special interest recreation activities such as trips and tours for seniors, volunteer opportunities, after school programs, organized hiking, and city-wide events.

Moreno Valley expands its repertoire of recreational opportunities through coordination with community organizations and non-profits and provides special interest classes through contractual arrangements with local instructors or private businesses. These classes include acting and singing for kids, art, specialty camps, children’s ballet, beginning tumbling, youth boxing, cheerleading, various dance classes, music classes, self-defense classes, math wizards, photography, dog obedience, aerobics, and yoga.

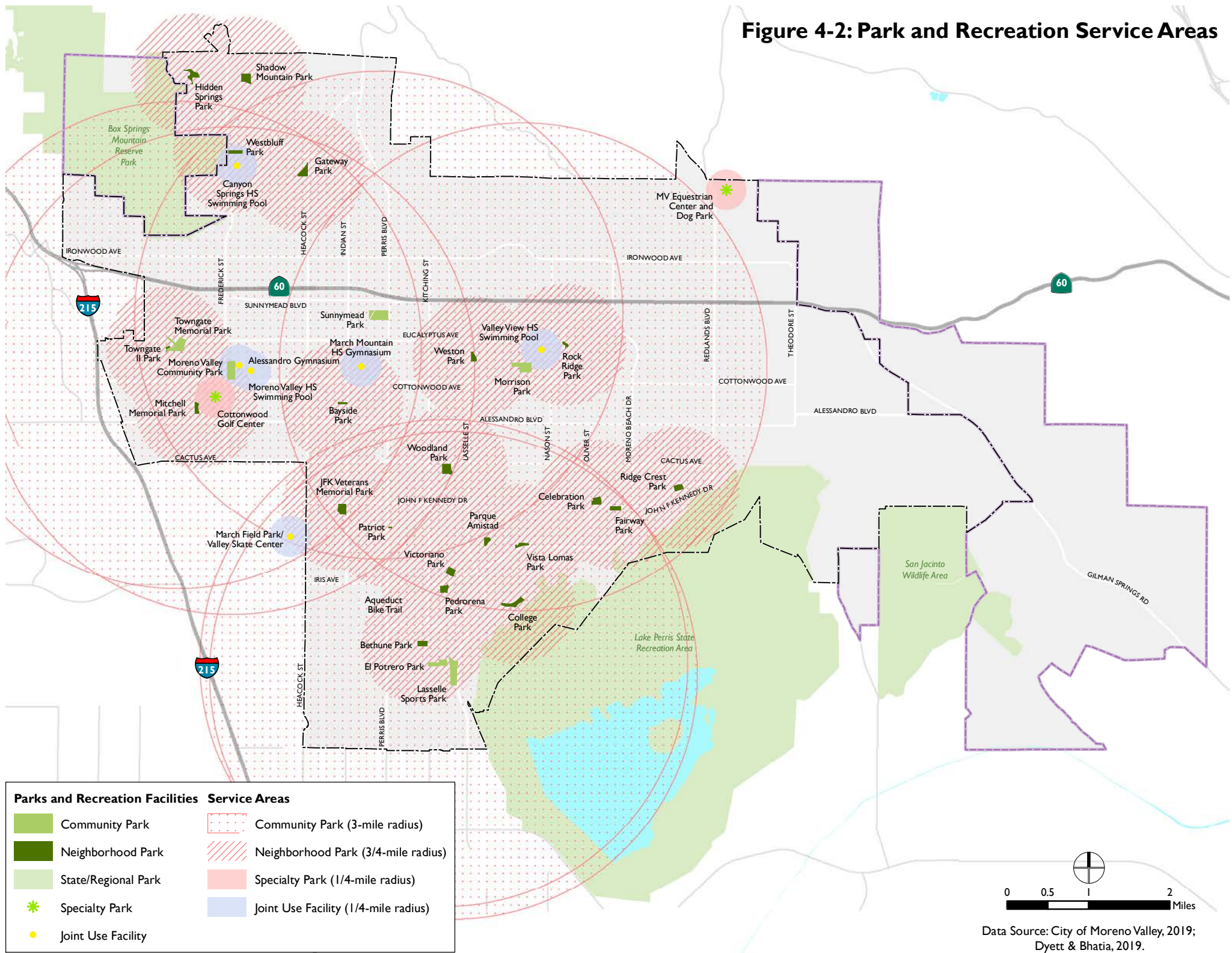
Figure 4-1 illustrates the concentration of recreational facilities in the western to central part of the Planning Area, likely due to the fact that they have largely been co-located with other existing facilities. Additional Joint Use Agreements, particularly with Moreno Valley College or Val Verde Unified School District, may help to provide additional recreational facilities in the south that would expand accessibility to a large portion of residential development in the City.

4-3: Planned Park and Facilities Projects

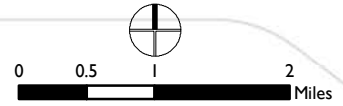
<i>Park or Facility</i>	<i>Project Description</i>	<i>Status/Expected Completion</i>
City Capital Projects		
<i>Aqueduct Trail (Juan Bautista de Anza Multi-Use Trail)</i>	Extension from El Potrero Park to Lake Perris recreation area	Construction: December 2020
<i>Civic Center Amphitheater and Park</i>	7-acre park with 500-600 seat outdoor amphitheater on City-owned vacant lot on SE corner of Veteran's Way/Alessandro Blvd, W of Conference and Rec Center	Construction: July 2020
<i>Demonstration Garden</i>	Raised planter beds, tower/wall planters, vermiculture, composting, and educational area	Construction: May 2020
<i>Hidden Springs Park II</i>	New dog park with play/training apparatus.	Construction: July 2021
<i>Rancho Verde Park (Moreno Valley Ranch Specific Plan)</i>	3.5-acre neighborhood park with barbecues, picnic area, tot lot	Legal process: June 2021

Source: City of Moreno Valley, Adopted CIP 19-20 (2019)

Figure 4-2: Park and Recreation Service Areas

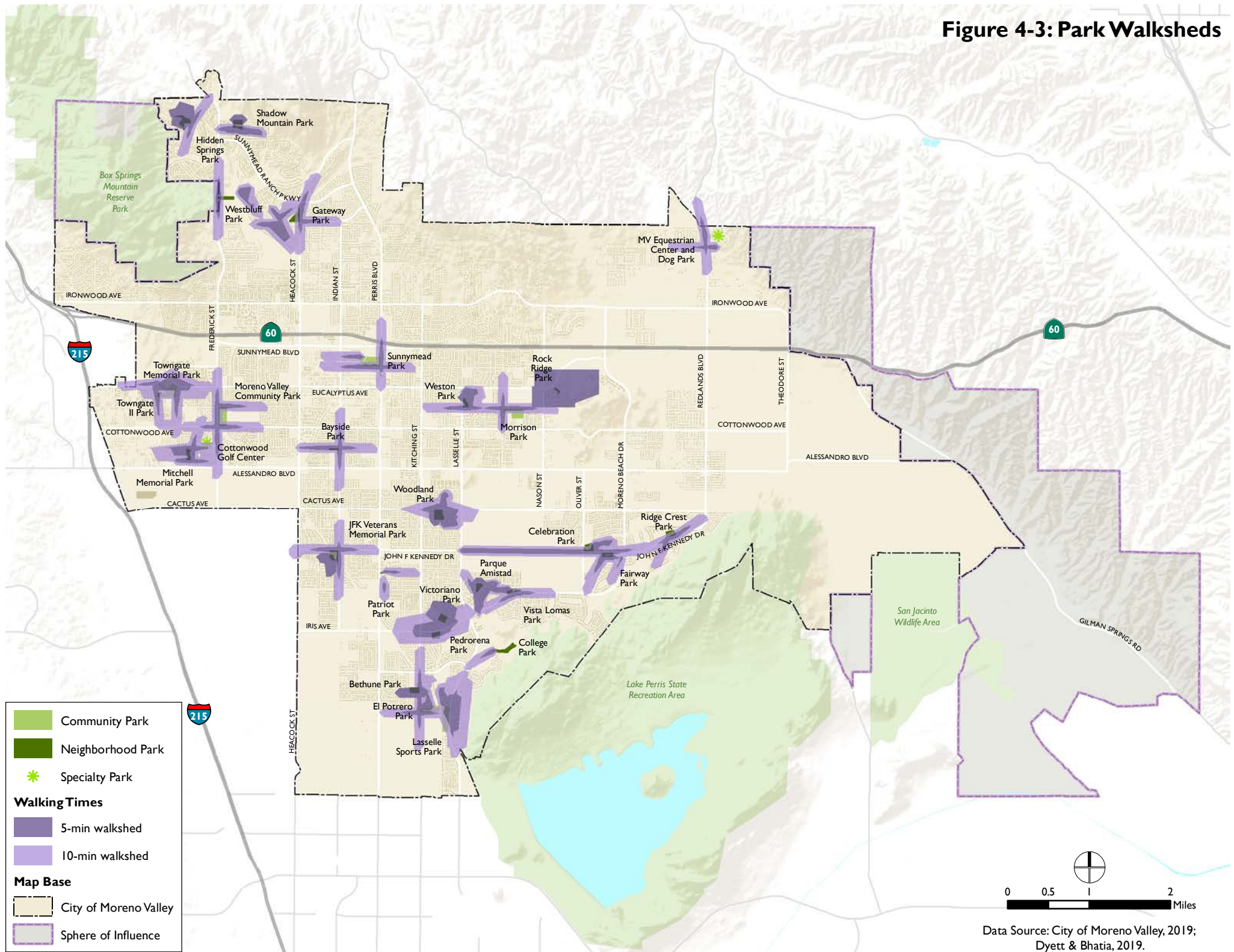


Parks and Recreation Facilities		Service Areas	
	Community Park		Community Park (3-mile radius)
	Neighborhood Park		Neighborhood Park (3/4-mile radius)
	State/Regional Park		Specialty Park (1/4-mile radius)
	Specialty Park		Joint Use Facility (1/4-mile radius)
	Joint Use Facility		



Data Source: City of Moreno Valley, 2019; Dyett & Bhatia, 2019.

Figure 4-3: Park Walksheds



4-4: Recreational Facilities

<i>Facility</i>	<i>Amenities</i>
Recreational Facilities	
<i>Cottonwood Golf Center</i>	2,275-sq.ft. banquet facilities
<i>March Field Annex</i>	2,000-sq.ft. recreational facilities
<i>March Field Park Community Center</i>	14,524 sq.ft. of basketball court and tot lot (community center use only)
<i>Moreno Valley Recreation and Conference Center</i>	42,413-sq.ft. ballroom, firepit, gardens, gymnasium, kitchen, meeting rooms, patios, wedding gazebo
<i>Senior Community Center</i>	14,700-sq.ft. banquet facilities, billiard room, classrooms, meeting rooms
<i>Towngate Community Center</i>	4,000-sq.ft. banquet facilities

Source: City of Moreno Valley, 2019.

FUNDING

The City has enacted an ordinance requiring new development to dedicate land or pay fees to help ensure sufficient parkland to meet the established standard of 3 acres per thousand residents. As residential development occurs, parks are provided by the developer or a contribution is made to a fund which the City uses as needed to construct park facilities to meet demand from new residents.

Parks maintenance and operations are funded through a Community Services District (CSD) established prior to incorporation of the City, which generates funds through an annual assessment on each residential parcel within the CSD. Up until 1998 the fees collected mostly covered the City’s cost to provide park and recreation maintenance and operations with very little subsidy from the City’s General Fund. However, over the last decade the City has taken on more parkland maintenance, built new park and recreation facilities and responded to community recreation needs with minimal increases in fees and charges to offset increased costs. As a result, there is \$525,000 deficit covered by a subsidy from the City’s General Fund.

TRAILS AND OPEN SPACE

Moreno Valley’s Multiple-Use Trail System is one of the City’s greatest assets. There are currently approximately 14 miles of trails constructed or improved in the city, primarily located in the northwest near Sunnymead Ranch and in the hills in the southern portion of the city bordering the Lake Perris Recreation Area as shown on Figure 4-1. The multi-use trails accommodate pedestrians, bicyclists, and equestrians. The system provides connections to both regional and State trail systems, as well as six equestrian staging areas. Expansion of the system is guided by the Master Plan of Trails, which envisions a 56-mile network of City trails in the future connecting Box Springs Mountain Regional Park with the Lake Perris State Recreation area through the northern and eastern portions of the city. Construction is envisioned as funding is available.

The City has established an “Adopt-a-Trail” program, which allows any private organization, business, non-profit, civic group, or individual resident to take an active role in maintaining the trail system in Moreno Valley. The City’s Recreational Trails Board also recruits volunteers to help maintain the multi-use trails.

Surrounding Moreno Valley are three regional and State parks (Figure 4-1) that provide more than 30,000 acres of recreational open space, providing opportunity for hiking, hunting, bicycling, and various water sports.

Box Springs Mountain Reserve, located in the northwest corner of the City, is owned and operated by the Riverside County Regional Park and Open Space District and is home to 16 species of mammals and over 85 bird species. The 3,400-acre park includes equestrian and hiking trails that connect to the City trail system and allow residents of Moreno Valley to enjoy its natural resources. (City of Moreno Valley, 2010)

San Jacinto Wildlife Area encompasses approximately 19,000 acres to the east of the City, with 900 acres of restored wetlands providing habitat to a diverse range of wildlife including waterfowl, wading birds, and quail. (California Department of Fish and Wildlife, 2019) The park offers wildlife viewing, hunting, field trips for school children, and a field trails area for dog training.

Built in 1973 as the southernmost reservoir of the California Water Project, Lake Perris State Recreation Area is located along the southern edge of Moreno Valley and consists of 8,800 acres, including the 1,800-acre Lake Perris. The park provides a myriad of recreational activities including fishing, water sports, bird watching, hiking, rock climbing, camping, and horseback riding as well as facilities for exhibits, programs, and cultural education. (California State Parks, 2018)

4.2 COMMUNITY FACILITIES

Community facilities such as libraries, cultural, and civic facilities are also valuable centers for celebrating the diverse community of

Moreno Valley and providing opportunities to learn and be engaged.

LIBRARIES

The Moreno Valley Public Library provides services and programs furthering educational development and cultural vitality of patrons of all ages and backgrounds in the Moreno Valley area. The Library has two branch locations as shown in Figure 4-1: The Main Branch location is near the center of the City, and the Mall Branch is located in the Moreno Valley Mall, serving residents in western Moreno Valley.

The current Main Branch facility is located on the old Midland Middle School site, reconstructed in 1987 to house the library as well as a senior and community center. The library has since grown to occupy the entire 16,000-square-foot building and offers. The Main Branch offers books, audio, and video materials for loan, as well as public use computers and free Wi-Fi on-site. The library also offers a host of programs for local residents, including children's story time, book club in a bag, reading programs, and literacy programs.

The Mall Branch satellite location, opened in 2017, is a 5,000-square-foot modern library including a children's area, information desk, technology center, and teen section. The library's collection includes audiobooks, board books, chapter books, contemporary young adult books, DVDs, fiction, graphic novels, nonfiction, and picture books. Technological resources include six public Internet access computers as well as charging stations for portable devices, free Wi-Fi, online databases, and self-check machines. The Library also partners with local organizations to host activities such as monthly performing arts programs and displays local art sponsored by the Arts Commission, all events and activities of which are free. (City of Moreno Valley, 2019)

Additionally, the Moreno Valley Friends of the Library contributes to services by maintaining continuous book sales that fund books, equipment, and materials for the Library, sponsoring cultural and educational programs for people of all ages, organizing volunteers, underwriting summer reading programs, and networking with other community groups to aid the Library. (City of Moreno Valley, 2019)

ARTS AND CULTURAL FACILITIES

The City supports cultural unity and diversity through events, recreation classes, and after-school childcare programs, which are hosted across City-owned, joint-use, and partner facilities. New facilities such as the Civic Center Amphitheater will also increase the number of venues for arts and culture in the City, allowing for a variety of live music performances, movies in the park, and other City-sponsored events. (Parks & Community Services Department, 2018)

The City Council appoints the Moreno Valley Arts Commission to enhance quality of life by encouraging, promoting, and fostering artistic and cultural enrichment within the City. The Arts Commission oversees planning for the arts in the City by advising the City Council on matters involving arts and culture; promoting and supporting arts activities and education; fostering public participation in the arts; encouraging service organizations and governmental agencies to finance public arts projects; and researching and making recommendations for funding, such as public funds and grants, for potential City public art projects. (City of Moreno Valley, 2019)

Nonprofit organizations such as the Moreno Valley Cultural Arts Foundation (MVCAF) also support cultural, visual, and performing arts within the City of Moreno Valley through grants, provision of technical expertise and services, and promotion of public aware-

ness. The MVCAF showcases local artwork at the Vanguard Cultural Arts Museum and hosts free public programs and activities including Poetry Reading and local student art exhibitions. The Foundation is also working with MVUSD to provide an arts apprenticeship targeting at-risk high school students and seeking to establish an arts scholarship program for students interested in attending a university, college, or technical school with a concentration in the arts. (Moreno Valley Cultural Arts Foundation, 2019)

4.3 SCHOOLS

In 2018, the estimated student-aged population was 51,676, comprising approximately a quarter of the total population in the City of Moreno Valley (United States Census Bureau, 2018). As shown on Figure 4-4, there are 46 public schools in the Planning Area, provided by two public school districts, the Moreno Valley Unified School District and the Val Verde Unified School District. This section discusses enrollment, facilities, funding, and programs of schools in the Planning Area.

MORENO VALLEY UNIFIED SCHOOL DISTRICT

Moreno Valley Unified School District (MVUSD) is the third largest school district in Riverside County, serving approximately 77 square miles including portions of the city of Moreno Valley, a small portion of the city of Riverside, and unincorporated regions in Riverside County. As shown in Table 4-5, MVUSD serves Kindergarten through 12th grade across 39 existing school sites with 32,763 students enrolled in the 2018-2019 school year (California Department of Education, 2019).

The 23 elementary schools in MVUSD are set up in a Kindergarten to fifth grade configuration, with curricula following State Content Standards. Elementary school facilities vary widely in age and condition but are designed to adequately deliver necessary programs and District standards. There are six middle schools for students in grades 6 to 8 which facilities that are enhanced with teaching stations such as science labs, comprehensive physical education facilities, and larger administrative and ancillary spaces. High schools in the District serve 9th to 12th grade in various settings including comprehensive high schools, a continuation school, a community day school, an alternative school, and a charter school. Facilities for these programs vary according to the specific requirements of each curriculum, but some facilities are in need of improvement or relocation. (Moreno Valley Unified School District, 2019)

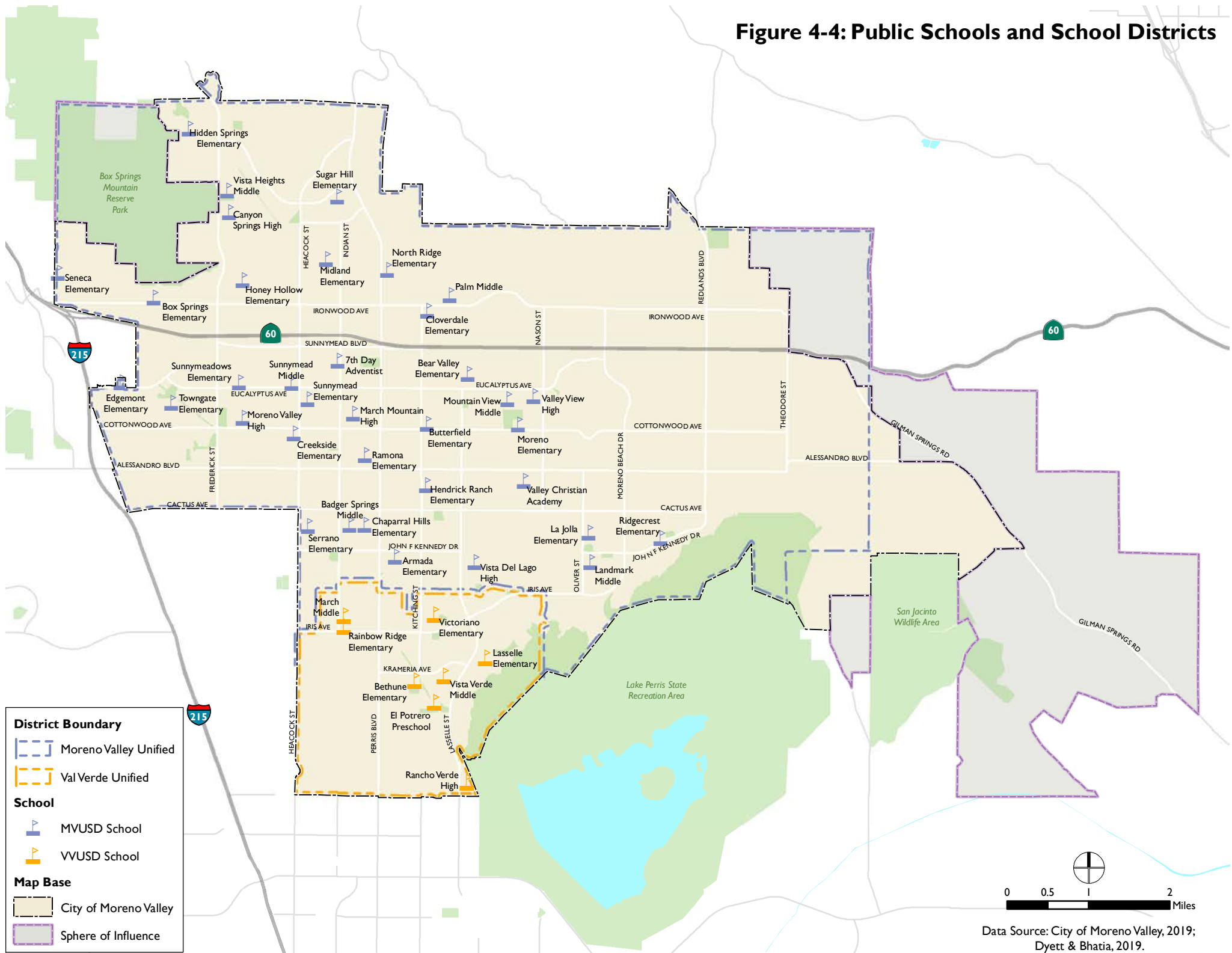
Facilities and Funding

Between 2000 and 2012, MVUSD experienced an annual growth rate of 200-1000 pupils. In anticipation of continuing growth, the District has constructed seven new schools since 2002 and installed over 230 portable classrooms to increase elementary, middle, and high school capacities. However, placement of portable classrooms reduces field and hard-court areas on school sites, and the District's most recent update to their Facilities Master Plan includes recommendations to replace these structures with permanent buildings to house future students generated by expected development within District boundaries. MVUSD projected an increase of 12,477 students between 2012 and 2035, based on the projected 17,099 additional housing units anticipated to be built during that period, multiplied by the Student Generation Rates summarized in Table 4-6 (Moreno Valley Unified School District, 2019)

Since 2009, enrollment at MVUSD schools has decreased by 11 percent overall, or approximately 1 to 2 percent annually, as shown in Table 4-7. This means that the District is able to rely less on portable classrooms and house more students in conventional school buildings. The District is in the process of building a new elementary school facility at the intersection of Nason Street and Bay Avenue with a capacity for 800 students, and an additional high school is also envisioned in the facilities master plan, anticipated to serve growing needs in the northeastern area of the city in the next 20 years. Other planned facility projects include additions and relocation of services at Creekside Elementary to better facilitate campus safety, wellness, and security, as well as renovation of the existing Rainbow Springs pre-school and location of a wellness center on the campus. The wellness center will provide access to direct and indirect services for students and their families through community partnerships. Services to be provided include focused attention and services to homeless and foster youth students; parent classes for self-efficacy, health, literacy and nutrition; resources for basic needs such as clothing, shoes, transportation and food; family outreach and support through case management; and health service referrals for access to physical dental, immunizations and health insurance.

In 2014, Measure M was passed, providing and \$398 million in bond funding for facilities construction and maintenance. Measure M funds further projects proposed and undertaken pursuant to a prior bond measure, Measure A, passed in 2004 to repair and update Moreno Valley schools. Table 4-8 summarizes the status of the projects funded by these bonds, noting which have been completed and which are currently under construction.

Figure 4-4: Public Schools and School Districts



4-5: Moreno Valley Unified School District

<i>School Name</i>	<i>Enrollment (2018-19)</i>
Elementary Schools (K-5)	14,964
Armada Elementary	857
Bear Valley Elementary	839
Box Springs Elementary	449
Butterfield Elementary	892
Chaparral Hills Elementary	663
Cloverdale Elementary	723
Creekside Elementary	502
Edgemont Elementary	663
Hendrick Ranch Elementary	639
Hidden Springs Elementary	565
Honey Hollow Elementary	620
La Jolla Elementary	740
Midland Elementary	646
Moreno Elementary	483
North Ridge Elementary	747
Ramona Elementary	658
Ridge Crest Elementary	601
Seneca Elementary	456
Serrano Elementary	520
Sugar Hill Elementary	543
Sunnymead Elementary	794
Sunnymeadows Elementary	625

4-5: Moreno Valley Unified School District

<i>School Name</i>	<i>Enrollment (2018-19)</i>
Towngate Elementary	739
Middle Schools (6-8)	7,765
Badger Springs Middle	1,186
Landmark Middle	1,160
Mountain View Middle	1,338
Palm Middle	1,245
Sunnymead Middle	1,505
Vista Heights Middle	1,331
High Schools (9-12)	9,191
Canyon Springs High	2,173
Moreno Valley High	2,327
Valley View High	2,573
Vista del Lago High	2,118
Continuation and Alternative Schools	
Alessandro School (SDC K-12)	50
Bayside Community Day (9-12)	135
March Mountain (9-12)	334
March Valley (Independent Study 1-8 and Core 9-12)	87
Moreno Valley Community Learning Center (Charter School, 6-12)	27

Source: California Department of Education, 2019; Moreno Valley Unified School District, 2019.

4-6: MVUSD Student Generation Rates

<i>Unmitigated Future Dwelling Units¹</i>	<i>School Type</i>	<i>Student Generation Rate</i>	<i>Students Generated</i>
17,099	Elementary	0.3314	5,667
17,099	Middle	0.1702	2,910
17,099	High	0.2281	3,900
Overall		0.7297	12,477

1. As estimated in the Moreno Valley Unified School District Fee Justification Report, 2012.

Source: *Facilities Master Plan, Moreno Valley Unified School District, 2013-14.*

The District has also sought funding from other sources including the State Office of Public School Construction (OPSC) School Facility Program (SFP), the OPSC Emergency Repair Program (ERP), and the Federal Qualified Zone Academy Bond (QZAB) program. Revenue from development fees also contribute to the school district budget, including School Impact Fees, as allowed by the School Facilities Act of 1986 and SB 50, in addition to Community Facility District (CFD) or Improvement/Redevelopment Zone fees. These sources of funding allow the District to continue to maintain and improve the quality of their facilities and services.

PROGRAMS

MVUSD has a variety of programs to assist or enhance students such as Career Technical Education (CTE), a career preparation program that enables students to graduate high school while developing marketable employability skills and then transfer to a two- or four-year university, trade school, or military and encompasses the Regional Occupational Program (ROP) and Tech Prep classes. This program is funded through the Carl Perkins Grant and is supplemented by other MVUSD services and programs for career development such as ACCESS to the Future, which is funded entirely by local community business donations. The District also offers extra-curricular programs including music, dance, theater, and visual arts.

In 2019, two District programs – the Community Wellness Center and the Professional Development and Digital Learning Department – were recognized by the California School Boards Association with Golden Bell Awards as outstanding public-school programs for innovation, sustainability, and best practices that facilitate positive student outcomes. The Community Wellness Center is a school-based program that eliminates barriers to learning while increasing health, safety, academic support, activities, and free resources, especially for homeless and foster youth students. It also offers parents seminars on self-efficacy, financial education, employment, health, literacy, and nutrition. The Professional Development and Digital Learning Department is a professional development program that provides training and follow-up coaching for all core academic subjects to promote increased achievement of teachers and paraprofessionals. (Velasco, 2019)

4-7: Public School District Enrollment Trends

Grades Served	Enrollment									
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Moreno Valley Unified School District										
K to 5	16,788	16,625	16,276	16,070	16,026	15,837	15,759	15,458	15,138	15,000
6 to 8	8,446	8,383	8,371	8,183	8,039	7,860	7,844	7,900	7,927	7,829
9 to 12	11,575	11,607	11,043	10,671	10,401	10,471	10,284	9,994	10,015	9,934
Subtotal	36,809	36,615	35,690	34,924	34,466	34,168	33,887	33,352	33,080	32,763
Val Verde Unified School District										
K to 5	9,020	9,060	9,079	9,197	9,144	9,182	9,137	8,959	8,863	8,680
6 to 8	4,518	4,503	4,504	4,574	4,611	4,593	4,625	4,653	4,811	4,844
9 to 12	6,098	6,124	6,030	6,033	6,013	6,039	6,067	6,299	6,519	6,617
Subtotal	19,636	19,687	19,613	19,804	19,768	19,814	19,829	19,911	20,193	20,141
Total	56,445	56,302	55,303	54,728	54,234	53,982	53,716	53,236	53,273	52,904

Source: California Department of Education, 2019.

4-8: Measure M Capital Projects

<i>Project</i>	<i>Status</i>
Completed Projects	
Armada Elementary 2-Story CR Building	Completed
Badger Springs Middle Kitchen Renovation	Completed
Canyon Springs High Stadium	Completed
Edgemont Elementary Reconstruction	Completed
Elementary Schools Security Entrance (Towngate, La Jolla, Chaparral Hills, Sunnymead, Ramona)	Completed
Moreno Valley High Gym & Building L	Completed
Moreno Valley High New 2-Story Building	Completed
Mountain View Middle Kitchen Renovation	Completed
Palm Middle Kitchen Renovation	Completed
Portables (various sites)	Completed
Valley View High Softball Field	Completed
Vista Heights Middle School Fencing	Completed
Serrano Elementary 2-Story CR Building	Completed
Vista Heights Middle Kitchen Renovation	Completed
Vista Heights Middle Satellite Parking	Completed
Valley View High Track & Field	Completed

4-8: Measure M Capital Projects

<i>Project</i>	<i>Status</i>
Ongoing Projects	
Canyon Springs High Modernization/Addition	Expected completion: September 2022
Elementary Schools Sites Fencing & Drop-off Area	Expected completion: Summer 2020
Moreno Elementary School Replacement	School site in escrow; Expected completion TBD
Moreno Valley High Artificial Track & Field	Expected completion: August 2019
Moreno Valley High Modernization Phase III	Expected completion: August 2019
Moreno Valley High Performing Arts Center	Expected completion: January 2021
Valley View High Modernization/Addition	Expected completion: February 2024
Vista del Lago High Artificial Track & Field	Expected completion: June 2019

Source: Moreno Valley Unified School District, 2019.

VAL VERDE UNIFIED SCHOOL DISTRICT

Val Verde Unified School District (VVUSD) also serves part of Moreno Valley, as well as the City of Perris and the City of Mead Valley. There are 23 schools in the district, with a total of 20,141 students enrolled during the 2018-2019 school year. Of these schools, four elementary schools, two middle schools, and one high school are located in the Planning Area, as seen in Table 4-9.

Like its neighboring district, VVUSD has experienced a decline in enrollment over the past decade, as shown in Table 4-7. This includes a 6.3 percent overall decrease, or generally a 1 percent annual change between 2009 and 2019 attributable to a shift in the demographic makeup of the district's population. However, in 2018, VVUSD conducted a School Facilities Needs Analysis and determined that 2,330 additional students would be generated by residential development anticipated to occur in the district through 2023, which growth would result in a projected 805 unhoused students. Facilities capacity in 2018 was 22,016 seats, and though enrollment for the 2018-2019 school year does not yet provide a capacity challenge, an addition of 2,330 students may require additional facilities in the district. (Val Verde Unified School District, 2018) The District is in the process of updating its facilities master plan, but the need for a new middle school located in Perris and the reopening of an elementary school near the border of Perris and Moreno Valley where the district has historically seen the most school growth, is anticipated to meet future need. Another priority of the District is bolstering campus security, and the District has created its own police department, with the intention of eliminating external issues to allow more emphasis on education.

Facilities and Funding

VVUSD collects impact fees from new residential and commercial/industrial development which funds the construction or expansion of additional school facilities, maintenance and improvement of existing facilities, and installation of additional portable classrooms. The most recent project financed by these fees was the construction of new kindergarten buildings at Mead Valley Elementary in 2012. Other anticipated projects include modernization of Rancho Verde High School, which is located in the City of Moreno Valley. (Val Verde Unified School District, 2018)

Bond Measure L, passed in 2012, provided \$178 million to upgrade instructional technology; provide facilities and equipment for career and technical education classes; improve energy efficiency; upgrade electrical systems, fire alarms, and school security; and construct new classrooms and schools. The new Orange Vista High School, opened in 2015, was a result of these bond projects and has since also added a new football stadium to its facilities.

Programs

The District provides programs and resources to support student success. In 2018, the District was recognized by the State as a Model School Attendance Review Boards (SARBs) for exemplary practices to reduce chronic absenteeism and increase student attendance. Other District programs include efforts to keep students and their families engaged through educational programs and support services such as Spanish and English class integrations, in-home counselors, and foster youth programs. There are also currently over 600 parents involved in a parent engagement program which allows participants to hone skills such as healthy cooking.

4-9: Val Verde Unified School District

<i>School Name</i>	<i>Enrollment (2018-19)</i>
Elementary Schools (K-5)	8,680
Avalon Elementary	608
Columbia Elementary	701
Lasselle Elementary ¹	836
Manuel L. Real Elementary	612
Mary McLeod Bethune Elementary ¹	616
May Ranch Elementary	940
Mead Valley Elementary	626
Rainbow Ridge Elementary ¹	777
Sierra Vista Elementary	1,032
Triple Crown Elementary	1,000
Val Verde Elementary	713
Victoriano Elementary ¹	844
Middle Schools (6-8)	4,844
Lakeside Middle	1,320
March Middle ¹	775
Tomas Rivera Middle	1,106
Vista Verde Middle ¹	972
High Schools (9-12)	6,617
Citrus Hill High	1,902
Orange Vista High	2,257
Rancho Verde High ¹	2,074
Val Verde High	270

4-9: Val Verde Unified School District

<i>School Name</i>	<i>Enrollment (2018-19)</i>
Alternative Schools	
El Potrero Preschool	
Val Verde Academy (K-12)	116
Val Verde Student Success Academy	12

1. Within Planning Area.

Source: California Department of Education, 2019.

MORENO VALLEY COLLEGE

The City is also home to the 111th Community College in California, Moreno Valley College (MVC). Increasingly becoming the health education center of choice in the Inland Empire with strong programs in health sciences, human, and public services, MVC offers 54 academic programs for more than 10,000 enrolled students each semester and employs more than 585 people. The campus consists of two locations; the main campus is located in the City of Moreno Valley at 16130 Lasselle Street, and the off-campus Ben Clark Training Center is located approximately 11 miles from the main campus. (Moreno Valley College, 2019)

The MVC campus is also an important hub for programs that foster innovation, creativity, and enthusiasm for learning. Opened in 2019, the new iMAKE Innovation Center is a 4,150-square-foot facility funded by the California Community College Maker Implementation Grant and provides students and the broader community with access to innovation equipment and material to develop entrepreneurial skills. These services are offered along with those of the existing iMAKE Mobile Innovation Center, a learning lab for Science, Technology, Engineering, and Mathematics (STEM) engagement including hands-on, interactive activities and unique

STEM experiences for children throughout the region. (Schmidt, 2019)

The Moreno Valley College Facilities Master Plan was updated in June 2019 and encompasses goals to provide additional services and adequate facilities for expanded programs, including satellite spaces in future academic buildings, larger classrooms and instructional labs to accommodate academic tutoring or support spaces directly within or adjacent to the classroom, and location of primary support resources in the new Library Learning Resource Center. A space needs analysis was also conducted to gauge physical space growth in relation to enrollment trends and found that MVC will be at 120 percent capacity load in 2030, with greatest need for student space, physical education/athletics space, and instructional labs. There are 13 anticipated space changes between 2018 and 2027 outlined in the Facilities Master Plan, summarized in Table 4-10. 36 percent of the current campus is in portables or modular construction, most of which is used for instruction and services. Proposed plans will construct 400,000 new square feet and reconstruct 55,000 square feet of campus to improve upon these conditions and work toward MVC’s goals.

4-10: MVC Facilities Master Plan 2019-2030 Projects

<i>Project Name</i>	<i>Size (square feet)</i>	<i>Purpose/Amenities</i>
Phase I		
Welcome Center	17,000	Financial aid, outreach, Dream Center, counseling, admissions & records, assessment/testing center, student orientation

4-10: MVC Facilities Master Plan 2019-2030 Projects

<i>Project Name</i>	<i>Size (square feet)</i>	<i>Purpose/Amenities</i>
Ben Clark Training Center - Phase I	17,000	Classrooms (general and EMT), EMT labs, administrative offices, student services, library, computer lab, lockers and showers
Library Learning Resource Center	101,400	Study/tutoring space, classrooms, computer lab, student services/activities, bookstore, food service/dining, meeting/conferencing
Student Services Reconstruction	40,500	Student services and additional Library Learning Resource Center space
Biological and Physical Sciences	66,000	Science labs, organic chemistry, classrooms, faculty offices, study space, advisors/counselors
Phase II		
Kinesiology and Athletics ¹	45,000+	Full-size competitive soccer field with bleachers, practice fields, gymnasium, fitness center, locker rooms, training rooms, kinesiology classrooms/labs, faculty/staff offices, advisors/counselors

4-10: MVC Facilities Master Plan 2019-2030 Projects

<i>Project Name</i>	<i>Size (square feet)</i>	<i>Purpose/Amenities</i>
Ben Clark Training Center - Phase II	70,000	Consolidation and growth for public safety programs
Maintenance and Operations	20,000	Outdoor yard, parking, vehicle storage/service areas, shipping receiving staff, campus police, warehouse/storage. trade shops, meeting/training
Phase III		
Fine and Performing Arts Complex ¹	70,000	500-seat theater, art gallery, meeting/conferencing space, music practice rooms, classrooms, music/dance labs, faculty offices, advisors/counselors
Parking structure with Liner Building		1,100 stalls (five levels of parking), administrative and support functions, academic support functions, meeting spaces
Phase IV		
CTE/Allied Health	70,000+	Dental program, CTE classrooms, CTE labs, faculty offices, study space, advisors/counselors

4-10: MVC Facilities Master Plan 2019-2030 Projects

<i>Project Name</i>	<i>Size (square feet)</i>	<i>Purpose/Amenities</i>
Early Childhood Education Center	10,000	Outdoor play/drop-off/parking and support areas, child development center, instructional labs, faculty/staff offices, study space, advisors/counselors
Early College High School	75,000+	Instructional and support space for concurrently enrolled high school students
Student Center	44,000	Student activities, dining/food, clubs/organization space, student service functions, hangout and study spaces

1. For campus and community use

Source: Moreno Valley College Facilities Master Plan, 2019.

4.4 POLICE AND FIRE PROTECTION SERVICES

The City of Moreno Valley contracts with the County of Riverside for police and fire protection services, including law enforcement, fire and hazard incidents, and emergency response. This section discusses staffing, facilities and equipment, and community programs provided in Moreno Valley.

POLICE SERVICE

Service and Staffing

Since incorporation, the City has maintained an annual contract with the Riverside County Sheriff's Department for police protection and crime prevention services. The Sheriff's Department operates under the name of Moreno Valley Police Department (MVPD), and all patrol vehicles bear the City's seal or logo and name. MVPD provides a full range of protection and prevention services, including general law enforcement, traffic enforcement, investigations, and routine support services such as communications, evidence collection, analysis and preservation, training, administration, and records keeping. MVPD also provides law enforcement services at the Riverside County Regional Medical Center and schools within Moreno Valley.

The Moreno Valley General Plan establishes a police staffing standard of at least 1 officer per 1,000 residents, as feasible given budget constraints. MVPD currently operates five divisions as well as a Volunteer group. The five MVPD divisions include Administration, Detective, Patrol, Special Enforcement, and Traffic Divisions. The Patrol Division provides first responders to crimes in progress and to calls for service assigned by dispatch. The unit contains nine supervising sergeants, 64 sworn patrol officers, three K-9 teams, and 10 non-sworn officers.

The MVPD receives approximately 400 to 450 calls per day. Calls to the MVPD are prioritized and assigned by urgency, from greatest urgency (Priority 1) through non-emergency calls. Priority 1 calls emergency calls which require immediate response, when vehicular pursuit is in process, or when there is reason to believe that an immediate threat to life exists. Priority 2 calls include injured persons, robberies in progress, bomb threats, carjackings, rape, and stolen vehicles. Priority 3 calls include assault, prowlers, disturbances,

tampering with vehicles, and burglary alarms. The MVPD has a response target of six minutes or less for Priority 1 calls, 15 minutes or less for Priority 2 calls, and 35 minutes or less for Priority 3 calls. Table 4-11 below shows average actual response times for 2019.

Table 4-11: MVPD Response Times

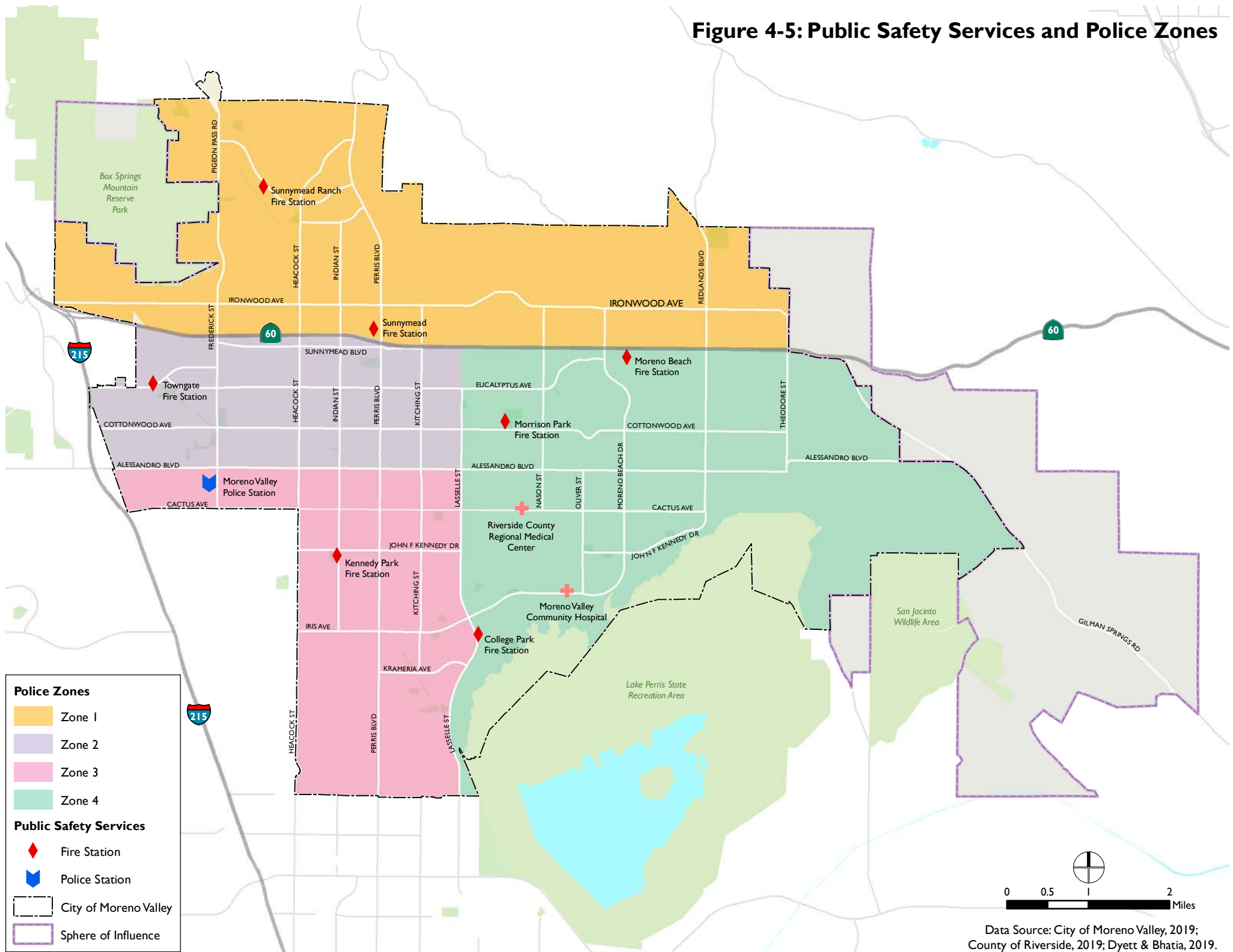
<i>Call Type</i>	<i>Target</i>	<i>Response Time (2019)</i>
Priority 1 Calls	6 minutes	6:37
Priority 2 Calls	15 minutes	22:01
Priority 3 Calls	35 minutes	42:46

MVPD implements a “Zone Policing” strategy to improve response times to service calls, make officers more familiar with community areas, and connect the Police Department with citizens and business owners within their assigned zones. There are four zones in the City, as seen in Figure 4-5, each with a team comprised of a Zone Commander, Zone Supervisor, and Zone Coordinator. (City of Moreno Valley, 2019)

Facilities and Equipment

The Moreno Valley Police Department operates out of the Moreno Valley Station, located at 22850 Calle San Juan de los Lagos, seen in Figure 4-5; however the department also utilizes satellite offices throughout the City. The MVPD anticipates the addition of a satellite police station for the Traffic Division to service growth in the southeast portion of the city. The satellite station is identified in the City Capital Improvement Plan for the fiscal years 2019 to 2021; however, it is currently unfunded and categorized in the CIP as a “Deferrable” priority (i.e. starting within five to 10 years). (City of Moreno Valley, 2019)

Figure 4-5: Public Safety Services and Police Zones



Data Source: City of Moreno Valley, 2019; County of Riverside, 2019; Dyett & Bhatia, 2019.

In 2019, the City also dedicated Capital Improvement Project (CIP) funds to install a city-wide camera surveillance system at approximately 67 intersections or park locations to bolster public safety without adding police officers, instead augmenting response capabilities of on-duty patrol officers and aiding law enforcement in their efforts to prevent and combat crime in the community.

Volunteers and Programs

The Administration Division oversees Community and Volunteer Services Programs, as well as the Neighborhood Watch program, and now has 81 volunteers across the Citizen's Patrol Unit, Anti-Graffiti Patrol Unit, Police Explorer Program, Reserve Officer's Program, Station Volunteers, and Mounted Posse.

The Citizen's Patrol Unit conducts uniformed patrols in marked police units to deter crime and trains volunteers in laws of arrest, traffic control, identification of gang members, crime scene management, recognition of DUI drivers, identification of graffiti, and proper radio traffic while communicating with police personnel. The Police Explorer Program is a program for youth between 14 and 20 to gain experience in the law enforcement field and foster leadership skills by assisting different units within the Police Department. Station Volunteers assist various entities at the MVPD station through duties such as filing, tracking offenders, issuing and maintaining equipment and weapons, and data management. The newly formed Mounted Posse is a volunteer-based organization serving all of Riverside County that has direct contact with the public at various functions including community patrol, safety expos, search and rescue operations, and local fairs, concerts, and parades. (City of Moreno Valley, 2019) These volunteer programs help connect the Moreno Valley Police Department to the community and play an important role in ensuring the continued safety and well-being of residents.

FIRE AND EMERGENCY SERVICE

Service and Response

Fire and emergency medical services are provided by Moreno Valley Fire Department (MVFD) as part of the CALFIRE / Riverside County Fire Department (RCFD)'s regional, integrated, cooperative fire protection organization. The City contracts with the County, who in turn contract with California Department of Forestry and Fire Protection for the provision of services. MVFD is the primary response agency for fires, emergency medical service, hazardous materials incidents, traffic accidents, terrorist acts, catastrophic weather events, and technical rescues for the City. also provides a full range of fire prevention services including public education, code enforcement, plan check and inspection services for new and existing construction, and fire investigation. Additionally, the City's Office of Emergency Management is located within the Fire Department allowing for a well-coordinated response to both natural and human-made disasters.

Moreno Valley is the busiest of the 30 planning areas served by CALFIRE / RCFD. In 2018, there were 18,475 incidents in the City of Moreno Valley, almost 2% fewer than 2017. In the same year, the Moreno Valley Battalion responded to 19,605 total cases, the vast majority attributed to medical emergencies but 95 of which were structural fires. (Riverside County Fire Department, 2018) MVFD has established a target response time of 5 minutes from dispatch to arrival for 90 percent of calls for service and continues to work to meet this goal.

Staffing, Facilities, and Equipment

MVFD currently operates seven fire stations, as shown in Figure 4-5, with Morrison Park Fire Station most recently opened in 2012. Table 4-12 lists the civic address of each station and the equipment housed.

MVFD has adopted a Strategic Plan covering the period from 2012 through 2022. The Plan guides MVFD activities and outlines goals and strategies for ensuring the community receives outstanding fire protection services. The document is reviewed biennially to ensure the goals are being met. The Plan anticipates the need for 12 to 13 fire stations and a possible 14th infill fire station to service projected population through 2022. The location of the eighth and ninth fire stations and one relocation are proposed in the Strategic Plan; Fire Station 65 (Kennedy Park) would be relocated slightly northwest of its current location, and future development in the east and south east would be serviced by the new Redlands Boulevard Fire Station and Industrial Station, respectively. Other projects, funded by the City's Capital Improvement Project (CIP) budget, include land acquisition for future fire stations and facility improvements, as shown in Table 4-13. The Strategic Plan also explores the feasibility of additional staffing, reassignment of personnel, division of the City into two Battalions, and acquisition or leasing of additional equipment to increase service levels, especially in anticipation of future growth.

Volunteers and Programs

Moreno Valley Volunteer Reserve Firefighters assist the MVFD in firefighting activities and provision of Emergency Medical Services (EMS). They respond to alarms as members of fire crews and operate various fire apparatus and equipment, ensuring proper usage and

maintenance. Volunteer Reserve Firefighters are also trained as Emergency Medical Technicians, First Responders, or Emergency Medical Responders (EMR) and administer varying degrees of emergency medical aid to injured people under extreme conditions involving trauma, illness, and personal tragedy. (City of Moreno Valley, 2019)

The Moreno Valley Fire Explorer Program is a youth program organized through Learning For Life and designed to allow youth between the ages of 14 and 20 to explore a career in the fire service. The explorers receive training similar to volunteer and professional firefighters, including basic fire chemistry, hose evolutions, ladder operations, medical and CPR training, hazardous materials, and auto extrication. The two Fire Explorer Posts are the West Moreno Valley Fire Explorer Post #906, located at Towngate Fire Station 6, and the East Moreno Valley Fire Explorer Post #958, located at Moreno Fire Station 58. (City of Moreno Valley, 2019)

The Riverside County Fire/CAL Fire Division Chief is the appointed Fire Chief of Moreno Valley and oversees the City's Fire Prevention Bureau and Office of Emergency Management. The Office of Emergency Management program provides a wide variety of training, such as Community Emergency Response Team (CERT) training and Terrorism Awareness, to both employees and residents. This program is also responsible for city-wide prevention, mitigation, preparedness, response, and recovery for natural or man-made disasters.

4-12: MVFD Stations, Locations, and Equipment

<i>Station</i>	<i>Location</i>	<i>Equipment</i>
Station 2 – Sunnymead	24935 Hamlock Avenue	One Type 1 engine, one 100-foot Aerial Ladder Truck, one Water Resource Squad and one USAR vehicle.
Station 6 – Towngate	22250 Eucalyptus Avenue	One Type 1 engine, one Type 1 reserve engine and one Paramedic Squad.
Station 48 – Sunnymead Ranch	10511 Village Road	One Type 1 engine
Station 58 – Moreno Beach	28040 Eucalyptus Avenue	One Type 1 engine, one Type 3 engine and one Reverse squad.
Station 65 – Kennedy Park	15111 Indian Avenue	One Type 1 engine.
Station 91 – College Park	16110 Lasselle Street	One Type 1 engine and one Reserve Aerial Ladder Truck.
Station 99 – Morrison Park	13400 Morrison Street	One Type 1 engine.

Source: City of Moreno Valley 2019a.

4-13: Capital Improvement Plan - Fire Department Projects

<i>Project Title</i>	<i>Description</i>	<i>Status</i>
Cottonwood Park Fire Station (Fire Station 110)	1.5-acre new facility at NE corner of Cottonwood Ave and Indian St	Design partially completed –on hold
Fire Station 65 Relocation	1.5-acre new standard 3-apparatus bay fire station at NE corner of Brodiaea Ave and Rebecca St	Design on hold - subject to availability of funds
Fire Station (Future) Land Acquisition	New facility to service future growth	Land Acquisition depending on development through 2029
Gilman Fire Station	New facility to service future growth, per development agreement in area	Land acquisition depending on development through 2029
Industrial Fire Station	2.5-acre new fire station and drill tower at NE corner of San Michele Rd and San Celeste Rd	Design on hold - subject to availability of funds
Northeast Fire Station	New facility to service future growth in northeast area	Land acquisition on hold
Redlands Boulevard Fire Station	1.5-acre new facility to service development in southeast area	Design on hold - subject to availability of funds
Remodel Fire Station 65 - Indian St and JFK Drive	Renovations for expanded use, per building code requirements	Expected start of construction within 3-5 years

Source: City of Moreno Valley, Adopted Capital Improvement Plan Fiscal Years 2019/20 & 2020/21, 2019.

4.5 KEY FINDINGS AND PLANNING CONSIDERATIONS

- The City currently provides a total of 454 acres of parkland for public use, offering a variety of community, neighborhood and special use park facilities. With a population of approximately 209,051 residents, the City is currently providing 2.17 acres of parkland per thousand residents, which is below the established standard of 3 acres per thousand residents. If undeveloped land owned by the City and held in reserve for park uses were to be developed, the ratio would be 2.89 acres per thousand residents. Additionally, there are 215 acres of school fields and facilities available for recreational use in the city. If these lands were to be counted in the total parkland acreage, the ratio would be 3.20 acres per thousand residents, although there are currently not joint use agreements in place with the school districts that allow joint community use of all school facilities.
- Existing parks are relatively well distributed throughout the city and residential neighborhoods are generally well-served. All residential areas fall within the 3-mile radius service area established for community parks, and most residential neighborhoods in the south and northwestern portions of the city are within the 3/4-mile radius service area established for neighborhood parks. However, residential neighborhoods in the northeast and around Sunny-mead underserved by neighborhood parks.
- The City has a Parkland Dedication ordinance which requires developers to either provide parkland onsite to serve new residents or contribute funds toward the construction of new parks to serve an increased population. Park maintenance and operations are funded through a parcel fee assessed annually; however, the fees collected do not currently cover the total cost of maintenance and operations. As a result, there is a deficit of approximately \$4.8 million annually which is bridged with grants, program fees and charges, and subsidy from the City's General Fund.
- The City has approximately 14 miles of multi-use trails for pedestrians, bicyclists, and equestrians that provide connections to both regional and State trail systems. The City's Master Plan of trail envisions a 56-mile network of City trails in the future connecting Box Springs Mountain Regional Park with the Lake Perris State Recreation area through the northern and eastern portions of the city. Construction is envisioned as funding is available.
- Surrounding Moreno Valley are three regional and State parks -- Box Springs Mountain Reserve, Lake Perris State Recreation Area, and San Jacinto Wildlife Area -- with more than 30,000 acres of recreational open space, providing opportunity for hiking, hunting, bicycling, and various water sports in close proximity to residential areas of the city. Access is readily available by private vehicle, but there is no transit service to either Box Springs Mountain Reserve or Lake Perris Recreational Area, which limits access for youth and other populations without ready access to a car.
- Currently under construction at 14075 Frederick Street next to the Conference and Recreation Center, the Civic Center Amphitheater and Park is anticipated to open in 2020, providing an important new cultural venue in the city. A 600-seat amphitheater with landscaping will serve as a premier outdoor venue for live music performances, movies in the park, and many other City-sponsored events that showcases local talent as well as renowned performers.

- There are two public school districts that serve the residents of Moreno Valley: the Moreno Valley Unified School District (MVUSD) and the Val Verde Unified School District (VVUSD). Located in a region that has grown rapidly in recent decades, both districts have plans to construct new facilities to accommodate current and projected enrollment. In the case of MVUSD, enrollment has decreased over the past 10 years and the new facilities will allow the District is able to rely less on portable classrooms and house more students in conventional school buildings. VVUSD also saw a decreasing enrollment trend through 2018; however, a study completed in 2018 projects the need for in Perris a new middle school and the reopening of an elementary school near the border of Perris and Moreno Valley, where the district has historically seen the most school growth.
- With over 10,000 students and more than 585 employees, Moreno Valley College (MVC), a fully accredited college in the Riverside County Community College District, is an important educational institution in the community. MVC is pioneering a number of training and workforce development initiatives for students, faculty, staff, community members and business leaders. With a grant from the California Community College Chancellor's office, MVC recently opened the iMAKE Innovation Center on campus, providing students and community members with access to innovation equipment and material in order to develop entrepreneurial skills.
- MVC has plans to expand its operations in Moreno Valley to provide a range of educational, recreational and cultural facilities, including several new facilities which will be available for use by the community-at-large. Notably, future MVC plans involve development of a Fine and Performing Arts Complex; an athletic complex with a full-size competitive soccer field, practice fields, gymnasium, and fitness center; and an Early College High School with instructional and support space for concurrently enrolled high school students.
- Moreno Valley Fire Department (MVFD) provides fire and emergency medical services, operating out of seven stations within the city. MVFD provides services under a contract between the City and Riverside County. MVFD has adopted a Strategic Plan that guides MVFD activities and outlines goals and strategies for ensuring the community receives outstanding fire protection services. MVFD also has a number of community programs, including the Volunteer Reserve Firefighters program and the Fire Explorer Program youth program.
- The City contracts with Riverside County for police protection services, and the Riverside County Sheriff's Department operates under the name of Moreno Valley Police Department (MVPD). MVPD operates out of the Moreno Valley Station, located at 22850 Calle San Juan de los Lagos and utilizes satellite stations in the community as well. MVPD uses a "Zone Policing" strategy to improve response times to service calls and enhance community relations. MVPD also has a number of community policing initiatives, including a Citizen's Patrol Unit, an Anti-Graffiti Patrol Unit, Police Explorer Program, a Reserve Officer's Program, Station Volunteers, a Mounted Posse and a Neighborhood Watch program.

5

TRAFFIC AND CIRCULATION

This chapter discusses the Planning Area’s existing transportation infrastructure, including roadways, bicycle and pedestrian facilities, and transit. It also describes truck routes and traffic distribution patterns throughout the city.

5.1 TRANSPORTATION SYSTEM AND CONTEXT

The City of Moreno Valley is located in the western part of Riverside County. Interstate 215 (I-215) lies west of the city, and State Route 60 (SR-60) runs through the northern part of the city. The northern border of Moreno Valley backs up to the Reche Canyon/Box Springs Mountain Reserve Park mountain, which is just south of the Riverside/San Bernardino County line. To the east of Moreno Valley lies the City of Beaumont, to the south is the City of Perris, and to the west is the City of Riverside. This section discusses the existing transportation system, focusing on commute trends and the current regulatory framework shaping transportation in the City of Moreno Valley.

SYSTEM MONITORING

The City of Moreno Valley has an Advanced Traffic Management System (ATMS) that allows staff to monitor traffic at strategic locations throughout the city. The system allows for the transportation system to work more effectively and efficiently by providing the ability to adjust critical traffic signals from the City’s Transportation Management Center (TMC). These tools allow the City of Moreno Valley to effectively monitor and address congestion issues.

REGULATORY SETTING

The regulatory framework is meant to inform decision makers about the regulatory agencies and policies that affect transportation in the City of Moreno Valley. This enables decision makers to execute informed decisions about planning improvements to transportation systems.

State Regulations

AB 1358 (Complete Streets)

The California Complete Streets Act (Assembly Bill [AB] 1358) was signed into law on September 30, 2008. Since January 1, 2011, AB 1358 has required circulation element updates to address the transportation system from a multimodal perspective. The act states that streets, roads, and highways must “meet the needs of all users in a manner suitable to the rural, suburban, or urban context of the General Plan.” The act requires a Circulation Element to plan for all modes of transportation where appropriate, including walking, biking, car travel, and transit. In addition, the act requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled.

To comply, Moreno Valley will need to plan for active transportation modes such as walking, bicycling, and transit, and provide better service to users of these prioritized modes. The General Plan may adopt a complete streets approach, providing accessibility for users of all ages and abilities.

AB 32 (Global Warming Solutions Act)

The Global Warming Solutions Act (AB 32) was signed into law on September 27, 2006. AB 32 established a comprehensive program to reduce greenhouse gas emissions to combat climate change. This bill requires the California Air Resources Board (CARB) to develop regulations to reduce greenhouse gas emissions

to 1990 levels by 2020. On January 1, 2012, the greenhouse gas rules and market mechanisms, adopted by CARB, took effect and became legally enforceable.

The reduction goal for 2020 is to reduce greenhouse gas emissions by 25 percent of the current rate in order to meet 1990's level, and a reduction of 80 percent of current rates by 2050. The AB 32 Scoping Plan contains the main strategies California will use to reduce the greenhouse gases. The scoping plan has a range of greenhouse gas reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms (such as a cap-and-trade system), and an AB 32 program implementation regulation to fund the program. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels.

CARB recognizes cities as “essential partners” in reducing greenhouse gas emissions. The Air Resources Board has developed a Local Government Toolkit with guidance for GHG reduction strategies such as improving transit, developing bicycle/pedestrian infrastructure, increasing city fleet vehicle efficiency, and other strategies.

The City of Moreno Valley can follow the example of other cities that voluntarily strive to comply with AB 32 and implement greenhouse gas reduction strategies into the City's General Plan. The Western Riverside Council of Governments (WRCOG) is also undertaking their Climate Action Plan (CAP), Captivate 2.0, which intends to comply with the statewide reduction targets. Moreno Valley should continue to engage and participate in this effort.

SB 375 (Sustainable Communities and Climate Protection Act)

The Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, provides incentives for cities and developers to bring housing and jobs closer together and to improve public transit. The goal is to reduce the number and length of automobile commuting trips, helping to meet the statewide targets for reducing greenhouse gas emissions set by AB 32.

SB 375 requires each Metropolitan Planning Organization to add a broader vision for growth to its transportation plan - called a Sustainable Communities Strategy (SCS). The SCS must lay out a plan to meet the region's transportation, housing, economic, and environmental needs in a way that enables the area to lower greenhouse gas emissions. The SCS should integrate transportation, land-use, and housing policies to plan for achievement of the emissions target for each region. The Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) and SCS were adopted in 2016.

For consistency with the regional planning objectives of the SCS, consideration of ways to achieve the following is needed as part of the General Plan Update process:

- Support transit-oriented development
- Support infill housing development and redevelopment
- Support mixed-use development, which improves community walkability
- Improve jobs-to-housing ratio
- Promote land use patterns that encourage the use of alternatives to single-occupant automobile use
- Apply Transportation System Management (TSM) and Complete Streets practices to arterials to maximize efficiency

- Improve modes through enhanced service, frequency, convenience, and choices
- Expand and enhance Transportation Demand Management (TDM) practices to reduce barriers to alternative travel modes and attract commuters away from single-occupant vehicle travel

SB 743 (General CEQA Reform, VMT)

SB 743 was signed into law on September 27, 2013 and has the potential to fundamentally change the traditional transportation impact analyses conducted as part of the CEQA process. According to this bill, traffic impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area will not be considered significant impacts. Also, residential, mixed-use, and employment center projects meeting specific criteria would be exempt from CEQA.

Furthermore, for the CEQA process, this bill eliminates measures such as auto delay, level of service (LOS), and other vehicle-based measures of capacity in many parts of California. Instead, other measurements such as vehicle miles traveled (VMT) are to be utilized to measure impacts.

The purpose of SB 743 is to balance the needs of congestion management, infill development, public health, greenhouse gas reductions, and other goals. The Office of Planning and Research released the *Technical Advisory on Evaluating Transportation Impacts in CEQA*¹ in December 2018. WRCOG released the *WRCOG SB 743 Implementation Pathway*² in March 2019, a guiding document for VMT analysis methodology, thresholds, and mitigation

¹ Technical Advisory on Evaluating Transportation Impacts in CEQA: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

strategies for transportation impact evaluation for WRCOG agencies such as Moreno Valley.

To comply, the City of Moreno Valley will have to update its CEQA guidelines to develop significance criteria consistent with SB 743 by July 1, 2020. This process includes adoption of thresholds of significance and identification of a VMT analysis methodology. These choices will be documented in updated traffic impact study guidelines.

Regional Regulations

Riverside County Congestion Management Program (CMP)

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California, including Riverside, to prepare a Congestion Management Plan (CMP). The CMP was prepared by the Riverside County Transportation Commission (RCTC) in consultation with the County of Riverside and the cities within Riverside County. It is an effort to align land use, transportation, and air quality management efforts in order to promote reasonable growth management programs that effectively use statewide transportation funds, while ensuring that new development pays its fair share of needed transportation improvements.

The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data may be accessed by RCTC to evaluate the condition of the Congestion Management System (CMS), as well as to meet other monitoring requirements at the State and Federal levels. RCTC's Long Range

² WRCOG SB 743 Implementation Pathway: <https://www.feh-randpeers.com/wp-content/uploads/2019/12/WRCOG-SB743-Documents-Package.pdf>

Transportation Study, approved in 2019, incorporates the state and federal CMP into the plan, including performance standards, conformance, monitoring, deficiency plan process, and management strategies.

Per the Level of Service target of “E” adopted by RCTC, when a CMS segment falls to “F,” a deficiency plan must be prepared by the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency will also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including Transportation Demand Management (TDM) strategies and transit alternatives, and a schedule of mitigating the deficiency. To ensure that the CMS is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies to consider the traffic impacts on the CMS when reviewing and approving development proposals.

Caltrans Guide for the Preparation of Traffic Studies

The Caltrans Traffic Impact Study Guide provides a starting point and a consistent basis on which Caltrans evaluates traffic impacts to state highway facilities. The guide provides information on when a traffic impact study is needed, the scope of a traffic impact study (i.e. the boundaries of the traffic study and the analysis scenarios), the required data for a traffic impact study, analysis methodologies for various types of state facilities, and guidelines for mitigating impacts. Caltrans is currently developing guidance documents for VMT analysis in projects but has not published formal guidelines at this time.

Transportation Uniform Mitigation Fee (WRCOG TUMF)

The Transportation Uniform Mitigation Fee (TUMF) program was developed to generate additional funds required for necessary improvements to the regional transportation system. TUMF is a

development impact assessment that provides funding for transportation improvements required to support new development. The assessment is based on the number of vehicle trips new development or site improvement will generate. Local jurisdictions may choose not to collect TUMF; however, jurisdictions not collecting TUMF forfeit their share.

The following roads in Moreno Valley were widened using TUMF funds:

- Ironwood Avenue from Day Street to Heacock Street (Completed)
- Eucalyptus Avenue from Towngate Boulevard to Moreno Beach Drive (Completed)
- Cactus Avenue from I-215 to Heacock Street (Completed)
- Day Street from SR-60 to Eucalyptus Avenue (Completed)
- Pigeon Pass Road from Cantarini Road to Alessandro Boulevard (Completed)
- Heacock Street from Reche Vista Drive to Cactus Avenue (Completed)
- Perris Boulevard from Reche Vista Drive to south city limits (Completed)
- Lasselle Street from Alessandro Boulevard to south City limits (Completed)
- Nason Street from SR-60 to Alessandro Boulevard (Completed)
- Reche Canyon Road from Moreno Valley City Limit to Locust Avenue (Completed)
- Reche Vista Drive from Moreno Valley City Limit to Heacock Street

The following roads in Moreno Valley are planned to be widened with TUMF funds:

- Box Springs Road from SR-60 to Day Street
- Eucalyptus Avenue from I-215 to Towngate Boulevard and from Moreno Beach Drive to World Logistics Center Parkway
- Alessandro Boulevard from I-215 to Gilman Springs Road
- Heacock Street from Cactus Avenue to south city limits
- Moreno Beach Drive from Reche Canyon Road to SR-60
- Redlands Boulevard from Locust Avenue to Alessandro Boulevard
- World Logistics Center Parkway from SR-60 to Eucalyptus Avenue
- Gilman Springs Road from SR-60 to Alessandro Boulevard

Measure A (Riverside County Half-Cent Sales Tax)

In November 1988, Riverside County voters approved Measure A, a one-half cent increase in sales tax over a twenty-year period to be used for transportation purposes. A major factor contributing to the support of Measure A was the “return to source” concept, which requires the additional sales tax revenue generated in a specific geographic area be used to finance projects within that same area.

The program has been so successful that in November 2002, Riverside County voters approved a 30-year extension of Measure “A” (2009-2039). Despite its success, Measure A funds only contribute a portion of the transportation improvements necessary to prevent a potential breakdown of the regional transportation system.

Measure M (Moreno Valley Commercial Cannabis Activity Tax)

In November 2018, the City of Moreno Valley voters approved Measure M, a tax of up to \$15 per square foot on marijuana cultivators, and up to 8 percent of recipients of retail, manufacturing, distributing, and testing businesses. Measure M revenue is placed in the City’s General Fund and can be used for any items funded through the General Fund, including transportation-related projects such as road repairs and street, sidewalk, and curb maintenance.

PROJECTS AND POLICY DOCUMENTS

Nason Street Corridor Plan

The Nason Street Corridor Plan is a long-range vision plan for the 3-mile corridor, Nason Street, from SR-60 to Iris Street. The plan features the construction of homes, neighborhood centers, a medical employment district, and senior housing. One major feature of this plan includes the development of a vacant 60-acre parcel at the northwest quadrant of Alessandro Boulevard and Nason Street into a mixed-use town center equivalent to the size of a downtown area. With plans to redevelop this area into a well-connected community, Nason Street is planned to be a complete street or multimodal corridor with accommodating facilities for pedestrians, bicycles, and transit.

The World Logistics Center

The World Logistics Center Project is in “Rancho Belago,” or the eastern portion of the City of Moreno Valley south of SR-60 between Redlands Boulevard and Gilman Springs Road. This approved project includes the development of a 2,600-acre logistics and business park center. This sustainable development project will bring local employment to the City of Moreno Valley. The

Traffic and Circulation Element of the Environmental Impact Report (EIR)³ outlines cumulative impacts and mitigations for the project, which include intersection improvements, roadway widenings, and enhancements to SR-60. The project is anticipated to increase traffic and truck trips to the City of Moreno Valley. Many of these trips will access the project site by using SR-60.

HOUSING-EMPLOYMENT DYNAMICS

Based on 2017 American Community Survey and the 2017 Longitudinal Employer-Household Dynamics Origin Destination Employment Statics, commute patterns for employed residents are as follows:

- 30 percent of residents travel less than 10 miles to reach their employment.
- 30 percent of residents travel between 10 and 24 miles to reach their employment.
- 40 percent of residents travel 25 miles or more to reach their employment.

Over two-thirds of Moreno Valley residents travel more than 10 miles to reach their places of employment. The small share of residents traveling less than 10 miles to reach their employment indicates that the city has a relatively small number of people who both live and work in Moreno Valley. Figure 5-1 shows the inflow and outflow of workers. Inflow includes people who are employed in Moreno Valley but live outside of the area, and outflow includes those that live in Moreno Valley but are employed outside of the area.

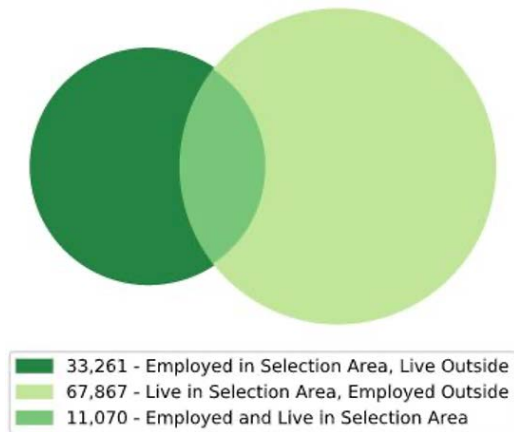
About 14 percent of Moreno Valley's working population lives and works in the City of Moreno Valley, while the other 86 percent lives in the city but is employed outside of it. As such, there is an opportunity to address the heavy outbound commute flows by focusing on policies that grow the number of people who both work and live in Moreno Valley to increase the opportunity for active transportation and reduce greenhouse gas emissions and commute distances. The City may also maintain and expand efforts that increase environmentally sustainable transportation options for workers coming into and leaving Moreno Valley. Table 5-1 shows which counties Moreno Valley residents work in.

The ratio of jobs to employed residents is often used as an indicator of commute balance. A ratio is close to 1.0 indicates a healthy balance and suggests that many people who live in the community are able to find jobs there as well. A high ratio indicates the community is rich in jobs, while a low ratio indicates that many residents need to commute to other cities for work. With 44,331 jobs and 78,937 employed residents in 2018, Moreno Valley has a ratio of 0.56, indicating a heavy out-commute. A focus on creating more jobs locally can help address this imbalance, reducing the need for long commutes and allowing Moreno Valley residents to spend more time with family and friends.

About 90 percent of Moreno Valley residents work in Riverside, Orange, Los Angeles, or San Bernardino Counties. Moreno Valley residents traveling to work experience heavy levels of morning and evening congestion on freeways such as I-10, I-15, SR-60, SR-91, and I-215.

³ Environmental Impact Report World Logistics Center Project, February 2013.

Figure 5-1: Inflow and Outflow Job Counts for Moreno Valley, 2017



Source: U.S. Census Bureau. 2017. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. <http://onthemap.ces.census.gov/>

Table 5-1: Counties where Moreno Valley Residents are Employed

County	Count	Share
Riverside County, CA	34,899	44.2%
San Bernardino County, CA	16,837	21.3%
Los Angeles County, CA	11,623	14.7%
Orange County, CA	8,299	10.5%
San Diego County, CA	3,193	4.1%
Ventura County, CA	512	0.6%
All Other Locations	3,574	4.6%
Total	78,937	100%

Source: U.S. Census Bureau. 2017. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. <http://onthemap.ces.census.gov/>

Most Moreno Valley commuters travel west in order to reach employment, as shown in Figure 5-2. A majority of workers travelling west travel over 10 miles to reach employment. The second most popular direction of travel for work is northwest, with a majority of commuters travelling over 10 miles. There are a limited number of workers who travel north, south, and east for work. Figure 5-3 shows the magnitude and direction of Moreno Valley workers travelling home outside of Moreno Valley. Most workers employed in Moreno Valley travel west, northwest, north, and south to reach their homes.

Travel by Moreno Valley residents to work is more concentrated by location in comparison to persons who work in Moreno Valley and live outside of the city. This means there is an opportunity to pursue strategies that further expand carpool and transit as part of its mode share to help reach AB 32 goals.

Mode Choice

Transportation modes to work for the City of Moreno Valley, Riverside County, and California are described in Table 5-2. The primary mode of travel for all three geographic areas is the automobile. Automobile trips make up about 90 percent of total travel for both the City of Moreno Valley and Riverside County, which is higher than the California average of 84 percent. The City may use strategic measures to incentivize and encourage carpool trips to reduce single occupancy vehicles. Bicycling and walking are less common in Moreno Valley when compared to the county and state. Given the relatively flat terrain and rectilinear grid patterns of streets, there are opportunities to increase the share of trips made by bicycle, although hot weather in the summer may be a deterrent to cycling. Improving the safety and connectivity of the bicycle network would make using active modes of transportation a more attractive mode for persons who live and work in the city.

Table 5-2: Commuter Modal Split

Mode Choice	Moreno Valley	Riverside County	California
Single Occupant Auto	77%	77%	74%
Carpool	15%	13%	10%
Public Transit ¹	1%	1%	5%
Bicycling/Walking	1%	2%	4%
Other Means	1%	1%	1%
Work at Home	3%	5%	6%

1. Public transit includes metro ridership

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Figure 5-2: Residents of Moreno Valley Commute to Work (Magnitude and Direction)

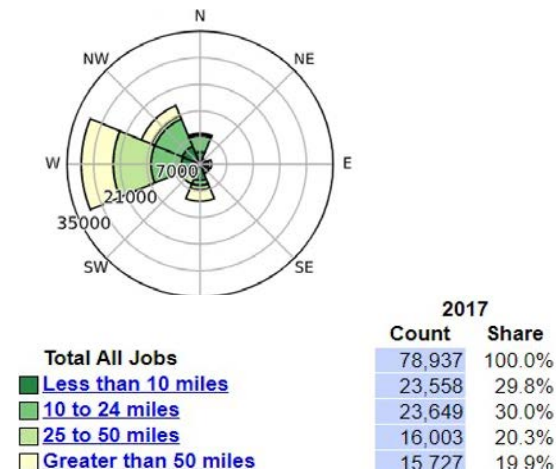


Figure 5-3: Workers in Moreno Valley Commute to Home (Magnitude and Direction)

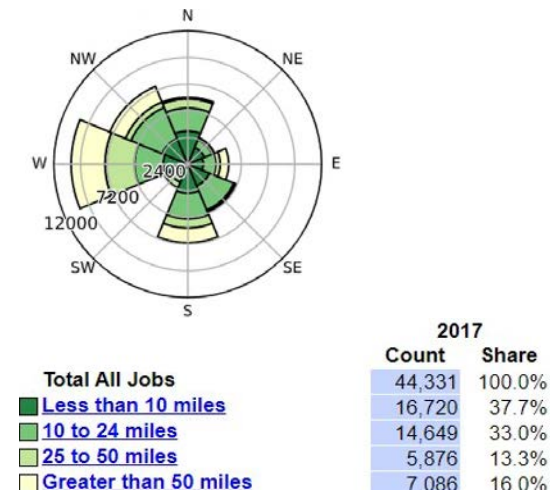
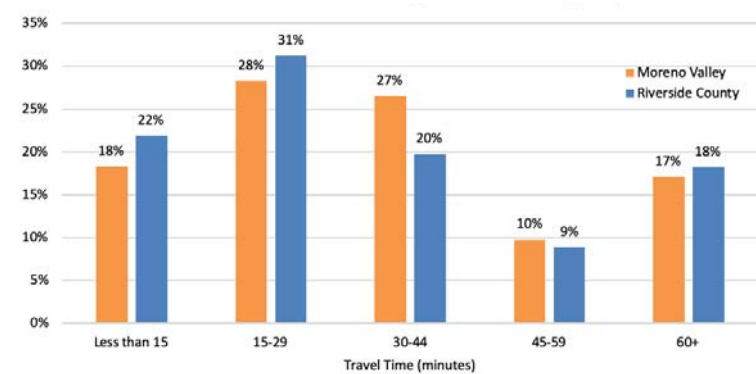


Figure 5-4: Travel Time to Work in Moreno Valley and Riverside County (2017)



Source: U.S. Census Bureau. 2017. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. <http://onthe-map.ces.census.gov/>

The City of Moreno Valley’s public transit modal share is the same as Riverside County and lower than the California average. The Riverside Transit Agency (RTA) provides transit service in Moreno Valley and the county. Changes to the current bus system, such as those mentioned in the City’s General Plan Circulation Element, may help incentivize greater ridership and shift more car trips to transit. It is important that the City of Moreno Valley incorporates policy directives into its General Plan to increase the modal share of transit, carpool, and active transportation for creating an environmentally sustainable transportation system that is consistent with AB 1358, AB 32, and SB 375.

Travel Time to Work

Figure 5-4 displays the distribution of travel time to work by the percentage of working populations of the City of Moreno Valley and Riverside County. The travel time distribution of Moreno Valley residents is generally similar to that of Riverside County residents. The share of Moreno Valley residents is higher than the share of Riverside County residents traveling between 30 and 44 minutes to work.

Vehicle Miles Traveled (VMT)

Vehicle miles traveled (VMT) measures the number of miles traveled during a specified time within a specific region. Cities with more accessibility to key destinations and job centers in a region tend to generate less VMT on a per service population (service population is resident population plus employment) or per household basis compared to locations further away from job centers. After adjusting for commute distances, other things being equal, VMT can also be a good proxy to evaluate whether residents use local services or travel farther for those services. Table 5-3 presents the VMT for multiple cities in Riverside County from the Base Year (2012) Riverside Traffic Analysis Model (RIVTAM), which measures travel demand using the “full accounting method.” The

full accounting method tracks the full length of any trip that has at least one trip end in the identified city to its ultimate destination.

Moreno Valley VMT per service population is more than 15 percent lower than the average of incorporated cities in Riverside County and Western Riverside County. The VMT per household is also lower than the comparative regions. These VMT per capita estimates signify that Moreno Valley is more efficient from a VMT perspective than other cities within Riverside County.

5.2 EXISTING STREET SYSTEM

This section discusses the existing street system, including discussion of roadway and pavement classifications and conditions. Networks for pedestrians, bicycles, and transit are discussed along with parking and safety information that will inform General Plan Update discussions concerning traffic and circulation.

ROADWAY SYSTEM

The City of Moreno Valley is connected regionally by SR-60 and I-215. SR-60 bisects the city and provides east-west connectivity to surrounding metropolitan areas. I-215 borders the city on the west and provides north-south connectivity. According to the 2006 Moreno Valley General Plan, there are five basic functional systems that make up the local roadway system: divided major arterials, divided arterials, arterials, minor arterials, and collector streets. The classification of streets is based on a functional hierarchy defined by the number of travel lanes, roadway width (curb to curb), right-of-way (public property line to public property line), and traffic volumes. The network of streets provides connectivity within the City of Moreno Valley and to neighboring communities.

Table 5-3: Vehicle Miles Traveled Summary

City/Region	VMT	VMT per Service Population	VMT per Household
Banning	1,110,797	29.8	108.9
Beaumont	1,219,970	27.9	101.3
Blythe	294,422	24.7	86.9
Calimesa	375,558	36.2	103.7
Canyon Lake	157,544	34.8	99.0
Cathedral City	1,409,540	22.4	82.5
Coachella	903,404	17.9	99.1
Corona	6,784,257	30.5	149.8
Desert Hot Springs	933,639	27.3	92.0
Eastvale	1,635,856	27.0	115.8
Hemet	2,295,355	22.7	76.5
Indian Wells	282,305	36.5	114.4
Indio	1,998,261	19.8	82.6
Jurupa Valley	3,637,399	29.8	145.3
Lake Elsinore	2,489,485	36.3	155.2
La Quinta	1,234,648	25.6	87.6
Menifee	2,998,816	31.0	99.5
Moreno Valley	5,505,655	24.5	108.3
Murrieta	3,655,216	28.5	112.0

Table 5-3: Vehicle Miles Traveled Summary

City/Region	VMT	VMT per Service Population	VMT per Household
Norco	1,522,109	36.3	200.5
Palm Desert	2,830,521	33.2	123.2
Palm Springs	2,283,456	31.3	99.6
Perris	2,367,263	27.6	142.8
Rancho Mirage	1,108,444	35.5	117.0
Riverside	12,130,842	27.8	130.1
San Jacinto	1,433,085	28.9	111.4
Temecula	3,690,123	26.2	119.6
Wildomar	1,193,167	32.9	124.4
Western Riverside County	67,129,140	29.8	126.4
Riverside County	83,929,504	29.3	120.9
SCAG Region ²	626,112,185	24.3	106.4

1. Service population is the sum of population and employment in the City.
2. Estimates for the SCAG region were completed using RIVTAM which is calibrated specifically for Riverside County. Estimates are provided for comparison purposes only.

Source: Base Year (2012) RIVTAM.

ROADWAY CLASSIFICATIONS

The series of roadway classifications in the City of Moreno Valley are shown on Figure 5-5. Functional classification refers to how a road accommodates two characteristics: first, the extent to which the roadway prioritizes the through movement of traffic; and second, the level of access provided to adjacent properties. Based on these generalized characteristics, roadways often vary in terms of right-of-way, roadway width, number of lanes, intersection and traffic signal spacing, speed, and other factors. Functional classification is generally determined in the Circulation Element of the City’s General Plan, in which the functional classification is assigned to a particular roadway based on the criteria above. Table 5-4 identifies roadway types and characteristics for the City of Moreno Valley based on the 2006 General Plan.

The 2006 General Plan contains limited information on the current roadway classifications, providing cross sections and the number of lanes associated with each type. Under the current roadway classifications, street design does not incorporate facilities for bicyclists, except for Pigeon Pass Road, but instead focuses on the travel and throughput of automobiles.

The current roadway classifications Moreno Valley uses are typical throughout the state, but the current structure focuses only on vehicle travel. The Complete Streets Act (AB 1358) requires that California communities consider all modes of travel when planning the transportation system. To comply with the requirements of the Act, in updating the General Plan, one option to consider would involve updating roadway classifications to better meet the needs of all users and abilities. The City may review a reclassification and reprioritization of travel modes on roadways in order to better support complete streets that serve users of all ages, abilities, and mode choice. By reclassifying roadways, the City may be better equipped to design roadways that support users and uses beyond

automobile travel. Identifying prioritized travel modes for each roadway type can better support complete streets, consistent with AB 1358 (Complete Streets). One approach to support complete streets is known as a layered networks approach, which recognizes that not all streets can provide the best service for each travel mode type. A narrow street with multiple crossings may be great for walking, but may not serve automobiles because of competing interests. By explicitly prioritizing a travel mode for each roadway type, the City of Moreno Valley can increase active transportation opportunities for people. A roadway type that prioritizes transit may not exclude bicycles or automobiles, but would accommodate them, while maintaining priority of transit. Updating roadway classifications for Moreno Valley warrants a discussion with City staff.

Table 5-4: Moreno Valley 2006 General Plan Roadway Classifications

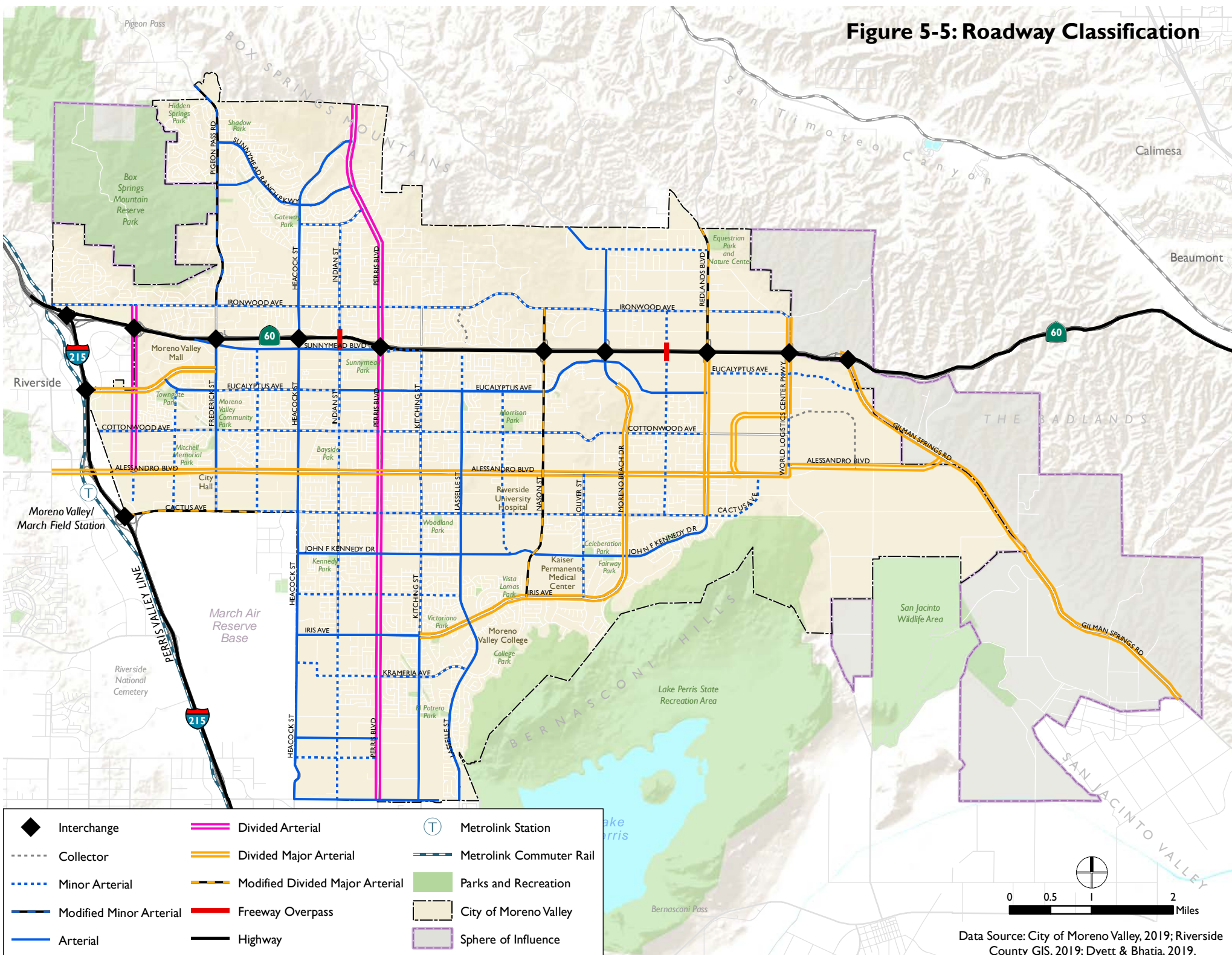
<i>Roadway Type</i>	<i>Number of Lanes</i>
Divided Major Arterial	6
Divided Arterial	4 - 6
Arterial	4
Minor Arterial	4
Collector	2

Source: City of Moreno Valley General Plan, 2006

PAVEMENT CONDITIONS

The SCAG 2016-2040 RTP/SCS measures the pavement conditions of both local roads and highway systems by county. The condition of the roadway pavement is important to consider for safety and positive driver experience. By tracking the pavement conditions, resources for maintenance funding for existing infrastructure can be allocated based on need.

Figure 5-5: Roadway Classification



	Interchange		Divided Arterial		Metrolink Station
	Collector		Divided Major Arterial		Metrolink Commuter Rail
	Minor Arterial		Modified Divided Major Arterial		Parks and Recreation
	Modified Minor Arterial		Freeway Overpass		City of Moreno Valley
	Arterial		Highway		Sphere of Influence

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Pavement Condition Index (PCI) is the standard of practice measure of effectiveness used to assess pavement where 100 is the best score and 0 is the worst:

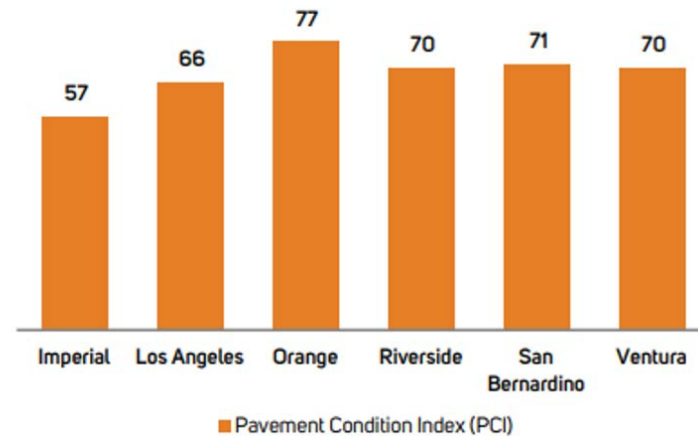
- **Very Good** (86-100 PCI) Pavements with little or no distress
- **Good** (70-85 PCI) Pavements with some distresses that are predominantly non-load related. The pavement structure is sound and minor oxidation may occur.
- **Fair** (50-69 PCI) Pavements with a significant level of distress, which may be predominantly load-related. The pavement structure is becoming deficient.
- **Poor** (30-49 PCI) Pavements with moderate to severe surface distresses. Extensive weathering, block cracking, and load-related distresses such as alligator cracking and rutting may occur.
- **Very Poor** (0-29 PCI) Pavements with severe weather-related distresses as well as large quantities of load-related distresses. The pavement is nearing the end of its service life.

Figure 5-6 shows the PCI for local roadways in SCAG for 2013. Riverside County has a score of 70, which is considered adequate (the lowest range of “Good”). Table 5-5 summarizes the specific pavement conditions throughout Moreno Valley arterials, collectors and local residential streets. As shown, the City’s overall weighted PCI for the pavement network in 2018 is 65, which is in the “Fair” category and below the Riverside County average. The City of Moreno Valley also reported that approximately 46.8% (by area) of the City’s streets are in the “Very Good” or “Good” condition categories, 46.2% are in either the “Fair” or “Poor” categories, while 7% of the streets fall under the “Very Poor” condition.

The weighted average PCI for arterial network shows a 10-point increase since 2014. The reason for this increase is that over 28 centerline miles of arterials received treatment between May 2013 and December 2017. On the other hand, the residential network shows a 7-point decrease over the same period since only 1.6 centerline miles of residential streets received treatment over that time period.

With anticipated growth of truck trips and traffic in Moreno Valley, the City of Moreno Valley should consider general plan policies and funding to support pavement conditions and keep its existing roadways in adequate condition.

Figure 5-6: County Pavement Condition Index



Source: SCAG 2016-2040 RTP/SCS

Table 5-5: Moreno Valley Pavement Network Summary

<i>Functional Class</i>	<i>Centerline Mileage</i>	<i>Lane Miles</i>	<i>Pavement Area (SF)</i>	<i>% Pavement Area</i>	<i>Weighted Average PCI</i>
Arterial	135.5	372.6	34,775,382	32.4%	68
Collector	35.6	74.2	7,515,549	7.0%	65
Residential	335.0	674.9	65,011,691	60.6%	63
Total	506.1	1,121.6	107,302,622	100.0%	65

Source: City of Moreno Valley, 2018

PEDESTRIAN NETWORK

Active modes of transportation provide environmental, economic, and social sustainability to a city and its transportation system while improving public and personal health. Inadequate facilities misuse valuable resources and discourage potential users. Well-designed pedestrian and bicycle facilities are needed to make active transportation safe, accessible, attractive, and comfortable enough to be a desirable alternative to driving. It is important to provide a seamless transportation system for all modes and for all people to improve circulation. The Circulation Element of the 2006 General Plan focuses on vehicular travel but encourages the proposal of policies and programs that facilitate pedestrian improvements.

Sidewalks and Crosswalks

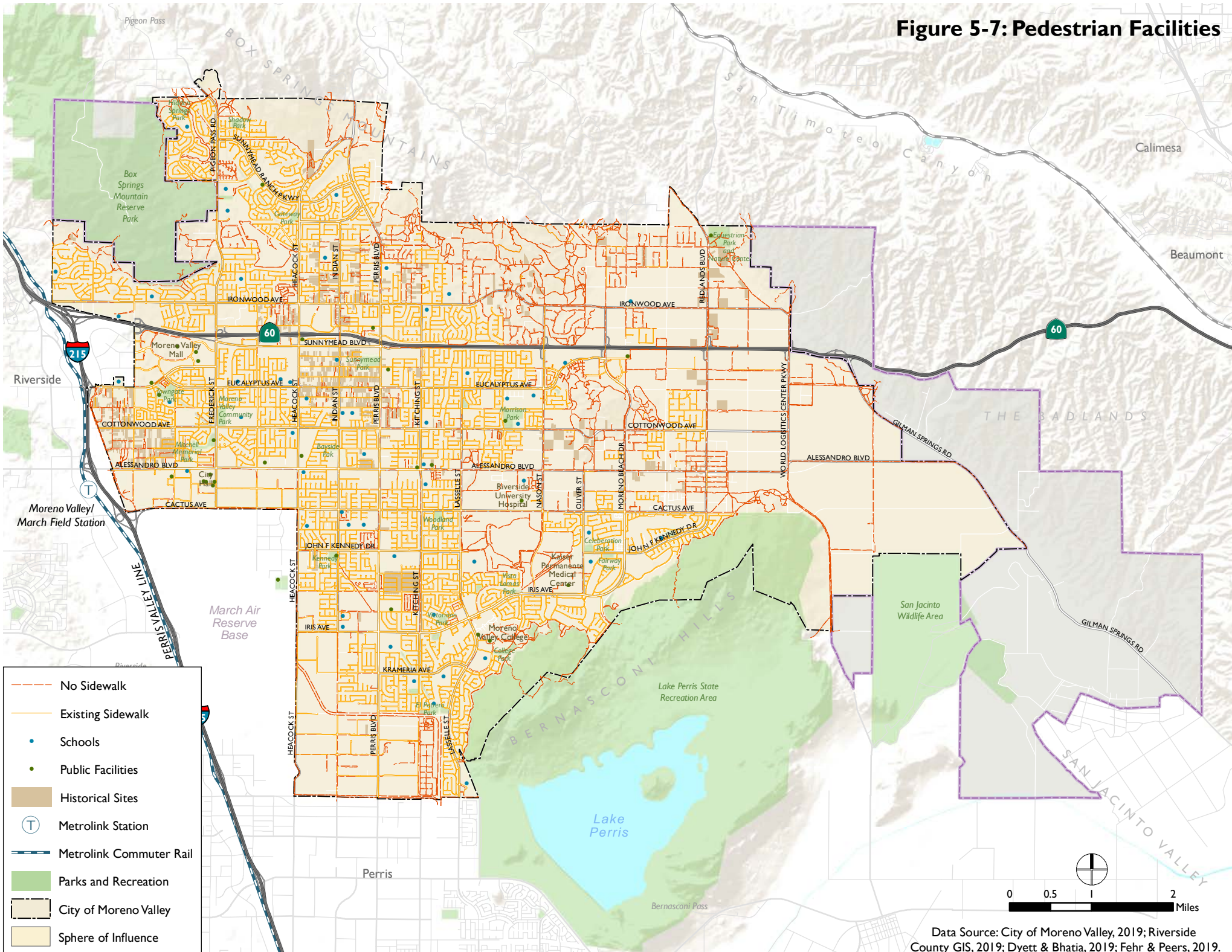
Pedestrian facilities in Moreno Valley consist of sidewalks and crosswalks. Figure 5-7 identifies all sidewalks in the city. Most residential and commercial developments provide sidewalks on public streets and internal circulation. Areas with no existing sidewalks are mainly located in underdeveloped or undeveloped areas in the eastern portion of the city and along the city boundary. Sidewalks vary from wide and meandering curb separated sidewalks to narrow pathways on the side of the road. Sidewalks are sometimes

obstructed, incomplete mid-block, or damaged. Crosswalks at signalized intersections are marked and are usually provided for all approaches. Crosswalks at unsignalized intersections are generally not marked, although crosswalks around schools are marked at intersections.

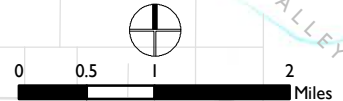
Moreno Valley is a community designed with auto travel in mind, featuring a suburban tract housing layout, ample parking, major through streets, and separation of land uses that comprise a notable portion of the city. Although walking may not be a viable form of transportation for errand trips, the ample sidewalk widths in established neighborhoods provide a walking environment that accommodates walking trips for leisure and exercise. The following six factors that affect walkability and the pedestrian experience in the city at large have been analyzed:

- **Sidewalk Continuity:** Communities are more walkable if sidewalks do not end abruptly and are present on the entire segment and both sides of a roadway. This is especially important for mobility-impaired users or those pushing small children in strollers.

Figure 5-7: Pedestrian Facilities



- - - No Sidewalk
- Existing Sidewalk
- Schools
- Public Facilities
- Historical Sites
- T Metrolink Station
- Metrolink Commuter Rail
- Parks and Recreation
- City of Moreno Valley
- Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019; Fehr & Peers, 2019.

- **Sidewalk Conditions:** This refers to the physical condition of sidewalk surfaces. Sidewalks that are broken or cracked can deter walkability and impede mobility; particularly for mobility-impaired users, such as those in wheelchairs, persons using walkers, or strollers.
- **Shading:** Persons are more inclined to walk in areas where there is shade present, particularly in Southern California with its relatively warm weather and limited rainfall, as compared to other locations. Additionally, shade trees create an aesthetic value that is pleasing to the pedestrian.
- **Grade:** Persons are more inclined to walk in areas that are relatively flat or have limited grade changes.
- **Amenities:** All else being equal, persons are more inclined to walk in areas that are interesting environments with shopping, retail, restaurants, and other similar uses. Pedestrian-friendly amenities include street furniture, attractive paving, public art, high visibility crosswalks, frequent crossings, slower vehicle speeds, way-finding signage, enhanced landscaping, and pedestrian-level lighting.
- **Buffers:** A more walkable environment includes some degree of separation between the pedestrian and the motorist. This typically includes wider sidewalks, bicycle facilities, landscaping, street parking, and sidewalk bulb-outs at intersections where feasible. Crosswalks with appropriate signage serve as an important buffer as well.

Land use is inherently tied to transportation, and therefore policies that seek to make walking attractive, easy, and safe are important, particularly in activity centers. As described above, there are opportunities to improve sidewalk continuity and mid-block crosswalks, complete sidewalks between crosswalks, and provide an optimal number of adequate crosswalks and sidewalks. Sidewalk conditions can be improved with regular maintenance and compliance measures. Treatments such as high-visibility crosswalks, curb extensions, curb cuts, and landscaped buffers may also improve safety and accessibility for all pedestrians, particularly near schools

and other activity centers where pedestrian activity is high. Providing shade trees will make pedestrians more comfortable in hot weather. These improvements can enhance the transportation experience for non-driving populations, such as older adults and children, who may use routes for short distance trips, including recreation and school trips.

Trails

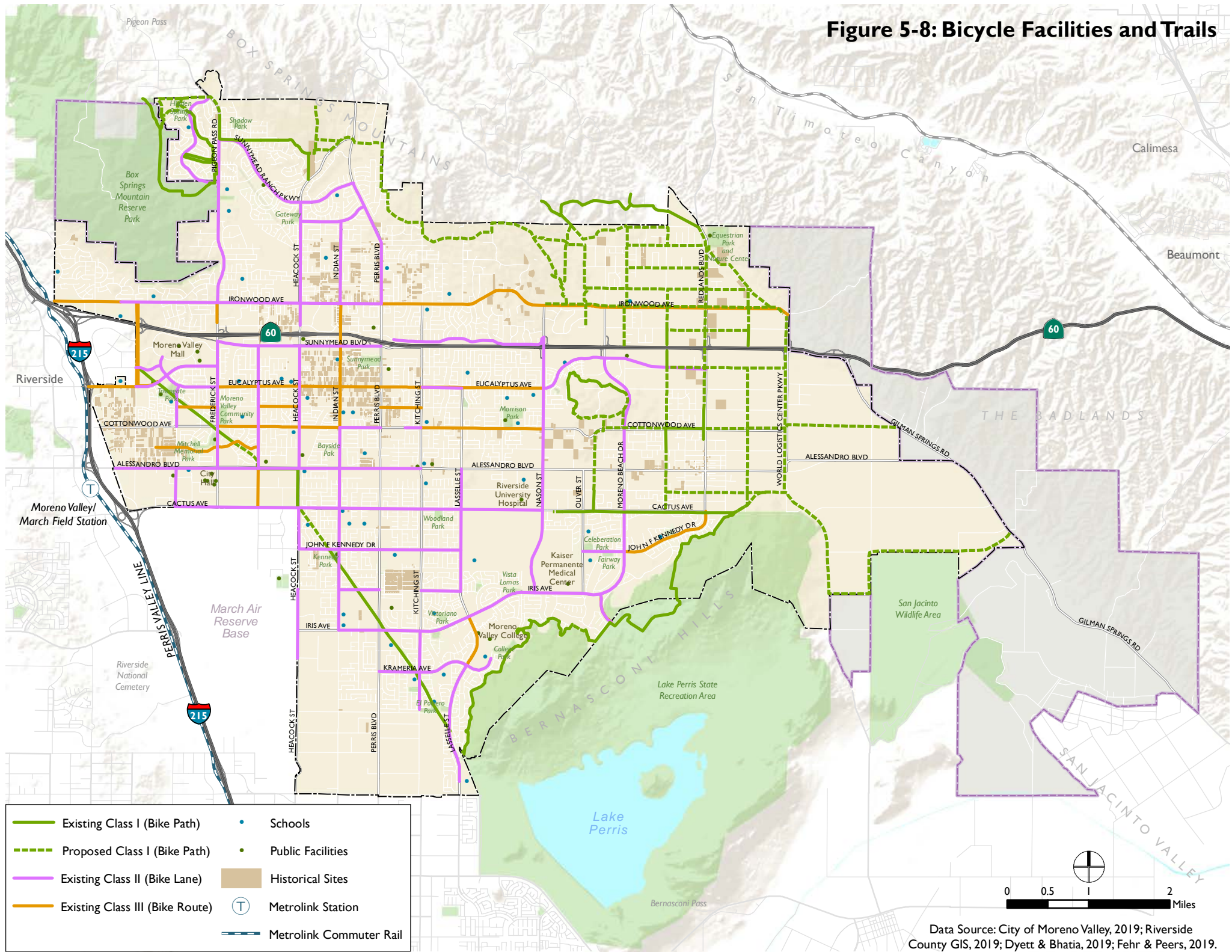
The Moreno Valley Department of Parks and Recreation owns and operates over 335 acres of parks, trails, and park facilities. Figure 5-8 identifies all existing and proposed trails in the City of Moreno Valley General Plan and listed as Class I bike trails.

Existing multi-use trails accommodate pedestrians, equestrians, and bicyclists. In some instances, existing trails support access to State or regional trails within or near the city. For example, the Moreno Valley M Trail supports access to Box Mountain Regional Park trails. In addition, the Rancho Verde Trail connects to trails near Lake Perris State Recreation. The Juan Bautista de Anza trail between the intersection of Eucalyptus Avenue/Arbor Park Lane in the north and Lasselle Street in the south provides bicycle north-west-southeast connectivity.

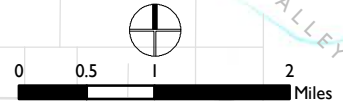
Proposed trails would close gaps between trails in the northwest, northeast, middle, and southern parts of the city and support active transportation in Moreno Valley. Some examples of proposed connections are listed below:

- The Cold Creek Trail in the middle of the city would be connected to the existing trail along Cactus Avenue.
- Proposed trails in nearby neighborhoods would be connected to the existing regional trail on Vista Suelto Road.

Figure 5-8: Bicycle Facilities and Trails



	Existing Class I (Bike Path)		Schools
	Proposed Class I (Bike Path)		Public Facilities
	Existing Class II (Bike Lane)		Historical Sites
	Existing Class III (Bike Route)		Metrolink Station
	Metrolink Commuter Rail		



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019; Fehr & Peers, 2019.

Proposed trails in the city not only provide opportunity for recreational activity, but afford off-street connectivity between neighborhoods, parks, schools, public facilities, and major job centers.

BICYCLE NETWORK

With relatively flat terrain and a rectilinear street grid, Moreno Valley is an inherently bikeable community. Improving bicycling facilities can increase the likelihood and desirability of active transportation modes for short distance trips, school trips, and recreational activities. By shifting mode share to include higher rates of active travel, the City of Moreno Valley can reduce greenhouse gas emissions and promote a healthy lifestyle, consistent with AB 32 and other State laws. Figure 5-8 shows the existing and planned bikeways in the city. The different types of bicycle facilities are described on the following pages.

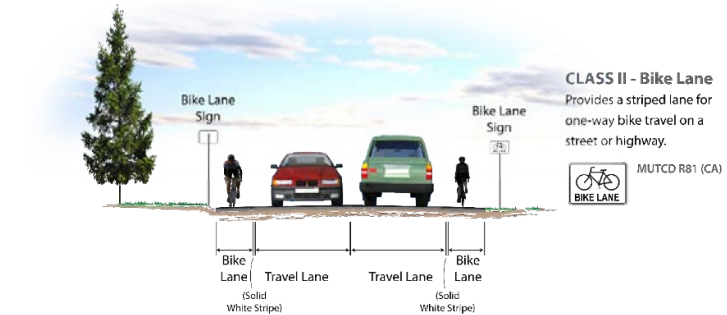
Class I Bikeways (Bike Paths)

Class I bikeways are facilities that are physically separated from vehicles, designated for the exclusive use of bicyclists and pedestrians with minimal vehicle crossings. See Figure 5-8 for existing Class I bikeways.



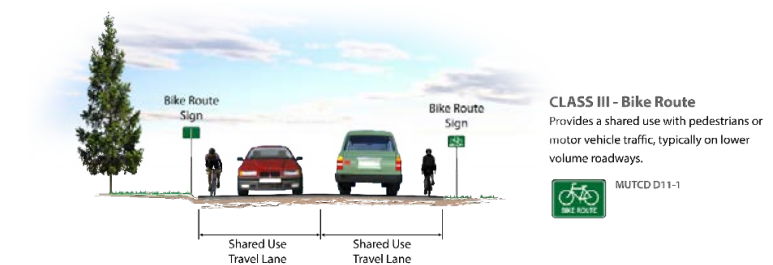
Class II Bikeways (Bike Lanes)

Class II Bikeways are striped lanes designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross flow are permitted at designated locations. See Figure 5-8 for existing Class II bikeways. The City proposes Class II bikeways on several roadways throughout the City.



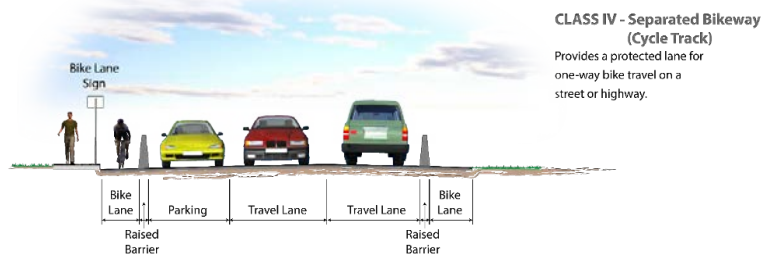
Class III Bikeways (Bike Routes)

Class III Bikeways, also referred to as bike routes, are only identified by signs or pavement markings. A bicycle route is meant for use by bicyclists and for motor vehicle travel (i.e., shared use). See Figure 5-8 for existing Class III bikeways in Moreno Valley. The City proposes Class III bikeways on several roadways throughout the City.



Class IV Bikeways (Cycletracks)

Class IV bikeways are not designated in the Moreno Valley Bicycle Plan; however, there may be benefit from including them in the General Plan. Cycletracks are protected bike lanes, which provide a right-of-way designated exclusively for bicycle travel within a roadway that is protected from vehicular traffic with devices such as curbs, flexible posts, inflexible physical barriers, or on-street parking. Moreno Valley does not have any Class IV bikeways and can consider the installation of such bikeways.



Bicycle Master Plan

The City of Moreno Valley adopted a Bicycle Master Plan in November 2014. The Plan calls for an increase in bicycle facilities on various streets to enhance the existing bicycle network. The 2014 Bicycle Master Plan proposes bicycle facilities of Class I to Class III throughout the city.

The Bicycle Master Plan recommends bicycle programs to improve facilities that can make it safer for users of all ages and abilities to ride a bicycle on city streets. These proposed programs include the creation of a cycling education center that would provide educational material and courses: cycling education and enforcement programs, expansion of the Moreno Valley's Safe Routes to School program, and the Smart Trips program bundle that would

serve as community-based TDM program providing tools and incentives to encourage individuals to utilize cycling as a mode of choice.

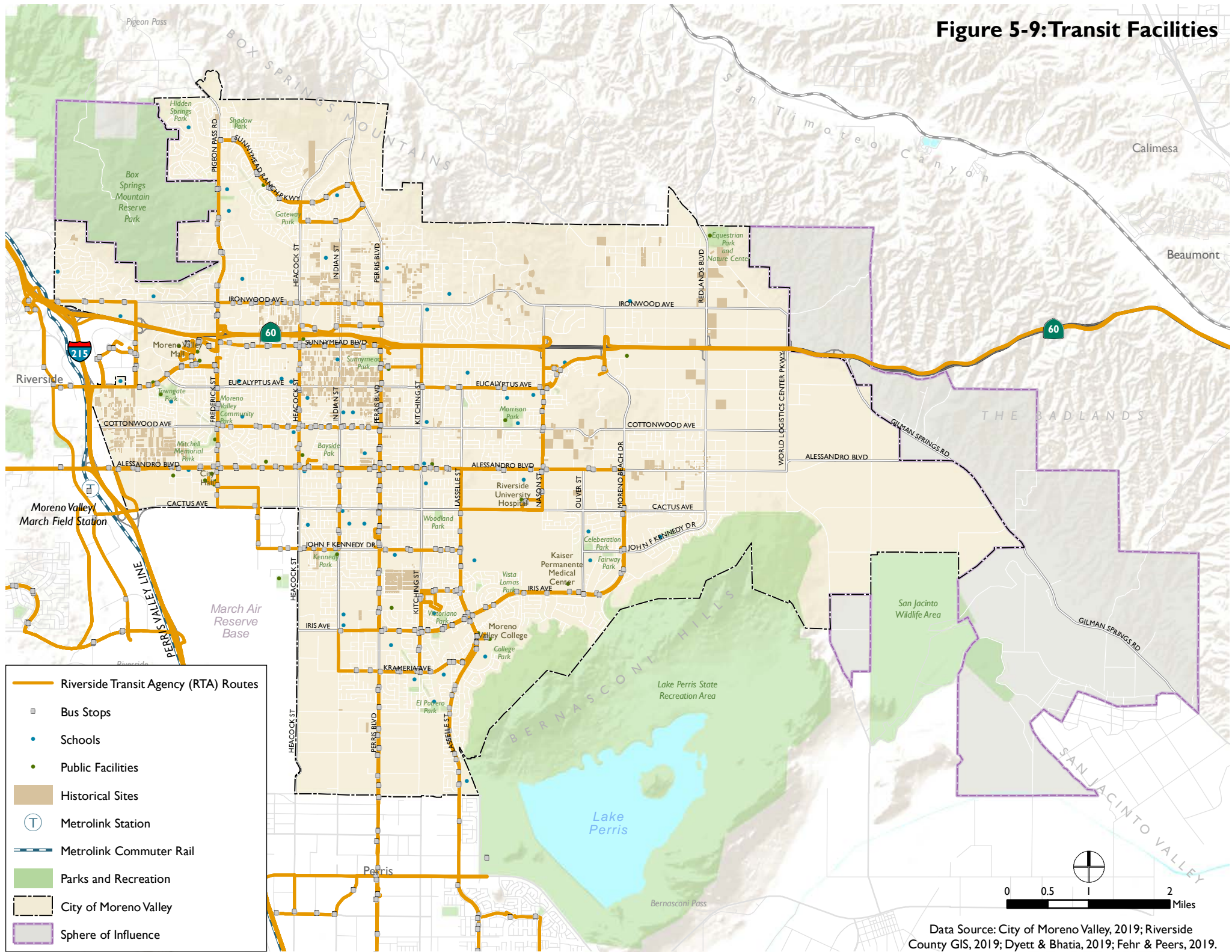
The City of Moreno Valley has an extensive Class II and Class III network that provides cycling facilities in the north, west, and middle of Moreno Valley. In tandem with the proposed trails, multi-modal access is proposed to most of the city.

Moreno Valley has a relatively flat elevation and a rich network of local streets laid out in a grid fashion in the city's core, which collectively are excellent for a low-stress bicycle network. The City of Moreno Valley could take advantage of the grid network and mix of land uses to develop bicycle boulevards that will increase the safety of people walking and bicycling. Local trips made by bicycle or on foot may be prioritized by expanding bicycle boulevards in the area. The City could pursue bicycle boulevards as a way to improve the walking and bicycle experience through the menu of treatments listed in areas where the bicycle facilities overlap with truck routes.

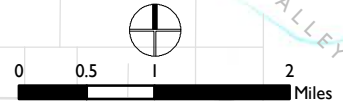
TRANSIT FACILITIES

Public transportation is a vital part of the circulation system within Moreno Valley. Transit expands mobility options to citizens that may not be able to afford or physically operate other means of travel, while some choose not to drive. The transit options in Moreno Valley are shown on Figure 5-9. Intercity buses, local buses, and demand-responsive service are provided; all of which help people move. It is important that Moreno Valley continue to invest in and improve local transit service, since the most frequent users include some of the most vulnerable, such as older adults, persons with disabilities, and students.

Figure 5-9: Transit Facilities



- Riverside Transit Agency (RTA) Routes
- Bus Stops
- Schools
- Public Facilities
- Historical Sites
- T Metrolink Station
- Metrolink Commuter Rail
- Parks and Recreation
- City of Moreno Valley
- Sphere of Influence



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019; Fehr & Peers, 2019.

Riverside Transit Agency (RTA)

Majority of the available public transportation is provided by the Riverside Transit Agency (RTA) via fixed route and paratransit bus services. RTA provides four bus routes within the City of Moreno Valley with routes that connect to the Moreno Valley/March Field Metrolink Station, Perris Station Transit Center, University of California, Riverside (UCR), and Moreno Valley Mall. Major Moreno Valley bus routes include routes 11, 16, 19, 19A, 20, 26, and 31. In addition, RTA has two commuter link express bus routes. Route (208) connects the cities of Temecula, Murrieta, Perris, Moreno Valley, and Riverside, while Route 210 connects the cities of Palm Desert, Cabazon, Beaumont, and Riverside. Commuter link express bus routes provide peak hour services for commuters in the morning and evening on weekdays. RTA also provides Dial-A-Ride services for seniors and persons with disabilities.

Sunline Transit Agency (STA)

A commuter link bus route (220) connects the cities of Riverside, Moreno Valley, Beaumont, Cabazon, Thousand Palms, and Palm Desert, and provides peak hour services on weekday mornings and evenings. This route connects to the Riverside Metrolink Station.

Metrolink

Metrolink is a commuter rail program operated by the Southern California Regional Rail Authority (SCRRA), providing service from outlying suburban communities to employment centers such as Burbank, Irvine, and downtown Los Angeles. For Moreno Valley, the Moreno Valley/March Field Metrolink Station is located

⁴ Growth is based on the 2015 existing average daily ridership of 2,467. This data is from the Metrolink 10 Year Strategic Plan (2015-2025).

less than one-half mile west of the city limits. The 91/Perris Valley Line (PVL) train services Metrolink stations in the cities of Perris, Riverside, Corona, Fullerton, Buena Park, Norwalk/Santa Fe Springs, and Los Angeles. The establishment of the PVL was a joint effort of RCTC and Federal Transit Administration (FTA). The 24-mile extension of the PVL was the first major enhancement to the route network in 14 years.

The Metrolink 10-Year Strategic Plan (2015-2025) indicates that through a partnership with Metro, they will experiment with lower fares across the board and targeted discounts on shorter distance trips with the goal to increase ridership and revenue. Through 2025, there is an expected growth in ridership on the PVL, between 54 percent and 151 percent depending on enhancements of the existing network and overlay of additional service patterns through 2025⁴.

ROADWAY SEGMENT ANALYSIS

The City of Moreno Valley Traffic Impact Study Guidelines use V/C ratios to analyze the level of service (LOS) for roadway segments. The level of service thresholds are defined by the type of roadway, which is indicated by the number of lanes and the presence of divider. The City of Moreno Valley's Traffic Impact Study Guidelines⁵ provides LOS thresholds for intersections but not for segments. According to the City of Moreno Valley's General Plan, the following are the LOS thresholds that shall be implemented using the current Highway Capacity Manual:

- **LOS D** or better shall be maintained on roadway segments that are adjacent to freeway on- and off-ramps, and/or adjacent to employment-generating land uses.

⁵ City of Moreno Valley Transportation Engineering Division Traffic Impact Study Guidelines, 2007.

- LOS C or better shall be maintained on all other roadway segments.

A total of 22 roadway segments were selected for analysis in this study based on location, adjacent land uses, and growth areas of the City of Moreno Valley. Some roadways are projected to be widened in the future while others may have excess capacity and could be candidates for traffic calming. The analysis was performed using the City of Moreno Valley's latest data (2017) on average daily traffic on roadway segments. Table 5-6 displays the roadway segments, classification, roadway capacity, existing daily volumes, V/C ratios, and LOS. Level of service thresholds for intersections are assumed for segments since the City's Traffic Impact Study Guidelines do not distinguish a separate threshold for segments.

Out of 22 roadway segments that were analyzed, 17 operate acceptably, not including the following locations:

- Perris Boulevard from Eucalyptus Avenue to Cottonwood Avenue
- Lasselle Street from Cottonwood Avenue to Alessandro Boulevard
- Lasselle Street, from Krameria Avenue to south city limits
- Redlands Boulevard from Locust Avenue to Ironwood Avenue
- Gilman Spring Road from SR-60 to City limits

MAJOR ROADWAY IMPROVEMENT PROJECTS

According to the SCAG 2016 RTP/SCS approved project list, the following roadway improvements are planned.

60 Truck Lanes Project (2019 planned completion, under construction)

The 60 Truck Lanes Project is a 4.5-mile widening project on SR-60 between Gilman Springs Road and 1.4 miles west of Jack Rabbit Trail in the unincorporated Riverside County Badlands⁶. The eastbound and westbound sides of SR-60 will be enhanced to include an additional truck climbing/descending lane. The inside and outside shoulders of the freeway will be widened to 10 feet, and roadway curves will be flattened to improve driver sight distance. This project will enhance the mobility and safety of SR-60 through the Badlands.

Mid County Parkway (2020 planned completion, not constructed)

The Mid County Parkway Project proposes to design a 16-mile transportation corridor to relieve traffic congestion in southwestern Riverside County near San Jacinto and Perris. This project is anticipated to improve travel time between SR-79 and I-215 and provide connections that support multimodal transportation.

⁶ The Riverside County Badlands are between the cities of Moreno Valley and Beaumont.

Table 5-6: Roadway Segment Analysis of Major Arterials

<i>Roadway</i>	<i>Classification</i>	<i>Capacity</i>	<i>ADT</i>	<i>V/C LOS</i>	
Perris Boulevard					
Eucalyptus Ave. to Cottonwood Ave.	Arterial (4 lanes)	34,100	32,100	0.94	E
Cactus Ave. to John F. Kennedy Dr.	Arterial (4 lanes)	35,900	30,200	0.84	D
Krameria Ave. to San Michele Rd.	Divided Major Arterial (6 lanes)	53,900	26,300	0.49	A
Reche Vista Drive					
Country Rd. to Heacock St.	Collector (3 Lane)	19,200	15,900	0.83	D
Heacock Street					
Cactus Ave. to John F. Kennedy Dr.	Minor Arterial (4 lanes)	25,900	18,500	0.71	C
Krameria Ave. to San Michele Rd.	Minor Arterial (4 lanes)	25,900	18,500	0.71	C
Lasselle Street					
Cottonwood Ave. to Alessandro Blvd.	Collector (2 lanes)	12,500	13,900	1.11	F
Krameria Ave. to City limits	Minor Arterial (4 to 2 lanes)	25,900	24,600	0.95	E
Nason Street					
Cottonwood Ave. to Alessandro Blvd.	Divided Arterial (4 lanes)	35,900	19,900	0.55	A
Cactus Ave. to Iris Ave.	Divided Arterial (4 lanes)	35,900	11,100	0.31	A
Moreno Beach Drive					
Eucalyptus Ave. to Cottonwood Ave.	Minor Arterial to Collector	25,900	11,200	0.43	A
Nason St. to Lasselle St.	Divided Major Arterial	53,900	27,600	0.51	A
Redlands Boulevard					
Locust Ave. to Ironwood Ave.	Collector	12,500	14,600	1.17	F
World Logistics Center Parkway					
Eucalyptus Ave. to Dracaea Ave.	Collector	12,500	1,100	0.09	A
Ironwood Avenue					

Table 5-6: Roadway Segment Analysis of Major Arterials

Roadway	Classification	Capacity	ADT	V/C	LOS
Heacock St. to Indian St.	Minor Arterial	25,900	14,800	0.57	A
Eucalyptus Street					
I-215 to Day St.	Divided Arterial	35,900	14,200	0.40	A
Alessandro Boulevard					
Old 215 Frontage Rd. to Day St.	Divided Major Arterial	53,900	29,500	0.55	A
Graham St. to Heacock St.	Divided Major Arterial	53,900	28,400	0.19	A
Nason St. to Oliver St.	Collector	12,500	10,000	0.80	D
Moreno Beach Dr. to Redlands Blvd.	Collector	12,500	5,400	0.43	A
Cactus Avenue					
Elsworth St. to Fredrick St.	Divided Major Arterial	53,900	40,600	0.75	C
Gilman Springs Rd.					
SR-60 to City limits	Collector	12,500	21,900	1.75	F

Source: Fehr & Peers, 2020

RCTC has been awarded a design contract for the I-215 and Placentia Avenue Interchange, a key infrastructure project that supports the construction of Mid County Parkway. Once Mid County Parkway is constructed, the parkway is planned to be extended from I-215 to I-15 near Lake Mathews, providing a new east-west travel corridor in a project known as CETAP East-West Corridor⁷. As of now, Mid County Parkway and CETAP East-West Corridor are listed in the SCAG 2016 RTP/SCS; however, funding for the project

has not yet been identified. The project has a planned completion in 2020 and construction has not begun.

Eucalyptus Avenue Extension (2015 planned completion, not constructed)

Eucalyptus Avenue is the existing connection between Redlands Boulevard and World Logistics Parkway Street. However, traveling westbound on Eucalyptus Avenue, the street turns into a one-way

⁷In the SCAG 2016 RTP/SCS the CETAP East-West Corridor project (RTP ID 3C01MA01) has an anticipated completion year of 2035. In the Draft SCAG 2020 RTP/SCS, the project has an anticipated completion year in 2045.

only and does not provide full access in the eastbound direction. The planned changes include the construction of three through lanes (two lanes in the westbound direction and one lane in the eastbound direction), the addition of medians, left-turn pockets, dedicated right-turn lanes, drainage improvements, landscaping, sidewalks, and a Class I bike path.

Widening of Alessandro Boulevard (2018 planned completion, not constructed)

Alessandro Boulevard is planned to be widened from two to four lanes between Nason Street and Gilman Springs Road, a project over five miles long. The improvements include medians, traffic signals, channelization, left-turn pockets, dedicated right turn, drainage, landscaping, sidewalks, bike lanes, and trails.

The recently approved World Logistics Center site plan terminates Alessandro Boulevard at Merwin Street which won't provide a direct connection to Gilman Springs Road.

Widening of Gilman Springs Road (2018 planned completion, not constructed)

Gilman Springs Road is planned to be widened from two to six lanes between SR-60 and Alessandro Boulevard, a project over five miles long. The improvements include medians, traffic signals, channelization, left-turn pockets, dedicated right turn, drainage, access, landscaping, sidewalks, and bike lanes.

Gilman Springs Interchange Improvement (2023 planned completion)

The Gilman Springs Road/SR-60 interchange improvement plans include the realignment of Gilman Springs Road and the removal of the existing eastbound and westbound ramps. The plans include

widening the overcrossing from two to six through lanes, the westbound exit ramp from one to two lanes and then to three lanes at the arterial, and the westbound loop and eastbound on-ramps from one lane to two lanes with a HOV lane. The improvements also include the addition of an auxiliary lane to the west of the interchange.

SAFETY-COLLISIONS

A traffic collision is considered to be any event where a vehicle strikes any object while moving. That object could be another car, a pedestrian, or something fixed in place (such as a light post). When collisions cause damage or injury, the details are recorded by the local law enforcement agency and loaded into the California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS). The City of Moreno Valley's database, which includes the latest SWITRS data (2015-2017), was used to analyze collisions.

From 2015 to 2017, there were a total of 4,107 collisions in Moreno Valley, with a total of 29 fatalities and 47 people severely injured. The top three cited factors contributing to collisions were unsafe speed (22 percent), improper turning (20 percent), and right-of-way violations (13 percent). According to the latest data available from the California Office of Traffic Safety, the City of Moreno Valley ranks 26th out of 58 similar cities in the State (where 1 represents the highest total fatal and injury collisions). The number of vehicle collisions of any type during the three-year period between 2015 and 2017 ranged from 1,230 to 1,410 per year, as shown on Figure 5-10 [vehicle with vehicle traffic collisions (2015-2017)]. While 2015 and 2016 showed a similar number of collisions with 1,230, 2017 showed an increase of approximately 180 collisions. During the same time period, the number of collisions involving a pedestrian or bicyclist ranges from 80 to 95 per year. Similarly, the total number of collisions in 2015 and 2016 showed a parallel number of bike and pedestrian collisions of approximately 80 per year, and that increased by approximately 15 collisions in 2017 as shown on Figure 5-11.

Figure 5-10: Vehicle with Vehicle Traffic Collisions (2015-2017)

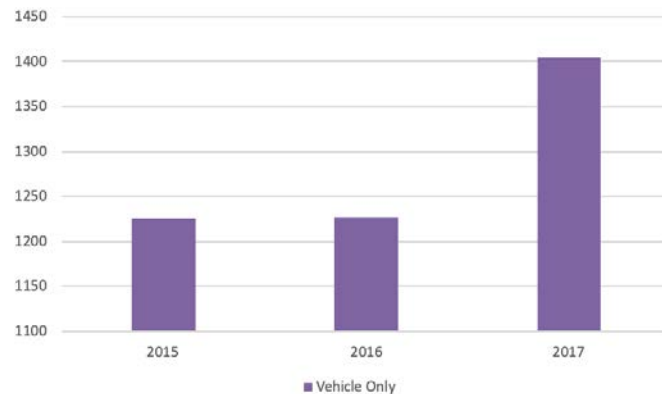


Figure 5-11: Bicycle or Pedestrian with Vehicle Collisions (2015-2017)

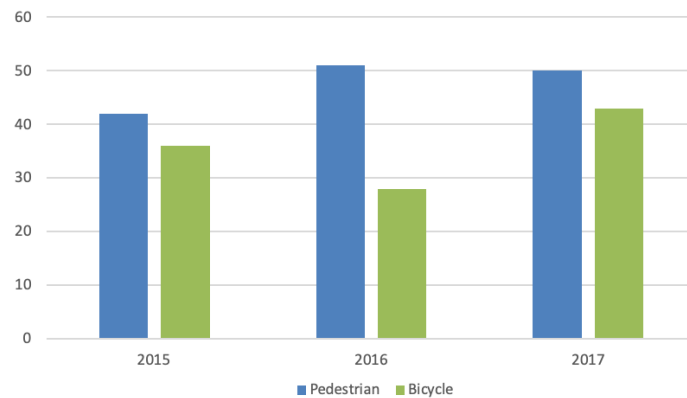


Figure 5-12 provides a heat map detailing the density of all collisions citywide between 2015 and 2017. As shown, a majority of the collisions occurred near the western and northwestern portion of the city. The number of pedestrian collisions rose between 2015 and

2016, while bicycle collisions display less of a trend. Vehicle collisions rose notably between 2016 and 2017. Pedestrian collisions are shown on Figure 5-13 and bicycle collisions are shown on Figure 5-14.

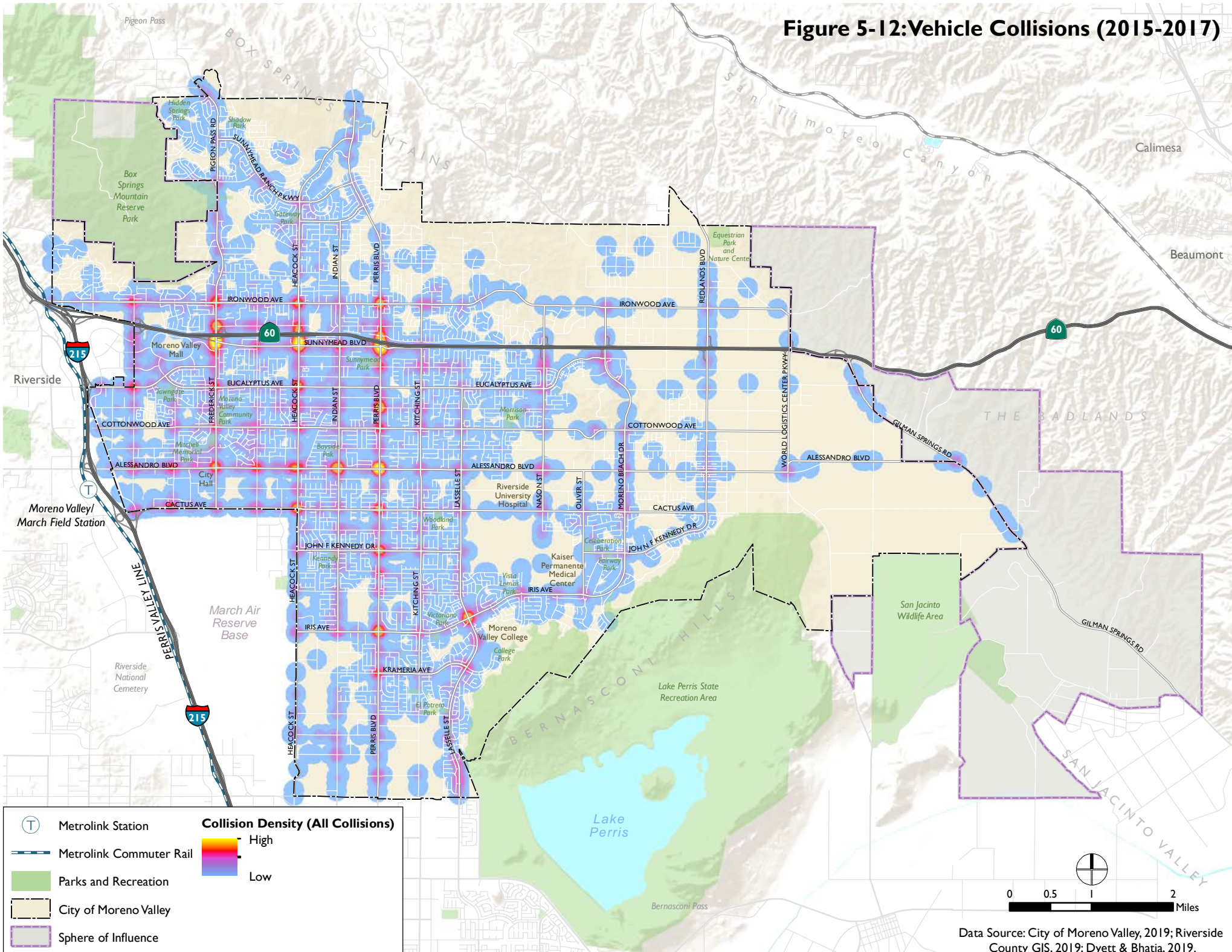
The City of Moreno Valley has many wide roads where motorists tend to speed during off-peak hours. There is significant spacing between designated crossing points (such as crosswalks) and pedestrians and cyclists are more willing to cross the road in undesignated areas. The City should continue to be proactive in reducing the number of collisions that occur in Moreno Valley. Some recommendations would include funding or supporting traffic safety education, DUI checkpoints, traffic calming, and increased traffic enforcement.

PARK AND RIDE LOTS

The City of Moreno Valley has two park and ride facilities located near the SR-60 that are available to commuters. Park and ride lots are made possible through partnerships with private property owners, Caltrans, and the Riverside County Transportation Commission (RCTC). Park and ride lots are strategically located to serve persons who need a place to store their cars while they join a carpool, a vanpool, or use transit. Park and ride lots are valuable resources to the city as they can aid with reducing automobile travel and subsequent emissions, consistent with AB 32. Table 5-7 displays existing park and ride facilities in the City of Moreno Valley.

According to the SCAG 2016 RTP/SCS approved project list, Caltrans has no park and ride facilities planned for the City of Moreno Valley. Moreno Valley currently has about 15 percent of commuters carpooling to work, and more lots would provide opportunities to increase the share of workers who carpool to work, helping meet AB 32 goals.

Figure 5-12: Vehicle Collisions (2015-2017)



	Metrolink Station	Collision Density (All Collisions)
	Metrolink Commuter Rail	
	Parks and Recreation	
	City of Moreno Valley	
	Sphere of Influence	

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Figure 5-13: Pedestrian Collisions (2015-2017)

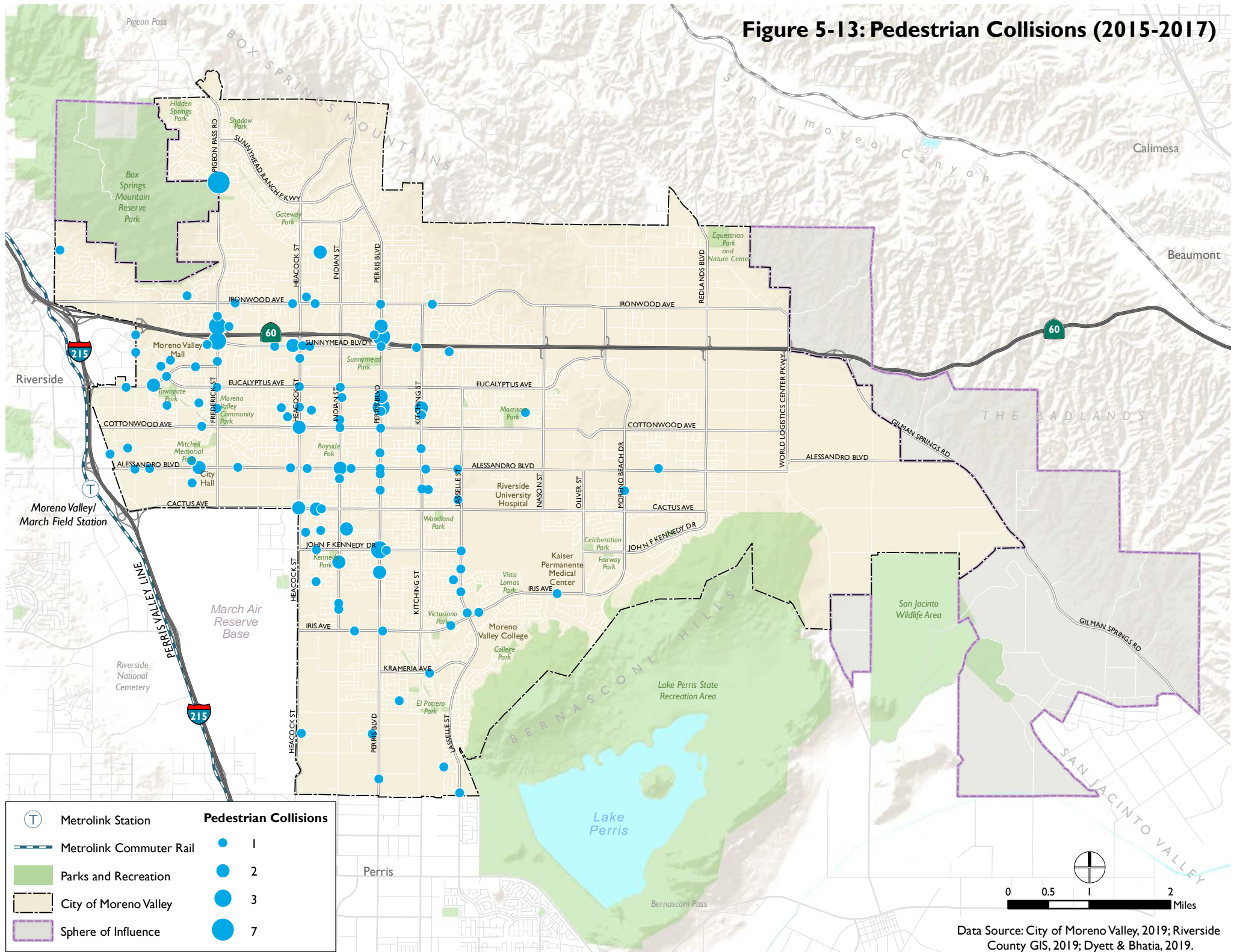
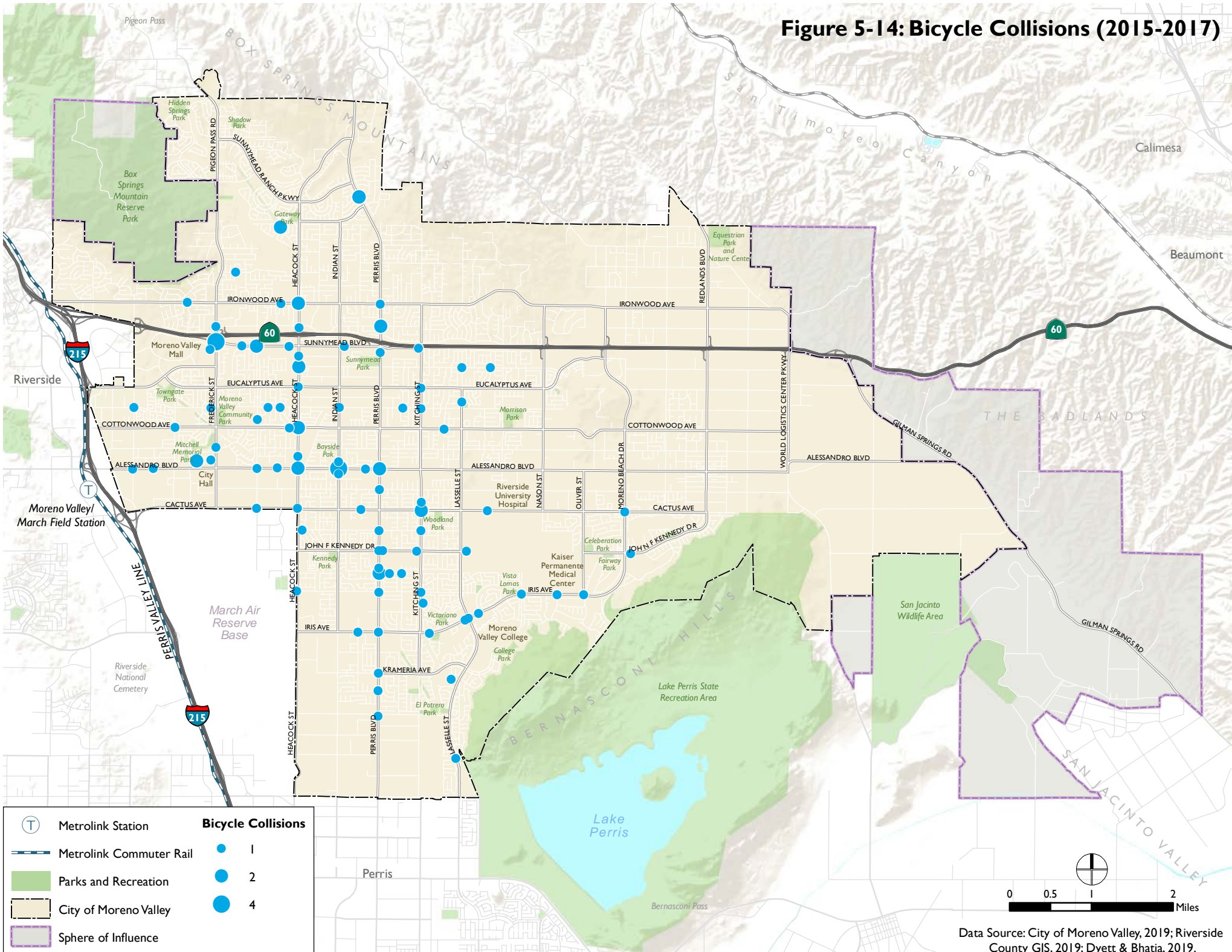


Figure 5-14: Bicycle Collisions (2015-2017)



	Metrolink Station	Bicycle Collisions
	Metrolink Commuter Rail	1
	Parks and Recreation	2
	City of Moreno Valley	4
	Sphere of Influence	

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

In Currently, no data is available on the composition of the riders who use the park and ride facilities. As part of the General Plan Update, the City of Moreno Valley could designate action items to further study park and ride facilities and their uses.

Table 5-7: Park-and-Ride Facilities in Moreno Valley

Name	Operator	# of Stalls	Transit Connections
Moreno Valley – Pigeon Pass	Caltrans	200	N/A
Moreno Valley Mall	Moreno Valley Mall	74	RTA

Source: IE511.org Southern California Park & Ride Lot Map, 2019.

5.3 MOVEMENT OF GOODS

Goods movement plays an important role in both the circulation network and the economy of Moreno Valley. Often, it can be difficult to accommodate trucks and other vehicles without impeding other modes or the well-being of residents. Due to its important location between two highways and the role of logistics in the local economy, effectively accommodating goods movement along its roadways is critical for local transportation planning.

Truck traffic on city streets is restricted to specific routes that are designated for thru traffic of trucks over three tons. These truck routes help to facilitate the movement of goods throughout the city, while providing a connection between major freeway facilities (i.e. SR-60 and I-215) to local roadways, such as Alessandro Boulevard and Heacock Street. Trucks are allowed on designated routes even

if they do not have an origin or destination within the City of Moreno Valley. Figure 5-15 displays the truck route system.

It is important that the City of Moreno Valley designate roadways to support truck travel to facilitate the efficient transfer or loading/unloading of goods. Table 5-8 has information on the total truck traffic on SR-60 and I-215 that goes through Moreno Valley. Truck traffic on the freeway made up about 16 percent of total daily travel on SR-60 and up to about 11 percent on I-215 in 2017. There are approximately 14,000 - 18,000 trucks passing through the City of Moreno Valley each day on local freeways. As development occurs, this number is expected to change.

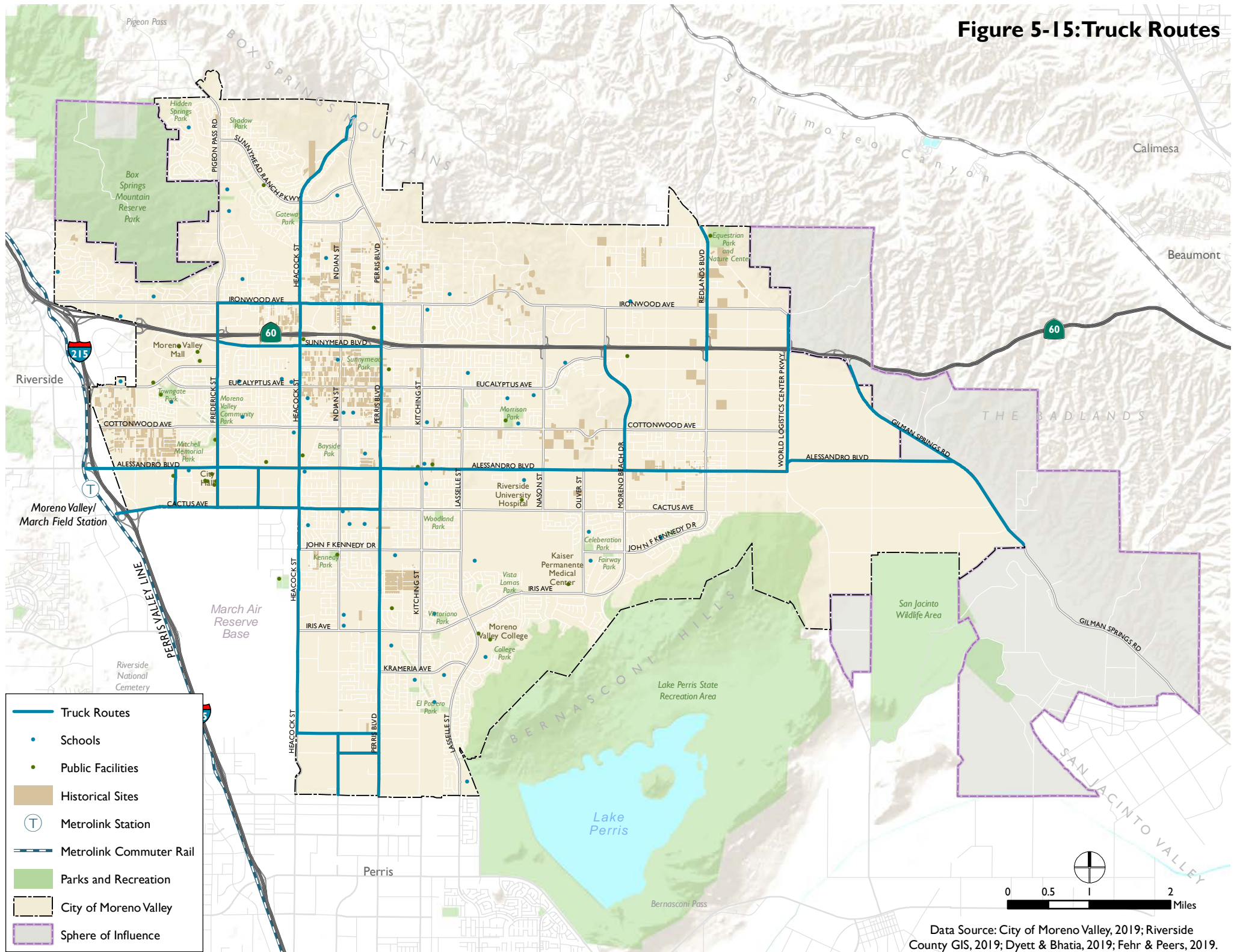
There are bicycle routes that exist or are proposed along existing and/or proposed truck routes. These two modes may not be compatible on specific routes, and a layered network approach is recommended to keep the modes separate.

Table 5-8: Truck Traffic Volumes on State Route SR-60 and I-215

Description	Vehicle Annual ADT	Truck AADT	Truck – Percent of Total
SR-60/I-215 Interchange	140,000	14,700	10.5%
SR-60/Gilman Springs Rd Interchange	64,000	10,240	16.0%
I-215/SR-60 Interchange	170,000	18,531	10.9%

Source: Caltrans, Annual Average Daily Truck Traffic on the California State Highway System, 2017

Figure 5-15: Truck Routes



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019; Fehr & Peers, 2019.

Based on available Caltrans Truck AADT data throughout the SCAG region, Moreno Valley freeways contain similar levels of truck traffic. Riverside County freeways average approximately 14% trucks. San Bernardino County averages approximately 10% trucks on their facilities. LA and Orange County average less than Moreno Valley, around 6%.

Technological innovation is presenting opportunities to improve the efficiency of goods movement in the future. Blockchain technology, a record-keeping technology that allows for faster and more secure transfer of information, has the potential to revolutionize the future of trucking and logistics by creating a new system of documenting transactions, tracking shipments and managing fleets.⁸ This technology is anticipated to alleviate congestion and increase overall efficiencies in traffic. The same number of heavy vehicles are expected to travel along roadways while decreasing truck travel during peak congestion hours and reducing total truck travel times.

In updating the General Plan, it will be important to consider the impact of this type of innovation and provide a flexible policy framework in response.

5.4 AIRPORT FACILITIES

There are several airports in the vicinity of Moreno Valley.

Originally established in 1918, March Air Field is one of the oldest airfields operated by the US military. The airfield is located on the March Air Reserve Base (MARB), immediately adjacent to the City of Moreno Valley on the west side. The March Air Reserve Base is an airport accommodating both military and civilian travel, and it

⁸ Penske, The Role of Trucking Technology in Blockchain: <https://www.pensketruckleasing.com/resources/industry-resources/trucking-blockchain>.

contains one asphalt runway. Today, its entitlements are currently owned by the Joint Point Powers Authority (JPA), which plans to redevelop and reuse its facilities. The facility is located close to I-215 and along Heacock Street. Million Air is a recreational and corporate aircraft operating company that provides services out of this airport.

The closest municipal airport is the Riverside Municipal Airport, located approximately 15 miles to the west of the City of Moreno Valley. Primary regional service is provided by the Ontario Airport, located approximately 25 miles west of Moreno Valley.

5.5 OTHER KEY ITEMS

This section discusses key items, such as the future of transportation and state regulations, that will have an impact on the City of Moreno Valley's development. The General Plan can respond to these items and set forth policies to address concerns and anticipate growing technologies.

TRANSPORTATION IMPROVEMENT FUNDING

Transportation Uniform Mitigation Fees (TUMF)

The Transportation Uniform Mitigation Fees program (TUMF) was approved for a 30-year extension of Measure A (2009–2039). Measure A funds contribute a portion to the transportation improvement funds necessary to prevent a potential breakdown of the

regional transportation system. The TUMF program was developed to generate additional funds required for necessary improvements to the regional transportation system. TUMF will continue to be an important source of funds to maintain and build new infrastructure through 2039, and possibly beyond that.

Senate Bill 1 Transportation Funding

The California Legislature passed Senate Bill No. 1 (SB 1) in 2017. The bill focuses on transportation funding through an increase in vehicle fees and gas taxes. The increases in fees and taxes are expected to raise an average of \$5 billion per year in new revenue for road repairs, transit, and active transportation. The City can anticipate funding from these sources to assist with maintenance of existing infrastructure and construction of new infrastructure once existing roads have been brought up to a state of good repair.

Active Transportation Program

The Active Transportation Program (ATP) was created by Senate Bill 99 and Assembly Bill 101 to encourage increased use of active modes of transportation, such as biking and walking. The ATP consolidates various transportation programs, including the Federal Transportation Alternative Program, State Bicycle Transportation Account, and federal and state Safe Routes to School Programs, into a single program.⁹ The ATP is meant to increase the proportion of active mode trips, increase the mobility and safety of active transportation users, enhance public health, improve greenhouse gas reduction efforts, and ensure disadvantaged communities benefit from the program by dedicating 25 percent of program funds.

⁹ California Transportation Commission Active Transportation Program:
<https://catc.ca.gov/programs/active-transportation-program>.

Program funding is distributed in three ways, including to the State of California, to areas with populations of 200,000 or less, and to Metropolitan Planning Organizations. The City of Moreno Valley has been successful in the past securing funding to complete the bicycle network and improve pedestrian facilities. These efforts improve equity and help reach AB 32 goals of reducing greenhouse gas emissions.

EMERGING TECHNOLOGIES

From electric vehicles to autonomous vehicles and ride hailing services, new technology is already changing the way we get around in the 21st Century. Further developments and innovations have the potential to make travel safer, more convenient, and more environmentally sustainable. This section covers some of the new technologies to consider in planning for mobility through 2040.

Autonomous Vehicles

Today autonomous taxis are already cruising the streets of Phoenix, Arizona. California has granted permits to 65 firms allowing for self-driving cars to be tested on the street with a backup driver at the wheel. This technology has the potential to revolutionize mobility and is important to consider in updating the circulation element of the General Plan.

There are several levels of vehicle autonomy. They range from cruise control (low level of autonomy) to fully autonomous vehicles (AVs) that require no interaction with the driver. Manufacturers are developing this technology, and the Federal and State governments will likely determine regulations for a fully autonomous fleet.

It is unknown how long it will take to convert all cars to autonomous vehicles or if that will ever happen. However, the expansion of AVs will likely alter travel behavior in the city. AVs are expected to make car travel less stressful, increase travel safety, and reduce operational inefficiencies on freeways; all leading to an increase in demand for automobile travel. The transition period, when streets carry large numbers of both conventional and autonomous vehicles, will involve complex interactions and require new informed analysis methods and professional judgment to address conflicts and benefits. AV interactions with pedestrians and bicyclists will also require careful planning and design. Developing strategies that anticipate a future AV fleet and provide infrastructure to support this fleet will be an important part of the Circulation Element Update.

Parking utilization will be altered by the introduction of AVs. In the United States, a considerable amount of land is dedicated to parking by way of minimum parking requirements. Today there are about five parking spaces per vehicle in the United States; however, in the future as more shared AVs are available, the need for parking will likely be reduced. In addition, as the demand for parking is reduced, the demand for curbside pick-up and drop-off space increases. The General Plan Update will need to anticipate how these changes could affect the design of streets.

Electric Vehicles

Adoption of electric vehicles is becoming more widespread, and facilities for charging electric vehicles are in demand. In a car-dependent community, owning electric vehicles could be encouraged by constructing supporting facilities for them. As driving electric vehicles helps reduce emissions and supports AB 32 goals, the City of Moreno Valley should consider guiding policies for vehicle charging infrastructure.

Solar Roadway Technology

Solar roadway is another technological advancement that is currently being researched by agencies such as the Federal Highway Administration (FHWA). Solar panel cells are embedded into the roadway in order to harvest solar radiation into renewable energy. The surface of the solar cells is laminated in glass and light-emitting diodes (LEDs). While there are still constraints to work through, such as surface friction, water infiltration, cost of construction/maintenance, and lower than expected energy returns, the potential for this technological advancement and others similar to it may be considered in the update of the City of Moreno Valley's General Plan policies.

Transportation Network Companies

Transportation network companies (TNCs), such as Uber and Lyft, are increasing in popularity and usage. TNCs combine web-based applications, such as mobile applications, and ridesharing vehicles. While TNCs could reduce private vehicle ownership levels, they are also likely to increase total vehicle miles traveled. The greatest factors that TNCs will affect in cities include parking, curb-space management, and transit use—especially in areas where parking is currently considered “difficult” or congested.

When people use TNC services in place of a privately-owned automobile, the demand for parking goes down, while the demand for curbside drop-off and pick-up locations rises. As TNCs continue to rise and capture a greater share of travel modes, the City of Moreno Valley will have to identify areas where it is difficult to park and develop strategies for curb space management, while reconsidering minimum parking requirements. Minimum parking requirements may be reduced or eliminated; or maximum parking requirements could be introduced in specific areas of the city.

Cities across California are testing partnerships between TNCs and transit agencies. TNCs have the ability to help improve first-last mile connections, where a person must find transportation options to get to a transit station, and from transit to their destination. The Circulation Element Update should consider appropriate curbside management strategies, such as areas that either prioritize or restrict passenger loading and unloading, as well as safety.

5.6 KEY FINDINGS AND PLANNING CONSIDERATIONS

- Travel patterns in the city indicate that a large share of residents do not work in Moreno Valley. There may not be specific job opportunities desired by residents, causing people to drive outside the city for employment. The majority of people traveling outside of Moreno Valley for work are going in one general direction—west. The General Plan update should investigate ways to improve the jobs-housing match in the City of Moreno Valley and focus on east-west commute alternatives to single occupancy vehicles.
- State regulations such as the California Complete Streets Act and Senate Bill 743 (SB 743) are affecting the way that city streets are designed and the analysis of transportation impacts. The California Complete Street Act (Assembly Bill 1358) requires a circulation element to plan for all modes of transportation where appropriate, including walking, biking, car travel, and transit. The General Plan should meet AB 1358 requirements by adopting a complete streets approach to street design, providing accessibility for users of all ages and abilities. SB 743 aims to balance the needs of congestion management, infill development, public health, and greenhouse gas reductions by changing the metrics traditionally used to measure impacts. The State Bill calls for a shift from measuring auto delay (LOS) to vehicle miles traveled (VMT) for the purpose of evaluating environmental impacts, although LOS may still be used for roadway planning purposes.
- Moreno Valley has VMT on par with the SCAG average and substantially lower than WRCOG communities as a whole, including neighboring Riverside.
- The City of Moreno Valley has five basic functional systems that make up the local roadway system: divided major arterials, divided arterials, arterials, minor arterials, and collector streets. These systems are based on number of travel lanes, roadway width, right-of-way, and traffic volumes. Current roadway classifications prioritize automobile travel by the nature of design standards. The City of Moreno Valley may consider a reclassification of roadways to better serve the needs of users of all ages, abilities, and modes, consistent with AB 1358. Reallocating roadways by identifying prioritized modes and accommodated modes on specific roadways is one approach to reclassification.
- Current roadway classifications prioritize automobile circulation. This is appropriate for certain roadways in the city but there are locations where greater consideration of other modes is warranted in the interest of promoting a safe, convenient environment for active modes that can help reduce community wide VMT and GHG emissions as needed for compliance with new State law that has come on line since the General Plan was last updated. A layered network approach can be a helpful for optimizing mobility for a range of travel modes in the 21st Century.

- Moreno Valley has relatively flat terrain and a rich network of local streets laid out in a grid fashion in the city's core, which collectively are excellent for a low-stress bicycle network. Additionally, the network of existing and proposed trails is a great asset that can not only provide opportunity for recreational activity, but also safe off-street connectivity between neighborhoods, parks, schools, and public facilities.
- The City's extensive network of Class II and III facilities provides cycling facilities in much of the city. Further improvements that leverage the existing grid network, natural terrain, and mix of land uses could include bicycle boulevards that will increase the safety of bicycling. The City may focus on the development of bicycle boulevards to increase the safety of people walking and bicycling. The use of bicycle boulevards and recent Caltrans-adopted cycle tracks (Class IV bikeway), where appropriate, may make it safer for users of all ages and abilities. Improving bicycling facilities can increase the desirability of active transportation for short-distance trips. Higher rates of active travel may reduce greenhouse gas emissions and promote healthier lifestyles, consistent with AB 32. The bicycle network update should also take into consideration the implementation of the proposed truck routes network and consider a layered networks approach. A layered networks approach would prioritize bikes and trucks on different routes where possible.
- The transportation system in the City of Moreno Valley is dependent on vehicle travel. The Riverside Transit Agency (RTA) and Metrolink are the major transit facilities servicing the city. Existing local services are most commonly used by transit-dependent users (those who must use public transit for travel), such as older persons, persons with disabilities, and students. The City can continue to expand its transit services and provide connections to Moreno Valley's major destinations. The City can focus on improving first-last mile options that help people connect to transit and reach their destinations. One option for improved connections may be partnerships with Transportation Network Companies (TNCs), such as Uber and Lyft, to better connect people to transit and their destinations.
- The suburban tract housing layout, ample parking, major through streets, and separation of land uses that compromise a notable portion of the city have resulted in an automobile-dominant community. Recognizing an existing built environment prominently tailored for cars, the City of Moreno Valley should encourage more environmentally sustainable uses of the automobile by increasing carpool and transit opportunities to minimize the total share of single-occupant vehicle use. Funds for projects may be sought from sources such as the Active Transportation Program.
- The City of Moreno Valley experiences cut-thru traffic by vehicles during peak commute hours on the SR-60 and I-215 freeways. Drivers use city streets to bypass freeway congestion, thereby creating higher levels of congestion and greenhouse gas emission in the process. Traffic calming measures can improve the safety of vulnerable users on city streets, such as older adults and children who may use active modes of travel, while at the same time reducing the desirability of cut-thru traffic on roads with reduced speeds. The City already deploys several well-known traffic calming measures on applicable street classifications such as speed humps, lane and road diets, and speed feedback signs. The City may want to revisit existing traffic calming policies and other ITE-recommended methods in order to strategize for additional discouragement of cut-thru traffic.

- Moreno Valley averages around 1,290 vehicle-vehicle collisions and 85 pedestrian and bicycling collisions annually (2015–2017). The top three cited factors contributing to vehicle-vehicle collisions are the following: unsafe speed (22 percent), improper turning (20 percent), and right-of-way violations (13 percent). According to the latest data available from the California Office of Traffic Safety, the City of Moreno Valley ranks 26th out of 58 similar cities in the State (where 1 represents the highest total fatal and injury collisions). Over a three-year period (2015–2017), the City of Moreno Valley has seen an increase in vehicle-pedestrian collisions, but vehicle-bicycle collisions have shown less of a trend. The City should continue to support education, enforcement, and engineering efforts to reduce collision rates. Additionally, traffic calming measures, which are currently deployed with success in other parts of the City, may also reduce collisions on wide roadways where speeding occurs.
- A majority of collisions involving vehicles, bicycles and pedestrians occurred in the western and northwestern portion of the city. Between 2016-2017, the number of vehicle-vehicle and vehicle-pedestrian collisions rose, while bicycle collisions display less of a trend. This area should be a particular focus for roadway safety improvements considered as part of the General Plan, together with future activity centers where high pedestrian activity is anticipated.
- Goods movement is necessary for the vitality of Moreno Valley and the region as a whole. Goods movement in the city occurs primarily on major freeways that bisect and border the city, including SR-60 and I-215, and makes up about 10.5–16 percent of total peak hour traffic. Truck traffic on city streets is restricted to specific routes that are designated for thru traffic of trucks over three tons. Ensuring that designated key routes are designed to accommodate trucks is critical for Moreno Valley to consider. Alessandro Boulevard and Heacock Street provide a local connection between major freeway facilities such as SR-60 and I-215. The City of Moreno Valley should continue to monitor trucks on city streets and maintain routes that reduce resident exposure to pollutants and air particulates released by trucks. As the City updates truck routes, a layered networks approach should be considered with focus on separating bicycle facilities from truck routes.
- From electric vehicles and ride-sharing to autonomous vehicles and blockchain technology, innovation in the transportation sector is already changing the way we get around. These developments and innovations have the potential to make travel safer, more convenient, and more environmentally sustainable. The General Plan Update will need to anticipate how these changes could affect the design of streets and consider new curbside management strategies as travel behavior and vehicle ownership patterns evolve.

Attachment No. 7
ECR Chapter 6: Infrastructure and Utilities

6

INFRASTRUCTURE AND UTILITIES

The City maintains portions of a storm sewer system in conjunction with the Riverside County Flood Control and Water Conservation District and the local roadway network. Water, sanitary sewer, and solid waste services are provided by other agencies. This chapter summarizes existing conditions and regulations relevant to utilities and infrastructure. A summary of findings and implications is provided at the end of the chapter.

6.1 EXISTING CONDITIONS

Utility and service systems within the city include the Eastern Municipal Water District (EMWD) and Waste Management Services areas. Southern California Edison (SCE) and the Moreno Valley Electric Utility (MVU) provide electricity to the city and the Southern California Gas Company (SoCalGas) provides the City of Moreno Valley (City) with natural gas service.

MORENO VALLEY CAPITAL IMPROVEMENT PLAN

The City of Moreno Valley's Capital Improvement Plan (CIP) (2020) is an important planning and managing tool for the city's growth and development, as well as a strategy for the maintenance of existing infrastructure. The CIP identifies projects required through the ultimate General Plan build-out of the City, which includes approximately \$1.53 billion for 317 projects to improve

and maintain the city's infrastructure. Existing storm water facilities within the city are shown in Figure 6-1.

Citywide Pavement Rehabilitation Program

The Citywide Pavement Rehabilitation Program identifies plans to provide pavement rehabilitation and preservation for city streets with funding provided by Senate Bill 1 (SB 1). The FY 2018/19 plan identified improvements for approximately 10 arterial street segments citywide (Moreno Valley 2020). The FY 2019/20 plan identified pavement rehabilitation and preservation for approximately 22 street segments citywide which are scheduled for completion in October 2020.

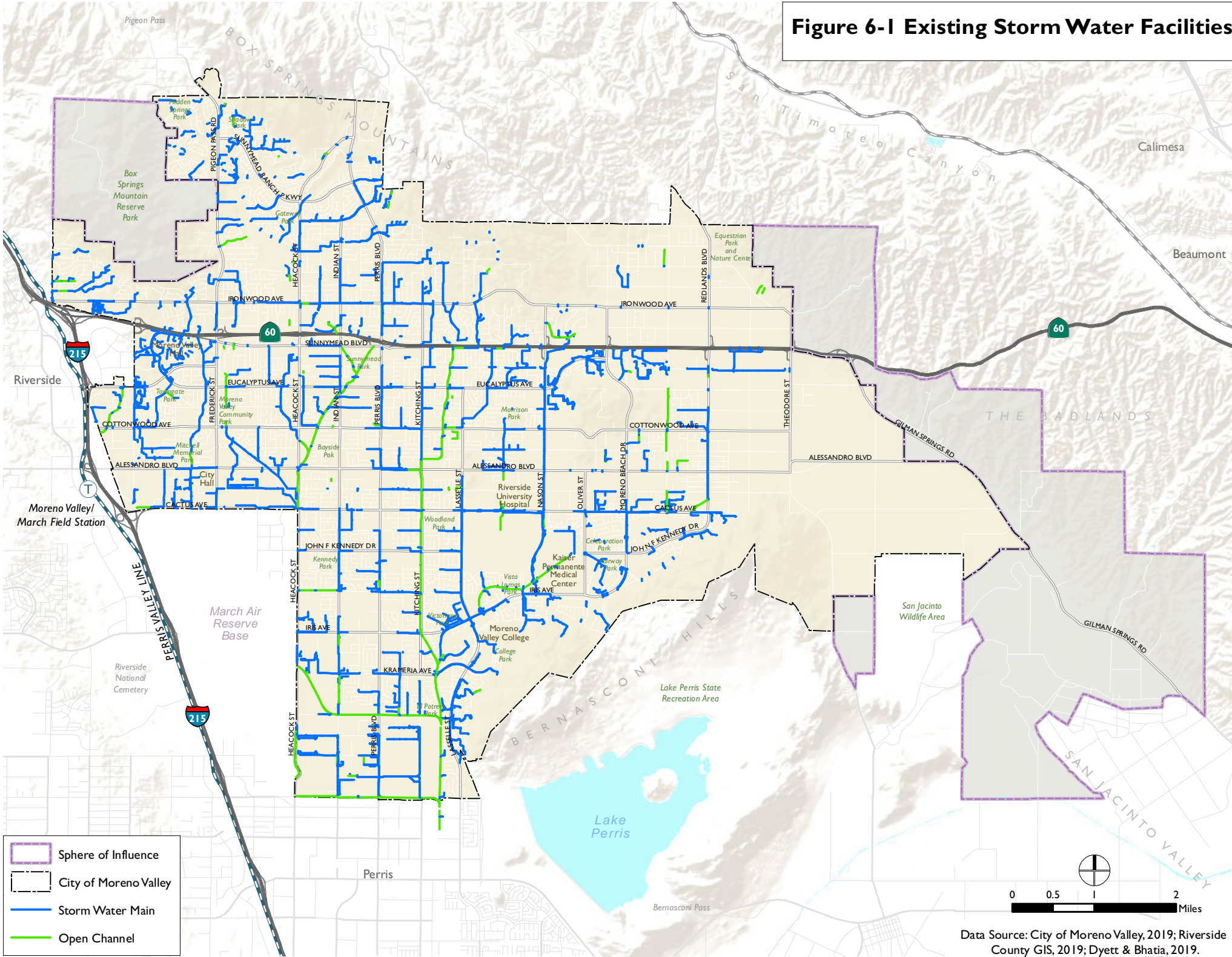
Moreno Master Drainage Plan

The Moreno Master Drainage Plan (MDP) as administered by the Riverside County Flood Control and Water Conservation District identifies a conceptual network of drainage facilities needed to alleviate currently known and anticipated drainage problems within the eastern portion of the city.¹ The 2015 Moreno MDP addresses the denser development anticipated in the Moreno Valley area and provides network of drainage facilities which, when implemented, will provide adequate flood protection to the community as development continues. The fully implemented plan should, in conjunction with ultimate street improvements for the area within the boundaries of the Moreno MDP, contain the 100-year frequency flows and alleviate the primary sources of flooding.²

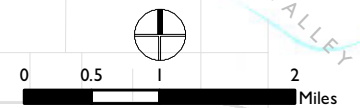
¹ Other Master Drainage Plans (MDPs) that cover the city also include the West End MDP, Sunnymead MDP, and Perris Valley MDP. City staff note that the Moreno MDP does not fully match the Moreno Area Drainage Plan (ADP) and thus development fees do not completely cover the anticipated costs to implement the Moreno MDP.

² City staff note that 100-year flood events will be addressed through the implementation of the MDPs as well as implementing Municipal Code Chapter 8.12 related to development.

Figure 6-1 Existing Storm Water Facilities



- Sphere of Influence
- City of Moreno Valley
- Storm Water Main
- Open Channel



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

WATER SERVICE

Water service in Moreno Valley is provided by two agencies. Eastern Municipal Water District supplies most of the city, except for a 430-acre area on the west side which is served by Box Springs Mutual Water Company.

Metropolitan Water District of Southern California

Metropolitan Water District of Southern California (MWD) supplies water to approximately 18.7 million people in a 5,200-square-mile service area that includes portions of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego counties. MWD provides water to the EMWD, which in turn provides water supply to the city (See the discussion of EMWD below).

MWD gets its water from two sources. The first source is the Colorado River, which is connected to MWD's six-county service area through a 242-mile aqueduct, known as the Colorado River Aqueduct (CRA). The CRA system is known as the Central Valley Project, which is operated by the U.S. Bureau of Reclamation and began to deliver water to member agencies beginning in 1941. The second source is water from northern California, which supplies water through a series of dams, aqueducts, pipelines, and other facilities known as the State Water Project (SWP) and is operated by the Department of Water Resources. SWP water deliveries began in 1972.

In June 2016, MWD adopted its 2015 Regional Urban Water Management Plan (UWMP), which evaluated water supply reliability, over a 20-year period, for average, single-dry, and multiple-dry years within its service area. The plan includes estimates of total retail demands for the region and identifies the supplies needed to meet projected demands. MWD's reliability assessment showed that reliable water supplies are available to meet

projected demands through the year 2040. The UWMP also identifies a planning buffer supply intended to protect against the risks associated with implementation of local and imported water supply projects and programs, and for the risk that future demands could be higher than projected. MWD's planning buffer identifies an additional increment of water that potentially could be developed when needed and if other supplies are not fully implemented as planned. As part of the implementation of the planning buffer, MWD periodically evaluates water supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies.

Eastern Municipal Water District

EMWD imports water from MWD that it uses to provide water supply to the city. The imported water received from MWD is treated at two treatment plants: Henry J. Mills (Mills) in Riverside and Robert A. Skinner (Skinner) in Winchester. At Mills, SWP water is treated, while at Skinner a combination of SWP water and CRA water is treated. Untreated water supplied by MWD is treated by EMWD at a microfiltration plant in Perris. An additional microfiltration plant is located in Hemet, which provides untreated MWD water directly to a number of agricultural and wholesale customers. EMWD is increasing the use of recycled water, through expansion and maximization of the four regional water reclamation facilities.

In June 2016, EMWD's Board of Directors adopted the 2015 Urban Water Management Plan (UWMP). This plan provides information on EMWD's projected supplies and demands in five-year increments through the year 2040, and reports EMWD's progress on water use efficiency targets as defined in the Water Conservation Act of 2009. As stated in the EMWD UWMP, EMWD's recycled water distribution system includes 135 miles of large diameter transmission pipelines, 6,000 acre-feet of surface storage reservoirs (10 separate sites), and 4 regional pumping plants.

As set forth in the EMWD UWMP, EMWD has the supply needed to meet the demand of its customers through 2040. The conclusion is based on the assurances of MWD that it would be able to supply member agency demands, the reliability of local groundwater supplies achieved through groundwater management plans and the development of recycled water resources.

Based on the imported and member agency local water sources discussed above, EMWD estimates that it, along with member agency local sources, will be able to supply 268,200 acre-feet of water in 2040. Therefore, the MWD 2015 Regional UWMP and EMWD 2016 UWMP adequate water supply is available to meet all of the region's anticipated demand, in average/normal and dry water years.

Box Springs Mutual Water Company

Box Springs Mutual Water Company (BSMWC) provides water service to 600 business and residential customers in a 430-acre area in the western portion of the city that includes the Edgemont neighborhood. BSMWC is a private shareholder company owned by 2,300 property owners that has provided potable water since 1920. BSMWC water supply is primarily from a groundwater well located in the area, although supplemental water is provided through an agreement with the Western Municipal Water District. The well water is high in nitrates and to meet safe drinking water standards, BSMWC must blend its supply with more costly water imported from WMWD.

BSMWC water system facilities, which include undersized and unlined pipes, are currently hydraulically incapable of supplying the necessary fire flow demand to support existing property development conditions. Additionally, the water system is aging and deteriorated and in need of replacement and rehabilitation. A January 2014 test of fire hydrants found that 46 percent failed to meet the minimum water flow needed for fire protection.

Improving the water system could cost between \$16.5 million and \$22 million, depending on whether it continued to depend on the well and blend it with imported water or switched entirely to imported water. BSMWC has replaced some pipes in its service area and a recently approved apartment complex will generate approximately \$600,000 in fees for further improvements; however, as BSMWC is a private company, it is not eligible to receive State grants. Funding remains a significant challenge.

WASTEWATER SERVICE

Wastewater service in Moreno Valley is provided by two agencies. EMWD provides collection and treatment for most of the city, while the Edgemont Community Services District serves a 430-acre area in the western part of the city that includes the Edgemont neighborhood.

Eastern Municipal Water District

EMWD is responsible for all wastewater collection and treatment in its service area. EMWD's wastewater collection systems include: 1,534 miles of gravity sewer, 53 lift stations, and 4 operational regional water reclamation facilities (RWRFs), with interconnections between local collection systems serving each treatment plant. Inter-connections between the local collections systems serving each treatment plant allow for operational flexibility, improved reliability, and expanded deliveries of recycled water. All of EMWD's RWRFs produce tertiary effluent, suitable for all Department of Health Services permitted uses, including irrigation of food crops and full-body contact.

EMWD treats all of the wastewater collected in its service area to tertiary standards and disposes of its recycled water in one of three ways: (1) customer sales, (2) discharge to Temescal Creek, or (3) percolation and evaporation while stored in ponds throughout EMWD. In 2015, EMWD collected 48,665 acre-feet of wastewater,

treated 45,385 acre-feet of wastewater, and recycled 34,001 acre-feet of wastewater within its service area. The total wastewater collected differs from the total amount treated due to losses in the treatment process. In addition, the balance between the total wastewater treated and the amount recycled within a service area represents EMWD’s system losses, such as, storage pond evaporation and incidental recharge (EMWD 2016).

Edgemont Community Services District

The Edgemont Community Services District (ECSD) has provided sewer and street lighting to the community of Edgemont within the cities of Riverside and Moreno Valley since 1957 (ECSD 2020). Within Moreno Valley, Edgemont encompasses approximately 430 acres, generally located north of Alessandro Boulevard, east of Interstate 215 (I-215), south of Eucalyptus Avenue, and west of Elsworth Street. The ECSD Sewer System Management Plan (SSMP) Update (2016) was an update to the District’s 1995 ECSD Sewer Report. SSMPs must be self audited at least every two (2) years and updated every five (5) years from the original adoption date by the enrollee’s governing board.

SOLID WASTE

The City provides trash, recycling, and special waste handling services to residents and businesses through a contract with Waste Management. No other haulers are authorized to operate within the city. The majority of solid waste generated within the city is disposed of at Badlands Sanitary Landfill, located north of State Route 60 and west of I-10 off Ironwood Avenue. Two other landfills within the County of Riverside have the capacity to serve the city; however, a majority of waste is brought to the Badlands Sanitary landfill. Combined, these three landfills have a remaining capacity of approximately 179 million cubic yards, as shown in Table 6-1.

UTILITIES

Southern California Edison (SCE) and the Moreno Valley Electric Utility (MVU) provide electricity to the city.

Electrical Power

SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and southern California. Moreno Valley Utility (MVU) was established in 2001 as an public power utility, first serving customers in the in the Promontory Park subdivision at Cactus Avenue and Moreno Beach Drive. Today has over 6,500 residential and business clients in a service area that covers the eastern and southern portions of the city.

6-1: Existing Landfills and Capacity

<i>Landfill</i>	<i>Location</i>	<i>Current Remaining Capacity (cubic yards)</i>
Badlands Landfill	31125 Ironwood Avenue Moreno Valley, CA	15.7 million as of January 2015
El Sobrante Landfill	10910 Dawson Canyon Road Corona, California	143.9 million as of April 2018
Lamb Canyon Landfill	16411 Lamb Canyon Road (SR 79) San Jacinto, CA	19.2 million as of January 2015
Total		178.8 million

Sources: California Department of Resources Recycling and Recovery 2019a, 2019b, 2019c.

MVU provides customer service, meter reading, billing, emergency response and other services tailored to the needs of the community. This includes programs such as the Energy Assistance Program designed to help income-qualified residential customers, and a full portfolio of conservation incentives for residential and commercial customers. MVU also provides energy for public vehicle charging stations in Moreno Valley, including public charging stations located at City Hall and the Walmart Super Center.

Natural Gas

SoCalGas provides the city with natural gas service. SoCalGas' service territory encompasses approximately 20,000 square miles and more than 500 communities.

6.2 REGULATORY SETTING

WATER SERVICE

California Water Action Plan

California Water Action Plan: Actions for Reliability, Restoration and Resilience, was released by Governor Brown in January 2014. A collaborative effort of the California Natural Resources Agency, the California Environmental Protection Agency, and California Department of Food and Agriculture, the California Water Action Plan was developed to meet three broad objectives: more reliable water supplies, the restoration of important species and habitat, and a more resilient, sustainably managed water resources system (water supply, water quality, flood protection, and environment) that can better withstand inevitable and unforeseen pressures in the coming decades.

For the past five years, and continuing into the future, the following actions are designed to move California toward more sustainable water management by providing a more reliable water supply for farms and communities, restoring important wildlife habitat and species, and helping the state's water systems and environment become more resilient:

1. Make conservation a California way of life;
2. Increase regional self-reliance and integrated water management across all levels of government;
3. Achieve the co-equal goals for the Delta;
4. Protect and restore important ecosystems;
5. Manage and prepare for dry periods;
6. Expand water storage capacity and improve groundwater management;
7. Provide safe water for all communities;
8. Increase flood protection;
9. Increase operational and regulatory efficiency; and
10. Identify sustainable and integrated financing opportunities.

Water Shortage Contingency Plan (Title 5, Article 10 EMWD Administrative Code)

In accordance with Water Code 10632 requirements, EMWD is responsible for conserving the available water supply, protecting the integrity of water supply facilities, and implementing a contingency plan in times of drought, supply reductions, failure of water distribution systems, or emergencies.

Therefore, EMWD adopted the Water Shortage Contingency Plan to regulate the delivery and consumption of water use during water shortages. EMWD's Board of Directors has the authority to initiate or terminate the water shortage contingency measures described in the Water Shortage Contingency Plan.

EMWD will implement the appropriate Water Shortage Contingency Plan stage based on current water conditions such as:

- EMWD water supply conditions and storage levels
- Statewide water supply conditions
- Local water supply and demand conditions
- MWD Water Supply Allocation Plan implementation or other actions requiring a reduction in water demand
- Actions by surrounding agencies

Higher stages will be implemented as shortages continue and/or if customer response does not bring about desired water savings. Restrictions, penalties, and enforcement will build on each other as higher stages are implemented. The stages are: Stage 1, Supply Watch; Stage 2: Supply Alert (currently in Stage 2); Stage 3, Mandatory Waste Reduction; Stage 4, Mandatory Outdoor Reduction; and Stage 5, Mandatory Indoor Reduction.

Urban Water Management Planning Act

In 1983, the California legislature enacted the Urban Water Management Planning Act (California Water Code, Sections 10610–10656), which requires specified urban water suppliers within the state to prepare an UWMP and update it every five years. State and local agencies and the public frequently use UWMPs to determine if agencies are planning adequately to reliably meet water demands in various service areas. As such, UWMPs serve as an important role in documenting water supply availability and reliability for purposes of compliance with Senate Bills 610 and 221, which link water supply sufficiency to large land-use development project approvals. Urban water suppliers also must prepare UWMPs, pursuant to the Urban Water Management Planning Act, in order to be eligible for state funding and drought assistance.

A UWMP provides information on water usage, water supply sources, and water reliability planning within a specified water agency service area. It also may provide implementation schedules to meet projected demands over the planning horizon; a description of opportunities for new development of desalinated water; groundwater information (where groundwater is identified as an existing or planned water source); description of water quality over the planning horizon; and identification of water management tools that maximize local resources and minimize imported water supplies. Additionally, a UWMP evaluates the reliability of water supplies within the specified service area. This includes a water supply reliability assessment, water shortage contingency plan, and development of a plan in case of an interruption of water supplies.

Eastern Municipal Water District Water Conservation Policies

EMWD's water conservation policies, practices, and procedures were originally adopted in 1991, and have been periodically modified to provide long-term water reliability for existing and future customers (EMWD 2013). EMWD water conservation policies include the following:

1. Hosing down driveways and other hard surfaces is prohibited except for health or sanitary reasons.
2. Repair water leaks within 48 hours of occurrence.
3. Irrigate landscape only between 9:00 p.m. and 6:00 a.m. except when:
 - manually watering;
 - establishing new landscape;
 - temperatures are predicted to fall below freezing; or
 - it is for very short periods of time to adjust or repair an irrigation system.

4. Unattended irrigation systems using potable water are prohibited unless they are limited to no more than 15 minutes watering per day, per station. This limitation can be extended for:
 - Very low flow drip irrigation systems when no emitter produces more than two gallons of water per hour.
 - Weather based controllers or stream rotor sprinklers that meet 70 percent efficiency.
 - Runoff or over watering is not permitted in any case.
5. Irrigation systems operate efficiently and avoid over watering or watering of hardscape and the resulting runoff.
6. Excessive water flow or runoff is prohibited.
7. Decorative fountains must be equipped with a recycling system.
8. Allowing water to run while washing vehicles is prohibited.
9. Install new landscaping with low-water demand trees and plants. New turf shall only be installed for functional purposes.
10. Watering during rain is prohibited.

WASTEWATER SERVICE

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) preserves, enhances, and restores the quality of California's water resources, and ensures the proper allocation and efficient use for the benefit of present and future generations. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the SWRCB regulates wastewater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. Some wastewater discharges are exempt from federal NPDES requirements, but California law may still

apply. Under California law, the SWRCB requires Waste Discharge Requirements for some discharges in addition to those subject to NPDES permits. Permits contain specific requirements that limit the pollutants in discharges. They also require dischargers to monitor their wastewater to ensure that it meets all requirements. Wastewater dischargers must maintain their treatment facilities, and treatment plant operators must be certified. The SWRCB routinely inspects treatment facilities and strictly enforces permit requirements.

Recycled Water Policy Resolution No. 2009-0011

The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code Section 13050(n), in a manner that implements state and federal water quality laws. When used in compliance with the policy, Title 22, and all applicable state and federal water quality laws, the SWRCB finds that recycled water is safe for the approved uses, and strongly supports recycled water as a safe alternative to potable water for such approved uses.

SOLID WASTE

California Integrated Waste Management Act

Assembly Bill (AB) 939, known as the California Integrated Waste Management Act of 1989, required all California cities and counties to divert 50 percent of the waste generated within their boundaries by the year 2000. The act requires each California city and county to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a Source Reduction and Recycling Element (SRRE) that demonstrates how the jurisdiction will meet the California Integrated Waste Management Act's mandated diversion goals. Each jurisdiction's SRRE must include specific components, as defined in California Public Resources Code Sections 41003 and 41303. In addition, the SRRE

must include a program for the management of solid waste generated in the jurisdiction consistent with the following hierarchy: (1) source reduction, (2) recycling and composting, (3) environmentally safe transformation; and (4) land disposal.

Assembly Bill 1826

AB 1826 (2014) requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate on a weekly basis. Additionally, AB 1826 requires that, after January 1, 2016, all local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings with five or more units. Organic waste includes food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time.

Because the minimum threshold of organic waste generation by businesses will be decreased over time (e.g., in 2016, affected businesses were those generating 8 cubic yards or more of organic waste per week; in 2019, affected businesses will be those generating 4 or more cubic yards of organic waste per week), an increasing proportion of the commercial sector will be required to comply. AB 1826 is part of California's efforts intended to achieve its recycling and greenhouse gas emissions reduction goals. Reducing the amount of organic materials sent to landfills and increasing the production of compost and mulch are part of the AB 32 Scoping Plan.

Senate Bill 1383

SB 1383 (2016) requires a 50 percent reduction in disposal of organic waste from the 2014 level by 2020, and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20

percent of currently disposed edible food is recovered for human consumption by 2025. Food waste alone accounts for approximately 17 percent to 18 percent of total landfill disposal. Increasing food waste prevention, encouraging edible food rescue, and expanding the composting and in-vessel digestion of organic waste throughout the state will help reduce methane emissions from organic waste disposed in California's landfills. In addition, compost has numerous benefits including water conservation, improved soil health, and carbon sequestration (CalRecycle 2019d).

Moreno Valley Municipal Code

The City of Moreno Valley Municipal Code Ordinance 6.02.050 provides standards for the provision of solid waste (refuse) and recyclable material storage areas in compliance with state law (California Solid Waste Reuse and Recycling Access Act, Public Resources Code Sections 42900 through 42911). The City's Municipal Code requires that all persons in possession of any place within the city shall store standard containers or commercial bins on their properties, when not placed for collection, in a manner which will be screened from public view and which will not allow such containers or bins to roll, fall or protrude onto the public streets, sidewalks or alleys of the city. Any standard container or commercial bin which partially or wholly blocks or obstructs any public street, sidewalk or alley in violation of the foregoing requirement is a nuisance abatable under Section 1.01.250 and shall also subject the person responsible therefore, whether or not the owners thereof, to punishment under Section 1.01.200 et seq., whenever the standard container or commercial bin was placed in the public street, alley, or sidewalk as a result of the intent or negligence of the person charged with the violation of this section. An exemption may be allowed to the requirement that commercial recycling bins be stored in a manner which will screen them from public view in cases where existing trash enclosures do not allow adequate space to maintain two bins or in such cases where a commercial property has no existing trash enclosure. However, in

no event will any exemption be allowed to the requirement that commercial bins be stored in a manner that will not allow such containers to roll, fall, or protrude onto the public streets, sidewalks, or alleys of the city. Bins covered by this exemption shall be placed in such a manner as to minimize visibility from public view. Any such exemptions will be evaluated at such time that a property owner files for a major entitlement or the buildings on the property are expanded over 50 percent. In such cases, a condition of approval may be placed on the property to build larger enclosure(s) to accommodate both a trash and recycling bin.

6.3 KEY FINDINGS AND PLANNING CONSIDERATIONS

- The aging private water system that serves a 430-acre area along I-215 is made up of undersized and unlined pipes that have deteriorated during the years and have numerous leaks and low pressure. Significant investment is needed to adequately serve need; however, because the system is privately owned, it cannot qualify for State grants. The current condition of water system facilities represents a constraint on development potential in the area.
- Water and sewer infrastructure extensions, as well as storm drain and storm water infrastructure, would be needed to support development on the eastern side of the city as well, north of Highway 60.
- Moreno Valley Utility, a public power utility owned by the City, provides electricity to 6,500 residential and business customers in a service area that covers the eastern and southern portions of the city. MVU is able to offer special incentives for businesses to locate within its service area, which represents an important economic development lever for the City.
- Expansion of the street and storm drain system will add to ongoing street and storm drain maintenance costs. Additional funding sources will need to be identified.

REFERENCES

California Department of Resources Recycling and Recovery (CalRecycle)

- 2019a “Badlands Landfill Facility Detail.”
<https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0006>.
- 2019b “El Sobrante Landfill Facility Detail.”
<https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0217/Detail/>.
- 2019c “Lamb Canyon Landfill Facility Detail.”
<https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0007>.
- 2019d “Short-Lived Climate Pollutants: Organic Waste Methane Emissions Reductions.”
<https://www.calrecycle.ca.gov/climate/slcp>.

Eastern Municipal Water District (EMWD)

- 2013 EMWD Administrative Code Resolution 5111 Adopted May 15, 2013. https://www.emwd.org/sites/main/files/file-attachments/emwdadmincode_updated_1206.pdf.
- 2016 EMWD 2015 Urban Water Management Plan. Approved June 2016.
https://www.emwd.org/sites/main/files/file-attachments/urbanwatermanagementplan_0.pdf.

Edgemont Community Services District (ECSD)

- 2016 Sewer System Management Plan.
<https://edgemontcsd.specialdistrict.org/files/22d6d1673/ECSD+SSMP+May+2016.pdf>.

- 2020 Boundary Map.
<https://edgemontcsd.specialdistrict.org/boundary-map>.

Moreno Valley, City of

- 2020 Adopted Capital Improvement Plan.
http://www.moreno-valley.ca.us/city_hall/departments/public-works/pdf/Adopted-CIP19-20.pdf.

Attachment No. 8
ECR Chapter 7: Environmental Conditions

7

ENVIRONMENTAL CONDITIONS

This chapter summarizes existing conditions and issues relevant to the environment in the Planning Area. It also describes air quality; biological resources; hydrology, flooding and watersheds; hazards and hazardous materials; geology and soils; greenhouse gases and climate action planning; and noise. A summary of findings and implications is provided at the end of the chapter.

7.1 AIR QUALITY

EXISTING CONDITIONS

South Coast Air Basin

The City of Moreno Valley (city) is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The 6,745-square-mile Basin encompasses Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and is bound by the Pacific Ocean to the west, the San Gabriel, San Bernardino, and Jacinto mountains to the north and east, respectively, and San Diego County to the south. The Basin is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except 8-hour ozone and 2.5-micron particulate matter (PM_{2.5}) standards. The Basin is designated as in nonattainment for state air quality standards for 8-hour ozone and PM_{2.5}, and additionally is in nonattainment of state 10-micron particulate matter (PM₁₀) standards.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the California Air Resources Board (CARB) or federal standards set by the U.S. Environmental Protection Agency (U.S. EPA). The SCAQMD maintains 41 active air quality monitoring sites located throughout the Basin including eight active sites in Riverside County. Air pollutant concentrations and meteorological information are continuously

recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The nearest monitoring stations include the Perris monitoring station, located approximately five miles south of the planning area at 237½ North D Street, and the Riverside – Rubidoux monitoring station, located approximately seven miles northwest of the planning area at 5888 Mission Boulevard. The Perris monitoring station measures ozone and PM₁₀, and the Rubidoux monitoring station measures ozone, nitrogen dioxide (NO₂), PM₁₀, and PM_{2.5}. Table 7-1 provides a summary of measurements collected at the Perris and Rubidoux monitoring stations for the years 2014 through 2018.

As shown in Table 7-1, there are exceedances of ozone, PM₁₀, and PM_{2.5} standards. These exceedances occur throughout the Basin. Due to these exceedances, the Basin is designated as nonattainment for federal 8-hour ozone and PM_{2.5} standards, and nonattainment for state 8-hour ozone, PM₁₀, and PM_{2.5} standards. The 2016 Air Quality Management Plan (discussed later under Local Air Quality Regulations) addresses how the Basin plans to improve air quality and meet the attainment standards.

Regional Climate and Meteorology

The planning area is located approximately 40 miles northeast of the Pacific Ocean, within Riverside County. Air quality in the County is influenced by both topographical and meteorological conditions. The project site is located in western Riverside County between the Santa Ana Mountains and the San Jacinto Mountains.

Table 7-1: Summary of Air Quality Measurements Recorded at Perris and Riverside – Rubidoux Monitoring Stations

<i>Pollutant/Standard</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Perris Monitoring Station					
Ozone					
Federal Max 8-hr (ppm)	0.094	0.102	0.098	0.105	0.103
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	59	49	55	80	67
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	38	31	30	52	47
State Max 8-hr (ppm)	0.094	0.103	0.099	0.106	0.103
Days State 8-hour Standard Exceeded (0.07 ppm)	63	50	56	86	68
Max. 1-hr (ppm)	0.117	0.124	0.131	0.120	0.117
Days State 1-hour Standard Exceeded (0.09 ppm)	16	25	23	33	31
PM10*					
Federal Max. Daily ($\mu\text{g}/\text{m}^3$)	87.0	188.0	76.0	75.4	64.4
Measured Days Federal 24-hour Standard Exceeded ($150 \mu\text{g}/\text{m}^3$)	0	1	0	0	0
Calculated Days Federal 24-hour Standard Exceeded ($150 \mu\text{g}/\text{m}^3$)	0.0	6.6	0.0	0.0	0.0
Federal Annual Average ($\mu\text{g}/\text{m}^3$)	35.1	33.1	32.2	32.6	30.2
State Max. Daily ($\mu\text{g}/\text{m}^3$)	82.0	178.0	76.0	75.4	64.4
Measured Days State 24-hour Standard Exceeded ($50 \mu\text{g}/\text{m}^3$)	6	4	5	11	2
Calculated Days State 24-hour Standard Exceeded ($50 \mu\text{g}/\text{m}^3$)	36.4	25.7	--	68.7	12.1
State Annual Average ($\mu\text{g}/\text{m}^3$)	33.4	31.4	--	32.6	28.9
Riverside – Rubidoux Monitoring Station					
Ozone					
Federal Max 8-hr (ppm)	0.104	0.105	0.104	0.118	0.101
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	66	55	69	81	53
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	41	39	47	58	34
State Max 8-hr (ppm)	0.105	0.106	0.105	0.119	0.101
Days State 8-hour Standard Exceeded (0.07 ppm)	69	59	71	82	57
Max. 1-hr (ppm)	0.141	0.132	0.142	0.145	0.123

Table 7-1: Summary of Air Quality Measurements Recorded at Perris and Riverside – Rubidoux Monitoring Stations

<i>Pollutant/Standard</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Days State 1-hour Standard Exceeded (0.09 ppm)	29	31	33	47	22
NO₂					
Max 1-hr (ppm)	0.0599	0.0574	0.0731	0.0630	.0554
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0	0	0
Annual Average (ppm)	0.015	0.014	0.014	0.014	0.014
PM₁₀*					
Federal Max. Daily (µg/m ³)	100.0	69.0	84.0	92.0	86.5
Measured Days Federal 24-hour Standard Exceeded (150 µg/m ³)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 µg/m ³)	0.0	0.0	0.0	0.0	0.0
Federal Annual Average (µg/m ³)	36.3	32.2	38.1	39.0	35.4
State Max. Daily (µg/m ³)	122.7	107.4	170.5	137.6	126.0
Measured Days State 24-hour Standard Exceeded (50 µg/m ³)	119	87	60	98	127
Calculated Days State 24-hour Standard Exceeded (50 µg/m ³)	124.7	92.2	--	102.5	133.6
State Annual Average (µg/m ³)	44.8	40.0	--	41.3	43.9
PM_{2.5}*					
Federal Max. Daily (µg/m ³)	48.9	54.7	51.5	50.3	66.3
Measured Days Federal 24-hour Standard Exceeded (35 µg/m ³)	5	9	5	7	3
Calculated Days Federal 24-hour Standard Exceeded (35 µg/m ³)	--	10.3	5.1	7.2	3.1
Federal Annual Average (µg/m ³)	--	11.8	12.5	12.2	12.5
State Max. Daily (µg/m ³)	50.6	61.1	60.8	50.3	68.3
State Annual Average (µg/m ³)	16.8	15.3	12.6	14.5	12.6

ppm = parts per million

µg/m³ = micrograms per cubic meter

Na = Not available.

*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

The project area, like other inland valley areas in southern California, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The March Field climate monitoring station (ID 045326) is located immediately southwest of the planning area and the Perris climate monitoring station (ID 046816) is located approximately five miles south of the planning area. Based on measurements taken at these climate monitoring stations, the average annual precipitation is 8 to 10 inches, falling primarily from November to April (Western Regional Climate Center 2020). Overall annual temperatures in the project area average about 62 degrees Fahrenheit (°F), winter low temperatures average about 36°F, and summer high temperatures average about 93°F.

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada–Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

REGULATORY FRAMEWORK

Federal Air Quality Regulations

Ambient Air Quality Standards (AAQS) represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation’s air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the

purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed primary and secondary National Ambient Air Quality Standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone, carbon monoxide (CO), sulfur dioxide (SO₂), NO₂, lead (Pb), and PM₁₀ and PM_{2.5}. The primary NAAQS “. . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . .” and the secondary standards “. . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air” [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 7-2 (CARB 2016).

State Air Quality Regulations

California Ambient Air Quality Standards

The U.S. EPA allows states the option to develop different (stricter) standards. The State of California has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants (see Table 7-2). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 7-2). Similar to the federal CAA, the state classifies specific geographic areas as either “attainment” or “nonattainment” areas for each pollutant based on the comparison of measured data with the CAAQS.

Table 7-2: State and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM2.5) ⁹	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m ³)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi- luminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemi- luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m ³)	

Table 7-2: State and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Lead ^{12,13}	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹⁰	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹⁰	–	
	30 Day Average	1.5 µg/m ³		–	–	
	Calendar Quarter	–	Atomic Absorption	1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	–		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote ¹³	Beta Attenuation and Transmittance through Filter Tape			
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography	No National Standards		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: Carb 2016

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; – = not applicable.

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when

the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standards of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

The State of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a moderate, serious, severe, or extreme nonattainment area for that pollutant (there is also a marginal classification for federal nonattainment areas). Once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be re-designated to an attainment area for that pollutant. To be re-designated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. Areas that have been redesignated to attainment are called maintenance areas.

Toxic Air Contaminants

A toxic air contaminant (TAC) is any air pollutant which may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health. The public's exposure to TACs is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The California Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987

and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or an urban road with 100,000 or more vehicles per day should be avoided when possible. Based on vehicle counts conducted by the California Department of Transportation (Caltrans) in 2017, in the vicinity of the planning area, I-215 and SR-60 currently carry more than 100,000 vehicles per day (Caltrans 2017).

As an ongoing process, CARB continues to establish new programs and regulations for the control of diesel-particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to diesel particulate matter will continue to decline.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the *Federal Register*. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the Basin. The air pollution control district for each county adopts rules, regulations, and programs to attain federal and state air quality standards, and appropriates money (including permit fees) to achieve these objectives.

Local Air Quality Regulations

The SCAQMD is the air pollution control agency in the Basin. The role of the local SCAQMD is to protect the people and the environment of the Basin from the effects of air pollution. As the SCAQMD is designated as a nonattainment area for state air quality standards for 8-hour ozone, PM₁₀, and PM_{2.5}, SCAQMD periodically prepares air quality management plans (AQMPs) outlining measures to reduce these pollutants. The most recent AQMP is the 2016 Air Quality Management Plan (2016 AQMP).

7.2 BIOLOGICAL RESOURCES

EXISTING CONDITIONS

Undeveloped lands within the city are typically comprised of disturbed lands and non-native grasses due to the prior history of cultivation. Small pockets of riparian vegetation occur within urban canyons and native habitats and species that once inhabited the area are largely limited to areas around the city fringes where lands are in proximity to surrounding conserved natural areas. A number of nearby natural areas occur adjacent to the city. The San Jacinto Wildlife Area, located at the southeast corner of the planning area is a 12,000-acre wildlife preserve noted for its diversity of migratory birds. Other conserved lands surrounding the city include the Lake Perris Recreation Area located adjacent to the southern city limits, and the Box Springs Mountain Reserve Park located northwest of the city limits.

Varied topography and landforms including Box Springs Mountain in the north and the Badlands east of the city provide for a diversity of wildlife species. Mammals such as mule deer can be found in the Box Springs Mountains and in the Badlands. Large carnivores, such as coyotes, bobcats, badgers, and gray fox have been found in the undeveloped portions of the city. Opossums, raccoons, skunks, cottontail rabbits, and rodent species are common to the study area. A wide variety of reptiles are found in the study area. Owls, hawks and other birds of prey, can be seen at various times throughout the year or during migration periods.

Vegetation Communities

Vegetation Communities and Land Cover Types within the city are shown in Figure 7-1. The acreage of each of these vegetation communities and land cover types is presented in Table 7-3. As shown on Figure 7-1, the majority of land within the city consists of Developed/Disturbed Land. Natural vegetation is primarily located in the

eastern portion of the city, as well as along the southeastern and northern boundaries of the city.

Western Riverside County Multiple Species Habitat Conservation Plan Sensitive Plants

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to sensitive species. Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status wildlife and plant species that receive some level of coverage under the plan. Of that total, the majority of these species have no additional survey/conservation requirements and 16 plant species are classified as “narrow endemic species” based on their limited distributions in the region. These narrow endemics are sensitive biological resources; some are also federally or state listed as threatened or endangered. The habitat that supports a narrow endemic species is also considered a sensitive biological resource.

Known locations of sensitive plants within the city that are covered by the MSHCP are presented in Figure 7-2 and are summarized in Table 7-4. Known MSHCP-covered sensitive plants within the city are limited to southern California black walnut (*Juglans californica*) in the northeastern portion of the city.

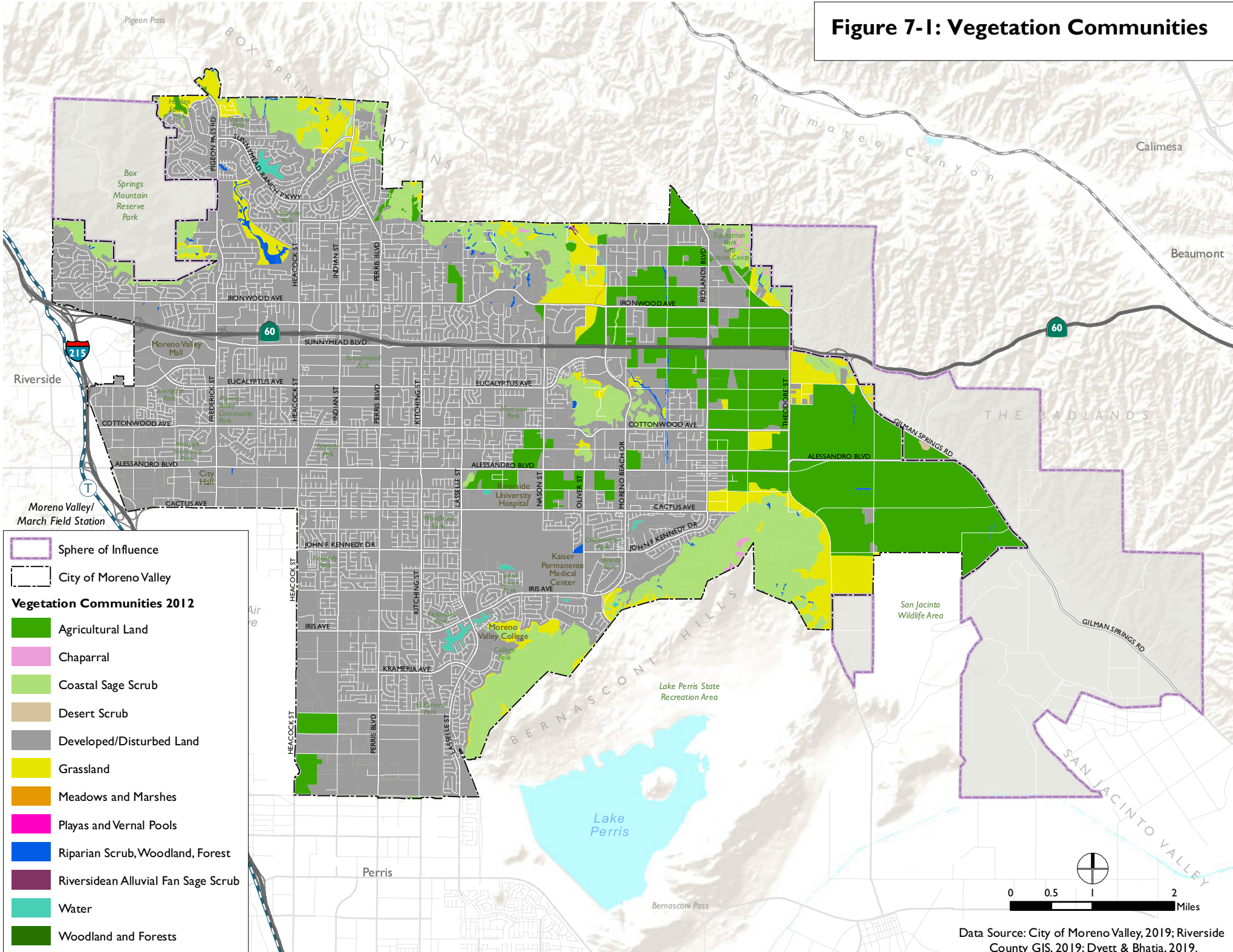
There is currently no record of any plant species with a Federal or State status as endangered, threatened, or rare within the city.

Table 7-3: Vegetation Communities and Land Cover Types within Moreno Valley

<i>Vegetation Communities and Land Cover Types</i>	<i>Sum of Acres</i>
Agricultural Land	5,018.35
Cropland, Orchard - Vineyard	4,988.77
Eucalyptus	29.58
Chaparral	44.82
Mixed Chaparral	44.82
Coastal Sage Scrub	3,286.27
Coastal Scrub	3,286.27
Desert Scrub	6.44
Alkali Desert Scrub	6.44
Developed/Disturbed Land	22,814.60
Urban	22,814.60
Grassland	1,678.02
Annual Grassland	1,678.02
Meadows and Marshes	2.08
Fresh Emergent Wetland	2.08
Playas and Vernal Pools	0.16
Wet Meadow	0.16
Riparian Scrub, Woodland, Forest	134.48
Fresh Emergent Wetland	61.11
Valley Foothill Riparian	73.37
Riversidean Alluvial Fan Sage Scrub	3.82
Coastal Scrub	3.82
Water	86.83
Lacustrine	81.49
Riverine, Lacustrine	5.34
Woodland and Forests	1.20
Coastal Oak Woodland	1.20
Grand Total	33,077.06

Source: Western Riverside County Regional Conservation Authority (WRCRCA) 2003

Figure 7-1: Vegetation Communities



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Table 7-4: Western Riverside County MSHCP-Covered Species Present and with Potential to Occur within Moreno Valley

Scientific Name/Common Name	Species has Potential to Occur within Moreno Valley	MSHCP Status			
		Federal	State	CNPS	
Plants					
<i>Juglans californica</i> /southern California black walnut*		Wa	-	-	4.2
<i>Calochortus plummerae</i> / Plummer's mariposa lily	X	We	-	-	4.2
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> /Coulter's goldfields	X	Wa	-	-	1B.1
<i>Atriplex coronata</i> var. <i>notatior</i> /San Jacinto Valley crowscale	X	Wa	-	-	1B.1
<i>Centromadia pungens</i> ssp. <i>laevis</i> /smooth tarplant	X	Wa	-	-	1B.1
<i>Chorizanthe parryi</i> var. <i>parryi</i> /Parry's spine flower	X	We	-	-	1B.1
Birds					
<i>Cathartes aura</i> /turkey vulture*		Wa	-	-	-
<i>Coccyzus americanus</i> /yellow-billed cuckoo*		We	T	E	-
<i>Empidonax traillii extimus</i> /southwestern willow flycatcher	X	We	E	E	-
<i>Melospiza lincolnii</i> /Lincoln's sparrow*		We	-	-	-
<i>Oporornis tolmiei</i> /Macgillivray's warbler	X	Wa	-	-	-
<i>Athene cunicularia hypugaea</i> /burrowing owl	X	Wa	-	SSC	-
<i>Polioptila californica californica</i> /coastal California gnatcatcher*		Wa	T	SSC	-
<i>Picoides pubescens</i> /downy woodpecker*		Wa	-	-	-
<i>Tachycineta bicolor</i> /tree swallow	X	Wa	-	-	-
<i>Vireo bellii pusillus</i> /least Bell's vireo*		We	E	E	-
<i>Wilsonia pusilla</i> /Wilson's warbler*		Wa	-	-	-
<i>Agelaius tricolor</i> /tricolored blackbird	X	Wa	-	T	-
Amphibians					
<i>Scaphiopus hammondii</i> /western spadefoot	X	Wa	-	SSC	-
Reptiles					
<i>Cnemidophorus hyperythrus beldingi</i> /Belding's orange-throated whiptail	X	Wa	-	WL	-
<i>Sceloporus orcutti</i> /granite spiny lizard*		Wa	-	-	-
<i>Xantusia henshawi</i> /granite night lizard*		Wa	-	SSC	-
<i>Crotalus ruber ruber</i> /northern red-diamond rattlesnake	X	Wa	-	SSC	-

Table 7-4: Western Riverside County MSHCP-Covered Species Present and with Potential to Occur within Moreno Valley

Scientific Name/Common Name	Species has Potential to Occur within Moreno Valley	MSHCP Status			
		Federal	State	CNPS	
<i>Phrynosoma coronatum blainvillei</i> /San Diego horned lizard	X	Wa	-	SSC	-
<i>Anniella stebbinsi</i> /Southern California legless lizard	X	-	-	SSC	-
<i>Arizona elegans occidentalis</i> /California glossy snake	X	-	-	SSC	-
Mammals					
<i>Canis latrans</i> /coyote*		Wa	-	-	-
<i>Chaetodipus fallax fallax</i> /northwestern San Diego pocket mouse	X	Wa	-	SSC	-
<i>Dipodomys merriami parvus</i> /San Bernardino kangaroo rat*		We	E	T	-
<i>Dipodomys simulans</i> /Dulzura kangaroo rat	X	Wa	-	-	-
<i>Dipodomys stephensi</i> /Stephens' kangaroo rat*	X	We	E	SSC	-
<i>Perognathus longimembris brevinasus</i> /Los Angeles pocket mouse*		We	FSS	SSC	-
<i>Sylvilagus bachmani</i> /brush rabbit	X	Wa	-	-	-
<i>Lasiurus xanthinus</i> /Western yellow bat	X	-	-	SSC	-
Invertebrates					
<i>Branchinecta lindahli</i> /versatile fairy shrimp	X	We	T	E	-
<i>Streptocephalus woottoni</i> /Riverside fairy shrimp	X	We	E	-	-

CNPS = California Native Plant Society

1. Wa = Among the 118 'adequately covered' species addressed in the-MSHCP

2. We= Among the 28 additional species covered under the-MSHCP but subject to additional conservation objectives in order to be deemed covered

3. E = Endangered

4. T = Threatened

5. SSC = CDFW Species of Special Concern

6. WL = CDFW Watch List species

* = Species present within Moreno Valley and included in Figure 7-2.

Western Riverside County Multiple Species Habitat Conservation Plan Sensitive Wildlife

Known locations of sensitive wildlife within the city that are covered by the MSHCP are presented in Figure 7-2 and are summarized in Table 7-4. Known MSHCP-covered sensitive wildlife within the city are primarily located in the southeastern portion of the city adjacent to the Lake Perris State Recreation Area, as well as some areas along the eastern and northern boundaries of the city. It should be noted that wild donkeys (*Equus africanus asinus*) have been documented north of State Route 60. However, this species is not listed or considered sensitive by the USFWS or CDFW.

REGULATORY SETTING

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), as amended (16 USC 1531 et seq.), provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed animal species. The FESA also prohibits all persons subject to U.S. jurisdiction from “taking” endangered species, which includes any harm or harassment. Section 7 of the FESA requires that federal agencies, prior to project approval, consult the USFWS and/or the National Marine Fisheries Service to ensure adequate protection of listed species that may be affected by the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. The regulatory definition of “migratory bird” is broad, and

includes any mutation or hybrid of a listed species and any part, egg, or nest of such birds (50 CFR 10.12). The MBTA, which is enforced by USFWS, makes it unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation. The take, possession, import, export, transport, sale, purchase, barter, or offering of these activities is prohibited, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11). Pursuant to U.S. Department of the Interior Memorandum M-37050, the federal MBTA is no longer interpreted to cover incidental take of migratory birds (U.S. Department of the Interior 2017). Therefore, impacts that are incidental to implementation of an otherwise lawful project would not be considered in violation of the MBTA.

United States Army Corps of Engineers

The United States Army Corps of Engineers (ACOE) has primary federal responsibility for administering regulations that concern waters and wetlands in the planning area. In this regard, the ACOE acts under two statutory authorities, the Rivers and Harbors Act (33 USC, Sections 9 and 10), which governs specified activities in navigable waters, and the Clean Water Act (CWA; Section 404), which governs specified activities in waters of the U.S., including wetlands and special aquatic sites. Wetlands and non-wetland waters (e.g., rivers, streams, and natural ponds) are a subset of waters of the U.S. and receive protection under Section 404 of the CWA. The ACOE has primary federal responsibility for administering regulations that concern waters and wetlands in the project area under statutory authority of the CWA (Section 404). In addition, the regulations and policies of various federal agencies mandate that the filling of wetlands be avoided to the maximum extent feasible. The ACOE requires obtaining a permit if a project proposes placing structures within navigable waters and/or alteration of waters of the U.S.

State Regulations

California Endangered Species Act

Similar to the FESA, the California Endangered Species Act (CESA) of 1970 provides protection to species considered threatened or endangered by the State of California (California Fish and Game Code, Section 2050 et seq.). The CESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats, and prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

California Fish and Game Code

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.3 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls) or of their nests and eggs (State of California 1991).

Regional Water Quality Control Board

The federal Water Pollution Control Act (also known as the CWA) (33 USC 1251 et seq.), as amended by the Water Quality Act of 1987 (PL 1000-4), is the major federal legislation governing water quality. The purpose of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Discharges into waters of the U.S are regulated under Section 404. Waters of the U.S. include (1) all navigable waters (including all waters subject to the ebb and flow of tides); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all

tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above.

Local Regulations

Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. It is one of several large multi-jurisdictional habitat-planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. The MSHCP allows the County of Riverside and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing the requirements of the FESA (WRCRCA 2003). The MSHCP area encompasses 1.26 million acres (1,966 square miles), including all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, Menifee, Eastvale, Jurupa Valley, and San Jacinto.

The MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of the FESA, as amended, as well as a Natural Community Conservation Plan under the Natural Community Conservation Planning Act of 2001. The MSHCP is used to allow the participating jurisdictions to authorize “take” of plant and wildlife species identified within the plan area. The MSHCP designates Criteria Area boundaries, which contain cells (termed ‘Criteria Cells’) approximately 160 acres in size that have been identified as having conservation potential. The establishment of Criteria Area boundaries is intended to facilitate the process by which jurisdictions will evaluate property that may be needed for inclusion in the MSHCP Conservation Area. The Criteria Area is an analytical tool within which property will be evaluated using MSHCP Conservation Criteria to determine what properties are

needed for the MSHCP Conservation Area, and does not impose land use restrictions. Public and private development within the Criteria Area that is determined to be consistent with the MSHCP Conservation Criteria is considered a Covered Activity, and land not needed for the MSHCP Conservation Area shall receive Take Authorization for Covered Species Adequately Conserved through the permits issued by jurisdictions pursuant to the MSHCP.

Figure 7-3 shows the locations of existing MSHCP Criteria Cells and Conserved Lands within the city. Criteria Cells are limited to the edges of the city boundaries including north of Sunnymead Ranch Parkway in the northwest; at the east of Ironwood Avenue in the northeast; and in the area bordering San Jacinto Wildlife Area in the southeast. Conservation within some limited MSHCP cells within the northern portion of the City are needed to contribute to the assembly of proposed Linkage 4 identified in the Reche Canyon/Badlands Area Plan. MSHCP Conserved Lands are located within existing Criteria Cells in the northeast and southeast portions of the city.

Stephens' Kangaroo Rat Habitat Conservation Plan

In 1996, USFWS approved a long-term Habitat Conservation Plan (HCP) for Stephens' kangaroo rat and granted an incidental take permit for Riverside County, covering an estimated 30,000 acres of occupied habitat, including land within Moreno Valley (Riverside County Habitat Conservation Agency [RCHCA] 1996) (Figure 7-4). The HCP authorizes the incidental take of half of the occupied habitat remaining in the HCP area while using development fees to implement the plan, purchase private property, and create a reserve system. The Stephens' Kangaroo Rat HCP and corresponding permits are in effect for areas covered by the MSHCP; however, the Stephens' Kangaroo Rat HCP and the MSHCP remain separate. The Stephens' Kangaroo Rat Fee Area is subject to mandatory conservation measures as outlined in the Stephens' Kangaroo Rat HCP (RCHCA 1996) and as subsequently modified.

Municipal Code

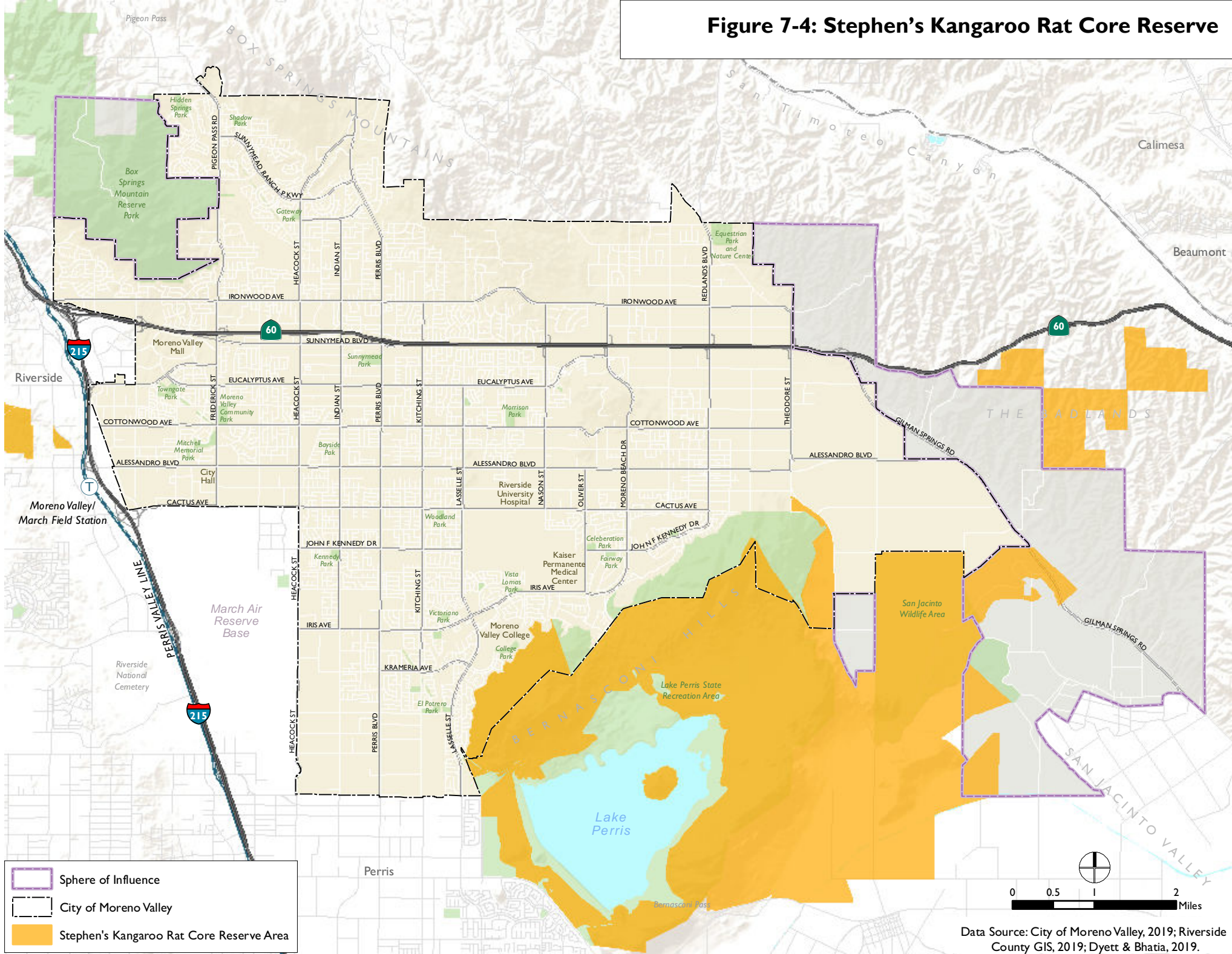
Title 3, Chapter 3.48 of the Municipal Code contains provisions for the collection of mitigation fees to further the implementation of the MSHCP. Additionally, the Municipal Code contains provisions for the protection of the Stephens' Kangaroo Rat pursuant to the Stephens' Kangaroo Rat HCP (refer to Title 8, Chapter 8.60 of the Municipal Code).

7.3 GEOLOGY AND SEIMICITY

EXISTING CONDITIONS

The city lies in the northern portion of the Peninsular Ranges Physiographic Province of California, at the eastern margin of a structural block known as the Perris Block. This structural block is a mass of granitic rock, generally bound by the San Jacinto Fault, the Elsinore Fault, and the Santa Ana River. The Perris Block has been vertically uplifted several thousand feet. The granitic mountain areas of the Perris Block, including the Box Springs Mountains and the Mount Russell area, are underlain primarily by quartz diorite bedrock. The area is characterized by many rock outcrops and large weathered boulders. The geologic and seismic setting of the Moreno Valley is dominated by the proximity of the Holocene-active San Jacinto Fault, which traverses the eastern city limits. The potential for major earthquake damage to Moreno Valley is from activity along this fault zone (City of Moreno Valley 2006a). Mapping of Paleontological Resource Sensitive Areas shows that most of the majority of the city has been classified as having a Low Potential for the presence of paleontological resources. However, some areas within the eastern portion of the city and Sphere of Influence have been identified as having a High Potential for paleontological resources, and a small area in the southern portion of the Sphere of Influence has an undetermined Potential for paleontological resources (City of Moreno Valley 2006b).

Figure 7-4: Stephen's Kangaroo Rat Core Reserve



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Surface Rupture

The city is located within the seismically active southern California region. Earthquakes resulting from fault movement can result in surface rupture along an active or potentially active fault. The State of California has identified faults that represent a hazard of surface rupture as Alquist-Priolo Earthquake Fault Zones. As shown in Figure 7-5, the San Jacinto Fault Zone, which has been categorized as an Alquist-Priolo Earthquake Fault Zone, traverses the northeastern boundary of the city. The San Jacinto Fault Zone is composed of several parallel faults that together constitute the zone. There are three branches of the San Jacinto Fault in the southeast corner of the study area. The western branch is sometimes referred to as the Casa Loma Fault; the eastern branch, the Claremont Fault. The Farm Road Fault was identified in 1992 in the southeastern portion of the study area. The Casa Loma fault within the City limits is not identified as an Alquist-Priolo Earthquake Fault Zone. Insufficient information is available to determine if the fault is active (City of Moreno Valley 2006a).

Ground Shaking

Ground shaking is the effect of surface motion generated by an earthquake that results in the vast majority of damage during seismic events. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Seismic waves propagating through the Earth's crust are responsible for the ground vibrations normally felt during an earthquake. Structures within the city could be affected by ground shaking during a seismic event associated with the San Jacinto Fault Zone. Additionally, seismic events associated with the active San Andreas Fault located approximately 15 miles northeast and the active Elsinore Fault located approximately 17 miles southwest could also generate ground shaking within the city.

Liquefaction

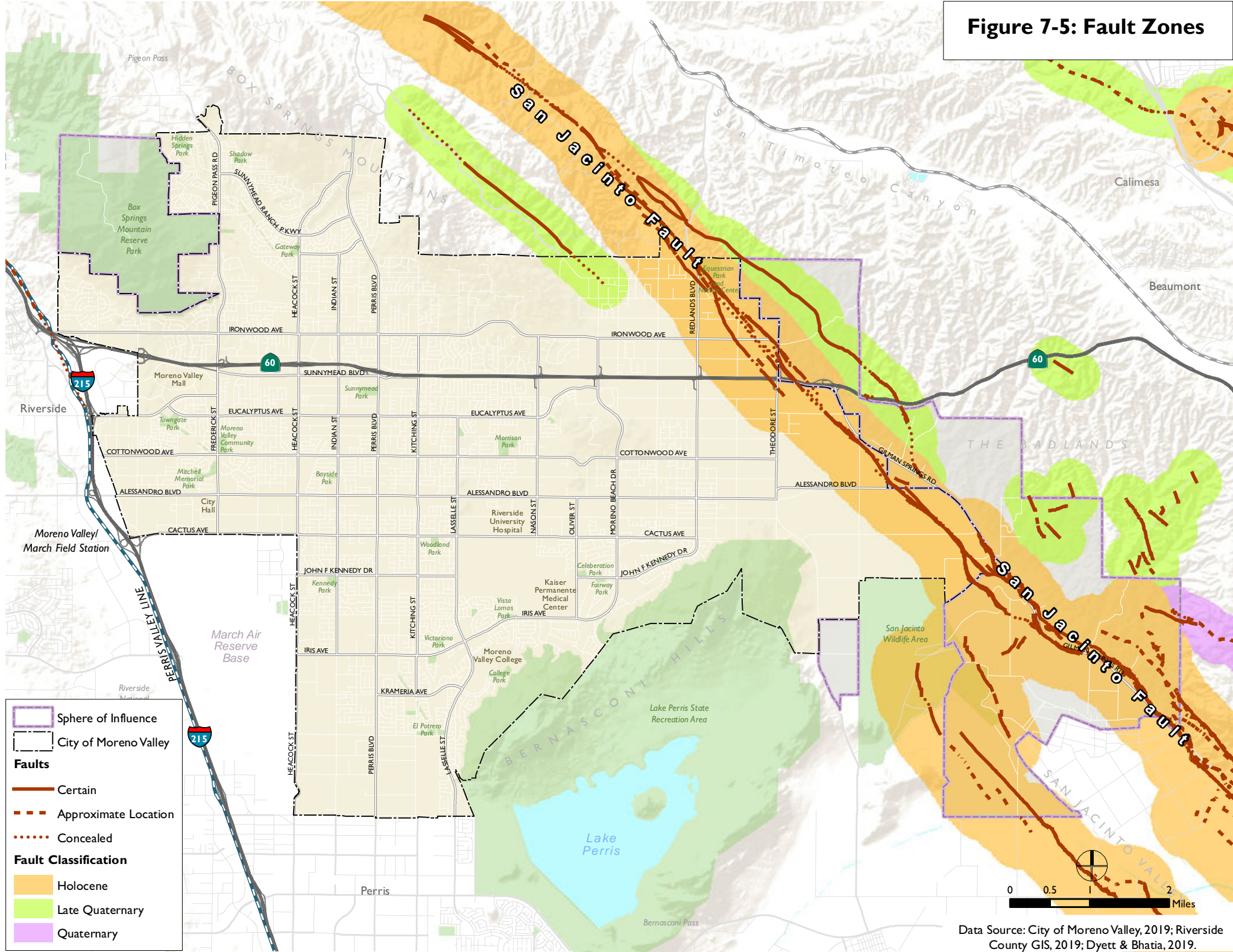
Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: (1) shallow groundwater; (2) low-density non-cohesive (granular) soils; and (3) high-intensity ground motion. Liquefaction is typified by a buildup of pore-water pressure in the affected soil layer to a point where a total loss of shear strength occurs, causing the soil to behave as a liquid. Studies indicate that saturated, loose to medium dense, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. As shown in Figure 7-6, the majority of the city is classified as having low or moderate potential for liquefaction susceptibility. Small amounts of land within the western and southern portion of the city are classified as having high potential for liquefaction susceptibility, and small amount of land along the southern border is classified as having very high potential for liquefaction susceptibility. Table 7-5 presents the acreage of land within the city and the Sphere of Influence designated under each liquefaction susceptibility classification.

Table 7-5: Liquefaction Susceptibility Classification Acreages

<i>Row Labels</i>	<i>Sum of acres</i>	<i>Sum of Percent</i>
Very High	38.01	0.09%
High	625.44	1.46%
Moderate	14,204.81	33.10%
Low	16,026.75	37.34%
Very low	649.33	1.51%
No Rating	11,372.66	26.50%
Grand Total	42,917.00	100.00%

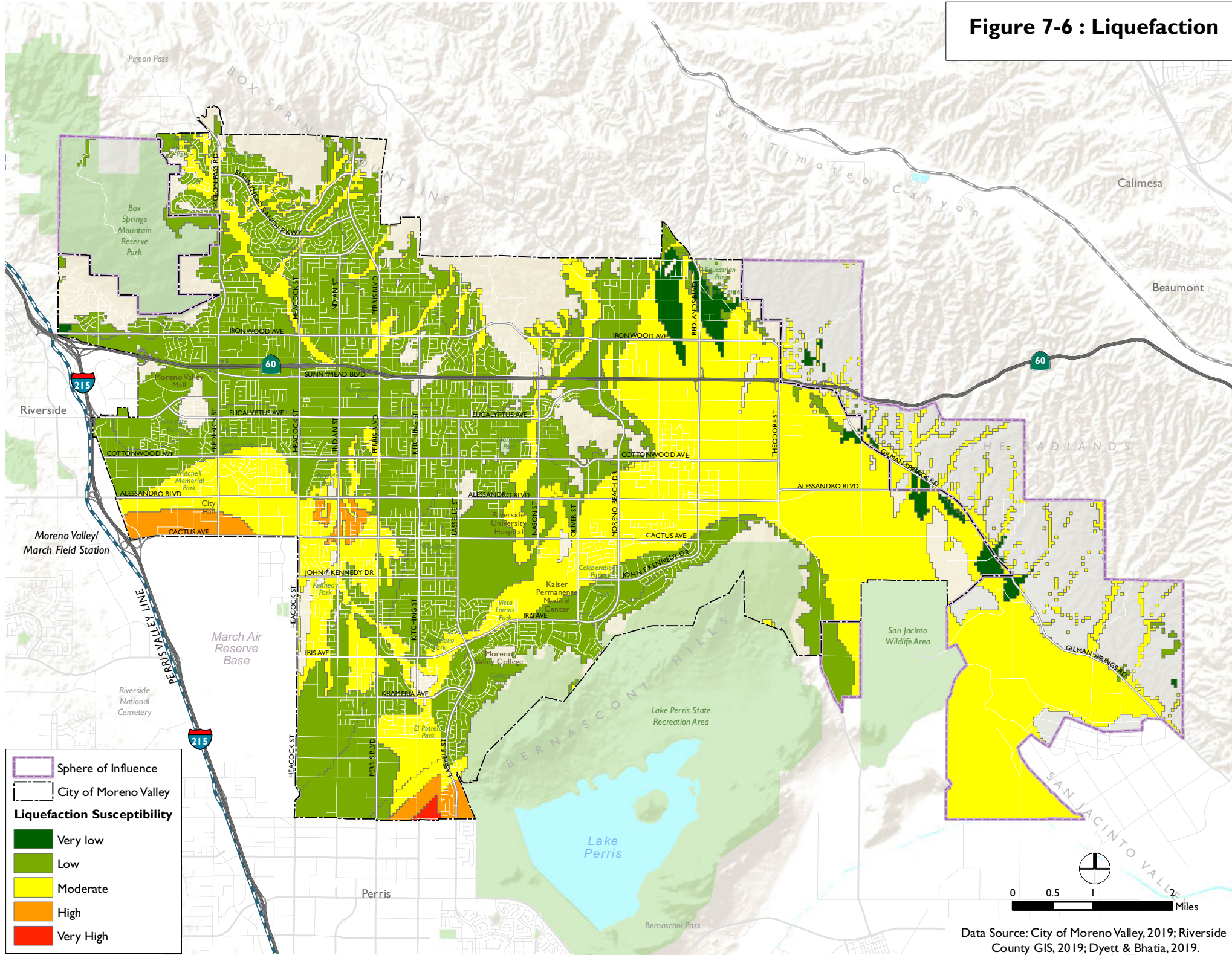
Source: Riverside County GIS 2019

Figure 7-5: Fault Zones



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Figure 7-6 : Liquefaction



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Landslides

Landslides occur when masses of rock, earth, or debris move down a slope, including rock falls, deep failure of slopes, and shallow debris flows. Landslides are influenced by human activities such as grading and other construction activities, irrigation of slopes, mining activity, and by natural factors such as precipitation, geology/soil types, surface/subsurface flow of water, and topography. Frequently, they may be triggered by other hazards such as floods and earthquakes. The majority of the city is relatively flat and has been assigned a landslide susceptibility class of 0 (No Risk) by the California Geological Survey (Figure 7-7). However, some areas within the northern, northeastern, and southeastern portions of the city and within the Sphere of Influence have been assigned landslide susceptibility classes ranging from V (Moderate Risk) to X (High Risk). Some areas within the central portion of the city have also been assigned a landslide susceptibility classes ranging from V (Moderate Risk) to X (High Risk).

REGULATORY SETTING

State Regulations

Earthquake Fault Zoning Act (Alquist-Priolo Act)

The State of California Alquist-Priolo Earthquake Fault Zoning Act (1972) was established to mitigate the hazard of surface faulting to structures for human occupancy. Pursuant to the Act, the State Geologist has established regulatory zones (known as Earthquake Fault Zones) around surface traces of active faults. These have been mapped for affected cities, including Moreno Valley. Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied by a geologic report, prepared by a geologist registered in the State of California, that is directed to the problem of potential surface fault displacement through a project site.

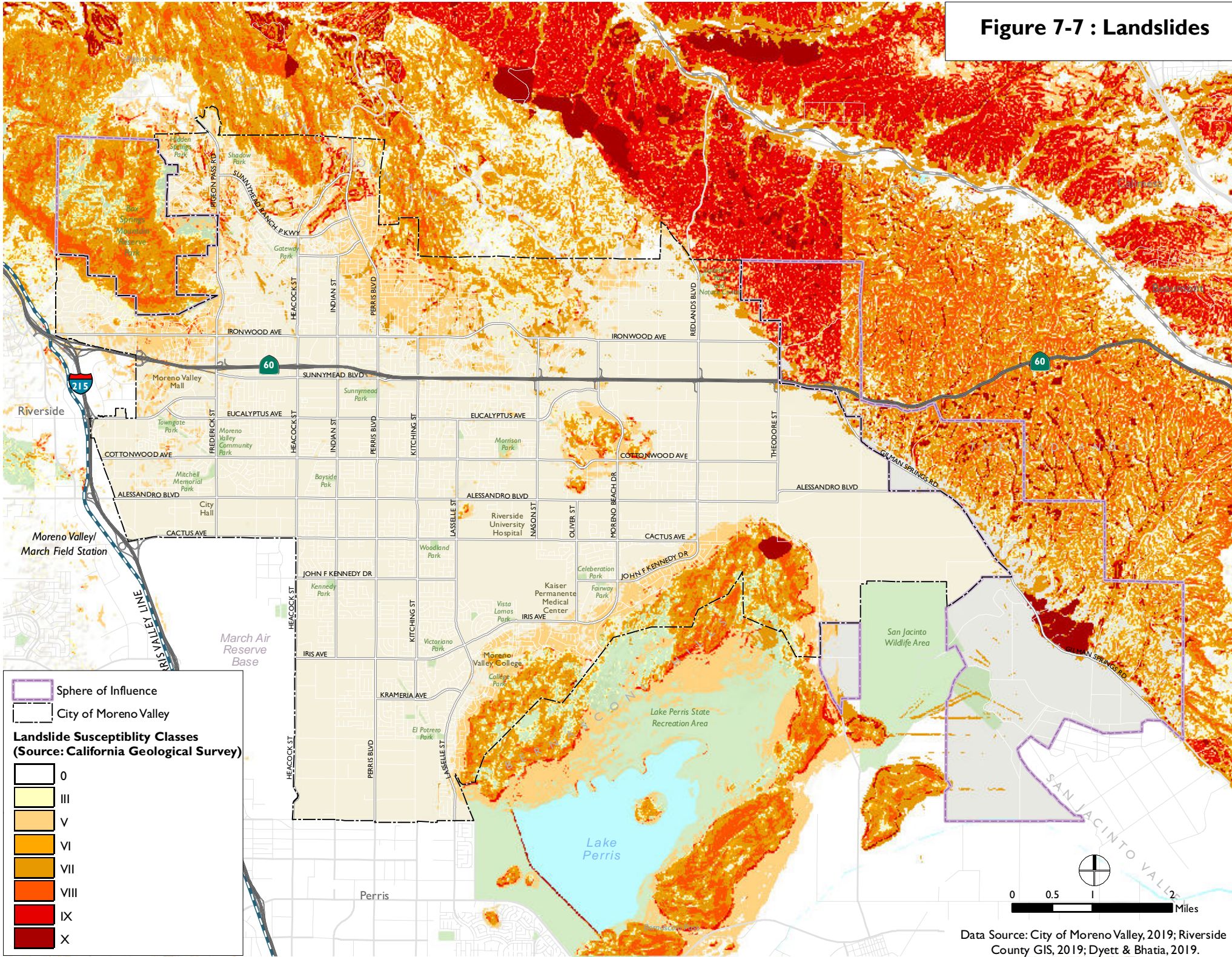
Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act (SHMA) was adopted by the State in 1990 to protect the public from the effects of nonsurface fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, ground amplification or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey (CGS) is the primary agency responsible for the implementation of the SHMA. The CGS prepares maps identifying seismic hazard zones and provides them to local governments; which include areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. SHMA requires responsible agencies to only approve projects within these zones following a site-specific investigation to determine if the hazard is present, and if so, the inclusion of appropriate mitigation(s). In addition, the SHMA requires real estate sellers and agents at the time of sale to disclose whether a property is within one of the designated seismic hazard zones.

California Building Standards Code (Title 24)

Title 24 of the California Code of Regulations (CCR) provides state regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Cities and counties are required by state law to enforce CCR Title 24, and may adopt ordinances making more restrictive requirements than provided by CCR Title 24 due to local climatic, geological, or topographical conditions.

Figure 7-7 : Landslides



Local Regulations

Municipal Code

[Chapter 8.21 – Grading Regulations](#) of the Municipal Code contains requirements that address potential geological hazards associated with new development. Municipal Code Section 8.21.050 (Grading Permit Requirements) specifies that a geotechnical report is required for all grading projects unless otherwise waived by the city engineer. Recommendations included in the reports and approved by the city engineer, shall be incorporated into the grading plans and specifications. A preliminary soil report, preliminary engineering geology report and/or seismicity report may be required depending on site specific conditions. Engineering geologic reports are required for all developments on hillside sites where geologic conditions are considered to have a substantial effect on existing and/or future site stability. The required reports must provide specific recommendations to facilitate a safe and stable development.

Local Hazard Mitigation Plan

The City of Moreno Valley (City) developed the Local Hazard Mitigation Plan (LHMP) to identify the hazards, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term natural or man-made hazard risks to human life and property for the city and its residents. The goals of the LHMP are to:

1. Protect life, property and the environment
2. Provide public awareness
3. Protect the continuity of government; and
4. Improve emergency management, preparedness, collaboration and outreach.

The LHMP identifies local faults that that may generate earthquakes and identifies potential vulnerabilities within the city that could be adversely affected by seismic events. The LHMP also identifies a mitigation strategy to for reducing losses associated with seismic events.

Local fault mapping presented in the LHMP is consistent with the fault mapping presented in Figure 7-6. The LHMP states that the San Jacinto Fault Zone, which traverses the northeastern boundary of the city, is considered one of the more seismically active fault zones in Southern California and has the potential to host a 7.2 magnitude earthquake. The LHMP documents historic Southern California earthquakes that affected Moreno Valley. In 1923, the North San Jacinto Fault earthquake damaged the San Bernardino and Redlands area. The epicenter was located just northeast of Moreno Valley in San Timoteo Canyon, and is the last known time that this fault ruptured in this area. The largest earthquake to occur within 100 miles of Moreno Valley was the 7.4 magnitude Hector Mine earthquake in 1999 that occurred approximately 61 miles from the city. Additional earthquakes that have occurred within the region of Moreno Valley since 1992 are presented in Table 7-6 on the following page.

Table 7-6: History of Major Southern California Earthquakes Since 1992

<i>Year</i>	<i>Richter Scale Magnitude</i>	<i>Description</i>
1992	7.2	Occurred near Landers, California and caused the rupture of five different faults. Those faults were: Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock.
1992	7.3	Occurred 3 hours after the Landers Earthquake with an epicenter near Big Bear, CA, just 34.4 miles from Moreno Valley.
1994	6.8	Northridge Earthquake occurs in a neighborhood of the city of Los Angeles and is located 78.8 miles from Moreno Valley
1999	7.4	Hector Mine Earthquake, located 25 miles from the Landers Earthquake and just 61 miles from Moreno Valley
2010	5.4	Borrego Springs earthquake believed by seismologists to have been possibly triggered by the strong earthquake which occurred near Calexico in 2010.

Table 7-6: History of Major Southern California Earthquakes Since 1992

<i>Year</i>	<i>Richter Scale Magnitude</i>	<i>Description</i>
2016	4.3	California Governor's Office of Emergency Services issued an earthquake advisory for all Southern California counties following a series of small magnitude earthquakes that occurred in Bombay Beach (located in Imperial County and south of where the San Andreas fault ends). This swarm included a 4.3 magnitude quake on September 26.
2019	7.1	Occurred roughly 11 miles northeast of Ridgecrest, California or approximately 185 miles north of Moreno Valley.

7.4 HAZARDS AND HAZARDOUS MATERIALS

EXISTING CONDITIONS

Certain natural conditions and human activities in Moreno Valley create risks to individuals and properties within the community. Hazards of potential concern in the planning area include flooding, fires, urban pollutants (e.g., fertilizers, pesticides, herbicides, and other hazardous materials) and air crash potential near the joint civilian and military use March Air Reserve Base (MARB) (City of Moreno Valley 2006b).

Emergency Response

The Moreno Valley Emergency Operations Plan (2009) establishes a comprehensive, all-hazards approach to natural, man-made and technological disasters. The plan states the Moreno Valley Fire Department as the primary response agency for fires, emergency medical service, hazardous materials incidents, traffic accidents, terrorist acts, catastrophic weather events, and technical rescues for the city. The fire department also provides a full range of fire prevention services including public education, code enforcement, plan check and inspection services for new and existing construction, and fire investigation. Additionally, the City's Office of Emergency Management is located within the fire department allowing for a well-coordinated response to both natural and human-made disasters. The Moreno Valley Fire Department is part of the California Department of Forestry and Fire Protection/Riverside County Fire Department's regional, integrated, cooperative fire protection organization.

Hazardous Materials

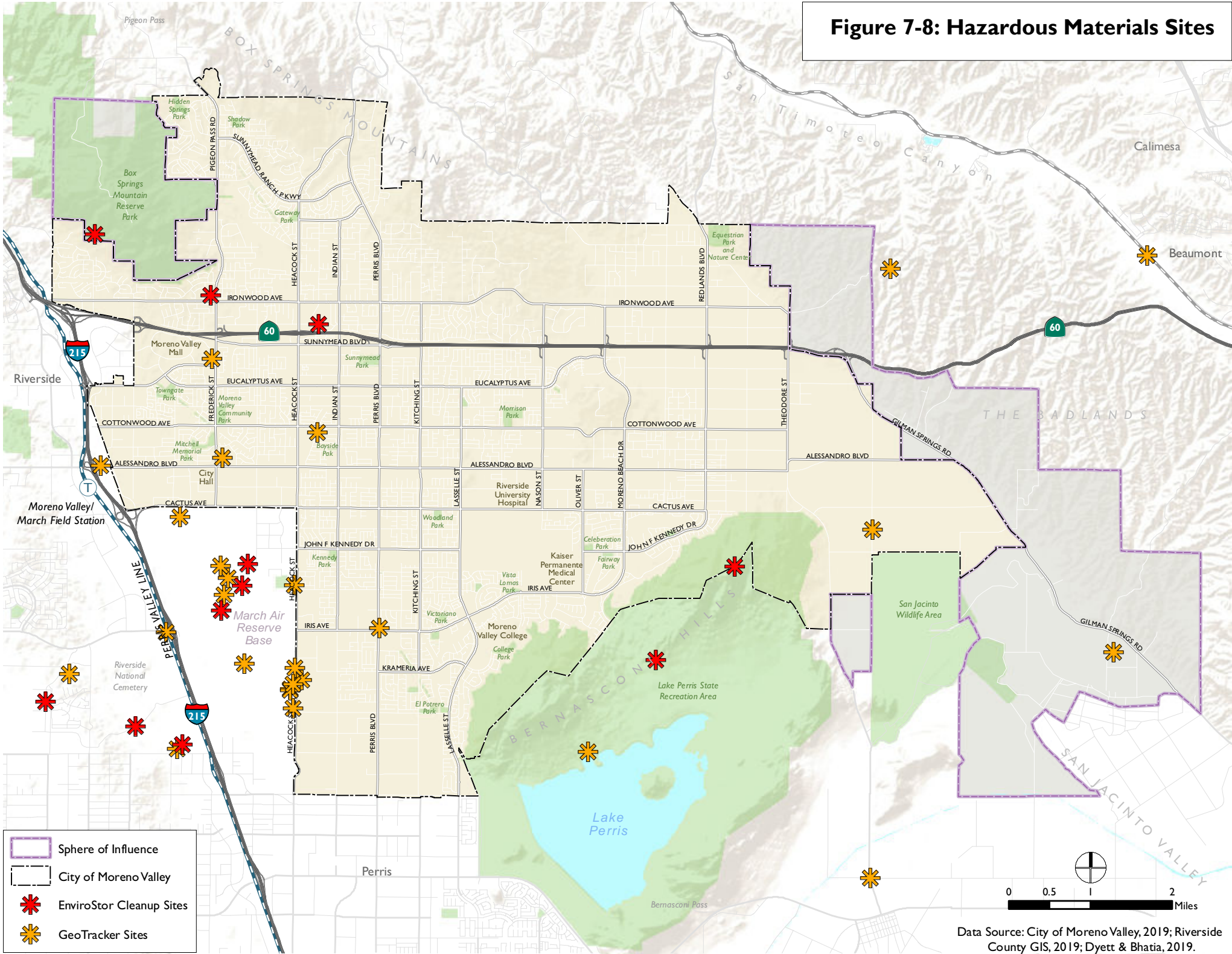
Hazardous materials are used in Moreno Valley for a variety of purposes including maintenance and operations at MARB, manufacturing, service industries, various small businesses, agriculture, medical uses, schools, and households. Accidents can occur in the production, use, transport and disposal of these hazardous materials. The probability of accidental spills is accentuated by the fact that the region is susceptible to earthquakes.

Hazardous Materials Sites

The Hazardous Waste and Substances Sites (Cortese) List is a planning document that provides information about the location of hazardous materials release sites in the state. Government Code section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List that is contained in their Envirostor database (2019). The other main source of information for sites in the Cortese List is the State Waterboards Geotracker Database (Geotracker; 2019). Figure 7-8 depicts the location of active Envirostor and Geotracker hazardous materials sites. As shown on Figure 7-8, there are two active Envirostor sites and six active Geotracker hazardous materials sites within the city. Table 7-7 lists each site location and describes the site listing.

The majority of active sites involve dry cleaners and gas stations. The MARB site involves the cleanup of substances/contaminants of concern including benzene, chlorinated hydrocarbons, tetrachloroethylene (PCE), and trichloroethylene (TCE) within the aquifer used for drinking water. Issuance of an Annual Groundwater Monitoring Report on the MARB site began in 1996.

Figure 7-8: Hazardous Materials Sites



7-7: Active Envirostor and Geotracker Hazardous Materials Sites

Sites	Description	Location
Envirostor		
Best Cleaners	Site Type: Voluntary Cleanup Status: Active	11875 Pigeon Pass Road Moreno Valley, CA 92557
The Festival in Moreno Valley	Site Type: Voluntary Cleanup Status: Inactive, Action Required	24318 Hemlock Avenue Moreno Valley, CA 92557
Geotracker Sites		
Townsgate Cleaners	Cleanup Status: Open - Site Assessment Loc Case #: 60001956	12625 Frederick Street Moreno Valley, CA 92553
M&M Dry Cleaners	Cleanup Status: Open - Remediation RB Case #: 2080099	23080 Alessandro Blvd. Unit 220 Moreno Valley, CA 92553
Shell Moreno	Cleanup Status: Open - Eligible for Closure RB Case #: 083301990T Loc Case #: 89172	13260 Highway 215 Moreno Valley, CA 92553
Shell Perris Boulevard	Cleanup Status: Open - Verification Monitoring Loc Case #: 200420313	15980 Perris Boulevard Moreno Valley, CA 92551

7-7: Active Envirostor and Geotracker Hazardous Materials Sites

Sites	Description	Location
March Air Force Base	Cleanup Status: Open - Remediation RB Case #: 166-72 -- 23 Loc Case #: 400090 -- 23	3430 Bundy Avenue Riverside, CA 92518
San Diego Gas & Electric	Cleanup Status: Open - Operating Regional Board Case # 8 332020001	14601 Virginia Moreno Valley, CA 92555

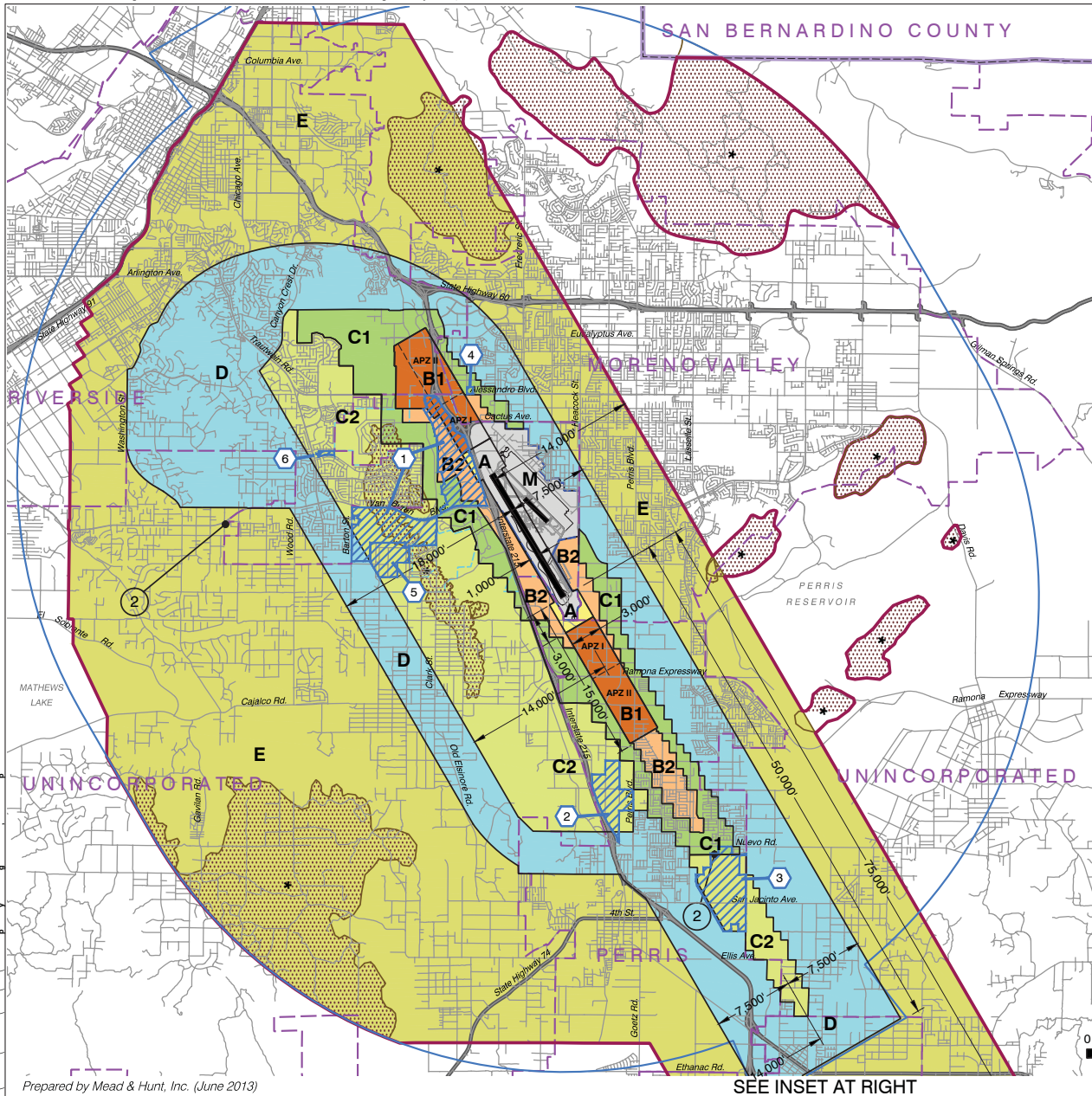
Monitoring wells have been added to the monitoring network over time as required and decommissioned as appropriately. Additionally, the San Diego Gas & Electric site involves the cleanup of a land disposal site. No potential contaminants of concern have been specified on the site.

March Air Reserve Base/Inland Port Airport

The compatibility zones and associated criteria set forth in the MARB/Inland Port Airport (IPA) Compatibility Plan provide noise and safety compatibility protection equivalent to or greater than the Air Force recommended criteria presented in the Air Installation Compatibility Use Zones Study (AICUZ). Figure 7-9 shows a map of the compatibility zones and Figure 7-10 explains the necessary factors for each compatibility zone.

Figure 7-9 : Compatibility Map

Map Source: March Air Reserve Base Land Use Compatibility Plan, 2014



LEGEND

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C1
- Zone C2
- Zone D
- Zone E
- Zone M
- High Terrain Zone
- FAR Part 77 Military Outer Horizontal Surface Limits
- FAR Part 77 Notification Area

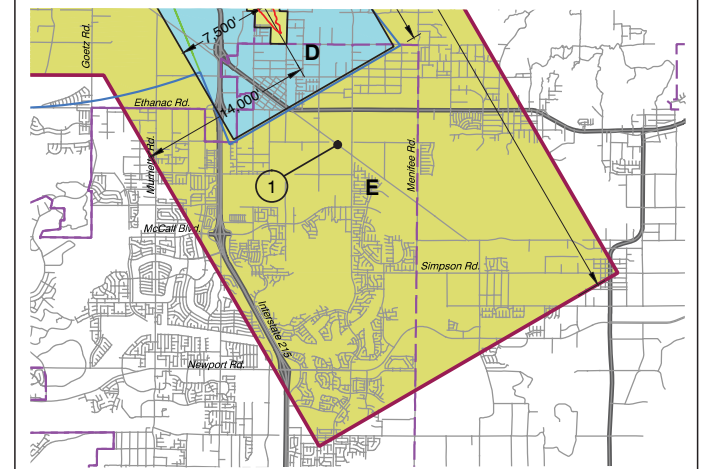
Boundary Lines

- March Air Reserve Base / Air Force Property
- March Joint Powers Authority Property Line
- County Boundary
- City Limits
- Site-Specific Exceptions (existing local agency commitments to development projects)

- ① Point at which aircraft on Runway 32 ILS approach descend below 3,000 feet above runway end. Airport Elevation is 1,535 feet MSL.
- ② Point at which departing aircraft typically reach 3,000 feet above runway end.

- ① March JPA: March Business Center/Meridian
- ② Perris: Harvest Landing
- ③ Perris: Park West
- ④ Moreno Valley: Affordable Housing
- ⑤ March JPA: Ben Clark Training Center
- ⑥ Riverside: Ridge Crest Subdivision

INSET




Note:
All dimensions are measured from runway ends and centerlines.



Prepared by Mead & Hunt, Inc. (June 2013)

SEE INSET AT RIGHT

Figure 7-10 : Compatibility Zone Factors

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
M <i>(Military)</i>	<i>Federal Lands</i> ▶ No ALUC authority	<i>Federal Lands</i> ▶ No ALUC authority
A <i>Clear Zone (if not on base)</i>	<i>Noise Impact: Very High</i> ▶ High CNEL and single-event noise levels	<i>Risk Level: Very High</i> ▶ Dimensions set to include Clear Zone as indicated in Air Installation Compatible Use Zone (AICUZ) study for airport ▶ Generally on air base property or controlled by easements
B1 <i>Inner Approach/Departure Zone</i>	<i>Noise Impact: High</i> ▶ Within or near 65-CNEL contour ▶ Single-event noise sufficient to disrupt many land use activities including indoors if windows open	<i>Risk Level: High</i> ▶ Within Accident Potential Zone I or II ▶ Additionally, zone boundary to north reflects turning flight tracks
B2 <i>High Noise Zone</i>	<i>Noise Impact: High</i> ▶ Within or near 65-CNEL contour ▶ Single-event noise sufficient to disrupt many land use activities including indoors if windows open	<i>Risk Level: Moderate</i> ▶ Beneath or adjacent to final approach and initial departure flight corridors or adjacent to runway ▶ Not within Accident Potential Zones
C1 <i>Primary Approach/Departure Zone</i>	<i>Noise Impact: Moderate to High</i> ▶ Within or near 60-CNEL contour ▶ Single-event noise may be disruptive to noise-sensitive land use activities; aircraft <2,000 feet above runway elevation on arrival and generally <3,000 feet above runway elevation on departure	<i>Risk Level: Moderate</i> ▶ Beneath or adjacent to low altitude overflight corridors
C2 <i>Flight Corridor Zone</i>	<i>Noise Impact: Moderate</i> ▶ Within 60 CNEL contour, but more than 5 miles from runway end; or ▶ Outside 60-CNEL contour, but regularly overflowed in mostly daytime flight training ▶ Single-event noise may be disruptive to noise-sensitive land use activities; aircraft <3,000 feet above runway elevation on arrival	<i>Risk Level: Moderate to Low</i> ▶ Distant (beyond 5 miles) portion of instrument arrival corridor; or ▶ Closed-circuit flight training activity corridors
D <i>Flight Corridor Buffer</i>	<i>Noise Impact: Moderate to Low</i> ▶ Mostly within 55-CNEL contour ▶ More concern with respect to individual loud events than with cumulative noise contours	<i>Risk Level: Low</i> ▶ On periphery of flight corridors ▶ Risk concern primarily with uses for which potential consequences are severe (e.g. very-high-intensity activities in a confined area)
E <i>Other Airport Environs</i>	<i>Noise Impact: Low</i> ▶ Beyond 55-CNEL contour ▶ Occasional overflights intrusive to some outdoor activities	<i>Risk Level: Low</i> ▶ Within outer or occasionally used portions of flight corridors
 <i>High Terrain Zone</i>	<i>Noise Impact: Low</i> ▶ Individual noise events slightly louder because high terrain reduces altitude of overflights	<i>Risk Level: Moderate</i> ▶ Moderate risk because high terrain constitutes airspace obstruction ▶ Concern is tall single objects (e.g., antennas)

Map Source: March Air Reserve Base Airport Land Use Compatibility Plan, 2014

Transportation of Hazardous Materials

Hazardous materials pass through the city via the freeway, rail, and surface street system. Interstate 215 (I-215) is near the city's western boundary. The nearest railway is the Burlington Northern and Santa Fe railway which runs parallel to I-215. While train derailment can occur at anytime, it is during an earthquake that a derailment and hazardous materials release would pose the greatest risk. The major automotive transportation routes through the city include State Route 60 (SR-60), Alessandro Boulevard, Perris Boulevard, and Cactus Avenue.

The City has no direct authority to regulate the transport of hazardous materials on state highways or rail lines. Transportation of hazardous materials by truck and rail is regulated by the U.S. Department of Transportation (DOT). DOT regulations establish criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code. The California Health Services Department regulates the haulers of hazardous waste (City of Moreno Valley 2006b).

Pipeline Hazards

The city and surrounding area have a history of pipeline ruptures, spillage and vandalism to natural gas and sewer lines. According to the City's LHMP (2017), the probability for this hazard is a 2, which means that there is between a 1 percent and 10 percent chance that it will occur within the next year. The severity rating for this hazard is a 2, which means that there is a potential for limited damage, causing injuries and/or illnesses, complete shutdown of critical facilities for more than one week and/or 10 percent of property is severely damaged. Pipeline incidents could cause cascading hazards such as flooding, transportation and hazardous materials incidents, civil unrest and pandemic flu or disease.

REGULATORY SETTING

Federal Regulations

Comprehensive Environmental Response, Compensation, and Liability Act

Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of the CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) pertain primarily to emergency management of accidental releases. It requires formation of state and local emergency planning committees, which are responsible for collecting, material handling, and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the "right-to-know" provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory (TRI).

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to the RCRA created a national priority for waste

minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, in the sky, or in pipelines. It includes provisions for materials classification, packaging, marking, labeling, placarding, and shipping documentation.

State Regulations

California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in CCR, Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators, transporters, treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the U.S. EPA, the integration of California and federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than do the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR, Title 26 “Toxics.” However, the California

hazardous waste regulations are still commonly referred to as Title 22. For the purposes of clarity, because of the extensive reach of Title 22 and Title 26, many common household products sold in grocery stores and home improvement warehouses qualify as hazardous materials. These items include household cleaners, detergents, paint, motor oil, lubricants, glues, pesticides, etc. The term “hazardous materials” is also defined to include many on-site materials as well, such as lubricants, fuel, etc.

Cortese List: Section 65962.5(a)

Government Code Section 65962.5 requires the CalEPA to develop at least annually an updated Hazardous Waste and Substances Sites list (Cortese List). The Cortese List is a planning document used by the state, local agencies, and developers to comply with California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. Release sites include or hazardous materials release sites may include the following:

- All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
- All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- All sites listed pursuant to Section 25356 of the Health and Safety Code.
- All sites included in the Abandoned Site Assessment Program.

The California DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The California Hazardous Material Management Act

The Hazardous Materials Management Act (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on-site (above specified quantities), an emergency response plan, and an employee training program. An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and state community right-to-know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code (HSC), Chapter 6.95, Section 25500–25532, an HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than:

- A total weight of 500 pounds or a total volume of 55 gallons;
- 200 cubic feet of a compressed gas at standard temperature and pressure; and/or
- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40, or 70 of Chapter 10, Title 10, CFR, or equal to or greater than the amounts specified above, whichever amount is less.
- An HMBEP must be prepared prior to facility operation. Any business subject to HMBEP requirements shall submit an amendment of its HMBEP to the local implementing agency when there is:
- A 100 percent or more increase in the quantity of a previously disclosed hazardous material;

- Any handling of a previously undisclosed hazardous material subject to the inventory requirements;
- Change of business address;
- Change of ownership;
- Change of business name; and/or
- Change of contact information.

In addition, any business subject to HMBEP requirements is also required to certify the inventory of hazardous materials handled at the business every year. Businesses are also required to review their HMBEP at least once every three years to determine if a revision is necessary. Once the review has been conducted, the business must certify in writing to the local implementing agency that a review has been completed and necessary changes were made. For businesses within the city, HMBEPs are submitted to and approved by the County of Riverside Community Health Agency, Department of Environmental Health (DEH).

The California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the state of California. The HWCL requires a hazardous waste generator, which stores or accumulates hazardous waste for periods greater than 90 days at an on-site facility or for periods greater than 144 hours at an off-site or transfer facility, which treats, or transports hazardous waste, to obtain a permit to conduct such activities. The HWCL implements RCRA as a “cradle-to-grave” waste management system in the state of California. HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates the number of types of wastes and waste management activities that are not covered by federal law with RCRA.

State Aeronautics Act (Public Utilities Code Section 21670, et seq.)

The Public Utilities Code (PUC) establishes the requirement for the creation of airport land use commissions for every county in which there is located an airport that is served by a scheduled airline. Additionally, these sections of the Code mandate the preparation of Comprehensive Land Use Plans (CLUP) to provide for the orderly growth of each public airport and the area surrounding the airport. The purpose of CLUPs includes the protection of the general welfare of inhabitants within the vicinity of the airport and the general public.

California Emergency Services Act

Government Code 8550–8692 provides for the assignment of functions to be performed by various agencies during an emergency so that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur. The coordination of all emergency services is recognized by the state to mitigate the effects of natural, manmade, or war-caused emergencies which result in conditions of disaster or extreme peril to life, property, and the resources of the state, and generally, to protect the health and safety and preserve the lives and property of the people of the state.

State Fire Plan

The state Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the State Fire Plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

Local Regulations

Riverside County Area Plan

The County of Riverside, Health Services Agency, DEH, Hazardous Materials Division established the Area Plan based on requirements of Chapter 6.95 of the California Health and Safety Code, Title 19 of the CCR and the U.S. EPA SARA Title III for emergency response to a release or threatened release of a hazardous material within the County. The Hazardous Materials Program and Response Plan contained in the Area Plan serves the majority of the cities in Riverside County, including Moreno Valley.

As part of the Area Plan, the Federal Risk Management Plan (RMP), as incorporated and modified by the State of California Accidental Release Prevention (CalARP) Program, is designed to prevent harm to people and the surrounding environment by the use of various organized systems to identify and manage hazards. The goal of the CalARP Program is to make all facilities that handle regulated substances free of catastrophic incidents.

Any stationary source (business) that exceeds the threshold quantities of regulated substances shall submit a RMP under the CalARP Program. A Business Emergency Plan (BEP) must be submitted by all businesses that handle hazardous materials over a designated threshold quantity. Upon completion of a BEP, the BEP is submitted to Moreno Valley's local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the city is the County of Riverside Health Department, Environmental Health Division. A BEP contains vital information that may be utilized to minimize the effects and extent of a threatened release of hazardous materials. In addition, this information allows emergency response personnel to determine potential risks and hazards while developing a strategy for handling an emergency involving hazardous materials. Annually submitted RMPs are currently reviewed by the County Environmental Health Division.

If a hazardous materials emergency occurred within the city, the first response would be the Moreno Valley Fire Department and from the California Department of Forestry (CDF)/Riverside County Fire Department Hazardous Materials Response Team (HMERT). The HMERT is stationed at the Beaumont CDF Station 20.

Riverside County Airport Land Use Plan

The Riverside County Airport Land Use Commission (ALUC) assists local agencies by ensuring the development of compatible land uses in the vicinity of existing airports. Beginning in 2004, the Riverside County ALUC began adopting new versions of the ALUCPs for most Riverside County airports that are contained within a single, county-wide document entitled Riverside County Airport Land Use Compatibility Plan (ALUCP). The ALUCP for each airport consists of the policies in Chapter 2 of that document that are applicable to all of the airports in the County together with the airport-specific policies and maps contained within individual airport ALUCPs.

MARB/IPA Land Use Compatibility Plan

The MARB/IPA Land Use Compatibility Plan (2014) was adopted by the Riverside County ALUC on November 13, 2014. The plan is primarily based on the U.S. Air Force's AICUZ dated August 2005. The compatibility zones and associated criteria set forth in the March ARB/IPA Land Use Compatibility Plan provide noise and safety compatibility protection equivalent or greater than the Air Force recommended criteria presented in the AICUZ.

Air Installation Compatible Use Zone Study

MARB/MIP is a joint-use airport, used for both military and civilian purposes. The airport is owned and regulated by the military. Military installations prepare AICUZ studies to protect vicinity land uses from hazard and noise impacts associated with military airports. The Air Force Reserve completed a new AICUZ Study in 2018 for the MARB as an update of the AICUZ study completed in 2005. The

AICUZ delineates the clear zones and accident potential zones for the joint use airfield, as well as the noise contours based upon the project flight operations and use of the aviation field. The noise contours include both military and civilian use, as projected in the Federal Aviation Administration conformity determination.

Local Hazard Mitigation Plan

The City's LHMP (2017) is designed to identify the city's hazards, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term natural or man-made hazard risks to human life and property for the city and its residents. The 2017 LHMP is an update to Moreno Valley's 2011 LHMP which the Moreno Valley City Council adopted on October 25, 2011 (Resolution No. 2011-102).

Emergency Operations Plan

The purpose of City's Emergency Operations Plan (2009) is to establish a comprehensive, all-hazards approach to natural, man-made and technological disasters. The plan provides an overview of operational concepts; identifies the components of the City's Emergency Management Organization; and describes overall responsibilities of federal, state and local agencies.

7.5 HYDROLOGY, FLOODING, AND WATERSHEDS

EXISTING SETTING

Geologically, the project area is located in the Peninsular Ranges Geomorphic Province of southern California, which extends southeastward from the San Bernardino and San Gabriel Mountains to the tip of the Baja California peninsula and is composed of alluvial

deposits resulting from the erosion of nearby granitic mountain ranges (City of Moreno Valley 2006a).

Flooding

There are four types of flooding conditions that exist within the Moreno Valley area: flooding in defined watercourses; ponding; sheet flow; and dam inundation. Flooding within defined watercourses occurs within drainage channels and immediately adjacent floodplains. Ponding occurs when water flow is obstructed due to manmade obstacles such as the embankments of SR-60 and other roadways.. Sheet flow occurs when capacities of defined watercourses are exceeded and water flows over broad areas (LHMP; City of Moreno Valley 2017).

Several portions of the Moreno Valley area are subject to a 100-year flood, meaning a flood with a one percent chance of occurring in any given year. Based on Federal Emergency Management Agency (FEMA) mapping (Riverside County Geographic Information Systems [GIS] 2019), Table 7-8 and Figure 7-11 identify the FEMA floodplains/floodways throughout the planning area.

Table 7-8: FEMA Floodplains/Floodways within the Planning Area

<i>Floodplain/Floodway</i>	<i>Sum of Acres</i>
500-year Floodplain	4,804.94
100-year Floodplain	873.93
Floodway	2,124.92
Grand Total	7,803.79

Source: Riverside County GIS 2019

Moreno Valley has a long history of being affected by flooding. Notable flooding incidents since 2005 are described in Table 7-9.

Drainage

Most of the planning area drains into the San Jacinto River. The northwest portion of the planning area drains to the west into a tributary of the Santa Ana River.

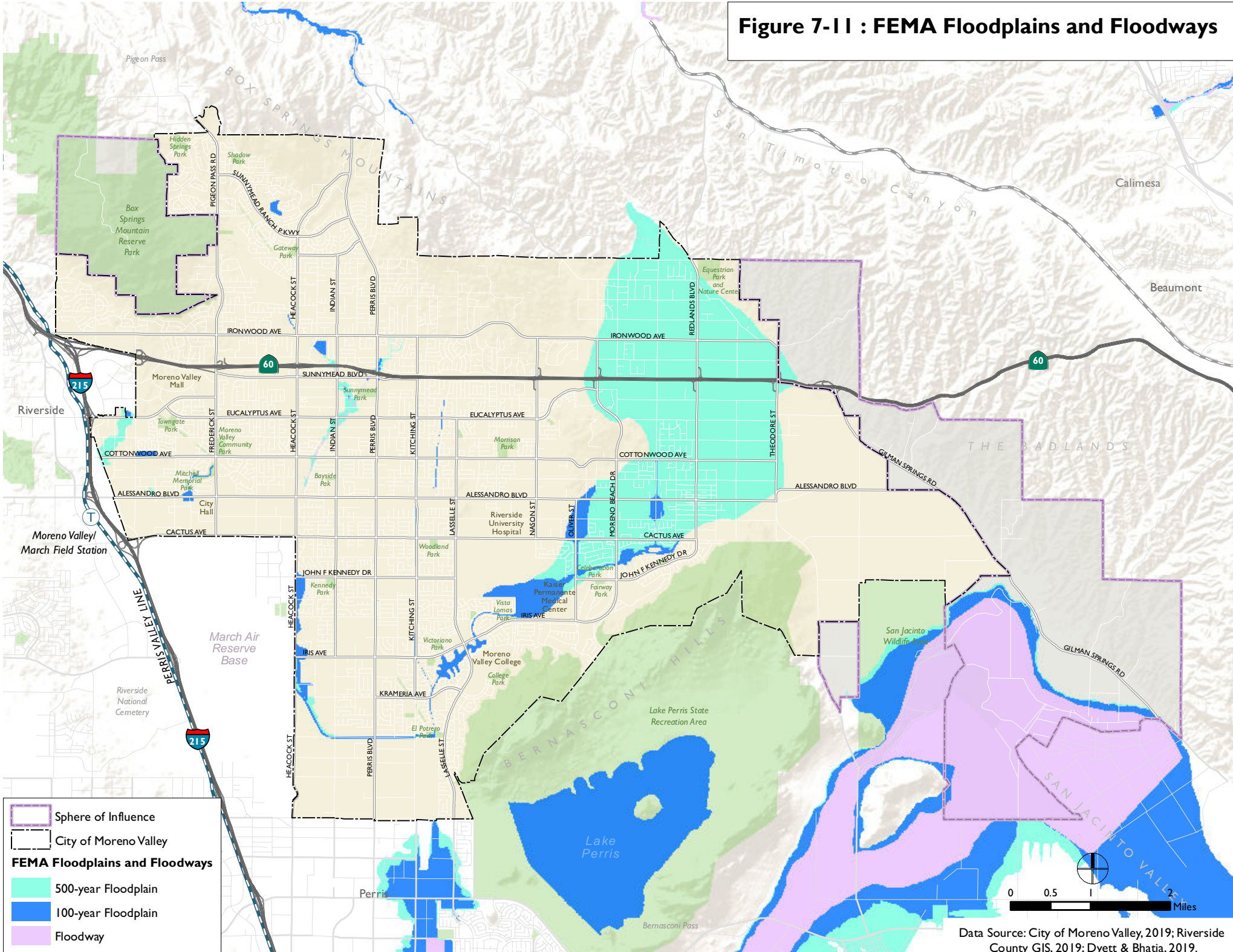
The Riverside County Flood Control and Water Conservation District (RCFCWCD) is the agency responsible for the regional flood control system. The RCFCWCD has prepared three Master Drainage Plans (Sunnymead Area, West End, and Moreno), each of which covers a different portion of the city. The RCFCWCD presently owns and maintains a number of flood control facilities, while the City controls a number of local facilities. New development is required to build master drainage plan facilities and/or pay fees that are used to build the facilities.

There are a few small ponds and lakes scattered throughout the city. Lake Perris is located south of the city and is a potential source of drainage waters flowing to developed areas (City of Moreno Valley 2006a). Additionally, the City’s Master Drainage Plan was updated in early 2015 and adopted by City Council on October 13, 2015. The Master Drainage Plan proposes the construction of detention basins, debris basins, open channels and a network of underground storm drains. When implemented, it provides flood protection from the 100-year storm event. In addition, it also serves as a planning guide for the location and sizing of local drainage facilities to be constructed by developers and others within the area (LHMP; City of Moreno Valley 2017).

Stormdrains

Three major storm drains (Sunnymead Storm drain, Kitching Storm drain, and the Perris Valley Storm drain) serve the city. These channels generally flow north to south. These channels drain to the San Jacinto River, Canyon Lake and ultimately to Lake Elsinore (City of Moreno Valley 2006b).

Figure 7-11 : FEMA Floodplains and Floodways



Sphere of Influence
 City of Moreno Valley
FEMA Floodplains and Floodways
 500-year Floodplain
 100-year Floodplain
 Floodway



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Table 7-9: History of Flooding in Moreno Valley

<i>Year</i>	<i>Description</i>
2005	DR-1577, January 2005, 12 homes were damaged throughout the city from flooding. Asphalt and pavement were washed out at various sites throughout the city. Heacock and Cactus channel flooded and blocked public right-of-way. \$23K public assistance.
2005	DR-1585, February 2005, flooding in the area of Reche Vista, Ironwood and Davis Street, Heacock channel north of JFK Boulevard; 15 homes throughout the city with minor flood damage. \$16K public assistance.
2010	DR-1884 January 2010, flooding damage/road closures throughout the city. Example of damage included: erosion of Heacock Channel (south of Iris north of Cactus) causing encroachment to the roadway. Slope and down drain repair at Reche Vista; damage to retention basin/drainage swales on Redlands Boulevard; and debris /road cleanup throughout city. Damage assessment for the Heacock Channel area resulted in an approximate cost of \$58 million, which included damages to infrastructures (roadway and utilities), commercial and residential structures, and undevelopable industrial and commercial lands due to flood plain.
2010	DR-1952, December 2010, flooding was citywide. Heacock Channel, 10 city parks, several homes were damaged from flooding. Damage to the Indian Basin while under construction for improvement; flooding of Sunnymead Boulevard and surrounding businesses between Frederick Street and Graham Street. Preliminary damage assessment \$998K.

Table 7-9: History of Flooding in Moreno Valley

<i>Year</i>	<i>Description</i>
2012	Severe rain and flooding citywide resulted in numerous residential flooding east of Redlands Boulevard in the Campbell Avenue, Gifford Avenue, and Hotchkiss Street neighborhood areas. Numerous visual sightings of tornadoes were reported.
2015	Flash flood caused flooding damages citywide. Severe damage was reported for the residential areas located on Hubbard Street and Dunlavy Court, residential area on Kitching Street-Ivy Lane Neighborhood, on Lawless Road – Pigeon Pass Street, and Camino Del Coronado Street-Sunnymead Ranch were also affected.

Source: Moreno Valley Hazard Mitigation Plan 2017

Sunnymead Storm Channel

The Sunnymead Storm Channel is a concrete-lined channel that extends from SR-60 and crosses the planning area in a southwesterly direction. The Channel accepts storm water runoff from the Box Springs Mountains and areas south of the mountains. The runoff flows into the Sycamore Canyon Watershed. This storm water runoff eventually flows into the Santa Ana Watershed.

Kitching Storm Drain

The Kitching Channel is an open channel that averages a 12-foot bottom, 7-foot deep trapezoidal channel. Kitching Channel and its storm drains system constitutes the backbone of the eastern half of the Sunnymead Master Drainage Plan. The Channel drains in a southerly direction approximately from SR-60 through the central portion of Moreno Valley and into the Perris Valley Storm drain and ultimately into the San Jacinto River Watershed.

Perris Valley Storm Drain

The Perris Valley Storm drain is an open channel. Lateral A runs west to east between Kramenia Avenue and Nandina Avenue. Lateral A enters the main channel west of Lasselle Street. Eventually, the storm drain empties into the San Jacinto River Watershed.

Watersheds

The planning area's primary watersheds, the Santa Ana River and the San Jacinto River watersheds, are depicted in Figure 7-12 and described below (City of Moreno Valley 2006b).

Santa Ana River

The Santa Ana River is the largest river in the south coast region, with a length of about 100 miles and approximately 2,700 square miles of watershed area. The river exits the San Bernardino Mountains and continues westward to the Prado Dam, through the Santa Ana River Canyon, and then flows to the ocean. In addition to being a major flood control facility, the river also serves as a means by which groundwater basins are recharged and is an important wildlife habitat.

San Jacinto River

The San Jacinto River drains approximately 540 square miles to the Railroad Canyon Reservoir (Canyon Lake) which discharges into Lake Elsinore, which discharges into a tributary of the Santa Ana River. Discharges from the two lakes are very rare.

A minor topographic divide extending southward from the Box Springs Mountains across the western portion of the planning area acts as a drainage divide between the watersheds of the San Jacinto and Santa Ana rivers. All storm water runoff east of the topographic divide generally flows in a southerly direction to the San Jacinto River. Storm water west of the divide flows in a westerly direction to the Santa Ana River.

Another topographic divide generally located east of World Logistics Parkway diverts storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows through the San Jacinto Valley. Runoff west of the divide flows to the Perris Valley.

Water Quality

Eastern Municipal Water District (EMWD) has identified two groundwater wells, adjacent to MARB, containing Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) above current U.S. EPA notification levels. The wells were taken out of service until remediation can occur.

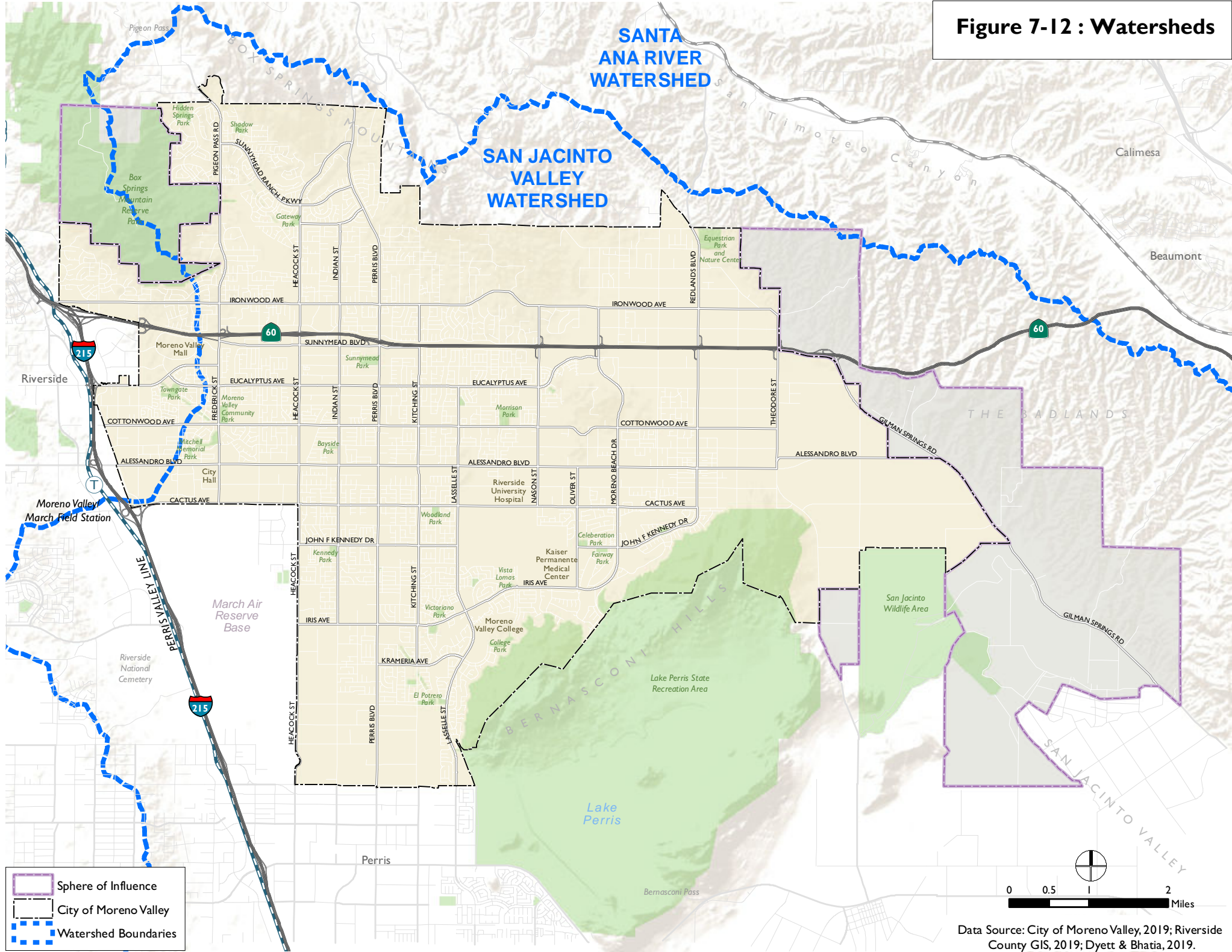
Surface water quality in the planning area is regulated by the Santa Ana Regional Water Quality Control Board (RWQCB) Region 8. The Santa Ana Regional Water Quality Control Board Basin Plan (Basin Plan) (Santa Ana RWQCB 2008) establishes water quality standards for all the ground and surface waters of the region. The Santa Ana RWQCB does not identify any water bodies within the planning area or which the planning area drains into as currently lists on the 303(d) list.

Groundwater

Water resources in the city and throughout Riverside County are sustained by substantial groundwater basins, which are used as reservoirs to store water during wet years. These underground reservoirs are tapped throughout the year according to the demand for water. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas.

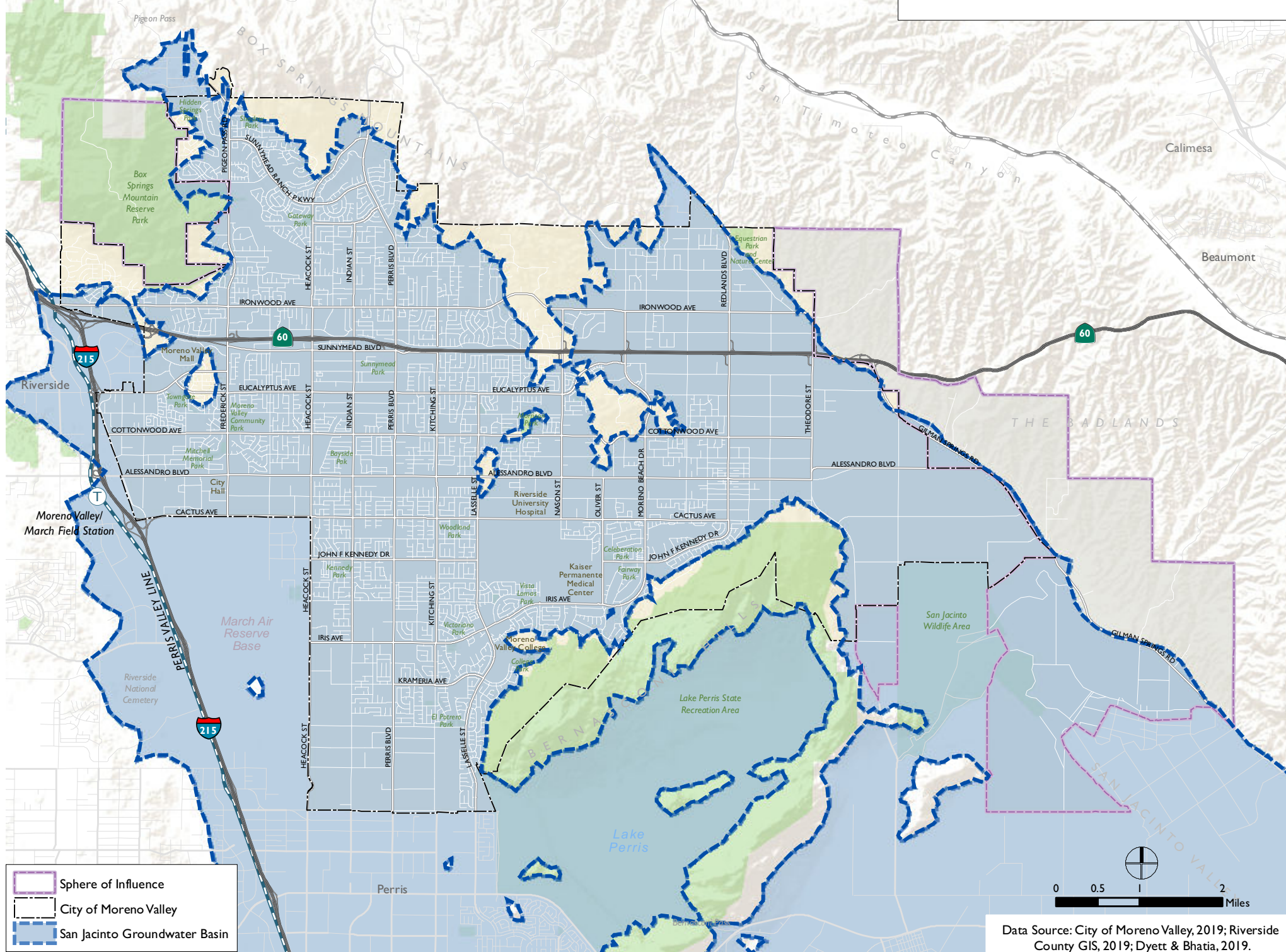
According to the California Natural Resources Agency, the planning area lies within the San Jacinto groundwater basin. Figure 7-13 depicts the location of the San Jacinto groundwater basin in relation

Figure 7-12 : Watersheds



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Figure 7-13 : Groundwater Basins



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

to the city and Sphere of Influence. The California State Department of Water Resources (DWR) has estimated the groundwater basins in the vicinity of the planning area to have capacity for approximately one million acre-feet (AF) of water. It is estimated that the basins store approximately 620,000 AF of water.

Dam Inventory and Failure Risks

Dam inundation is a potential flood hazard in several portions of Moreno Valley from two dams: Pigeon Pass Dam (Poorman's Reservoir) and Perris Dam (City of Moreno Valley 2009).

Pigeon Pass Dam

Failure of the Pigeon Pass Dam (Poorman's Reservoir) could result in extensive flooding along the downstream watercourse. The risk of flooding due to dam failure is limited to the period during and immediately after major storms. The reservoir does not retain water throughout the year.

Perris Dam

Failure of the Perris Dam would only affect a very small area south of Nandina Avenue along the Perris Valley Storm Drain and the Mystic Lake area in the southeast corner of Moreno Valley.

REGULATORY SETTING

Sustainable Groundwater Management Act

In 2014, California lawmakers passed the Sustainable Groundwater Management Act (SGMA), which mandates that all groundwater basins within the state be managed to ensure long-term water supply reliability. Under SGMA, each high and medium priority basin, as identified by the California DWR, must have a Groundwater Sustainability Agency that will be responsible for groundwater monitoring and the development of a Groundwater Sustainability Plan to ensure

long-term groundwater sustainability and prevent overdraft (California DWR 2020).

West San Jacinto Groundwater Sustainability Agency

Under the Sustainable Groundwater Management Act, each high and medium priority basin, as identified by the California Department of Water Resources, is required to have a Groundwater Sustainability Agency that will be responsible for groundwater management and development of a Groundwater Sustainability Plan. The EMWD Board of Directors is the Groundwater Sustainability Agency for the West San Jacinto Groundwater Basin and is responsible for development and implementation of a Groundwater Sustainability Plan (EMWD 2020).

Regional Water Quality Control Board Requirements for Septic Systems

All proposed septic systems (subsurface sewage disposal systems) must comply with RWQCB regulations designed to prevent groundwater contamination from septic system effluent.

Existing Drainage Regulations and Plans

All development within the planning area must comply with Riverside County Flood Control and Water Conservation District, FEMA, and City requirements. The master planned drainage system and local drainage facilities are engineered to resist erosion and sedimentation. The City's grading regulations ensure that changes in existing drainage patterns associated with new development do not create substantial erosion or sedimentation that is added to the storm drain system.

Santa Ana River Basin Water Quality Control Plan

The California Water Code (including the Porter-Cologne Water Quality Control Act (Division 7) is the principal state law regulating water quality in California. The Porter-Cologne Water Quality Control Act establishes a comprehensive program to protect water quality and the beneficial uses of water, and applies to both surface and groundwater. As mentioned above, the State Water Resources Control Board adopts statewide water quality control plans and its nine RWQCBs are required to develop and adopt regional water quality control plans (“basin plans”) that conform to state water quality policy. The city is located in the Santa Ana region and is subject to the Santa Ana RWQCB’s Santa Ana River Basin Water Quality Control Plan which designates beneficial uses of water bodies to be protected and establishes water quality objectives.

National Pollutant Discharge Elimination System

Under the authority of the Clean Water Act, the federal Environmental Protection Agency created the National Pollutant Discharge Elimination System (NPDES) to protect water resources and control pollutants in runoff. The program requires communities of a certain size to obtain permits from the RWQCB. Moreno Valley, Riverside County, and 23 other cities and agencies obtained a joint NPDES permit from the RWQCB-Santa Ana Region. As a co-permittee, the City has the following obligations and responsibilities:

- Conduct storm drain system inspections;
- Conduct and coordinate with Riverside County any surveys and characterizations needed to identify the pollutant sources and drainage areas;
- Implement management programs, monitoring programs, and implementation plans;

- Enact legislation and ordinances as necessary to establish legal authority;
- Pursue enforcement actions as necessary to ensure compliance with the storm water management programs and the implementation plans; and
- Respond to emergency situations (e.g., accidental spills, leaks, illegal discharges and illicit connections) to prevent or reduce the discharge of pollutants to storm drain systems and streams.

The City has established a system for controlling activities that could pollute storm water runoff, such as new residential, commercial and industrial development. Developers must file project-specific water quality management plans with the City for review. Project-specific water quality management plans must be approved prior to issuance of grading permits or building permits.

The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities and obtain authorization to discharge stormwater under an NPDES construction stormwater permit (City of Moreno Valley 2019). The NPDES program also requires certain land uses (e.g., industrial uses) to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted.

Riverside County Water Quality Management Plan

The Water Quality Management Plan (WQMP) for the Santa Ana Region of Riverside County is a guidance document that helps to design projects in compliance with the Santa Ana Regional Water Quality Control Board requirements for Priority Development Projects. These requirements are specified in the NPDES Municipal Separate Storm Sewer System (MS4) permit issued to the Riverside

County Flood Control and Water Conservation District, County of Riverside, and other Cities within the Santa Ana River watershed in the 2010 MS4 Permit.

Riverside County Flood Control and Water Conservation District

The Riverside County Flood Control and Water Conservation District is the regional flood management authority for the western part of Riverside County, including the city. The purpose of the District is to identify flood hazards and problems, regulate floodplains and development, regulate drainage and development, construct and maintain flood control structures and facilities, and complete County watercourse and drainage planning. The district is funded through a share of property taxes in addition to other funding sources. As a Special District, the Flood Control’s jurisdiction extends over the western 40 percent of Riverside County.

Municipal Code

The City’s Municipal Code (2018) includes regulations related to drainage, water quality and flooding. Under Section 9.10.080, liquid and solid waste discharge is not permitted at any point into any public street, public sewer, private sewage disposal system, stream, body of water or into the ground, any materials which can contaminate any water supply, interfere with bacterial processes in sewage treatment, or otherwise cause the emission of dangerous or offensive elements. Chapter 8.12 includes regulations which promote the public health, safety and general welfare, and minimizes the public and private losses due to flood conditions in specific areas. Chapter 8.21 addresses pollutant regulations in regards to grading.

7.6 NOISE

EXISTING CONDITIONS

Moreno Valley is subject to typical urban noises such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. The city also has several transportation-related noise sources, including airport noise, railroad operations, major arterials, I-215 and SR-60. Noise sources that are not directly related to transportation include noise from commercial and industrial centers, construction, and property maintenance activities.

Noise Measurements

As part of this assessment, ambient noise levels were measured in the planning area to provide a characterization of the variability of noise and to assist in determining constraints and opportunities for future development. Ten 15-minute daytime noise level measurements were conducted throughout the study area. Noise measurements were taken with two Larson-Davis LxT Type 1 Integrating Sound Level Meters, serial numbers 3828 and 3829. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Time History Period:	5 seconds
Height of Instrument:	5 feet above ground level

Measurement locations are shown in Figure 7-14. A summary of the measurements is provided in Table 7-10, and traffic counts taken during measurements are summarized in Table 7-11. Based on the measurement data, daytime noise levels in the planning area are typical of an urban environment. Each measurement location and noise source observed during the measurements is discussed on the page 7-49 – 7-50.

Table 7-10: Noise Measurements

ID	Location	Date	Time	L_{eq}
1	Moreno Valley/ March Field Metro Link Station	12/18/19	10:46 a.m. – 11:01 a.m.	60.1
2	Moreno Valley Mall	12/18/19	11:19 a.m. – 11:34 a.m.	65.5
3	Eucalyptus Ave/ Towngate Center	12/18/19	11:42 a.m. – 11:57 a.m.	67.7
4	Civic Center/ Alessandro Blvd	12/18/19	12:13 p.m. – 12:28 p.m.	64.1
5	Nason/ Alessandro Blvd	12/18/19	1:15 p.m. – 1:30 p.m.	65.9
6	Riverside County Regional Medical Center/Cactus Ave	12/18/19	1:37 p.m. – 1:52 p.m.	66.6
7	SR-60	12/19/19	10:46 a.m. – 11:01 a.m.	74.8
8	Warehouse Area/ Perris Blvd	12/19/19	12:07 p.m. – 12:22 p.m.	67.4
9	I-215	12/19/19	1:09 p.m. – 1:24 p.m.	71.3
10	Sunnymead Blvd	12/19/19	1:55 p.m. – 2:10 p.m.	67.2

L_{eq} = one-hour equivalent noise level

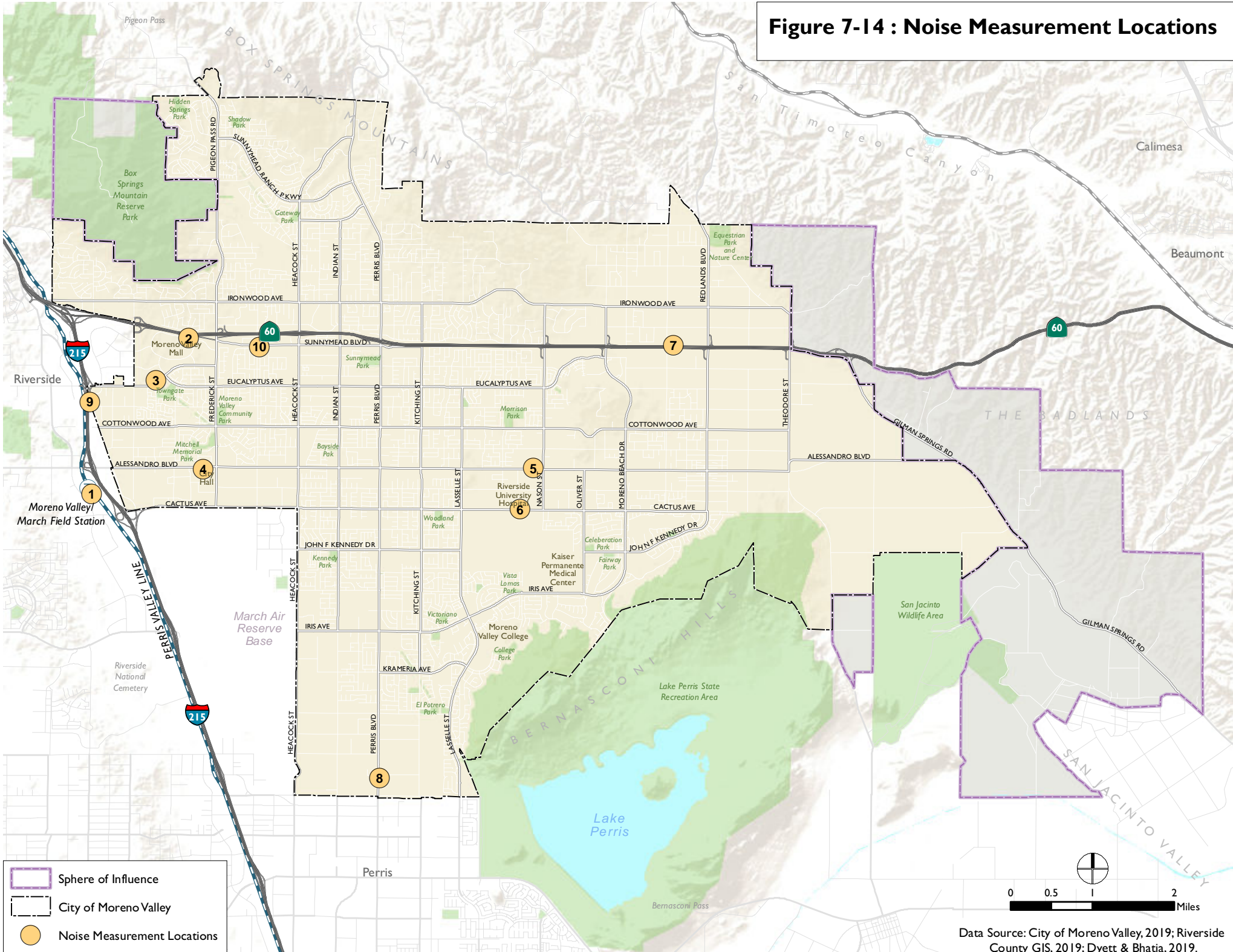
Table 7-11: 15-minute Traffic Counts

Measurement	Roadway	Direction ¹	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles
2	Town Circle	EB	52	1	0	0	0
		WB	55	0	0	4	1
3	Eucalyptus Ave	EB	135	0	0	1	0
		WB	117	2	1	1	1
4	Alessandro Blvd	EB	199	0	5	1	0
		WB	249	4	4	1	1
5	Alessandro Blvd	EB	96	2	0	1	1
		WB	77	3	0	0	0
6	Cactus Ave	EB	96	0	0	2	1
		WB	109	2	1	1	0
8	Perris Blvd	NB	168	8	1	2	0
		SB	136	2	1	2	1
9	Old 215 Frontage Rd	NB	156	0	2	0	0
		SB	59	1	4	0	0
10	Sunnymead Blvd	EB	192	2	0	1	0
		WB	162	6	0	1	0

¹EB = eastbound; WB = westbound; NB = northbound; SB = southbound

NOTE: Traffic counts were not conducted during Measurements 1 or 7 because freeway traffic volumes could not be manually counted.

Figure 7-14 : Noise Measurement Locations



- Sphere of Influence
- City of Moreno Valley
- Noise Measurement Locations

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Measurement 1 was taken at the Moreno Valley/March Field Metro Link Station located west of I-215, east of Meridian Parkway, and south of Alessandro Boulevard. The measurement was located at the fence overlooking the Metro Link tracks, approximately 140 feet from the tracks and 715 feet from I-215. The main source of noise at this measurement location was vehicle traffic on I-215. Other sources of noise included aircraft taking off from MARB and distance construction equipment. The average measured noise level was 60.1 A-weighted decibels one-hour equivalent sound level [dB(A) L_{eq}].

Measurement 2 was located at the northeastern edge of the Moreno Valley Mall, approximately 25 feet from Town Circle and 165 feet south of SR-60. The main source of noise at this location was vehicle traffic on SR-60 and Town Circle. Other noise sources included parking lot activities and buses. Traffic volumes on Town Circle were counted during the 15-minute measurement period. The average measured noise level was 65.5 dB(A) L_{eq} .

Measurement 3 was located near the intersection of Eucalyptus Avenue/Towngate Boulevard and Memorial Way, approximately 50 feet north of Eucalyptus Avenue. The main source of noise at this location was vehicle traffic on Eucalyptus Avenue. Traffic volumes on Eucalyptus Avenue were counted during the 15-minute measurement period. The average measured noise level was 67.7 dB(A) L_{eq} .

Measurement 4 was taken near Moreno Valley City Hall, west of the intersection of Alessandro Boulevard and Frederick Street, approximately 40 feet south of Alessandro Boulevard. The main source of noise at this location was vehicle traffic on Alessandro Boulevard. Other sources of noise included airplanes. Traffic volumes on Alessandro Boulevard were counted during the 15-minute measurement period. The average measured noise level was 64.1 dB(A) L_{eq} .

Measurement 5 was taken near the intersection of Alessandro Boulevard and Nason Street, approximately 50 feet north of Alessandro Boulevard. The main source of noise at this location was vehicle traffic on Alessandro Boulevard. Other sources of noise included vehicles accessing the driveway south of the measurement location and airplanes. Traffic volumes on Alessandro Boulevard were counted during the 15-minute measurement period. The average measured noise level was 65.9 dB(A) L_{eq} .

Measurement 6 was taken adjacent to the Riverside County Regional Medical Center, approximately 30 feet north of Cactus Avenue. The main source of noise at this location was vehicle traffic on Cactus Avenue. Other sources included noise parking lot activities and an ambulance siren. Traffic volumes on Cactus Avenue were counted during the 15-minute measurement period. The average measured noise level was 66.6 dB(A) L_{eq} .

Measurement 7 was located approximately 85 feet north of SR-60. The main source of noise at this location was vehicle traffic on SR-60. The average measured noise level was 74.8 dB(A) L_{eq} .

Measurement 8 was located within the warehousing area in the southern planning area, approximately 50 feet east of Perris Boulevard. The main source of noise was vehicle traffic on Perris Boulevard. Other sources of noise included aircraft from MARB. Traffic volumes on Perris Boulevard were counted during the 15-minute measurement period. The average measured noise level was 67.4 dB(A) L_{eq} .

Measurement 9 was taken at the western planning area, approximately 30 feet west of Old 215 Frontage Road and 100 feet east of I-215. The main source of noise was vehicle traffic on I-215. Other sources of noise included vehicle traffic on Old 215 Frontage Road and aircraft from MARB. Traffic volumes on Old 215 Frontage Road were counted during the 15-minute measurement period. The average measured noise level was 71.3 dB(A) L_{eq} .

Measurement 10 was taken within the Sunnymead planning area, approximately 50 feet south of Sunnymead Boulevard and 115 feet east of Graham Street. The main source of noise at this location was vehicle traffic on Sunnymead Boulevard. Other sources of noise included vehicle traffic on Graham Street and airplanes. Traffic volumes on Sunnymead Boulevard were counted during the 15-minute measurement period. The average measured noise level was 67.2 dB(A) L_{eq} .

March Air Reserve Base Noise Contours

The MARB is located southwest of the planning area. MARB is a joint-use civilian and military facility. MARB is bordered by the city to the east/northeast, city of Riverside to the northwest, the city of Perris to the south, and unincorporated Riverside County to the west. The Airport Influence Area (AIA) extends up to 9 miles north, west, and east of the main runway and 14 miles to the south, and covers land within unincorporated Riverside County and the cities of Menifee, Moreno Valley, Perris, and Riverside. Land uses in the immediate vicinity of MARB generally consist of public/institutional uses to the west, office/business park and industrial uses to the northwest, office and commercial uses to the north, open space and residential uses to the northeast, open space and industrial uses to the southeast, and open space, agricultural uses, and residential to the south. The MARB noise contours are shown in Figure 7-15 (Riverside County Airport Land Use Commission 2014).

Regulatory Framework

State

General Plan Guidelines

The land use compatibility chart for community noise provided in the 2017 General Plan Guidelines prepared by the Governor's Office of Planning and Research is shown in Table 7-12. This table provides a tool to gauge the compatibility of land uses relative to existing and

future noise levels. Local jurisdictions can use this table as a guide for establishing its own General Plan noise compatibility levels that reflect the noise-control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. Table 7-12 identifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after detailed analysis of the noise reduction requirements for each land use, and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

California Code of Regulations – Noise Insulation Standards

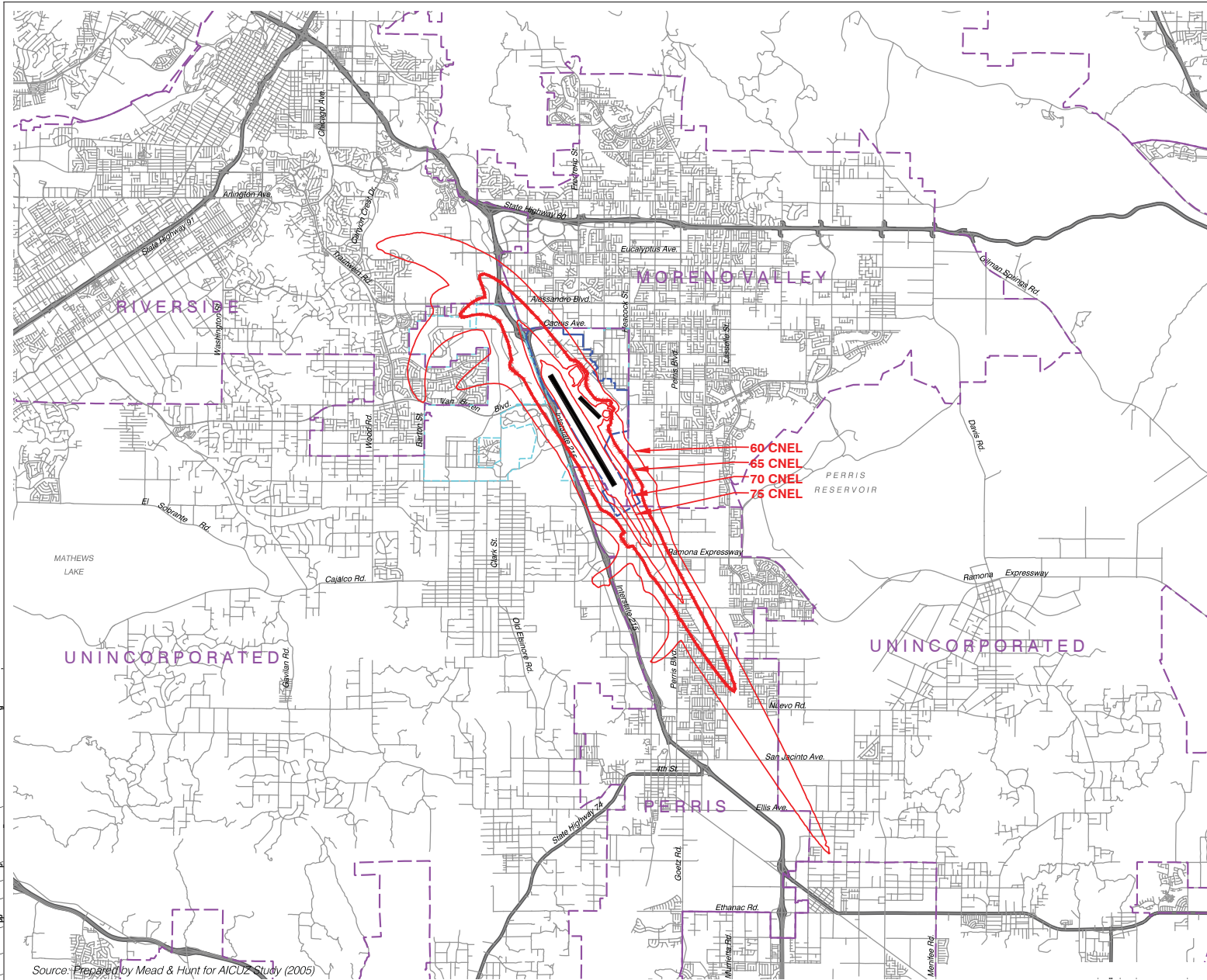
Interior noise levels for habitable rooms are regulated by Title 24 of the CCR (2016), California Noise Insulation Standards. Title 24, Chapter 12, Section 1207 of the California Building Code requires that interior noise levels, attributable to exterior sources, not exceed 45 community noise equivalent level (CNEL) in any habitable room within a residential structure. A habitable room in a building is used for living, sleeping, eating, or cooking. Bathrooms, closets, hallways, utility spaces, and similar areas are not considered habitable rooms for this regulation (24 CCR 1207 2016).

California Green Building Standards Code – Environmental Comfort

For nonresidential structures, Title 24, Chapter 12, Section 1207.5 refers to 2016 California Green Building Standards (CALGreen), Chapter 5 – Nonresidential Mandatory Measures, Division 5.5 – Environmental Quality, Section 5.507 – Environmental Comfort, Subsection 5.507.4 – Acoustical Control. Pursuant to these standards, all nonresidential building construction shall employ building assemblies and components that achieve a composite sound transmission class rating of at least 50 or shall otherwise demonstrate that exterior noise shall

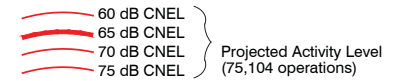
Figure 7-15 : March Air Reserve Base Noise Contours

Map Source: March Air Reserve Base Land Use Compatibility Plan, 2014

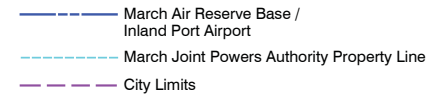


LEGEND

Noise Contours



Boundary Lines



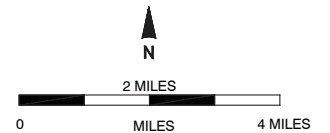
Projected Activity Level

Annual Operations	75,104
Average Annual Day	206

Note:

Contours represent composite of noise contours from four sources:

- Forecasts and noise contours from Air Installation Compatible Use Study for March Air Reserve Base (August 2005).
- Environmental Assessment for Proposed Military Construction and Total Force Integration at March Air Reserve Base (Air Force Reserve Command, June 2010); Environmental Impact Report for March Inland Port General Aviation Facilities Development (March Joint Powers Authority, August 2012).
- F-15 Aircraft Conversion Environmental Impact Statement 144th Fighter Wing California Air National Guard Fresno-Yosemite International Airport (National Guard Bureau, March 2013).



Source: Prepared by Mead & Hunt for AICUZ Study (2005)

Table 7-12: Community Noise and Land Use Compatibility

Land Use	CNEL					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	Light	Light	Light	Light	Light	Dark
Residential – Multiple Family	Light	Light	Light	Light	Light	Dark
Transient Lodging: Hotels and Motels	Light	Light	Light	Light	Light	Dark
Schools, Libraries, Churches, Hospitals, Nursing Homes	Light	Light	Light	Light	Light	Dark
Auditoriums, Concert Halls, Amphitheaters	Light	Light	Light	Light	Light	Dark
Sports Arena, Outdoor Spectator Sports	Light	Light	Light	Light	Light	Dark
Playground, Neighborhood Parks	Light	Light	Light	Light	Light	Dark
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Light	Light	Light	Light	Light	Dark

Table 7-12: Community Noise and Land Use Compatibility

Land Use	CNEL					
	55	60	65	70	75	80
Office Buildings, Businesses, Commercial and Professional	Light	Light	Light	Light	Light	Dark
Industrial, Manufacturing, Utilities, Agricultural	Light	Light	Light	Light	Light	Dark

Normally Acceptable:
 Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable:
 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable:
 New construction or development should generally not be undertaken.

Source: Governor's Office of Planning and Research 2017.

not result in interior noise environment where noise levels exceed 50 dB(A) L_{eq} in occupied areas during any hour of operation (24 CCR 1207.5 2016).

Moreno Valley Adopted General Plan

The City's noise guidelines are found under Section 6.4 of the General Plan Safety Element. The goals, objectives, policies, and action items related to noise was last updated in 2006. The Safety Element generally discusses land use compatibility with respect to exterior noise and frames the discussion in terms of research that provides approximate percentages of the general population that would have increasingly strong reactions to increasing community noise levels. However, the noise section does not establish quantified land use compatibility guidelines (such as the state's guidelines discussed above). The General Plan provides the following objectives and policies related to noise (City of Moreno Valley 2006a).

Objective 6.3

Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.

Policies:

- 6.3.1 The following uses shall require mitigation to reduce noise exposure where current or future exterior noise levels exceed 20 CNEL above the desired interior noise level:
- Single- and multiple-family residential buildings shall achieve an interior noise level of 45 CNEL or less. Such buildings shall include sound insulating windows, walls, roofs and ventilation systems. Sound barriers shall also be installed (e.g. masonry walls or walls with berms) between single-family residences and major roadways.
 - New libraries, hospitals and extended medical care facilities, places of worship and office uses shall be insulated to achieve interior noise levels of 50 CNEL or less.
 - New schools shall be insulated to achieve interior noise levels of 45 CNEL or less.

- 6.3.2 Discourage residential uses where current or projected exterior noise due to aircraft over flights will exceed 65 CNEL.
- 6.3.3 Where the future noise environment is likely to exceed 70 CNEL due to overflights from the joint-use airport at March, new buildings containing uses that are not addressed under Policy 6.3.1 shall require insulation to achieve interior noise levels recommended in the MARB Air Installation Compatible Use Zone Report.
- 6.3.4 Encourage residential development heavily impacted by aircraft over flight noise, to transition to uses that are more noise compatible.
- 6.3.5 Enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels and hotels.
- 6.3.6 Building shall be limited in areas of sensitive receptors.

Objective 6.4

Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.

Policies:

- 6.4.1 Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.

Objective 6.5

Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.

Policies:

- 6.5.1 New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.
- 6.5.2 Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

Municipal Code

Operational Noise

The City regulates noise through the Municipal Code under Title 11 Peace, Morals and Safety, Chapter 11.80, Noise Regulation. Table 7-13 and 7-14 summarize the maximum continuous and maximum impulsive noise level limits specified in Section 11.80.030(B)(1) of the Municipal Code.

Section 11.80.030(C) provides noise level limits for non-impulsive noise. The section states “No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any non-impulsive sound which exceeds the limits set forth for the source land use category in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property.” The sound level limits provided in Table 11.80.030-2 of the Municipal Code are summarized in Table 7-15.

Table 7-13: Maximum Continuous Sound Levels

<i>Duration per Day Continuous Hours</i>	<i>Sound Level Limit [dB(A) L_{eq}]</i>
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

Table 7-14: Maximum Impulsive Sound Levels

<i>Number of Repetitions per 24-Hour Period</i>	<i>Sound Level Limit [dB(A) L_{eq}]</i>
1	145
10	135
100	125

Table 7-15: Maximum Sound Levels for Source Land Uses

<i>Residential</i>		<i>Commercial</i>	
<i>Daytime</i>	<i>Nighttime</i>	<i>Daytime</i>	<i>Nighttime</i>
60	55	65	60

Construction Noise

The Municipal Code limits construction activities in two parts of the code: Sections 8.14.040(E) and 11.80.030(D)(7). Section 8.14.040(E) states that construction within the city shall only occur from 7:00 a.m. to 7:00 p.m. from Monday through Friday excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturdays. Section 11.80.030(D)(7) states that no person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 8:00 p.m. and 7:00 a.m. such that the sound creates a noise disturbance. For power tools, specifically, 11.80.030(D)(9) states that no person shall operate or permit the operation of any mechanically, electrically or gasoline motor-driven tool during nighttime hours that causes a noise disturbance across a residential property line. A noise disturbance is defined as any sound that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible (as measured at a distance of 200 feet from the property line of the source of the sound if the sound occurs on privately owned property, or public right-of-way, public space, or other publicly owned property).

Vibration

The Municipal Code does not establish quantified limits for vibration levels. Section 9.10.170 states that “No vibration shall be permitted which can be felt at or beyond the property line.”

7.7 WILDFIRE PROTECTION

EXISTING CONDITIONS

The Moreno Valley Fire Department (MVFD) is the primary response agency for fires, emergency medical service, hazardous materials incidents, traffic accidents, terrorist acts, catastrophic weather events, and technical rescues for the city. The MVFD also

provides a full range of fire prevention services including public education, code enforcement, plan check and inspection services for new and existing construction, and fire investigation. Additionally, the City’s Office of Emergency Management is located within the MVFD allowing for a well-coordinated response to both natural and man-made disasters. The MVFD is part of the California Department of Forestry and Fire Protection (CAL FIRE)/Riverside County Fire Department’s (RCFD’s) regional, integrated, cooperative fire protection organization.

The MVFD has set an emergency fire incident and medical aid response goal consistent with the National Fire Protection Association (NFPA) 1710 standard of a one-minute preparation time plus a four-minute travel time to fire incidents and emergency medical aid calls (90 percent of the time). Additionally, the NFPA 1710 standard calls for a full first alarm assignment within eight minutes of travel time 90 percent of the time. MVFD response times were tracked manually by fire station personnel through 2008, and compliance with this goal varied from 85 percent to 99 percent, depending on the time of year and the fire station. The City requires any new developments to provide adequate fire suppression water flows. The MVFD responds to medical aid calls with advance life support services.

The MVFD participates in the Regionalized Cooperative Fire Protection Delivery System of Riverside County Fire Department/CAL FIRE. This system ensures that the closest and most appropriate additional fire response resources are available from RCFD and surrounding jurisdictions when there is an emergency in the city that is utilizing a majority of the city’s resources. This allows some of the city’s vacant fire stations to be staffed with fire apparatus from surrounding cities or from the County. Additionally, the City provides fire apparatus to local jurisdictions under this system when they are experiencing either a major incident, or a series of incidents, that has left very few, if any, fire resources available for dispatch in that area.

The MVFD currently has seven operational fire stations (Moreno Valley Fire Department 2020). Additionally, the MVFD Strategic Plan 2012-2022 has identified potential locations for two additional fire stations to be developed in the future (MVFD 2011). Figure 7-16 presents the locations of existing and proposed fire stations within the city.

Prior to construction of these two additional fire stations, the Fire Chief will need to evaluate what existing fire stations and apparatus are available to service areas developing with new residential, commercial, and industrial uses. This evaluation will include consideration of how the MVFD can provide an emergency response to these developing areas within five minutes of receiving a dispatch from the Emergency Command Center and the ability to have an aerial apparatus on scene within eight minutes of dispatch for any reported fires.

The LHMP documented that there were 803 wildland fires within the city varying in size and impact between 2003 and 2016. Eleven of these fires that were documented in the LHMP were over 50 acres in size and are described in Table 7-16 below. The total incident costs for fires over 50 acres that have occurred since 2011 totals \$1,178,679.17.

Major transportation infrastructure including I-215 and SR-60 can play a role in wildfire risk. Wildfires can be started from ignition sources originating from vehicles adjacent to a fuel source. On the other hand, major roadways can serve as barriers to the spread of wildfire.

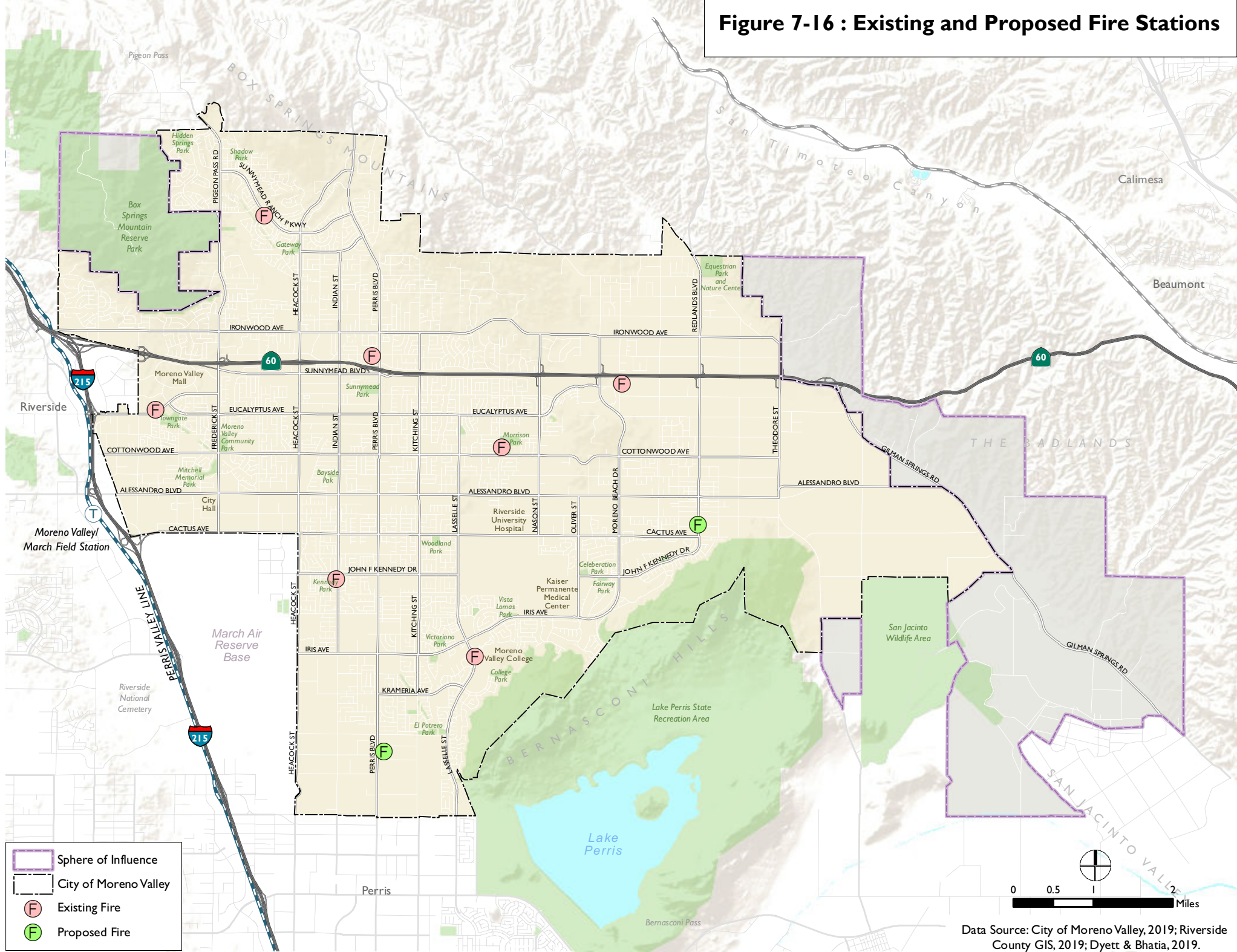
CAL FIRE has developed two datasets for fire threat and hazard mapping. The first mapping dataset consists of Fire Hazard Severity Zones (FHSZs), which were developed for community planning and real estate disclosure purposes, and are meant to help limit wildfire damage to structures through planning, prevention, and mitigation activities/requirements that reduce risk. The FHSZs serve several purposes: they are used to designate areas where California's wildland urban interface building codes apply to new buildings; they can be a factor in real estate disclosure; and local governments consider fire hazard severity in the safety elements of their general plans. This

dataset categorizes threat levels ranging from Low to Very High, and provides the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires. Very High FHSZ mapping is based on data and models of potential fuels over a 30- to 50-year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings. As shown in Figure 7-17, there are approximately 12,283.37 acres of land mapped as Very High FHSZ within the city according to CAL FIRE. Table 7-17 presents the acreage of land within the city and the Sphere of Influence designated under each FHSZ.

The second CAL FIRE mapping dataset are Fire Threat Areas, which provide a measure of fuel conditions and fire potential in the ecosystem, representing the relative likelihood of damaging or difficult to control wildfires occurring for a given area. Fire Threat Area mapping is not a risk assessment by itself, but can be used to assess the potential for impacts on various assets and values susceptible to fire. Impacts are more likely to occur and/or be of increased severity for the higher threat classes. Fire threat is a combination of two factors: (1) fire probability, or the likelihood of a given area burning, and (2) potential fire behavior (hazard). These two factors are combined to create a five-point scale of fire threats ranging from Low to Extreme. As shown on Figure 7-18, the majority of the city is unranked because it consists of urban development that has no wildfire potential. However, areas designated as having Extreme risk are located within, and adjacent to, the southern, eastern, and northern portions of the city and Sphere of Influence.

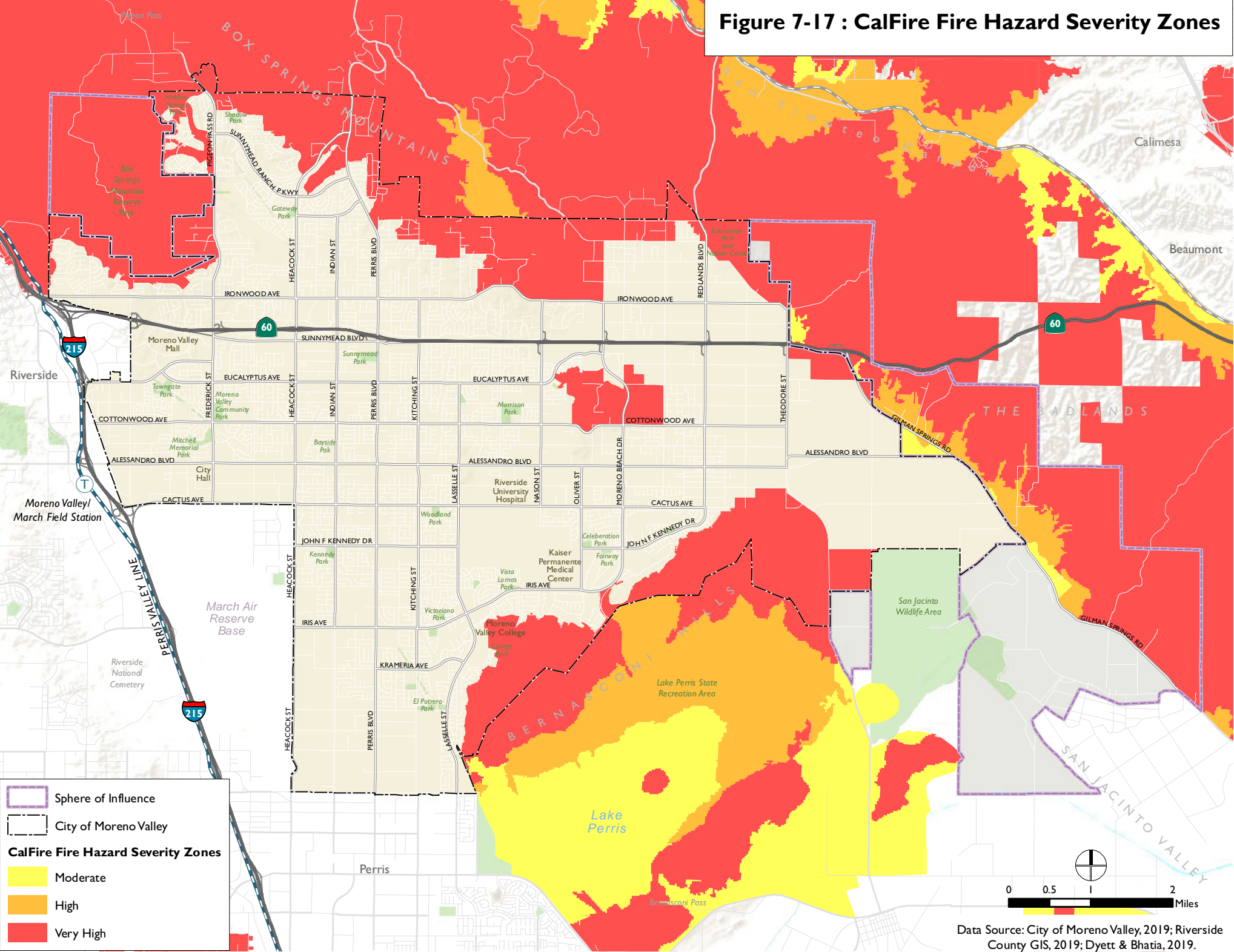
These areas also possess lands that have been designated as having Very High risk for wildland fires. A small central portion of the city has also been identified as having fire risk ranging from Moderate to Extreme, with the majority of this area categorized as having Very High risk. Land west of the city and west of Interstate 215 is designated as having fire risk ranging from Low to Very High. Table 7-18 presents the acreage of land within the city and the Sphere of Influence designated under each Fire Threat Area classification.

Figure 7-16 : Existing and Proposed Fire Stations



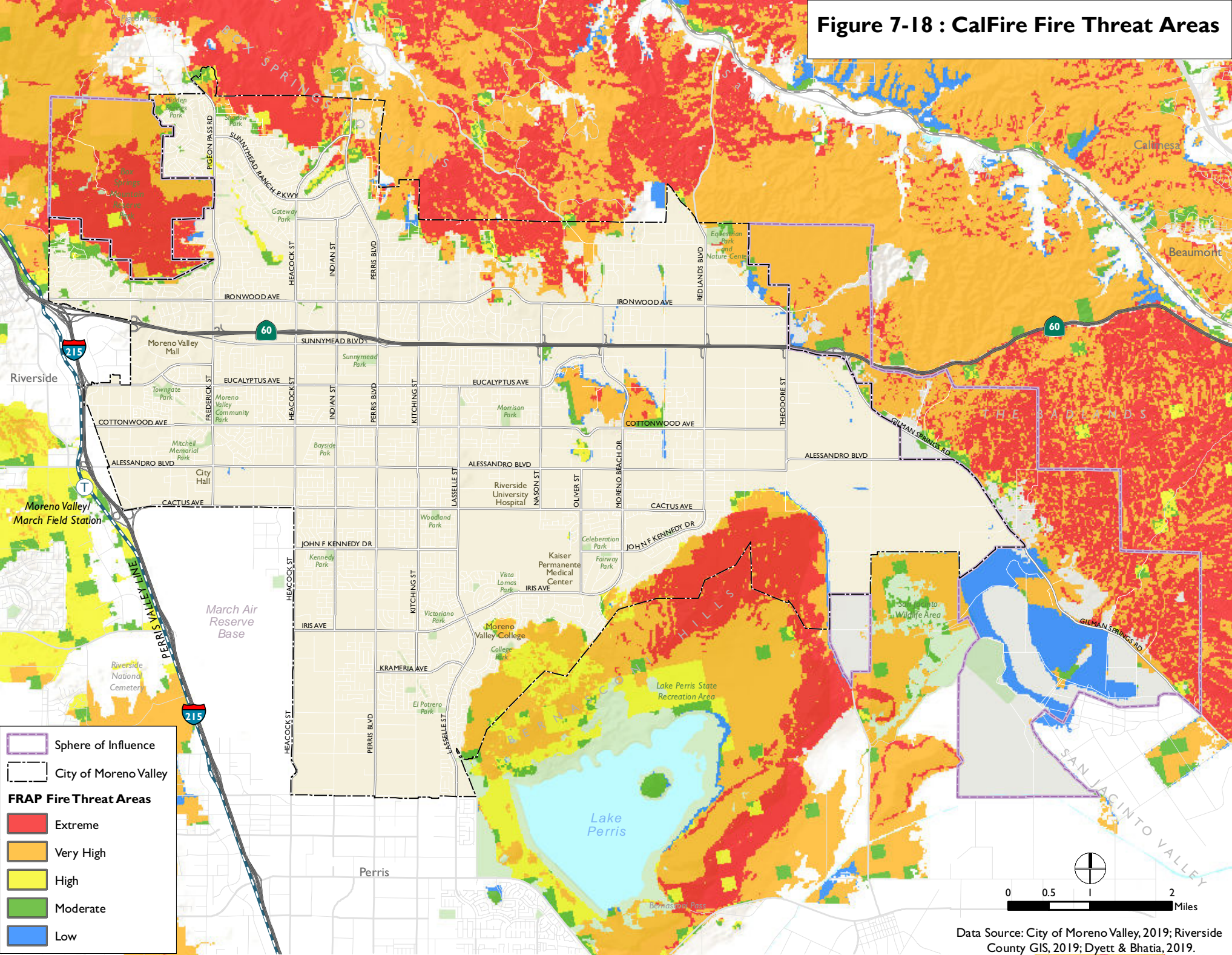
Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Figure 7-17 : CalFire Fire Hazard Severity Zones



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Figure 7-18 : CalFire Fire Threat Areas



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

Table 7-16: History of Fire in Moreno Valley and Surrounding Areas

<i>Year</i>	<i>Fire Description</i>
2002	April 21, 2002 – Redlands Fire – San Timoteo E/O Redlands Boulevard burned 150 acres. No damage information was available.
2003	August 18, 2003 – Locust Fire: wildfire at Redlands Boulevard, east end of Moreno Valley burned 1,600 acres with urban interface. Significant voluntary evacuations with major livestock movement. No other damage information was available.
2003	October 21, 2003 – Pass Fire; wildfire at Reche Canyon, one-half mile North of Moreno Valley burned 2,360 acres and damaged 2 single-family dwellings, 2 mobile homes, 8 outbuildings and other structures and vehicles.
2007	March 4, 2007 - Wildfire at Gilman Springs Road and Alessandro Boulevard burned 680 acres. No damage information was available.
2009	May 27, 2009 - Wildfire at Via del Lago and Alta Calle burned 503 acres near the north entrance of Lake Perris State Recreational Area. No damage information was available.
2011	June 27, 2011 – A wildfire at Camino Real and Oliver Street burned 52 acres near the north entrance of Lake Perris State Recreational Area. No damage information was available.
2011	July 20, 2011 – A wildfire at San Timoteo Canyon Road east of Redlands Boulevard burned 71.13 acres. No damage to structure, personal property or city infrastructure. Incident cost: \$253,274.89.

Table 7-16: History of Fire in Moreno Valley and Surrounding Areas

<i>Year</i>	<i>Fire Description</i>
2011	August 6, 2011 – A wildfire at State Route 60 at Gilman Springs Road burned 1,026 acres. No damage to structures, personal property or city infrastructure Incident cost: \$391,725.84.
2013	May 25, 2013 – A wildfire at Gilman Hot Springs Road east of Alessandro Boulevard burned 126.64 acres. There was no damage to structures, personal property or city infrastructure. Incident cost: \$97,626.58.
2013	July 16, 2013 – A fire near Redlands Boulevard east of San Timoteo Canyon Road burned 168.09 acres. There was damage to two outbuildings and personal property with unknown dollar damage. Mandatory evacuations ordered. No damage to city infrastructure. Incident cost: \$99,218.15.
2015	July 1, 2015 – A wildfire at Merwin Road east of Alessandro Boulevard burned 181.43 acres. A mandatory evacuation was ordered to a residential community and a fire threat was issued to a natural animal preserve. There was city damage sustained to a City's water tower and property fence. There was no residential structure damage. Incident cost: \$336,833.71.

Source: City of Moreno Valley LHMP 2017

Table 7-17: Fire Hazard Severity Zone Acreages

<i>Row Labels</i>	<i>Acres</i>	<i>Percentage</i>
Very High	12,283.37	28.62
High	614.85	1.43
Moderate	195.73	0.46
No Rating	29,823.05	69.49
Total	42,917.00	100.00

Table 7-18: Fire Threat Area Acreages

<i>Row Labels</i>	<i>Acres</i>	<i>Percentage</i>
Extreme	4,720.20	11.00
Very High	5,004.11	11.66
High	547.60	1.28
Moderate	683.16	1.59
Low	1,074.18	2.50
No Rating	30,887.76	71.97
Total	42,917.00	100.00

REGULATORY SETTING

Municipal Code

Municipal Code Section 3.42.060 provides for the collection of Fire Facilities Commercial and Industrial Development Impact Fees and states that these fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

Municipal Code Section 8.36.050 addresses requirements for Wildland-Urban Interface Areas in the city and refers to the mapping of Very High FHSZs in addition to providing fuel modification requirements for new construction. Specifically, any new buildings in areas containing combustible vegetation are required to prepare preliminary fuel modification plans concurrent with the submittal for approval of any tentative map. Final fuel modification plans meeting the criteria in the Riverside County Fire Department Fuel Modification Technical Policy must be approved by the fire code official prior to the issuance of a grading permit.

7.8 KEY FINDINGS AND PLANNING CONSIDERATIONS

The following is a summary of key findings and implications for the General Plan Update process related to environmental considerations:

- Moreno Valley is located in a seismically active region and three branches of the San Jacinto Fault run through the eastern portion of the planning area. The risk of fault rupture is greatest in this area. Additionally, seismic events associated with the active San Andreas Fault located approximately 15 miles northeast and the active Elsinore Fault located approximately 17 miles southwest could also generate ground shaking within the city. California law prohibits the construction of housing in designated fault zones and the California Building Code establishes structural parameters and practices that new development must comply with to minimize the risk of loss or damage due to seismic hazards.
- The risk of liquefaction is generally moderate to low in most parts of the city, although there are small areas in the south

and west that have a high risk of liquefaction in the event of seismic activity. Liquefiable soils do not prohibit development, nor do they require deep foundations to address associated risks. Today, in situ remediation of loose, cohesionless soils is a common practice in geotechnical engineering. Techniques such as earthquake drains can provide adequate soil liquefaction mitigation by dissipating the pore pressure before reaching critical levels. Other strategies include low mobility grouting, dynamic compaction, vibro-compaction and wet soil mixing.

- There are six recorded hazardous materials sites within the city, the majority of which involve dry cleaners and gas stations and pose low risk. One site outside of the City limit on the March Air Reserve Base has been the subject of remediation activities focused on removal benzene, chlorinated hydrocarbons, tetrachloroethylene (PCE), and trichloroethylene (TCE) within the aquifer used for drinking water. There are currently no remediation activities underway and monitoring is ongoing.
- Moreno Valley has a long history of flooding, which most recently resulted in severe damage in 2012 and 2015. The City's Master Drainage Plan proposes the construction of detention basins, debris basins, open channels and a network of underground storm drains. When implemented, it provides flood protection from the 100-year storm event. Portions of the community are at risk in the event of dam failure; however, this risk is limited to the period during and immediately after major storms as the Pigeon Pass reservoir does not retain water throughout the year.
- Wildfire is a growing concern throughout California. In the Moreno Valley area, there were 803 wildland fires varying in size and impact between 2003 and 2016. Given the extent of urban development, the risk of wildfire within most of the city is considered minimal; however, areas within and adjacent to the southern, eastern, and northern portions of the planning area are classified as having Extreme risk. Consideration of risk mitigation strategies will be necessary both for existing and planned development in these locations.

Attachment No. 9
Market Analysis



KEYSER MARSTON ASSOCIATES™
ADVISORS IN PUBLIC/PRIVATE REAL ESTATE DEVELOPMENT

MEMORANDUM

ADVISORS IN:
Real Estate
Affordable Housing
Economic Development

BERKELEY
A. Jerry Keyser
Timothy C. Kelly
Debbie M. Kern
David Doezema
Kevin Feeney

LOS ANGELES
Kathleen H. Head
James A. Rabe
Gregory D. Soo-Hoo
Kevin E. Engstrom
Julie L. Romey
Tim R. Bretz

SAN DIEGO
Paul C. Marra

To: Andrew Hill
Dyett & Bhatia

From: Kevin Engstrom
Courtney Holt

Date: March 11, 2020

Subject: Market Analysis for the City of Moreno Valley

Pursuant to your request, Keyser Marston Associates, Inc. (KMA) prepared a market analysis summarizing the socio-economic characteristics and current market conditions in the City of Moreno Valley (City). As part of this analysis, KMA first evaluated the key socio-economic and employment characteristics of the City and County, including household formation and population trends, education levels, income levels, and employment. KMA then assessed the current market conditions, demand factors, and potential outlook for retail, office, residential, lodging, and industrial development.

The findings and conclusions from this analysis are presented in the following memorandum, along with an Appendix containing underlying data.

EXECUTIVE SUMMARY

Land Use Opportunities

The City is poised to undergo significant household and population growth during the next 20 years, with the number of households increasing by over 18,000 units through 2040. This growth will continue to drive the City and region's housing market, which has experienced some of the healthiest rent and sales price increases over the past several years in Southern California. Household growth and subsequent housing expansion should, in turn, attract a greater volume and variety of retailers. Currently, a large share of the City's retail is located within older, strip and neighborhood-style retail centers of relatively low density. As demand for housing grows, there may be a greater opportunity to introduce high quality, lifestyle retail centers at well placed nodes in the City, and to redevelop some of the older retail centers into higher density, mixed-use developments with on-site housing providing added support to adjacent retail. Meanwhile, employment growth in the County is expected to outpace growth levels in neighboring Counties, largely spurred by the emergent strength of the region's e-commerce and logistics industries. These types of industrial users are increasingly interested in minimizing delivery times and transportation costs and will thus prefer logistics facilities with superior connectivity to transportation infrastructure and nearby customer bases. Given the City's proximity to major population centers, as well as the City's relatively low asking lease rates, it is well positioned to capture some of this demand.

Socio Economic Characteristics

Relatively large household sizes of 3.8 persons per household, combined with a median age of 31 (4 years below the County average), has positive implications for attracting a range of retailers because residents under the age of 55 are desired by most retail types. At \$20,600, per capita incomes in the City are lower on average than those in the County, a fact which can be partly attributed to large household sizes with young children. Approximately 24% of City residents and 31% of County residents have obtained an Associate's Degree or higher; comparatively, 16% of City residents and 23% of County residents have obtained at least a 4-year degree.

Employment and Businesses

Employment growth in the County is robust and projected to outpace growth in neighboring Los Angeles and San Bernardino Counties by a significant margin through 2040. These strong growth rates will be distributed across a broad range of the City's most prominent industries, including Retail and Wholesale Trade, Healthcare Services, Educational Services, and Accommodation and Food Services. However, some of the region's most high growth industries also tend to provide lower wages which may affect residents' spending power. Overall, the City's locational advantages and range of employment concentrations across the wage spectrum, as well as the continued strength of the logistics sector in the Inland Empire, will likely drive healthy employment in the City over the long-term.

Retail Market

Healthy population and household growth throughout the region could boost consumer spending and create opportunity for additional retail development in the Inland Empire. A surplus leakage analysis of the City suggests market support for approximately 569,800 square feet of additional retail space. However, lower household income levels, relatively high retail market vacancy rates and relatively low asking lease rates in the City will impact opportunities. Finally, any additional retail development will naturally have to compete with established regional shopping centers in the neighboring Cities of San Bernardino, Riverside, and Corona and the increasing influence of E-commerce. These factors would suggest potentially re-envisioning the significant corridor and strip retail in the City and instead focusing retail at selected opportunity nodes. Brokers contacted by KMA support these findings, suggesting demand for retail space is healthiest in projects located at high trafficked, signalized corners. For instance, the development of the Destination MoVal Town Center would be such a node. The strength of residential demand in the City suggests there may be an opportunity to re-envision some of the older, outdated strip-center retail throughout the City as mixed-use centers, with the housing component enhancing the performance of adjacent retail.

Office Market

Office demand projections performed by KMA indicate relatively modest support for office space demand over the next 15 years. High vacancy rates and low asking lease rates in the submarket mirror similar market dynamics in the greater Inland Empire region. The region's dominant industries of Manufacturing, Trade and Transportation tend to account for only about 7% of office leasing activity. However, the growth of the local healthcare industry has spurred new medical office development in the City in recent years, and combined with strong regional population growth this may continue to drive demand for medical office space in the long term.

Residential Market

Population and household growth rates in the City indicate market support for nearly 8,800 residential units through 2034. The City and its surrounding areas are experiencing a surge in housing development and home sales partially driven by this strong population growth as well as the region's proximity to major jobs centers in Los Angeles and Orange Counties. Average asking rents in the City have grown at a healthy average rate of 6.0% year over year but remain lower than asking rents in the larger submarket. Ownership housing, meanwhile, has experienced a much sharper rise in price than rental housing in the City; since 2010, median sales prices have risen 98% for single-family homes and 105% for condominiums. Countywide median home sales prices have historically trended higher than those in the City, but prices are growing at a slower pace year-over-year. Further, countywide, home prices grew faster than all other Southern California counties increasing 3.7% between 2018 to 2019. Overall, there is a demonstrated need for denser housing at all levels of affordability evidenced by sharply rising rents, a high

share of rent burdened households, and a general lack of available rental housing stock suited for a wide range of household sizes.

Lodging Market

Historically, hotels are the most volatile land use, as rooms are “rented” on a nightly basis rather than an annual basis like other land use types (residential, retail). This trend will continue in the future, as fluctuations in employment, the economy, and natural/man-made disasters can all have a significant influence on the hotel industry. Notwithstanding these issues, the hotel market in Southern California is healthy, having improved significantly since the recession. In 2018, the Riverside Metropolitan submarket showed the greatest volume of room revenue among all other Inland Empire submarkets. The market area is projected to experience an increase in occupied rooms of 5.0% in 2019 over the previous year, resulting in an average occupancy level of 77.8%. Several new hotel projects will absorb a portion of the market area’s projected demand, including the Hampton Inn Riverside, TownePlace Suites Loma Linda, and TownPlace Suites Chino Hills. Typically, hotel development will occur when stabilized occupancy levels of 76% can be achieved. Overall, the current occupancy level in the greater market area indicates current and future opportunities.

Industrial Market

Despite a significant amount of new construction in the Inland Empire delivering 20M square feet of new space in the last year, demand indicators for industrial development are positive with low vacancy rates and rents increasing year over year. Although the City has low asking lease rates compared with the surrounding region, it is one of the fastest growing industrial submarkets in the Inland Empire. In fact, high rates of construction in the Moreno Valley/Perris submarket has more than doubled the submarket’s industrial space since 2008. The wholesale and retail industries, which include various distribution and warehousing activities, have historically been a major source of employment and an economic driver for the City and will continue to be so in the near to mid term. In addition, logistics and distribution centers tend to include ancillary office uses that are co-located within the warehouse spaces, with a typical office-to-industrial space ratio up to 10% of GBA (Gross Buildable Area). The inclusion of this space within the significant industrial development currently occurring, should have positive implications for skilled job growth in the City going forward.

I. SOCIO-ECONOMIC CHARACTERISTICS

KMA evaluated the socio-economic characteristics of the City of Moreno Valley (“City”), including population growth trends, median incomes and educational levels, and compared these with the characteristics of Riverside County (“County”) as a whole.¹ A summary of findings is below along with charts and tables highlighting key data points:

- Between 2019 and 2024 the City is expected to experience rapid population growth of 5.1%; population growth rates in the County are even higher at 6.1% during this time period.
- Average household sizes in the City are relatively large at 3.8 persons per household compared to 3.2 persons in the rest of the County. Combined with the relatively young median age of City residents, this indicates that there are more families with children living in the City compared with the County.
- Per capita income levels in the City of \$20,600 are low when compared with the County average of \$27,700. City household income levels are lower than County levels at \$61,300 and \$65,100, respectively. The per capita incomes skew lower due to the presence of larger households with younger children living in the City.
- High earning households are more prevalent in the County, with approximately 32% of County households earning at least \$100,000 per year compared to 27% in the City. Roughly the same share of households in the City and County are earning less than \$35,000 per year, at 26% and 27%, respectively. The City has a concentration of households earning between \$50,000 and \$75,000 per year.
- City residents have a lower average educational attainment level compared with residents in the County; approximately 24% of City residents have obtained at least an Associate’s Degree compared to 31% in the County, and 16% of City residents have obtained a 4-year college degree compared to 23% in the County. Similarly, 23% of City residents did not graduate from high school compared to 18% in the County.
- The median age of City residents, 31 years, is relatively young when compared with the County median age of 35 years. Approximately 26% of County residents are 55 years or older, compared to only 19% in the City. The higher share of younger residents will have a positive influence on retail demand, as residents under the age of 55 are targeted consumers.

¹ ESRI (2019). ACS Population Summary and Community Profile. Retrieved December 2019 from the Business Analyst Online database.

Table 1.1

Population & Households: 2019 - 2040					
	2019	2024	2040	% Change 2019-2024	% Change 2019-2040
City of Moreno Valley					
Population	207,744	218,245	256,600	5.05%	23.52%
Households	51,592	54,909	73,000	4.23%	32.95%
Riverside County					
Population	2,447,782	2,597,546	3,183,700	6.12%	30.06%
Households	686,620	759,043	1,028,100	5.40%	35.45%

Source: ESRI Demographics and SCAG 2040 Projections

Table 1.2

Average Persons per Household	
City of Moreno Valley	3.77
Riverside County	3.18

Table 1.3

Per Capita Income	
City of Moreno Valley	\$20,631
Riverside County	\$27,650

Table 1.4

Median Household Income	
City of Moreno Valley	\$61,337
Riverside County	\$65,079

Table 1.5

Household Income Distribution:					
	< \$25,000	\$25,000-\$49,999	\$50,000-\$99,999	\$100,000-\$149,999	\$150,000+
City of Moreno Valley	17%	23%	34%	17%	10%
Riverside County	18%	20%	29%	17%	15%

Chart 1.5. Median Household and Per Capita Income Distribution, 2019

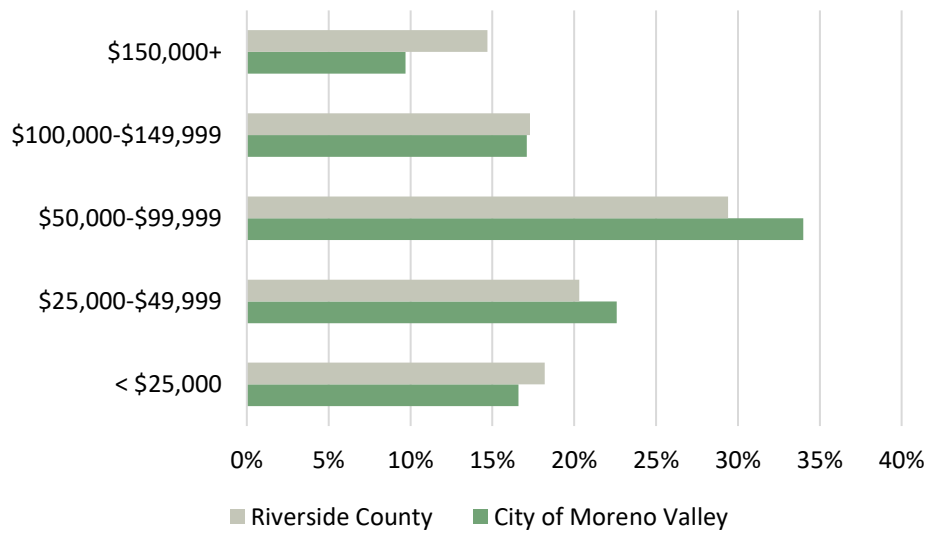


Table 1.6

Educational Attainment Levels				
	No HS Degree	HS Degree	Some College	College Grad
City of Moreno Valley	23%	29%	32%	16%
Riverside County	18%	27%	33%	23%

Chart 1.6. Educational Attainment Distribution, 2019

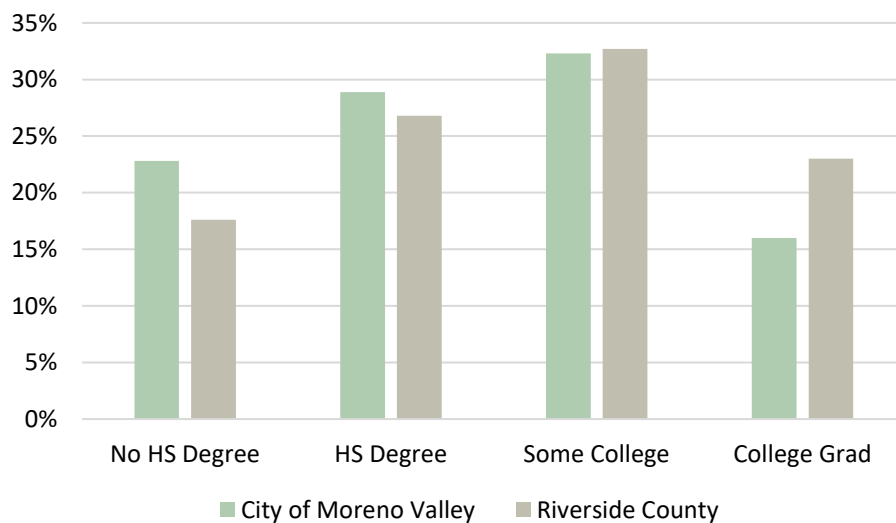


Table 1.7

Age Distribution						
	Under 15	15 to 24	25 to 34	35 to 54	55 to 64	Over 65
City of Moreno Valley	23.5%	14.9%	18.9%	23.6%	10.2%	9.0%
Riverside County	21.3%	13.7%	15.4%	24.0%	11.3%	14.4%

Chart 1.7. Age Distribution, 2019



Summary of Socio-Economic Data Findings

Both the City and the County are projected to experience robust population and household growth through at least 2040, with SCAG projecting that the number of households will increase by 1.23% each year in the City and 1.50% each year in the County. Additionally, at 4,000 people per square mile, the City has relatively healthy population densities and large household sizes of 3.8 people. This combination of rapid household growth and high population concentration will likely have a positive impact on retail demand and residential opportunities in the City. This increase in households should provide more consumers to attract a wider range of retailers, and the subsequent increase in housing development and home ownership in particular correlates with expenditures for home furnishings, appliances and electronics. Median household incomes and per capita incomes of City residents are outpaced Countywide, but it should be noted that lower per capita incomes are largely caused by large average household sizes and the presence of families with children. As household size and compositions change and the population ages, per capita incomes will likely increase. Approximately 27% of City households generate an income of \$100,000 or higher, compared to 32% of County households. Commensurate with lower income levels, educational attainment

levels are somewhat lower than the Countywide average; 24% of City residents have obtained an Associate’s Degree or higher, and 16% have obtained at least a 4-year degree.. Finally, the healthy share of residents under the age of 55 (81% of the City population compared to 74% in the County) is important for employment and retail opportunities, as younger households are engaged in the workforce and spend at higher levels than those over 55.

II. EMPLOYMENT AND BUSINESSES

KMA analyzed City and County employment growth trends and employment concentrations by industry. A summary of findings is below along with charts and tables highlighting key data points. All supporting data can be found in Appendix 1, Table 1.

- The City is projected to experience substantial employment growth in the coming years, adding 52,000 new jobs through 2040 (a 3.54% increase), outpacing the employment growth rate Countywide (2.33%) (Table 2.1).² By comparison, employment in San Bernardino and Los Angeles Counties will grow at a significantly slower rate during this period, at 1.60% and 0.74%, respectively.
 - Over the last several years the Inland Empire has experienced the fastest annual job growth among all Southern California regions, with unemployment nearing a record low of 4.0% for the region.

Table 2.1

Employment Projections: 2016-2040				
	2016	2040	Change	
			Total	Percent
City of Moreno Valley	31,400	83,200	51,800	3.54%
Riverside County	616,600	1,174,300	557,700	2.33%

² Southern California Association of Governments. SCAG RTP/SCS Final Growth Forecast by Jurisdiction. Retrieved December 2019.

- Prevailing City industries include Retail and Wholesale Trade, Healthcare, Accommodation and Food Services, Educational Services, and Other Services³. These employment concentrations are largely analogous to those in the County, apart from Manufacturing which represents a much larger share of Countywide employment (6.3%) (Charts 2.1 and 2.2).⁴
- The relative scarcity of Market Area jobs in sectors which traditionally occupy office space, such as the Professional, Insurance and Finance fields, likely implies lower demand for new office development. These industries also tend to cluster together in populous urban centers, so nearby Cities like Riverside and San Bernardino will likely continue to attract the majority of employment activity in these industries.
- Between 2016 and 2026, every prevalent industry in the City and County is projected to experience significant employment growth, adding 249,000 jobs to the region (Table 2.2).⁵ Prominent job sectors in the City that will experience the highest rate of employment growth during this period include:
 - Healthcare and Social Assistance (24.1%);
 - Educational Services (23.4%);
 - Accommodation and Food Services (19.1%);
 - Professional, Scientific, and Tech Services (17.9%);
 - Retail and Wholesale Trade (17.6%); and
 - Other Services (15.2%)
- The Trade and Transportation sector, which includes Retail and Wholesale Trade, will experience the largest absolute gain in employment Countywide through 2024 adding 61,300 jobs.
 - Within the Trades and Transportation sector, the sub-sectors comprising the bulk of this employment growth include Transportation and Warehousing (44,200 jobs added) and Retail Trade (13,000 jobs added).

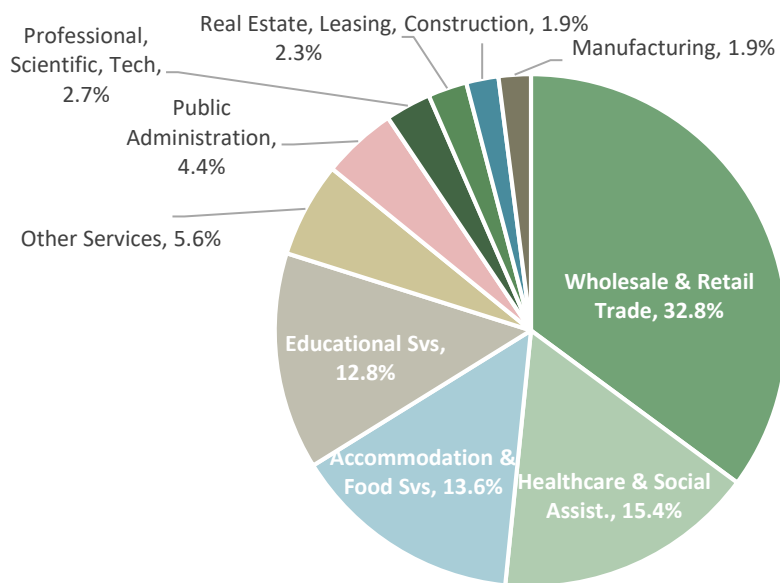
³ Other Services refers to service-providing industries which are not provided for elsewhere in the NAICS classification system. This includes equipment and machinery repair, religious activities, dry-cleaning and laundry services, and personal care services.

⁴ ESRI Business Analyst Employment Data 2019.

⁵ Employment Projections 2016-2026, Riverside-San Bernardino-Ontario MSA. State of California Employment Development Department. Retrieved January 2020.

- Although the data does not indicate the Transportation and Warehousing sub-sector currently constitutes a large share of employment in the City (0.9%), this sub-sector is projected to see the largest employment percentage increase Countywide, adding over 44,000 jobs for a 41.2% increase. Further, recent logistics development and the proposed World Logistics Center are positioned to capture a share of this demand.

Chart 2.1. Distribution of Employment, City of Moreno Valley⁶



⁶ Employment concentrations do not total 100.0% because industries with less than 2.0% employee concentrations are excluded.

Chart 2.2. Distribution of Employment, Riverside County

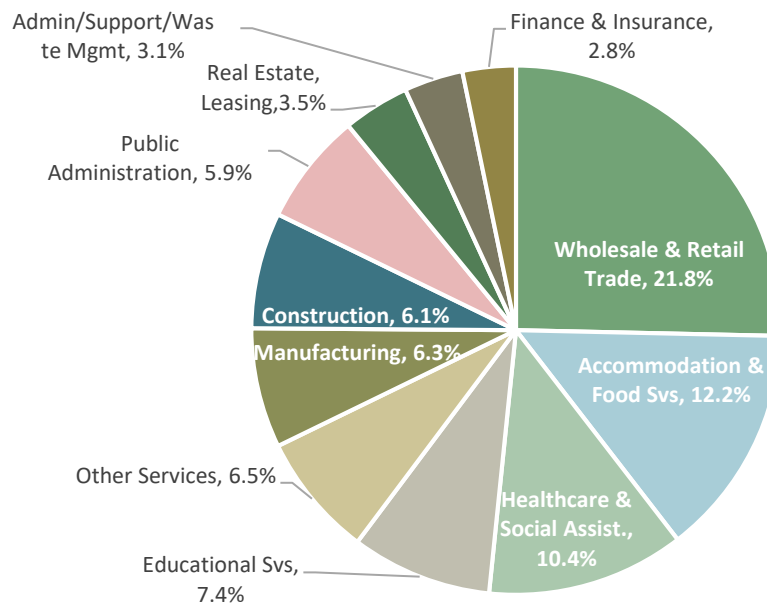


Table 2.2

Industry Employment Projections, Riverside-San Bernardino-Ontario MSA 2016-2026				
	Estimated Employment 2016	Projected Employment 2026	% Change 2016-2026	# Change
Construction	92,000	119,600	30.0%	27,600
Manufacturing	98,600	101,100	2.5%	2,500
Trade & Transportation	348,100	409,400	17.6%	61,300
Wholesale Trade	62,800	67,000	6.7%	4,100
Retail Trade	178,000	191,000	7.3%	13,000
Transportation & Warehousing	102,000	146,200	43.3%	44,200
Real Estate, Leasing	17,900	19,200	7.3%	1,300
Professional, Scientific, Tech	39,000	46,000	17.9%	7,000
Admin. Support, Waste Mgmt.	96,900	115,200	18.9%	18,300
Educational Services	214,300	264,400	23.4%	50,100
Healthcare & Social Assist.	195,700	242,900	24.1%	47,200
Accommodation & Food Svs	140,900	167,800	19.1%	26,900
Other Services	44,600	51,400	15.2%	6,800
Total	1,288,000	1,537,000	17.6%	249,000

Source: State of California Economic Development Department, 2019

Summary of Employment Findings

Employment growth in Riverside County is robust and projected to outpace neighboring Los Angeles and San Bernardino Counties by a significant margin through 2040. Over the next 10 years, these strong growth rates will be distributed across a broad range of sectors, including Retail and Wholesale Trade (17.6%), Healthcare Services (24.1%), Educational Services (23.4%), and Accommodation and Food Services (19.1%). According to the California EDD, a significant number of new jobs will be in fields that require no formal educational credentials and thus will tend to be lower wage earning occupations, including labor, freight and stock movers, food preparation and serving workers, and personal care aids.⁷ Jobs being added in the educational and healthcare services industries, however, are likely to be higher-skilled and higher wage occupations. The City is home to the two major medical campuses of Kaiser Permanente Medical Center and Riverside University Medical Center, which will likely continue to be major job generators for area residents. According to the UCR School of Business Administration Center for Economic Forecasting and Development, “the Riverside University Health System includes the 439-bed Medical Center and more than 60 hospital based primary and specialty care clinics in Moreno Valley.” Further, the direct supported employment by the health system exceeds 8,500 employees, of which, 3,500 are employed by the Medical Center.

Although the Transportation and Warehousing industry isn’t a leading employer in the City, representing only a 0.9% share of employment, it has historically been a major source of economic growth for the Inland Empire; between 2011 and 2016 the number of jobs in this industry grew by 37% and accounted for 15% of the region’s employment gains.⁸ The City’s growing share of Wholesale Trade sector employment will continue to benefit from this regional growth. Furthermore, the City’s proximity to jobs centers in Los Angeles and Orange Counties, with access provided by major Metrolink routes, provides additional employment opportunities for residents. Overall, the City’s locational advantages and range of employment concentrations across the wage spectrum, as well as the continued strength of the logistics industry in the Inland Empire, will likely continue to drive local employment growth over the long term.

⁷ California Employment Development Department (EDD). Labor Market Highlights, 2016-2026: Riverside-San Bernardino-Ontario Metropolitan Statistical Area.

⁸ U.S. Census Bureau, County Business Patterns (CBP), 2017.

III. RETAIL MARKET

KMA evaluated current retail market conditions in the City as well as the larger Inland Empire region, and conducted a surplus/leakage analysis to identify whether unmet demand exists for certain types of retail development. An overview of the findings is below, with underlying data in Appendix 2 – Table 1 through Table 7:

- The overall retail vacancy rate in the Inland Empire market area is 8.0%, ranging from its lowest level of 7.3% in the West End submarket area, which contains the Cities of Chino and Ontario, to 12.3% in the High Desert submarket area in San Bernardino County.⁹
- Approximately 436,000 sf of retail space is currently under construction in the Inland Empire as of Q3 2019. A considerable share of new construction (325,300 sf) is taking place in the East End submarket (which includes Moreno Valley), an area which also had the healthiest annual net absorption of space among all other submarkets at 384,200 square feet. Recent development throughout the Inland Empire has tended towards smaller shopping centers ranging from 60,000 to 100,000 square feet. Roughly 40% of the region’s retail inventory is in neighborhood centers¹⁰, compared to 26% nationally, suggesting that retail is dependent on local consumers rather than visitors.
- The City has a relatively high vacancy rate at 8.9% when compared with the surrounding region; however, this represents an improvement over the City’s historical average of 9.3%. Vacancy rates are projected to remain above 8.6% through at least 2024.
- The average asking retail rent in the City ranges from \$12.00 to \$19.20 per square foot per month, with a weighted average of \$1.26 per square foot per month. This is markedly lower than the average asking rent for the larger East End submarket of \$2.10.¹¹ The majority of retail properties are in the form of strip centers and neighborhood centers.
- Table 3.1 and the data in Appendix 2- Tables 6 through 7 summarize the Retail Surplus and Leakage Analysis. This analysis underscores which tenant types may be oversaturated in the City, as well as those types which have unmet demand. There is currently significant leakage of sales activity for a variety of retail establishment types

⁹ Submarket includes the Cities of Victorville, Apple Valley and Hesperia.

¹⁰ Costar Market Report, Inland Empire Retail Market. Retrieved January 2020.

¹¹ Retail lease comparables collected from Costar, December 2019.

(Table 3.1), particularly for household appliances, sporting goods and various other specialized retailers.¹²

- The surplus/leakage analysis indicates that the City could support approximately 569,800 sf of additional retail. There is one 1.1 million square foot super regional shopping center located in the City (the Moreno Valley Mall), and a significant share of additional retail development is in the form of strip centers and community centers. The neighboring Cities of San Bernardino, Riverside and Corona are home to super regional centers, making up a combined 3.2 million square feet of retail space. These retail centers likely provide significant competition for consumers within the City, absorbing a healthy share of their household spending.
- The major retail categories that have market support include Clothing & Clothing Accessories Stores; Sporting Goods, Hobby, Book and Music Stores; Furniture & Home Furnishings Stores; Electronics and Appliance Stores; Health and Personal Care Stores; and Miscellaneous Store Retailers.¹³
- Among the retail categories for which supply is currently outpacing expected demand within the City (indicated with “NA” in the table below), are Building Materials and Supply Stores; Food & Beverage Stores; Gasoline Stations; General Merchandise Stores; and Food Services and Drinking Places. This indicates that the City is attracting expenditures for these categories from consumers outside of the City boundaries.

¹² ESRI, KMA (2020). Retail Marketplace Profile. Retrieved January 2020 from the Business Analyst Online database.

¹³ The Miscellaneous Store Retailers category comprises establishments primarily engaged in specialized retail from fixed point-of-sale locations. Establishments in this subsector include stores with unique characteristics like florists, gift stores, used merchandise stores, and pet and pet supply stores.

Table 3.1

Estimated Retail Demand: SF of Supportable Development	
Category	Total SF
Motor Vehicle & Parts Dealers	NA
Furniture & Home Furnishings Stores	84,228
Electronics & Appliance Stores	122,159
Bldg Materials, Garden Equip. & Supply Stores	NA
Food & Beverage Stores	NA
Health & Personal Care Stores	65,709
Gasoline Stations	NA
Clothing & Clothing Accessories Stores	84,365
Sporting Goods, Hobby, Book & Music Stores	109,644
General Merchandise Stores	NA
Miscellaneous Store Retailers	103,649
Nonstore Retailers	NA
Food Services & Drinking Places	NA
Total	569,754

A number of additional factors will impact any potential opportunities for new retail development:

- a. Demand would need to fill existing retail spaces prior to new development taking place; Typically, vacancy rates would need to be 5% or less for interest in new development to occur. The current vacancy rate in the submarket area is approximately 8.9% indicating that it may be challenging to introduce some forms of new retail development. However, those tenant types currently leasing spaces are likely to still be interested in the City.
- b. E-commerce will have a growing impact on retail sales in the market area and the nation. In recent years, e-commerce sales have risen nationally at a rate substantially faster than shopping center sales. The U.S. Census Bureau reported 3rd quarter 2019 e-commerce sales of \$154.5 billion, an increase of 16.9% from 3rd quarter 2018 sales, and representing 11.2% of total U.S. retail sales.¹⁴ Industry analysts predict that e-commerce will make up a 25% share of the total retail market by 2022¹⁵ Additionally, technology has enabled greater efficiency in supply chains and store operations which

¹⁴ Quarterly Retail E-Commerce Sales (3rd Quarter 2019). U.S. Census Bureau News. Accessed February 2020.

¹⁵ The State of Retail. The National Retail Federation. Accessed February 2020.

means retailers require less square footage than ever before, indicating a longer term trend towards reduction of physical retail space and jobs. Successful retailers are focused on creating a unique in-store customer experience, integrating online and offline sales strategies, and utilizing technology to create a personalized shopping experience in order to drive visitors.

- c.** According to the International Council of Shopping Centers (ICSC) Office-Worker Retail Spending in the Digital Age, the spending of office workers accounts for 1-2% of national retail sales. Food service expenditures account for approximately 10-15% of worker spending; however, on-line sales (15%) and transportation related expenses (nearly 20%) account for the greatest share of these expenditures.¹⁶ Given these expenditure patterns, most retailers rely on market area residents for long-term success; daytime employee expenditures will augment sales, but not contribute significantly towards profitability.
- d.** Retail projects that are in the development pipeline will soak up any existing or potential market demand. At the time of this report, there is over 215,000 square feet of retail development either proposed or under construction in the Moreno Valley-Riverside submarket area, including a 11,400 sf strip center on Van Buren Boulevard (“Veterans Plaza”), and a 19,300 sf strip center on Cactus Avenue (“Cactus Plaza”). Proposed projects in Riverside include “The Village,” a 40,000 square foot neighborhood center, and “Gless Ranch,” a 44,000 square foot strip center. Proposed projects in Moreno Valley, include Tractor Supply at Stoneridge Center, 19,000 sf with a 12,000 sf outdoor sales area, and “Cactus Commerce Center,” a 53,400 sf mixed-use center.

KMA contacted a number of brokers that are active in the Market Area. The salient points from these conversations are provided below:

- a.** Market dynamics are relatively soft for both retail and office space. Vacancy rates are relatively high, and rents have stayed low following the recession.
- b.** Industrial market factors are robust across the board, and low volumes of available space aren’t meeting current levels of demand. One broker suggested that areas north of State Route 60 should be rezoned from underutilized office space to industrial zoned land in order to accommodate the growth of the industrial market. Overall, demand is not specific to any one part of the City and industrial tenants are interested in any developable land they can find.

¹⁶ Over 50% of workers do not make any expenditures near their place of work.

- c. Demand is high for large parcels of industrial land totaling 10 acres or more, but the difficulty of finding or assembling larger parcels in the City is a continuous challenge, as much of the City's industrial space has already been built out.
- d. Housing growth has been a major factor in attracting retail tenants in recent years; provided that this growth continues, there should continue to be a healthy amount of demand for well-located freestanding or multi-tenant retail centers.
- e. Older retail centers are experiencing high vacancy rates, and will likely need to be extensively remodeled to attract new tenants. Demand for retail space is healthiest in smaller development projects located at high trafficked, signalized corners.

Summary of Retail Market Findings

Healthy population and household growth throughout the region will boost consumer spending and create opportunity for additional retail development in the Inland Empire. A surplus leakage analysis of the City suggests market support for approximately 569,800 square feet of additional retail space, mainly in the form of Sporting Goods Stores, Furniture and Home Furnishings Stores, Electronics and Appliance Stores, and Miscellaneous Store Retailers. In addition, the City's socio-economic profile indicates that market support may exist for discount retailers and grocery stores. However, the City's relatively high retail market vacancy rates of 8.9% and low average asking lease rates of \$1.26 per square suggest that opportunities for some forms of new development may be limited in the near term. Additionally, any additional retail development will naturally have to compete with established regional shopping centers in the neighboring Cities of San Bernardino, Riverside, and Corona and the increasing influence of E-commerce will impact opportunities in the near to mid-term.

These factors would suggest potentially re-envisioning the significant corridor and strip retail in the City and instead focusing retail at opportunity nodes in the City. As noted in KMA's interviews with area brokers, some of the City's older retail strip centers are struggling to attract and retain tenants, potentially providing an opportunity to redevelop these less successful projects into mixed-use centers. As discussed in the Residential section of this report, demand for compact, higher density housing in the City is robust, and the addition of a residential component to these existing retail centers would provide a supplementary customer base for adjacent retail. Finally, the City has a healthy share of younger households, which are often sought by retailers and developers for this type of development. The confluence of these factors would suggest the City consider mixed use development alternatives at mid-block

locations along major corridors, with larger retail projects located at key development nodes (e.g. high traffic intersections) in the City. Additionally, the City's recent population growth and household formation trends, which are expected to continue through 2040, indicate there may be sufficient market support in the near to mid-term for the Destination MoVal Town Center which would provide the City with a lifestyle/town center project. While this type of center can be difficult to develop and market in outlying areas of Southern California due to the intense competition provided by centrally located sites, the healthy household formation and younger population in the City could offset these challenges, particularly if residential is incorporated into the project.

IV. OFFICE MARKET

KMA evaluated current and historic office market conditions in the City and surrounding region, and estimated potential office demand over the next 15 years. A summary of this information is below, and the underlying data can be found in Appendix 3 – Table 1 through Table 4.

- There is approximately 113,500 square feet of office space under construction in the Inland Empire. The only construction currently taking place is in the Riverside submarket, where the City of Moreno Valley is located.
- In the Inland Empire, the average vacancy rate is 12.6% and average asking rents are \$1.88 per square foot per month. In the Riverside submarket, the average vacancy rate is 14.5% and average asking rents are on par with the region at \$1.89 per square foot per month.
- Inland Empire rents range from \$2.36 per square foot for Class A office space to \$1.37 per square foot for Class C office space. The most prominent office product type in the region is Class B office space, which rents for \$1.84 per square foot.
- A survey of office lease rates in the City reveals that rents range from \$0.85 to \$2.22 per square foot, with a weighted average of \$1.24 per square foot. This is significantly lower than averages in the surrounding Riverside submarket and Inland Empire region.¹⁷
- Office demand projections for the City show support for 147,200 square feet of office space through 2035 (15 years), based on employment growth in typical office-using industries including the professional, real estate, insurance and finance fields.¹⁸ This market demand

¹⁷ Lease rate comparables were collected from Costar, December 2019.

¹⁸ California Economic Development Department. Employment Projections 2014-2024; ESRI Business Analyst Employment Data (2018).

would be filled through existing, proposed, and future office developments. This projection does not include any potential demand for ancillary office uses that are co-located within logistics or manufacturing spaces, but CBRE states that the typical office-to-industrial space ratio for logistics facilities is no more than 10% of GBA (Gross Buildable Area).¹⁹ In addition, this projection does not reflect institutional/governmental opportunities or opportunities driven by factors outside of normal market conditions (business decisions).

Summary of Office Market Findings

High office market vacancy rates of 14.5% in the Riverside submarket mirror high vacancy rates in the greater Inland Empire region, and lease rates in the submarket are relatively low at \$1.89 per square foot. Lease rates throughout the City are lower still at \$1.24 per square foot, and the majority of office space is located in Class B and C buildings indicating a lack of new development. The prevalence of older, low amenity office space in the area will likely continue to limit rent growth, and as cited in the Employment section of this report the relative scarcity of area jobs in sectors which traditionally occupy office space, such as the professional, information, insurance and finance fields, is likely to inhibit demand for office land uses going forward. Projected employment growth in the region for these employment sectors through 2024 is limited compared with other burgeoning sectors, and the information industry is actually expected to experience a decline in employment of -3.48% during this time period.²⁰ The Inland Empire's dominant industries of Manufacturing, Trade and Transportation tend to account for only about 7% of office leasing activity.²¹ Thus, the current office market conditions indicate a challenging environment for new, speculative office development. It should be noted that the current plan for many businesses is to reduce the amount of office space required per employee. When designing buildings, architects historically estimated up to 250 square feet of space per employee; however, many are now using the 200 square feet per employee utilized in the KMA projections and some design firms are going as low as 175 square feet per employee. These changes reflect a trend towards co-working spaces and shared work areas, as well as the continuing evolution of technology and its ability to free employees from a desk by working off-site or at home.

Overall, larger scale office demand in the City is likely to be driven by factors outside of normal market conditions (employment growth), as companies will sometimes choose locations based on business decisions (e.g. proximity to decision makers' residences) and not market factors. In

¹⁹ CBRE Research, 2nd Annual Global Industrial & Logistics Prime Rents Report (2018).

²⁰ California Economic Development Department. Employment Projections 2016-2026; ESRI Business Analyst Employment Data (2018).

²¹ CBRE Research. Real Estate Market Outlook 2020: Office Occupiers. Q3 2019.

the absence of this type of demand, opportunity likely exists for smaller, professional office space as part of a mixed – use development in the near to mid-term. In addition, opportunities may exist to capture some institutional and government office demand. The growth of the healthcare industry has spurred some medical office development in Moreno Valley in recent years, including the 500,000 square foot Riverside University Health System Medical Center and the 200,000 square foot Kaiser Permanente Medical Center. Regional population growth combined with rising healthcare industry employment may continue to drive demand for medical buildings in the long term, particularly in locations which provide access to these centers.

VI. RESIDENTIAL MARKET

KMA evaluated current market conditions and potential demand factors for both for-sale and rental housing stock within the City of Moreno Valley, the surrounding submarket of Riverside-Corona²², and the County.²³ A summary of this information is below, and the underlying data can be found in Appendix 4 – tables 1 through 8, and Appendix 5 – Tables 1 through 6.

Existing Residential Mix

A summary of the residential housing unit mix in the City indicates the following:

- Between 2010 and 2019, the number of residential units in the City increased at a slower rate than the County and the State. During this period, the rate of residential development in the County significantly outpaced the neighboring County of San Bernardino (Table 5.2)²⁴.
- The City's housing stock is relatively homogenous, as 83% of residences are detached, single-family homes, compared to 76% in the County and 60% in the State. From 2010 through the first half of 2019, the City's inventory of this housing type grew by 1,256 units; comparatively, multi-family housing grew by only 184 units.
 - At the end of 2019, a large apartment project was finalized adding an additional 238 multi-family units to the City's housing stock, bringing the total number of multi-

²² Submarket area includes Cities of Moreno Valley, Riverside, Jurupa Valley and Corona.

²³ Source: Costar Submarket Data.

²⁴ California Department of Finance, E-5 Population and Housing Estimates (2010 – 2019).

family units constructed since 2010 up to 422 units.²⁵

- As of 2018, renters account for 40% of all households in the City, compared to 35% of households in the County.
- According to the American Community Survey 5-Year Estimates, 38.5% of the City’s housing stock contains 4 bedrooms or more, which is consistent with the City’s high share of detached, single-family housing. Housing units containing 0-1 bedrooms make up only 6.9% of all housing stock.
 - There is a significant imbalance in the average size of renter households and the size of rental housing stock that is available. While only 6.9% of all housing units contain one bedroom or less, approximately 33% of all renter households are comprised of one to two people.

Table 5.2

Distribution of Housing Unit Mix, 2010 - 2019 State, County & City									
	Single Family				Multi Family				Total
	Detached	As % of Total	Attached	As % of Total	2 - 4 Units	As % of Total	5+ Units	As % of Total	
California									
2010	7,959,078	61%	966,440	7%	1,110,620	8%	3,076,519	23%	13,112,657
2015	8,066,652	60%	975,257	7%	1,121,406	8%	3,191,316	24%	13,354,631
2019	8,190,950	60%	994,710	7%	1,132,562	8%	3,357,051	25%	13,675,273
Riverside County									
2010	543,209	75%	50,784	7%	38,409	5%	89,577	12%	721,979
2015	559,701	75%	51,294	7%	38,618	5%	94,054	13%	743,667
2019	579,511	76%	52,512	7%	38,744	5%	96,769	13%	767,536
Moreno Valley									
2010	44,842	83%	1,127	2%	1,505	3%	6,721	12%	54,195
2015	45,123	83%	1,127	2%	1,505	3%	6,817	12%	54,572
2019	46,098	83%	1,127	2%	1,511	3%	6,905	12%	55,641

Source: California Department of Finance, 2019

²⁵ City of Moreno Valley Planning Department; California Department of Finance Housing Estimates (2010-2019).

Residential Demand

Future residential demand is summarized as follows:

- ESRI population growth projections indicate Citywide market support for 8,800 residential units through 2034 (Table 5.1).²⁶

Table 5.1

Estimated Residential Demand: City of Moreno Valley				
	2019	2024	2029	2034
Estimated Population	207,744	218,245	229,735	241,830
Households	54,909	57,232	60,245	63,417
Household Growth		2,323	3,013	3,172
Cumulative Households		2,323	5,336	8,508
Housing Units @ 103% of Growth		2,393	5,496	8,763

For Sale Market

The for-sale market conditions are summarized as follows:

- Since 2010, median single-family home prices in the City have grown significantly faster than the County; in the last 10 years, the median price increased by 98% in the City, compared to 75% in the County (Table 5.3 and 5.4).²⁷
 - During this same period, the median price for condominiums in the City grew at twice the rate as those in the County, increasing by nearly 105% in the City compared to 52% in the County. The healthy growth rate in the City likely reflects increased demand for this product type, likely due to affordability.

²⁶ ESRI (2019). ACS Population Summary and Community Profile. Retrieved December 2019 from the Business Analyst Online database.

²⁷ Zillow Historic Sales Data, Moreno Valley and Riverside County (2010 – 2019).

- Housing prices in the neighboring Cities of Perris and Riverside have also increased rapidly over the last 10 years, at 97.5% and 80.3%, respectively.
 - Historically, home prices in the County have been higher than those in the City; the current median single-family home price in the City is \$350,000 (\$201 per square foot), compared to \$403,500 (\$213 per square foot) in the County.

Table 5.3

Historic Home Price Trends, 2010 - 2019				
Riverside County				
	Median Home Price	% Change	\$/SF	% Change
2010	\$230,500	-	\$116	-
2011	\$220,400	-4.4%	\$111	-4.3%
2012	\$239,700	8.8%	\$131	18.0%
2013	\$294,500	22.9%	\$164	25.2%
2014	\$311,500	5.8%	\$171	4.3%
2015	\$327,500	5.1%	\$181	5.8%
2016	\$346,900	5.9%	\$188	3.9%
2017	\$370,900	6.9%	\$201	6.9%
2018	\$390,100	5.2%	\$209	4.0%
2019	\$403,500	3.4%	\$213	1.9%
Change 2010-19	\$173,000	75.1%	\$97	83.6%

Source: Zillow Historic Sales Data

Table 5.4

Historic Home Price Trends, 2010 - 2019				
City of Moreno Valley				
	Median Home Price		% Change	
	Price	% Change	\$/SF	% Change
2010	\$176,800	-	\$90	-
2011	\$171,800	-2.8%	\$86	-4.4%
2012	\$185,000	7.7%	\$94	9.3%
2013	\$231,700	25.2%	\$130	38.3%
2014	\$254,700	9.9%	\$141	8.5%
2015	\$270,600	6.2%	\$156	10.6%
2016	\$290,600	7.4%	\$163	4.5%
2017	\$312,600	7.6%	\$183	12.3%
2018	\$334,400	7.0%	\$190	3.8%
2019	\$350,000	4.7%	\$201	5.8%
Change 2010-19	\$173,200	98.0%	\$111	123.3%

Source: Zillow Historic Sales Data

- Over the last 10 years, median sales prices for one-bedroom and two-bedroom homes in the City have increased at the fastest rate compared to other unit types, at 180% and 128%, respectively (Table 5.5). Similar to condominiums, the price increases for smaller single family units, likely indicates healthy demand for this scale of product.

Table 5.5

Median Sales Prices by Unit Type, 2010 - 2019								
City of Moreno Valley								
	Studio		1-Bedroom		2-Bedroom		3-Bedroom	
	Price	% Change	Price	% Change	Price	% Change	Price	% Change
2010	\$203,200	-	\$91,100	-	\$120,700	-	\$161,300	-
2019	\$375,400	85%	\$255,300	180%	\$275,500	128%	\$331,700	106%

Source: California Department of Finance, 2019

Rental Market

The rental residential market conditions are summarized below:

- According to the American Community Survey 5-Year Estimates, as of 2018 there were approximately 20,000 renter-occupied housing units and 31,000 owner-occupied housing units in the City.
- More than half of the City’s renters occupy single-family housing, with 53.7% occupying detached single-family residences and 2.0% occupying attached single-family residences.²⁸ Only 1/5 of renter households occupy apartment buildings of 10 units or greater. This is to be expected given the scarcity of multi-family housing in the City.
 - Countywide, 44.8% of renters occupy detached single-family residences, and 4.7% occupy attached single-family residences.
- The current average asking rent in the City across all unit types is \$1,486 (\$1.64 per sf) with an average vacancy rate of 7.9%. Average rents per square foot range from \$2.58 for studios to \$1.57 for three-bedroom units.²⁹
- Market fundamentals in the larger Riverside/Corona submarket³⁰ are relatively more robust with average asking rents of \$1,547 (\$1.78 per sf) and an average vacancy rate of 5.9%. Asking rents in the submarket are projected to increase to \$1,683 through 2024 (an 8.4% increase over current levels), while vacancy rates are projected to rise to 6.4%.
 - The current submarket vacancy rate of 5.9% is consistent with its historical average of 5.8%; however, the introduction of new rental units into Cities like Riverside, Corona and Moreno Valley through 2020 may lead to an increase in the vacancy rates in the near term (Table 5.6).

²⁸ City of Moreno Valley Housing Characteristics, American Community Survey 2013-2017 5-Year Estimates.

²⁹ Costar Market Data, City of Moreno Valley (Q4 2019).

³⁰ Submarket area includes City of Moreno Valley and surrounding Cities of Riverside, Jurupa Valley and Corona. Costar Analytics, Corona/Riverside Submarket. Retrieved January 2020.

- Several mid-size to larger rental projects have been proposed or are currently under construction in the City which could absorb a portion of projected residential demand, including Phase II of the 266-unit Sorano project, the 237-unit Continental Villages project, and an additional 446 units proposed for the Moreno Valley Ranch golf project (Table 5.6).

Table 5.6

Rental Projects Proposed & Under Development (Q4 2019)				
Riverside/Corona Submarket				
Under Construction				
City	Name	Total Units	Est. Date Completion	Developer
Riverside	The Trails at Canyon Crest	216	Jan-20	The Hoffman Company
Moreno Valley	Sorano Phase II	196	Feb-20	Wermers Companies
Riverside	Stalder Building	165	Aug-20	Regional Properties
Corona	The Monterey	120	Feb-20	Sares-Regis Group
Riverside	Turtle Creek Apartments	98	Jan-20	Progressive Realty Partners
Riverside	Centerpointe Market	60	Feb-20	Zion Enterprises
Moreno Valley	Continental Villages	237	May-20	Continental East Development
Riverside	Monte Vista	39	-	Investment Concepts, Inc.
Total		1,131		
Proposed Development				
City	Name	Total Units	Est. Date Completion	Developer
Jurupa Valley	Vernola Marketplace Apts	397	-	Vernola Family Trust
Riverside	Merrill Ave Brownstones	108	-	Van Daele Development Corp.
Moreno Valley	Continental East - Lasselle St.	237	-	Continental East Development, Inc.
Moreno Valley	Moreno Valley Ranch Golf Project	446	-	Bridge Investment Group
Total		1,188		

Source: Costar Submarket Report (Q4 2019)

- KMA conducted a survey of large, multifamily projects in the City which showed that newer construction (constructed in the last 15 years), amenity-rich buildings obtain rental lease rates of \$1,584, which is approximately 7% higher than the average asking lease rate of \$1,471 for all multifamily buildings (Tables 5.7 and 5.8). The average age of the multifamily developments surveyed was 25 years.

Table 5.7

Average Asking Rents: Citywide Multifamily Survey			
	Average Size (sf)	Average Rent	Avg. Rent (\$/sf/mo.)
Studio	407	\$962	\$2.37
1-Bedroom	755	\$1,360	\$1.80
2-Bedroom	985	\$1,526	\$1.55
3-Bedroom	1,163	\$1,840	\$1.58
Overall	894	\$1,471	\$1.65

Table 5.8

Average Asking Rents: New Construction			
	Average Size (sf)	Average Rent	Avg. Rent (\$/sf/mo.)
Studio	407	\$962	\$2.37
1-Bedroom	792	\$1,512	\$1.91
2-Bedroom	1,037	\$1,679	\$1.62
3-Bedroom	1,203	\$1,980	\$1.65
Overall	907	\$1,584	\$1.75

Source: Costar Multifamily Report, Moreno Valley (December 2019)

- U.S. Census data indicates that nearly 60% of the City’s renter households were rent burdened in 2017, spending 30% or more of their household income on monthly housing costs. Countywide, 56% of renter households were similarly rent burdened.³¹
 - The median annual household income of renter households in the City is \$42,300, which is significantly lower than owner households at \$73,700. Approximately 33% of owner households are rent burdened.

Summary of Residential Market Findings

Population and household growth rates in the City of Moreno Valley are expected to increase at a healthy rate in the near term, indicating market support for nearly 8,800 residential units through 2034. This strong population growth is characteristic of the Inland Empire as a whole, with the region representing 15.2% of the State of California’s population growth from 2010 – 2019; currently, the City of Moreno Valley ranks 22nd in absolute population growth among all cities in the State.³² The Riverside/Corona submarket, which includes Moreno Valley and surrounding areas, is experiencing a surge in housing development and home sales partially driven by this strong population growth as well as the region’s proximity to major jobs centers in Los Angeles and Orange Counties. Approximately 3,400 rental units have been delivered in the submarket since 2012, and over 1,000 new units are expected to be delivered in the submarket in the first half of 2020, likely absorbing some of the region’s demand and potentially increasing vacancy rates over the near term. Over 400 units are under development

³¹ City of Moreno Valley Housing Characteristics (Financial), American Community Survey 2013-2017 5-Year Estimates.

³² Inland Empire Quarterly Economic Report (Q3 2019), Riverside & San Bernardino Counties. October 2019. Population growth trends as reported by American Community Survey.

in the City of Moreno Valley alone, with another 680 units proposed. Average asking rents in the City have grown at a healthy average rate of 6.0% year over year but remain lower than asking rents in the larger Riverside/Corona Submarket.

While asking rents in the City are relatively low at \$1,486 compared to \$1,547 in the Riverside/Corona submarket, the low median household incomes Citywide (particularly for renter households) still results in a high share of rent-burdened households. Additionally, there is a significant imbalance in the size of renter households and the size of available rental housing stock; approximately 33% of renter households are made up of one to two people, but only 6% of the housing stock contains one bedroom or less. At the same time, approximately 59% of renter households in the City have children (compared to 46% of renter households in the County), indicating a strong need for affordable rental units serving families. Overall, there is a need for denser housing at all levels of affordability. This demonstrated market support is mirrored in the ownership market, where a sharp increase in median sales prices for smaller homes and condominiums indicates strong demand for more compact and affordable housing types.

Since 2010, ownership housing has experienced a much sharper rise in price than rental housing in the City, with median sales prices rising 98% for single-family homes and 105% for condominiums. Countywide median home sales prices have historically trended higher than those in the City, but prices are growing at a slower pace year-over-year. Recent trends for sales prices and sales volumes in the County are robust when compared with the greater region; between 2018 and 2019, the County had the greatest price increase among all other Southern California counties at 3.7%, followed by San Bernardino County at 3.5%.³³ The market for new single-family home sales in the County is becoming healthier, with almost 1,700 sales by Q3 2019, representing a 17% increase over the previous year. Comparatively, San Bernardino County experienced a 3% increase with 800 new home sales and Los Angeles County experienced a 9% increase with 900 new home sales during this same time period. The presence of more affordably priced housing in this region than neighboring Counties is likely driving much of the home buying activity; as the average single-family home in Riverside County cost \$394,800, compared to \$656,424 in Los Angeles County and \$788,464 in Orange County during 2019.³⁴

³³ Real Estate Research Council of Southern California, 3rd Quarter 2019 Southern Report.

³⁴ Ibid.

VI. LODGING MARKET

KMA analyzed hotel market conditions in the Riverside Metropolitan Submarket, as defined by the 2019 Southern California Lodging Forecast prepared by CBRE Hotels (CBRE Forecast), as compared with the greater Inland Empire region.³⁵ Hotel market demand in the Inland Empire as a whole is growing at a healthy pace, with regional visitors increasing by an average of 1.9% year-over-year.³⁶ Based on the CBRE Forecast, a breakdown of market hotel supply and demand indicators is provided below, and the underlying data can be found in Appendix 6-Table 1 through Table 5.

- In 2018, the Riverside Metropolitan submarket showed the greatest volume of room revenue among all Inland Empire submarkets.³⁷ The compound annual growth in hotel demand for the Riverside Metropolitan submarket from 2013-2018 was on pace with the growth in demand Countywide, as summarized below (Table 6.1).

Table 6.1

Demand Change (CAAG): 2013-2018	
	Compound Annual Change
Riverside Metro Submarket	2.9%
Riverside County	2.7%

- Healthy demand in the Riverside Metropolitan submarket is projected to continue at least through 2019, with rising ADR (Average Daily Rates) and healthy occupancy levels leading to a sustained increase in revenue per available room (RevPAR) (Table 6.2).

³⁵ The Riverside Metropolitan submarket includes the Cities of Colton, Corona, Loma Linda, Redlands, Riverside, and San Bernardino in addition to Moreno Valley. The Inland Empire comprises this submarket along with two others: the greater Ontario submarket and the Murrieta/Temecula Valley submarket.

³⁶ California Travel & Tourism Forecast, October 2019. Tourism Economics.

³⁷ 2018 is the last year that CBRE collected hotel market performance data.

Table 6.2

Hotel Rates & Occupancy:			
Riverside Metropolitan Submarket, 2013 - 2019 (projected)			
	ADR	Occupancy	RevPAR
2013	\$86.93	67.8%	\$58.94
2014	\$93.01	70.3%	\$65.39
2015	\$100.56	74.8%	\$75.22
2016	\$107.38	77.0%	\$82.68
2017	\$112.27	77.9%	\$87.46
2018	\$116.12	78.2%	\$90.81
2019 (forecast)	\$ 119.60	77.8%	\$ 93.05

- ADR and RevPAR (Revenue per Available Room) for the Inland Empire is also healthy overall, with occupancy rates on par with those in the Riverside Metropolitan submarket (Table 6.3).

Table 6.3

Hotel Rates & Occupancy:			
Inland Empire, 2013 - 2019 (projected)			
	ADR	Occupancy	RevPAR
2013	\$88.80	67.1%	\$59.58
2014	\$93.36	71.2%	\$66.47
2015	\$100.34	74.7%	\$74.95
2016	\$107.23	75.9%	\$81.39
2017	\$112.52	76.4%	\$85.97
2018	\$116.62	76.6%	\$89.33
2019 (forecast)	\$120.51	75.9%	\$91.47

- Given existing hotel market conditions, KMA estimated hotel demand in the Riverside Metropolitan submarket over the next 15 years. The analysis is summarized in Appendix 6 – Table 6, showing potential demand for up to 2,700 hotel rooms in the market area during this period.³⁸ The City should be positioned to capture some of this demand, particularly in high visibility locations.

³⁸ CBRE and KMA.

Summary of Lodging Market Findings

The local and regional hotel market experienced a modest but sustained period of growth since the recession. The Riverside Metropolitan submarket is estimated to experience an increase in occupied rooms of 5.0% in 2019 over the previous year, resulting in an occupancy level of 77.8%. Average Daily Rate (ADR) is estimated to increase at a rate of 3.0% to an estimated \$119.00 in 2019. Several new hotel projects will absorb a portion of projected demand, including the Hampton Inn Riverside, TownePlace Suites Loma Linda, and TownPlace Suites Chino Hills. In the City of Moreno Valley, a 105-room Holiday Inn Express and a 105-room Fairfield Inn & Suites were completed in 2019, and a 112-room Residence Inn Marriott is expected to open in 2020. Currently, the majority of demand generators for hotel development in the submarket are centered in the City of Riverside and surrounding areas, including the UC Riverside system and Riverside Convention Center, as well as the City of San Bernardino, where a number of federal government offices are located. Overall, demand likely exists for select – service hotel product in the City, particularly in locations which offer high visibility (e.g. freeway).

VI. INDUSTRIAL MARKET

KMA looked at industrial market trends and lease rates in the City and County. A summary of this information is below, and the underlying data can be found in Appendix 7 – Table 1 through Table 2.

- The average vacancy rate in the Inland Empire submarket³⁹ is 5.3% and average asking lease rates are \$0.64 per sf per month.⁴⁰ Currently there is 227,000,000 square feet of gross leasable industrial space in the region, representing a 10% increase over last year with the addition of roughly 20,000,000 square feet of new space.
- According to Cushman & Wakefield’s Q4 2019 Industrial Market report for the Inland Empire, there is over 10,000,000 square feet of new space under construction in the IE with the bulk of activity taking place in Riverside, Rialto, Perris, and Moreno Valley. As of Q4 2019, approximately 869,000 sf of new space is under construction in Moreno Valley. This significant introduction of new space may lead to a slight uptick in vacancy rates in the region in the near term.

³⁹ Market Statistics are collected for Inland Empire East region, including Riverside, San Bernardino, Rialto, Moreno Valley, Perris, Victorville, and Beaumont.

⁴⁰ Cushman & Wakefield, Q4 2019.

- E-commerce and commercial logistics tenants continue to be the major drivers of demand for industrial space in the Inland Empire, accounting for the majority of the total gross leasing activity. According to Costar, Amazon currently occupies 12.3 million square feet of space in the region and plans to occupy another 2.5 million square feet in the near term.
- Lease rates in the City lag behind average lease rates in the region, and range from \$0.35 to \$1.20 per square foot per month with a weighted average rate of \$0.41 per square foot⁴¹. However, vacancy rates are exceedingly low at 3.1%.

Summary of Industrial Market Findings

Despite a significant amount of new construction in the Inland Empire delivering 20M square feet of new space in the last year, demand indicators for industrial development are positive with low vacancy rates and rents continuing to increase year over year. Over the past five years, lease rates in the Inland Empire have grown by an average rate of 9.5%. Moreno Valley and Riverside are two of the fastest growing industrial submarkets in the Inland Empire, with exceedingly low vacancy rates of 3.1% and 4.8%, respectively.⁴²

Citywide, lease rates are lower than the rest of the region, but construction activity has maintained a strong pace in response to low vacancy rates. Low average lease rates have likely been a prime factor in attracting recent development interest, along with the City's advantageous location near major population centers, transportation routes and airports. The need for logistics facilities to expand services and deliver to their customers at increasing speeds is creating more demand for smaller or mid-sized infill facilities near populous urban centers; these types of properties have seen rents rise by 30% over the past 5 years, as compared to only 15% for larger, big-box warehouse spaces.⁴³ The confluence of low asking lease rates, the City's locational advantages, and the limited availability of new industrial space indicate the likelihood of relatively higher lease rates in the future. The Moreno Valley/Perris submarket has been the fastest growing industrial submarket in the Inland Empire since 2008, with industrial space more than doubling from 27.5M square feet to 78M square feet at the end of 2019.⁴⁴ As referenced in the Employment Data section of this report, wholesale and retail trade, which includes various distribution and warehousing activity, has historically been a major source of employment and an economic driver for the City and will continue to be so in

⁴¹ Industrial lease rates compiled from Costar, December 2019.

⁴² Cushman & Wakefield, Q4 2019.

⁴³ CBRE Research. Real Estate Market Outlook 2020: Office Occupiers. Q3 2019.

⁴⁴ Costar Industrial Submarket Report, Moreno Valley/Perris. Retrieved January 2020.

the near to mid- term. Recent years have seen significant new development in the City to capture this demand. Additional development, both planned and proposed, including World Logistics Center (40.6 million sf logistics), the Alessandro Industrial Center (7 buildings ranging from 9,000 – 50,000 sf), the Cactus Commerce Center (37,000 sf), The District Business Park (4 buildings ranging from 39,000 – 212,000 sf), the Resource Corporate Center (47,000 sf), the Alessandro & Day Development (2 buildings ranging from 58,000 – 99,000 sf), SEC Indian and Nandina (100,000 sf), Centerpointe Industrial Center (256,000 sf), Brodiaea Commerce Center (256,000 sf), Rados (2 buildings ranging from 382,000 – 415,000 sf), Skechers USA Expansion Facility (768,000 sf), and Hillwood Development (1.3 million sf), will greatly increase the City's capture of this potential demand.⁴⁵

⁴⁵ *Economic Development Summary* September 2019.

APPENDIX SE-1
SOCIO ECONOMIC DATA

APPENDIX SE-1

CITY & COUNTY POPULATION & PROJECTIONS
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

Population

	2012	2040	Change	% Change
Moreno Valley	197,600	256,600	59,000	0.94%
Riverside County	2,245,100	3,183,700	938,600	1.26%

SCAG

County Population Projections

		Change	% Change
2015	2,334,159	-	-
2020	2,493,116	158,957	6.8%
2025	2,673,924	180,808	7.3%
2030	2,843,493	169,569	6.3%
2035	3,001,065	157,572	5.5%
2040	3,144,874	143,809	4.8%

State of California Department of Finance

Household

	2012	2040	Change	% Change
Moreno Valley	51,800	73,000	21,200	1.23%
Riverside County	659,500	1,028,100	368,600	1.60%

SCAG

Employment

	2012	2040	Change	% Change
Moreno Valley	31,400	83,200	51,800	3.54%
Riverside County	4,246,600	5,225,800	979,200	0.74%

SCAG

	2019	2040	change
city	54,909	73,000	32.95%
county	759,043	1,028,100	35.45%

ESRI MARKET AREA DATA & PROJECTIONS
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

Population

	2010	2019	2024	Density	2019-2024	2010-2024	Sq. Miles		
1-Mile Ring	14,778	15,355	15,846	3,665	3.20%	7.23%	4.19	PI	3.1415927
3-Mile Ring	116,921	124,402	130,107	4,400	4.59%	11.28%	28.27		
5-Mile Ring	238,130	254,363	267,144	3,239	5.02%	12.18%	78.54		
Moreno Valley	193,365	207,744	218,245	4,034	5.05%	12.87%	51.5		
Riverside County	2,189,641	2,447,782	2,597,546	335	6.12%	18.63%	7,303.0		

Households

	2010	2019	2024	2019-2024	Occupancy	97.0%
1-Mile Ring	3,777	3,882	3,974	2.37%		
3-Mile Ring	30,939	32,661	33,940	3.92%		
5-Mile Ring	66,016	69,887	73,025	4.49%		
Moreno Valley	51,592	54,909	57,232	4.23%		
Riverside County	686,620	759,043	800,016	5.40%		

Average Persons Per Hhold

1-Mile Ring	3.94
3-Mile Ring	3.80
5-Mile Ring	3.63
Moreno Valley	3.77
Riverside County	3.18

Per Capita Income

1-Mile Ring	\$15,766
3-Mile Ring	\$18,215
5-Mile Ring	\$23,815
Moreno Valley	\$20,631
Riverside County	\$27,650

Median Household Income

1-Mile Ring	\$47,018
3-Mile Ring	\$52,991
5-Mile Ring	\$66,643
Moreno Valley	\$61,337
Riverside County	\$65,079

Household Income Distribution- Disaggregated

	Under 15	15 to 24.9	25 to 34.9	35 to 49.9	50 to 74.9	75 to 99.9	100 to 149.9	150 to 199.9	200+	Total
1-Mile Ring	12.8%	11.2%	11.9%	16.6%	19.3%	11.8%	12.2%	2.9%	1.1%	100%
3-Mile Ring	11.6%	9.1%	10.3%	15.4%	20.2%	12.5%	13.0%	5.0%	2.9%	100%
5-Mile Ring	8.8%	6.7%	8.1%	12.5%	18.6%	14.2%	18.0%	7.4%	5.7%	100%
Moreno Valley	9.2%	7.4%	8.9%	13.7%	19.6%	14.4%	17.1%	6.0%	3.7%	100%
Riverside County	10.1%	8.1%	8.7%	11.6%	16.8%	12.6%	17.3%	7.7%	7.0%	100%

Household Income Distribution

	< \$25,000	\$25,000-\$49,999	\$50,000-\$99,999	\$100,000-\$149,999	\$150,000+	Total
1-Mile Ring	24.00%	28.50%	31.10%	12.20%	4.00%	99.80%
3-Mile Ring	20.70%	25.70%	32.70%	13.00%	7.90%	100.00%
5-Mile Ring	15.50%	20.60%	32.80%	18.00%	13.10%	100.00%
Moreno Valley	16.60%	22.60%	34.00%	17.10%	9.70%	100.00%
Riverside County	18.20%	20.30%	29.40%	17.30%	14.70%	99.90%

Median Age

1-Mile Ring	27.6
3-Mile Ring	29.7
5-Mile Ring	31.4
Moreno Valley	30.8
Riverside County	34.8

Age Distribution- Disaggregated

	Under 5	5 to 9	10 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85+	Total
1-Mile Ring	9.9%	9.3%	8.3%	17.2%	18.9%	12.1%	9.6%	8.0%	4.2%	1.8%	0.6%	99.90%
3-Mile Ring	8.6%	8.3%	7.8%	15.8%	18.8%	12.1%	10.7%	9.6%	5.4%	2.2%	0.8%	99.90%
5-Mile Ring	7.7%	7.5%	7.3%	14.9%	19.0%	12.5%	11.3%	10.6%	6.0%	2.4%	0.9%	99.90%
Moreno Valley	8.1%	7.9%	7.5%	14.9%	18.9%	12.6%	11.0%	10.2%	6.0%	2.3%	0.7%	100.10%
Riverside County	7.1%	7.1%	7.1%	13.7%	15.4%	12.3%	11.7%	11.3%	8.4%	4.3%	1.7%	100.10%

Age

	Under 15	15 to 24	25 to 34	35 to 54	55 to 64	Over 65	Total
1-Mile Ring	27.5%	17.2%	18.9%	21.7%	8.0%	6.6%	99.90%
3-Mile Ring	24.7%	15.8%	18.8%	22.8%	9.6%	8.4%	100.10%
5-Mile Ring	22.5%	14.9%	19.0%	23.8%	10.6%	9.3%	100.10%
Moreno Valley	23.5%	14.9%	18.9%	23.6%	10.2%	9.0%	100.10%
Riverside County	21.3%	13.7%	15.4%	24.0%	11.3%	14.4%	100.10%

Education Levels of Population Over 25- Disaggregated

	< 9th Grade	Some HS	HS Grad.	GED	Some College	Ass. Deg	Bach Deg	Grad Deg	Total
1-Mile Ring	15.8%	16.4%	26.2%	2.2%	22.4%	6.3%	7.6%	3.2%	100.10%
3-Mile Ring	12.9%	13.6%	27.7%	2.6%	22.7%	7.1%	9.1%	4.2%	99.90%
5-Mile Ring	9.9%	10.3%	25.0%	2.5%	23.8%	8.1%	12.5%	7.8%	99.90%
Moreno Valley	11.3%	11.5%	26.1%	2.8%	24.0%	8.3%	10.6%	5.4%	100.00%
Riverside County	8.6%	9.0%	23.9%	2.9%	24.7%	8.0%	14.5%	8.5%	100.10%

Education

	No HS Degree	HS Degree	Some College	College Grad.	Total
1-Mile Ring	32.20%	28.40%	28.70%	10.80%	100.10%
3-Mile Ring	26.50%	30.30%	29.80%	13.30%	99.90%
5-Mile Ring	20.20%	27.50%	31.90%	20.30%	99.90%
Moreno Valley	22.80%	28.90%	32.30%	16.00%	100.00%
Riverside County	17.60%	26.80%	32.70%	23.00%	100.10%

Race Classification

	White	Black	American Indian	Asian and PI	Other	Hispanic* (separate)	Total
1-Mile Ring	38.2%	15.6%	0.9%	5.4%	39.9%	67.9%	100.00%
3-Mile Ring	39.9%	15.8%	0.9%	5.6%	37.6%	63.0%	99.80%
5-Mile Ring	43.0%	15.9%	0.8%	7.9%	32.3%	54.1%	99.90%
Moreno Valley	39.4%	17.7%	0.9%	6.9%	35.1%	58.5%	100.00%
Riverside County	57.5%	6.6%	1.1%	6.9%	27.9%	50.0%	100.00%

Race Classification

	White alone	Black	Amerind	Asian	Hawaii PI	Other	2 or more	Hispanic	Total
1-Mile Ring	38.2%	15.6%	0.9%	4.7%	0.7%	34.1%	5.8%	67.9%	167.90%
3-Mile Ring	39.9%	15.8%	0.9%	5.0%	0.6%	31.9%	5.7%	63.0%	162.80%
5-Mile Ring	43.0%	15.9%	0.8%	7.4%	0.5%	26.3%	6.0%	54.1%	154.00%
Moreno Valley	39.4%	17.7%	0.9%	6.3%	0.6%	29.1%	6.0%	58.5%	158.50%
Riverside County	57.5%	6.6%	1.1%	6.6%	0.3%	22.6%	5.3%	50.0%	150.00%

APPENDIX 1

EMPLOYMENT AND BUSINESSES

APPENDIX 1 - TABLE 2

**EMPLOYMENT & BUSINESSES
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY**

	Moreno Valley				Riverside County			
	Bus.	Share	Emp.	Share	Bus.	Share	Emp.	Share
Agriculture, Forestry, Fishing & Hunting	7	0.2%	30	0.1%	391	0.6%	4,123	0.6%
Mining	0	0.0%	0	0.0%	45	0.1%	204	0.0%
Utilities	3	0.1%	55	0.2%	79	0.1%	2,823	0.4%
Construction	160	5.2%	675	1.9%	5,431	8.0%	40,030	6.1%
Manufacturing	45	1.5%	682	1.9%	2,363	3.5%	41,718	6.3%
Wholesale Trade	56	1.8%	1,376	3.8%	2,103	3.1%	28,679	4.3%
Retail Trade	499	16.2%	10,586	29.0%	9,808	14.5%	115,113	17.5%
Motor Vehicle & Parts Dealers	58	1.9%	1,450	4.0%	1,321	2.0%	15,815	2.4%
Furniture & Home Furnishings Stores	31	1.0%	180	0.5%	605	0.9%	4,175	0.6%
Electronics & Appliance Stores	13	0.4%	44	0.1%	412	0.6%	3,286	0.5%
Bldg Material & Garden Equipment & Supplies	47	1.5%	902	2.5%	952	1.4%	11,752	1.8%
Food & Beverage Stores	67	2.2%	1,252	3.4%	1,238	1.8%	19,727	3.0%
Health & Personal Care Stores	53	1.7%	965	2.6%	926	1.4%	8,279	1.3%
Gasoline Stations	29	0.9%	157	0.4%	479	0.7%	3,136	0.5%
Clothing & Clothing Accessories Stores	93	3.0%	548	1.5%	1,239	1.8%	8,288	1.3%
Sport Goods, Hobby, Book, & Music Stores	17	0.6%	86	0.2%	475	0.7%	3,480	0.5%
General Merchandise Stores	33	1.1%	1,602	4.4%	523	0.8%	19,443	2.9%
Miscellaneous Store Retailers	55	1.8%	400	1.1%	1,461	2.2%	9,577	1.5%
Nonstore Retailers	3	0.1%	3,000	8.2%	177	0.3%	8,155	1.2%
Transportation & Warehousing	100	3.2%	325	0.9%	1,336	2.0%	10,314	1.6%
Information	55	1.8%	340	0.9%	1,075	1.6%	10,591	1.6%
Finance & Insurance	140	4.5%	718	2.0%	3,141	4.6%	18,454	2.8%
Central Bank/Credit Intermediation & Related A	53	1.7%	438	1.2%	1,021	1.5%	9,088	1.4%
Securities, Commodity & Other Related Activities	31	1.0%	91	0.2%	879	1.3%	3,741	0.6%
Insurance Carriers & Related Activities	56	1.8%	189	0.5%	1,241	1.8%	5,625	0.9%
Real Estate, Rental & Leasing	179	5.8%	821	2.3%	3,993	5.9%	22,889	3.5%
Professional, Scientific & Tech Services	194	6.3%	979	2.7%	5,603	8.3%	32,840	5.0%
Legal Services	19	0.6%	57	0.2%	1,161	1.7%	5,777	0.9%
Management of Companies & Enterprises	1	0.0%	3	0.0%	141	0.2%	624	0.1%
Administrative/Support/Waste Management Services	101	3.3%	400	1.1%	2,632	3.9%	20,396	3.1%
Educational Services	104	3.4%	4,667	12.8%	1,620	2.4%	49,097	7.4%
Health Care & Social Assistance	270	8.7%	5,618	15.4%	4,941	7.3%	68,759	10.4%
Arts, Entertainment & Recreation	44	1.4%	510	1.4%	1,405	2.1%	29,152	4.4%
Accommodation & Food Services	325	10.5%	4,975	13.6%	5,018	7.4%	80,328	12.2%
Accommodation	16	0.5%	199	0.5%	557	0.8%	15,293	2.3%
Food Services & Drinking Places	309	10.0%	4,776	13.1%	4,461	6.6%	65,035	9.9%
Other Services (except Public Administration)	482	15.6%	2,044	5.6%	8,445	12.5%	42,919	6.5%
Automotive Repair & Maintenance	122	4.0%	672	1.8%	1,963	2.9%	9,785	1.5%
Public Administration	63	2.0%	1,614	4.4%	1,034	1.5%	39,087	5.9%
Unclassified Establishments	259	8.4%	35	0.1%	7,079	10.5%	1,504	0.2%
Total	3,087	100.0%	36,453	100.0%	67,683	100.0%	659,644	100.0%

Source: Esri

APPENDIX 2

RETAIL MARKET

APPENDIX 2 - TABLE 1

TOTAL & PER CAPITA RETAIL SALES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

-----Total Taxable Sales (\$000s)-----						
2018						
	<u>Moreno Valley</u>	<u>Perris</u>	<u>Riverside</u>	<u>Regional Market</u>	<u>Riverside County</u>	<u>State of California</u>
Motor Vehicles and Parts Dirs	\$74,682	\$16,178	\$344,915	\$435,775	\$1,324,752	\$21,015,330
Home Furnishing & App	9,075	130,379	41,904	181,358	447,419	3,166,650
Bldg Mtrl & Garden Equip	29,280	15,376	84,693	129,349	515,733	8,974,699
Food & Beverage Stores	39,852	21,545	59,639	121,036	452,917	6,927,778
Gasoline Stations	46,038	29,926	101,331	177,295	794,443	12,352,860
Clothing & Clothing Access	30,519	8,024	61,862	100,405	544,220	9,197,928
General Merchandise Stores	62,582	17,064	93,467	173,113	799,655	12,412,559
Food Services & Drinking Plcs	66,641	23,053	158,678	248,372	1,035,065	20,319,986
Other Retail Group	16,438	16,586	91,573	124,597	682,463	3,325,257
Retail Stores Total	\$375,107	\$278,131	\$1,038,062	\$1,691,300	\$6,596,667	\$97,693,047

-----Per Capita Taxable Sales-----						
2018						
Population	206,046	76,260	326,270	608,576	2,412,536	39,740,508
	<u>Moreno Valley</u>	<u>Perris</u>	<u>Riverside</u>	<u>Regional Market</u>	<u>Riverside County</u>	<u>State of California</u>
Motor Vehicles and Parts Dirs	\$362	\$212	\$1,057	\$716	\$549	\$529
Home Furnishing & App	44	1,710	128	298	185	80
Bldg Mtrl & Garden Equip	142	202	260	213	214	226
Food & Beverage Stores	193	283	183	199	188	174
Gasoline Stations	223	392	311	291	329	311
Clothing & Clothing Access	148	105	190	165	226	231
General Merchandise Stores	304	224	286	284	331	312
Food Services & Drinking Plcs	323	302	486	408	429	511
Other Retail Group	80	217	281	205	283	84
Retail Stores Total	\$1,821	\$3,647	\$3,182	\$2,779	\$2,734	\$2,458

\$8,649

Source: California State Board of Equalization; and California State Department of Finance

¹ Per the CA State Board of Equalization, for those categories listed as "-", the sales are included in the "Other Retail Stores" category.

APPENDIX 2 - TABLE 2

**TOTAL PERMITS & SALES PER RETAIL PERMIT
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY**

-----Total Permits-----						
2018						
	<u>Moreno Valley</u>	<u>Perris</u>	<u>Riverside</u>	<u>Regional Market</u>	<u>Orange County</u>	<u>State of California</u>
Motor Vehicles and Parts Dirs	129	60	429	618	2,224	35,180
Home Furnishing & App	147	68	409	624	2,397	20,366
Bldg Mtrl & Garden Equip	41	32	187	260	1,156	18,397
Food & Beverage Stores	104	53	233	390	1,527	35,344
Gasoline Stations	34	17	76	127	542	10,119
Clothing & Clothing Access	446	164	977	1,587	6,051	109,001
General Merchandise Stores	108	38	463	609	2,050	26,304
Food Services & Drinking Plcs	352	132	829	1,313	5,246	114,733
Other Retail Group	<u>832</u>	<u>304</u>	<u>3,041</u>	<u>4,177</u>	<u>18,243</u>	<u>61,799</u>
Retail Stores Total	2,193	868	6,644	9,705	39,436	431,243

-----Taxable Sales Per Permit-----						
2018						
	<u>Moreno Valley</u>	<u>Perris</u>	<u>Riverside</u>	<u>Regional Market</u>	<u>Orange County</u>	<u>State of California</u>
Motor Vehicles and Parts Dirs	\$578,930.23	\$269,633	\$803,998	\$705,138	\$595,662	\$597,366
Home Furnishing & App	\$61,735	\$1,917,338	\$102,455	\$290,638	\$186,658	\$155,487
Bldg Mtrl & Garden Equip	\$714,146	\$480,500	\$452,904	\$497,496	\$446,136	\$487,835
Food & Beverage Stores	\$383,192	\$406,509	\$255,961	\$310,349	\$296,606	\$196,010
Gasoline Stations	\$1,354,059	\$1,760,353	\$1,333,303	\$1,396,024	\$1,465,762	\$1,220,759
Clothing & Clothing Access	\$68,428	\$48,927	\$63,318	\$63,267	\$89,939	\$84,384
General Merchandise Stores	\$579,463	\$449,053	\$201,873	\$284,258	\$390,076	\$471,889
Food Services & Drinking Plcs	\$189,321	\$174,644	\$191,409	\$189,164	\$197,306	\$177,107
Other Retail Group	\$19,757	\$54,559	\$30,113	\$29,829	\$37,410	\$53,808
Retail Stores Average	\$171,047	\$320,427	\$156,241	\$174,271	\$167,275	\$226,538

-----Residents Per Permit-----						
2018						
	<u>Moreno Valley</u>	<u>Perris</u>	<u>Riverside</u>	<u>Regional Market</u>	<u>Orange County</u>	<u>State of California</u>
Population	206,046	76,260	326,270	608,576	2,412,536	39,740,508
Motor Vehicles and Parts Dirs	1,597	1,271	761	985	1,085	1,130
Home Furnishing & App	1,402	1,121	798	975	1,006	1,951
Bldg Mtrl & Garden Equip	5,026	2,383	1,745	2,341	2,087	2,160
Food & Beverage Stores	1,981	1,439	1,400	1,560	1,580	1,124
Gasoline Stations	6,060	4,486	4,293	4,792	4,451	3,927
Clothing & Clothing Access	462	465	334	383	399	365
General Merchandise Stores	1,908	2,007	705	999	1,177	1,511
Food Services & Drinking Plcs	585	578	394	464	460	346
Other Retail Group	<u>248</u>	<u>251</u>	<u>107</u>	<u>146</u>	<u>132</u>	<u>643</u>
Retail Stores Average	94	88	49	63	61	92

Source: California State Board of Equalization; and California State Department of Finance

¹ Per the CA State Board of Equalization, for those categories listed as "\$0", the sales are included in the "Other Retail Stores" category.

APPENDIX 2 - TABLE 3

4th QUARTER 2019 RETAIL MARKET - MORENO VALLEY/PERRIS SUBMARKET PRODUCT TYPES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Retail Product Type	Square Feet (Total Inventory)	Square Feet Vacant	Vacancy Rate	Net Absorption SF	SF Under Construction	Market Rent
Malls	1,130,496	206,881	18.3%	-	-	\$40.26
Power Centers	2,021,426	208,207	10.3%	10,302	-	\$26.90
Neighborhood Center	6,163,386	665,646	10.8%	3,321	15,740	\$20.37
Strip Centers	731,629	46,824	6.4%	-	25,700	\$19.43
General Retail	2,981,395	35,777	1.2%	21,445	-	\$18.64
Other	0	0	0.0%	-	-	\$0.00
Market Total	13,028,332	1,163,334	8.9%	35,068	41,440	\$22.65

CoStar

APPENDIX 2 - TABLE 4

3rd QUARTER 2019 RETAIL MARKET - INLAND EMPIRE SUBMARKETS¹

MORENO VALLEY MARKET ANALYSIS

CITY OF MORENO VALLEY

Submarket	Square Feet GLA	Square Feet Vacant	Vacancy Rate	Net Absorption Current Qtr (sf)	Net Absorption YTD (sf)	SF Under Construction	Avg Asking Rent (\$/sf/mo)
East End	40,112,198	3,008,415	7.5%	234,305	384,169	325,337	\$2.10
High Desert	9,490,365	1,167,315	12.3%	(167,702)	(155,708)	-	\$1.59
Low Desert	16,463,506	1,498,179	9.1%	74,688	304,786	-	\$2.35
South Riverside County	18,493,283	1,276,037	6.9%	(63,226)	(66,037)	-	\$2.22
West End	28,273,004	2,063,929	7.3%	32,030	98,831	110,690	\$2.31
Inland Empire Total	112,832,356	9,013,875	8.0%	110,095	566,041	436,027	\$2.11

(1) Moreno Valley is located in the East End submarket, along with the Cities of Corona and San Bernardino.

(2) Lease Rates are on a triple-net basis.

CBRE

Moreno Valley is in South Riverside County Submarket

APPENDIX 2 - TABLE 5

CITY OF MORENO VALLEY RETAIL LEASE RATE COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

No.	Address	City	Property Type	Asking	Type	SF Available
1	22420 Cactus Ave	Moreno Valley	Strip Center	\$12.00	NNN	991
				\$12.60	NNN	991
				\$17.40	NNN	1,305
2	14920 Perris Blvd	Moreno Valley	Retail	\$14.40	NNN	1,336
				\$16.80	NNN	1,420
3	22386 Cactus Ave	Moreno Valley	Restaurant	\$16.20	NNN	2,800
4	23639 Sunnymead Blvd	Moreno Valley	Strip Center	\$15.00	NNN	855
				\$15.00	NNN	900
5	16380 Perris Blvd	Moreno Valley	Neighborhood Center	\$15.60	NNN	1,000
				\$18.00	NNN	1,000
6	22455 Alessandro Blvd	Moreno Valley	Neighborhood Center	\$19.20	NNN	1,106
				\$13.20	NNN	1,410
7	25030 Alessandro Blvd	Moreno Valley	Strip Center	\$15.00	NNN	900
8	24150 Alessandro Blvd	Moreno Valley	Strip Center	\$12.00	NNN	1,511
				\$12.00	NNN	2,503
9	23900-23940 Ironwood Ave	Moreno Valley	Strip Center	\$18.00	NNN	1,739
10	24021 Alessandro Blvd	Moreno Valley	Strip Center	\$14.40	NNN	913
11	11875 Pigeon Pass Rd	Moreno Valley	Neighborhood Center	\$15.00	NNN	16,500
12	25050 Alessandro Blvd	Moreno Valley	Neighborhood Center	\$16.80	NNN	1,200

Lease Rate Range	\$12.00 - \$19.20
Weighted Average Lease Rate	\$15.08

Source: Costar 2019

APPENDIX 2 - TABLE 6

RETAIL SALES SURPLUS/LEAKAGE DATA SUMMARY
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	Businesses	Demand	Supply	Surplus/ Leakage	Typical Sales PSF	Potential Sq. Feet
City of Moreno Valley						
Motor Vehicle & Parts Dealers	49	\$352,723,142	\$552,596	\$352,170,546	NA	NA
Furniture & Home Furnishings Stores	28	\$63,367,074	\$33,887,283	\$29,479,791	\$350	84,228
Electronics & Appliance Stores	22	\$63,084,133	\$20,328,508	\$42,755,625	\$350	122,159
Bldg Materials, Garden Equip. & Supply Stores	40	\$102,629,249	\$116,027,834	(\$13,398,585)	\$400	NA
Food & Beverage Stores	70	\$270,568,107	\$279,664,853	(\$9,096,746)	\$450	NA
Health & Personal Care Stores	39	\$113,462,433	\$87,178,962	\$26,283,471	\$400	65,709
Gasoline Stations	30	\$153,023,206	\$159,213,069	(\$6,189,863)	NA	NA
Clothing & Clothing Accessories Stores	94	\$121,006,034	\$91,478,406	\$29,527,628	\$350	84,365
Sporting Goods, Hobby, Book & Music Stores	21	\$54,076,512	\$15,700,980	\$38,375,532	\$350	109,644
General Merchandise Stores	30	\$282,126,045	\$424,161,639	(\$142,035,594)	\$400	NA
Miscellaneous Store Retailers	53	\$61,696,430	\$25,419,181	\$36,277,249	\$350	103,649
Nonstore Retailers	6	\$48,193,484	\$1,123,223	\$47,070,261	NA	NA
Food Services & Drinking Places	272	\$183,548,967	\$196,579,005	(\$13,030,038)	\$400	NA

Source: Esri/KMA

APPENDIX 2 - TABLE 7

**ESTIMATED RETAIL DEMAND (SQUARE FEET OF SUPPORTABLE DEVELOPMENT)
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY**

	City
Motor Vehicle & Parts Dealers	NA
Furniture & Home Furnishings Stores	84,228
Electronics & Appliance Stores	122,159
Bldg Materials, Garden Equip. & Supply Stores	NA
Food & Beverage Stores	NA
Health & Personal Care Stores	65,709
Gasoline Stations	NA
Clothing & Clothing Accessories Stores	84,365
Sporting Goods, Hobby, Book & Music Stores	109,644
General Merchandise Stores	NA
Miscellaneous Store Retailers	103,649
Nonstore Retailers	NA
Food Services & Drinking Places	NA
Total	569,754

APPENDIX 3
OFFICE MARKET

APPENDIX 3 - TABLE 1

2nd QUARTER 2019 OFFICE MARKET - INLAND EMPIRE SUBMARKETS
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Submarket	Square Feet (Total Inventory)	Square Feet Vacant	Vacancy Rate	Net Absorption Current Qtr	Net Absorption YTD	SF Under Construction	Average Asking Rent
Chino Hills	291,300	13,691	4.7%	(300)	(3,100)	-	\$2.61
Coachella Valley	995,300	86,591	8.7%	(1,500)	11,500	-	\$1.70
Corona	1,691,600	125,178	7.4%	(35,100)	(41,100)	-	\$2.09
Murrieta/Temecula	1,376,500	125,262	9.1%	(4,900)	(1,300)	-	\$1.75
Ontario	3,708,400	400,507	10.8%	10,400	(20,300)	-	\$2.12
Rancho Cucamonga	2,880,200	313,942	10.9%	(98,400)	(96,200)	-	\$2.05
Riverside	4,632,900	671,771	14.5%	(78,600)	(47,400)	113,500	\$1.89
San Bernardino	4,815,900	828,335	17.2%	(61,200)	(55,300)	-	\$1.69
Inland Empire Market Total	20,392,100	2,565,276	12.6%	(269,600)	(253,200)	113,500	\$1.88

Colliers International

APPENDIX 3 - TABLE 2

2nd QUARTER 2019 OFFICE MARKET - INLAND EMPIRE PRODUCT TYPES
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

Office Product Type	Square Feet (Total Inventory)	Square Feet Vacant	Vacancy Rate	Net Absorption Current Qtr	Net Absorption YTD	SF Under Construction	Average Asking Rent
Class A Office	500,600	56,067	11.2%	(78,200)	(46,700)	56,200	\$2.36
Class B Office	13,399,300	1,607,916	12.0%	(95,200)	(57,400)	57,300	\$1.84
Class C Office	1,992,200	392,463	19.7%	(96,200)	(149,100)	-	\$1.37
Market Total	15,892,100	2,056,447	12.94%	(269,600)	(253,200)	113,500	\$1.88

Colliers International

APPENDIX 3 - TABLE 3

**CITY OF MORENO VALLEY OFFICE LEASE RATE COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY**

No.	Address	City	Property Type	Asking	Type	SF Available
1	21250 Box Springs Rd	Moreno Valley	Office	\$15.00	MG	527
				\$18.00	MG	527
2	14920 Perris Blvd	Moreno Valley	Office	\$14.40	NNN	1,336
				\$13.20	NNN	942
3	14340 Elsworth St - Moreno Corporate C	Moreno Valley	Office	\$14.40	NNN	10,990
4	22420 Cactus Ave	Moreno Valley	Office	\$18.00	NNN	1,344
				\$15.00	NNN	1,385
				\$15.00	NNN	1,598
5	23110 Atlantic Cir	Moreno Valley	Office	\$16.32	NNN	778
				\$16.32	NNN	778
6	24281 Postal Ave - Postal Business Ctr	Moreno Valley	Office	\$10.20	FSG	758
				\$12.00	FSG	815
7	23890 Alessandro Blvd	Moreno Valley	Office	\$16.80	MG	610
				\$17.40	MG	610
8	13800 Heacock St	Moreno Valley	Office	\$15.60	MG	1,646
				\$15.60	MG	2,973
				\$16.80	MG	1,303
9	14162 Elsworth St	Moreno Valley	Office	\$14.76	MG	1,100
10	14315 Corporate Way	Moreno Valley	Office	\$12.00	MG	1,000
11	23962 Alessandro Blvd	Moreno Valley	Office	\$14.40	NNN	1,100
12	12981 Perris Blvd	Moreno Valley	Office	\$13.80	NNN	1,040
				\$15.00	NNN	1,040
13	23800 Sunnymead Blvd	Moreno Valley	Office	\$12.00	MG	943
14	24150 Alessandro Blvd	Moreno Valley	Office	\$15.00	NNN	1,000
15	24194 Sunnymead Blvd	Moreno Valley	Office	\$26.64	MG	360
16	23318 Olivewood Plaza Dr	Moreno Valley	Office	\$11.40	MG	942
				\$18.00	MG	1,144

Lease Rate Range	\$10.20 - \$26.64
Weighted Average Lease Rate	\$14.91

Source: Costar 2019

APPENDIX 3 - TABLE 4

POTENTIAL OFFICE DEMAND
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Information	-----Estimated Office Demand-----			
	2020	2025	2030	2035
Information				
Employment	340	334	328	322
Change		(6)	(6)	(6)
Office Employment Percentage		40%	40%	40%
Square Feet/Employee		200	200	200
Total Square Footage		(500)	(500)	(500)
Finance and Insurance				
Employment	718	731	745	759
Change		13	14	14
Office Employment Percentage		75%	75%	75%
Square Feet/Employee		200	200	200
Total Square Footage		2,000	2,000	2,100
Real Estate				
Employment	821	857	894	933
Change		36	37	39
Office Employment Percentage		75%	75%	75%
Square Feet/Employee		200	200	200
Total Square Footage		5,300	5,600	5,800
Pro/Sci/Tech/Mgmt				
Employment	982	1,066	1,158	1,258
Change		84	92	100
Office Employment Percentage		75%	75%	75%
Square Feet/Employee		200	200	200
Total Square Footage		12,700	13,800	14,900
Balance of Employment				
Employment	33,592	36,201	39,013	42,043
Change		2,609	2,812	3,030
Office Employment Percentage		5%	5%	5%
Square Feet/Employee		200	200	200
Total Square Footage		26,100	28,100	30,300
Total				
Employment	36,453	39,190	42,138	45,315
Change		2,737	2,948	3,177
Total Square Footage		45,600	49,000	52,600
Total Square Footage Through Term of Projection		45,600	94,600	147,200

Source: Projections based on California Economic Development Department employment projections (2014-2024) for Riverside-San Bernardino Counties. Esri employment data. Employment Percentage and square footage assumptions made by KMA.

APPENDIX 4

RESIDENTIAL (RENTAL) MARKET

APPENDIX 4 - TABLE 1

**PROJECTED CITY HOUSEHOLD FORMATION¹
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY**

	2019	2024	2029	2034
Estimated Population	207,744	218,245	229,735	241,830
Households	54,909	57,232	60,245	63,417
Household Growth		2,323	3,013	3,172
Cumulative Households		2,323	5,336	8,508
Housing Units @ 103% of Growth		2,393	5,496	8,763

Source: Esri, SCAG; KMA

¹ Assumes Esri population and growth projections for 2019 and 2024, with SCAG growth projections thereafter.

APPENDIX 4 - TABLE 2

SELECTED HOUSING CHARACTERISTICS - CITY & COUNTY
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	City of Moreno Valley		Riverside County	
	Estimate	%	Estimate	%
HOUSING TENURE				
Occupied Housing Units	50,840	100.00%	711,724	100.00%
Owner-Occupied	30,775	60.5%	462,788	65.0%
Renter Occupied	20,065	39.5%	248,936	35.0%
Average HH Size (Owner-Occupied)	3.97		3.23	
Average HH Size (Renter-Occupied)	4.03		3.32	
UNITS IN STRUCTURE				
Total Housing Units	54,005	100.00%	826,704	100.00%
1-unit, detached	41,513	76.9%	562,362	68.0%
1-unit, attached	1,078	2.0%	47,640	5.8%
2 units	423	0.8%	11,903	1.4%
3 or 4 units	1,521	2.8%	29,088	3.5%
5 - 9 units	3,212	5.9%	35,267	4.3%
10 - 19 units	2,879	5.3%	28,246	3.4%
20+ units	1,984	3.7%	36,677	4.4%
Mobile home	1,395	2.6%	74,203	9.0%
BEDROOMS				
Total Housing Units	54,005	100.00%	826,704	100.00%
No Bedroom	642	1.2%	16,411	2.0%
1 bedroom	3,070	5.7%	65,665	7.9%
2 bedrooms	9,885	18.3%	217,189	26.3%
3 bedrooms	19,610	36.3%	283,009	34.2%
4 bedrooms	16,604	30.7%	182,542	22.1%
5+ bedrooms	4,194	7.8%	61,888	7.5%

Source: American Community Survey 5-Year Estimates

APPENDIX 4 - TABLE 3

HOUSING OCCUPANCY & PHYSICAL CHARACTERISTICS - CITY & COUNTY
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	City of Moreno Valley				Riverside County			
	Owner-Occupied Housing		Renter-Occupied Housing		Owner-Occupied Housing		Renter-Occupied Housing	
	Estimate	%	Estimate	%	Estimate	%	Estimate	%
HOUSEHOLD SIZE								
1-person HH	3,227	10.5%	2,752	13.7%	90,885	19.6%	60,742	24.4%
2-person HH	7,731	25.1%	3,961	19.7%	150,345	32.5%	57,748	23.2%
3-person HH	5,618	18.3%	3,490	17.4%	68,908	14.9%	39,844	16.0%
4+ person HH	14,199	46.1%	9,862	49.2%	152,650	33.0%	90,602	36.4%
Median HH Income	\$ 73,742		\$ 42,248		\$ 74,602		\$ 40,620	
PRESENCE OF CHILDREN								
With related children of householder	14,286	46.4%	11,785	58.7%	160,958	34.8%	115,093	46.2%
With own children of householder	11,600	37.7%	10,181	50.7%	138,111	29.8%	104,335	41.9%
Under 6 years only	1,623	5.3%	1,945	9.7%	21,356	4.6%	20,006	8.0%
Under 6 years and 6 - 17 years	2,388	7.8%	2,822	14.1%	27,984	6.0%	28,217	11.3%
6 - 17 years only	7,589	24.7%	5,414	27.0%	88,771	19.2%	56,112	22.5%
No own children of householder	2,686	8.7%	1,604	8.0%	22,847	4.9%	10,758	4.3%
No related children of householder	16,489	53.6%	8,280	41.3%	301,830	65.2%	133,843	53.8%
UNITS IN STRUCTURE								
Total Occupied Housing Units								
1, detached	28,906	93.9%	10,770	53.7%	392,772	84.9%	111,552	44.8%
1, attached	581	1.9%	400	2.0%	19,609	4.2%	11,799	4.7%
2 apartments	34	0.1%	357	1.8%	1,174	0.3%	7,548	3.0%
3 or 4 apartments	142	0.5%	1,276	6.4%	2,541	0.5%	20,332	8.2%
5 - 9 apartments	136	0.4%	2,599	13.0%	1,939	0.4%	27,627	11.1%
10+ apartments	78	0.3%	4,292	21.4%	2,155	0.5%	53,551	21.5%
Mobile home, other	898	2.9%	371	1.8%	42,598	9.2%	16,527	6.6%
MONTHLY HOUSING COST AS % OF HH INCOME								
Less than \$20,000	1,838	6.0%	3,637	18.1%	40,081	8.7%	51,375	20.6%
Less than 20%	59	0.2%	25	0.1%	3,703	0.8%	476	0.2%
20-29%	155	0.5%	114	0.6%	2,924	0.6%	2,547	1.0%
30% or more	1,624	5.3%	3,498	17.4%	33,454	7.2%	48,352	19.4%
\$20,000 - \$34,999	2,987	9.7%	3,981	19.8%	51,968	11.2%	47,555	19.1%
Less than 20%	498	1.6%	34	0.2%	11,546	2.5%	1,114	0.4%
20-29%	248	0.8%	161	0.8%	8,376	1.8%	3,787	1.5%
30% or more	2,241	7.3%	3,786	18.9%	32,046	6.9%	42,654	17.1%
\$35,000 - \$49,999	4,174	13.6%	3,427	17.1%	52,771	11.4%	37,000	14.9%
Less than 20%	807	2.6%	138	0.7%	15,046	3.3%	2,109	0.8%
20-29%	637	2.1%	571	2.8%	8,859	1.9%	8,859	3.6%
30% or more	2,730	8.9%	2,718	13.5%	28,866	6.2%	26,032	10.5%
\$50,000 - \$74,999	6,557	21.3%	3,952	19.7%	82,327	17.8%	43,089	17.3%
Less than 20%	1,655	5.4%	472	2.4%	26,636	5.8%	7,184	2.9%
20-29%	2,347	7.6%	1,725	8.6%	21,317	4.6%	17,655	7.1%
30% or more	2,555	8.3%	1,755	8.7%	34,374	7.4%	18,250	7.3%
\$75,000 or more	15,062	48.9%	4,374	21.8%	230,078	49.7%	56,016	22.5%
Less than 20%	9,492	30.8%	2,531	12.6%	130,160	28.1%	30,082	12.1%
20-29%	4,455	14.5%	1,627	8.1%	69,668	15.1%	20,930	8.4%
30% or more	1,115	3.6%	216	1.1%	30,250	6.5%	5,004	2.0%

Source: American Community Survey 5-Year Estimates

APPENDIX 4 - TABLE 4

MARKET AREA RENT TRENDS & PROJECTIONS
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

Year	Average Asking Rent	Avg Asking Rent PSF	Average Effective Rent		Average Vacancy
2012	\$1,003	\$1.11	\$991	\$1.10	6.9%
2013	\$1,026	\$1.14	\$1,019	\$1.13	6.0%
2014	\$1,084	\$1.20	\$1,069	\$1.19	5.6%
2015	\$1,181	\$1.31	\$1,171	\$1.30	4.5%
2016	\$1,277	\$1.42	\$1,262	\$1.40	5.6%
2017	\$1,360	\$1.51	\$1,329	\$1.47	7.1%
2018	\$1,436	\$1.59	\$1,419	\$1.57	5.6%
2019 YTD	\$1,486	\$1.64	\$1,471	\$1.62	7.9%
2020 (Projection)	\$1,534	\$1.70	\$1,519	\$1.68	5.5%
2021 (Projection)	\$1,571	\$1.74	\$1,556	\$1.72	5.9%

APPENDIX 4 - TABLE 5

CURRENT MARKET AREA RENTS BY UNIT TYPE (4th QUARTER 2019)
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

Unit Type	Units in Sample	Average Square Feet	Avg Asking Rent	Avg Asking Rent PSF
Studio / Efficiency	122	412	\$958	\$2.58
One Bedroom	2,318	730	\$1,344	\$1.85
Two Bedroom	3,799	979	\$1,518	\$1.55
Three Bedroom	654	1,199	\$1,894	\$1.57
Overall	11,639	906	\$1,485	\$1.64

APPENDIX 4 - TABLE 6

CITY & SUBMARKET RENT/VACANCY COMPARISON
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Unit Type	City of Moreno Rents		Riverside/Corona Submarket ¹		Greater Inland Empire Market	
	Avg Asking Rent	Avg Asking Rent PSF	Avg Asking Rent	Avg Asking Rent PSF	Avg Asking Rent	Avg Asking Rent PSF
Studio / Efficiency	\$958	\$2.58	\$1,056	-	\$984	-
One Bedroom	\$1,344	\$1.85	\$1,378	-	\$1,335	-
Two Bedroom	\$1,518	\$1.55	\$1,631	-	\$1,531	-
Three Bedroom	\$1,894	\$1.57	\$2,026	-	\$1,916	-
Average Vacancy Rate (Year to Date)	7.9%		5.8%		5.0%	
Market Asking Rent/Unit Overall	\$1,486		\$1,536	-	\$1,481	-

¹ Submarket area includes City of Moreno Valley and surrounding Cities: Riverside, Jurupa Valley and Corona

APPENDIX 4 - TABLE 7

**MARKET AREA RESIDENTIAL MULTIFAMILY COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY**

<u>No.</u>	<u>Name</u>	<u>Address</u>	<u>Number of Ur</u>	<u>Year Built</u>	<u>Bdrms</u>	<u>Baths</u>	<u>SF</u>	<u>Rent</u>	<u>Rent/SF</u>
1	North Woods	23925-23967 Eu	98	1986	0	1	450	\$1,126	\$2.50
2	Heacock Park	13325 Heacock S	120	1971	0	1	400	\$1,121	\$2.80
3	Segovia Apart	23227 Hemlock /	171	1986	0	1	328	\$859	\$2.62
4	Las Casitas	24885-24919 Eu	20	1963	0	1	400	\$814	\$2.04
5	Verano Terrac	25445 Sunnymea	137	1987	0	1	455	\$889	\$1.95
Studios							407	\$962	\$2.37
6	Casa Del Mar	22949-22953 Ad	24	1974	1	1	750	\$711	\$0.95
7	Ridgeview	25335 Alessandr	320	2006	1	1	795	\$1,312	\$1.65
8	Ridgeview	25335 Alessandr	320	2006	1	1	833	\$1,335	\$1.60
9	Baywood Villa	22945 Bay Ave	56	2008	1	1	933	\$1,400	\$1.50
10	Tuscany Hills	21012 Box Sprin	144	2005	1	1	712	\$1,620	\$2.28
11	Tuscany Hills	21012 Box Sprin	144	2005	1	1	731	\$1,470	\$2.01
12	Tuscany Hills	21012 Box Sprin	144	2005	1	1	736	\$1,650	\$2.24
13	Tuscany Hills	21012 Box Sprin	144	2005	1	1	741	\$1,515	\$2.04
14	Vista Springs	21550 Box Sprin	212	1989	1	1	690	\$1,279	\$1.85
15	Sorelle Apartn	12159 Calle Sorr	330	1986	1	1	750	\$1,345	\$1.79
16	Sienna Pointe	13933 Chagall C	384	1985	1	1	708	\$1,251	\$1.77
17	Sorano	12406 Clark St	266	2019	1	1	774	\$1,778	\$2.30
18	Sorano	12406 Clark St	266	2019	1	1	776	\$1,790	\$2.31
19	Arbor Apartm	22985 Climbing I	100	1988	1	1	750	\$1,267	\$1.69
20	The Villas at T	13120 Day St	394	2005	1	1	845	\$1,412	\$1.67
21	Palos Verdes	24248-24254 Dre	54	1990	1	1	800	\$1,161	\$1.45
22	Villa Camille	13068 Edgemont	112	2017	1	1	796	\$1,435	\$1.80
23	North Woods	23925-23967 Eu	98	1986	1	1	686	\$1,451	\$2.12
24	Sedona Apart	25070 Fir Ave	82	1989	1	1	650	\$1,305	\$2.01
25	Stella at Town	12845-12881 Fre	262	2006	1	1	708	\$1,250	\$1.77
26	Stella at Town	12845-12881 Fre	262	2006	1	1	860	\$1,360	\$1.58
27	Ashwood	12325 Graham S	120	1986	1	1	709	\$903	\$1.27
28	Heacock Park	13325 Heacock S	120	1971	1	1	600	\$1,200	\$2.00
29	Segovia Apart	23227 Hemlock /	171	1986	1	1	600	\$1,125	\$1.88
30	La Pacifica	23400 Hemlock /	360	2006	1	1	645	\$1,350	\$2.09
31	Monarch Terr	23215 Ironwood	92	1986	1	1	725	\$1,255	\$1.73
32	Legends at R	13292 Lasselle S	206	1992	1	1	815	\$1,406	\$1.73
33	Legends at R	13292 Lasselle S	206	1992	1	1	890	\$1,424	\$1.60
34	Lasselle Plac	15700 Lasselle S	304	2005	1	2	991	\$2,000	\$2.02
35	Verano Terrac	25445 Sunnymea	137	1987	1	1	643	\$1,053	\$1.64
One Bedroom							755	\$1,360	\$1.80
36	Casa Del Mar	22949-22953 Ad	24	1974	2	1	1,000	\$857	\$0.86
37	Ridgeview	25335 Alessandr	320	2006	2	2	1,059	\$1,498	\$1.41
38	Ridgeview	25335 Alessandr	320	2006	2	2	1,081	\$1,519	\$1.41
39	Asante Villas	23925 Bay Ave	118	1984	2	1	815	\$1,588	\$1.95
40	Asante Villas	23925 Bay Ave	118	1984	2	2	921	\$1,590	\$1.73
41	Tuscany Hills	21012 Box Sprin	144	2005	2	2	962	\$1,660	\$1.73
42	Tuscany Hills	21012 Box Sprin	144	2005	2	2	1,000	\$1,885	\$1.89
43	Tuscany Hills	21012 Box Sprin	144	2005	2	2	1,005	\$1,795	\$1.79
44	Vista Springs	21550 Box Sprin	212	1989	2	2	960	\$1,530	\$1.59
45	Sorelle Apartn	12159 Calle Sorr	330	1986	2	1	875	\$1,450	\$1.66
46	Sorelle Apartn	12159 Calle Sorr	330	1986	2	2	986	\$1,445	\$1.47

47 Sienna Pointe 13933 Chagall C	384	1985	2	1	922	\$1,462	\$1.59
48 Sienna Pointe 13933 Chagall C	384	1985	2	2	987	\$1,558	\$1.58
49 Sorano 12406 Clark St	266	2019	2	2	1,042	\$2,156	\$2.07
50 Sorano 12406 Clark St	266	2019	2	2	1,091	\$2,230	\$2.04
51 Arbor Apartmε 22985 Climbing I	100	1988	2	2	945	\$1,468	\$1.55
52 The Villas at T 13120 Day St	394	2005	2	2	934	\$1,515	\$1.62
53 The Villas at T 13120 Day St	394	2005	2	2	1,044	\$1,600	\$1.53
54 The Villas at T 13120 Day St	394	2005	2	2	1,103	\$1,680	\$1.52
55 The Villas at T 13120 Day St	394	2005	2	2	1,105	\$1,794	\$1.62
56 Tuscany Villaç 25055 Delphiniur	64	2008	2	2	997	\$1,696	\$1.70
57 Palos Verdes 24248-24254 Drε	54	1990	2	1.5	1,021	\$1,522	\$1.49
58 Villa Camille 13068 Edgemont	112	2017	2	2	1,098	\$1,700	\$1.55
59 North Woods 23925-23967 Eu	98	1986	2	1.5	951	\$1,822	\$1.92
60 Sedona Apart 25070 Fir Ave	82	1989	2	2	900	\$1,435	\$1.59
61 Stella at Town 12845-12881 Fre	262	2006	2	1	993	\$1,415	\$1.42
62 Stella at Town 12845-12881 Fre	262	2006	2	1	1,002	\$1,455	\$1.45
63 Stella at Town 12845-12881 Fre	262	2006	2	2	1,124	\$1,575	\$1.40
64 Stella at Town 12845-12881 Fre	262	2006	2	2	1,300	\$1,800	\$1.38
65 Village Green 13831-13889 Fre	45	1985	2	1	900	\$1,222	\$1.36
66 Village Green 13831-13889 Fre	45	1985	2	1.5	1,100	\$1,328	\$1.21
67 Ashwood 12325 Graham S	120	1986	2	2	938	\$1,053	\$1.12
68 Heacock Park 13325 Heacock S	120	1971	2	2	975	\$1,437	\$1.47
69 Heacock Park 13325 Heacock S	120	1971	2	2	1,100	\$1,488	\$1.35
70 Segovia Apart 23227 Hemlock /	171	1986	2	1	818	\$1,238	\$1.51
71 La Pacifica 23400 Hemlock /	360	2006	2	1	826	\$1,435	\$1.74
72 La Pacifica 23400 Hemlock /	360	2006	2	2	930	\$1,495	\$1.61
73 Monarch Terr: 23215 Ironwood	92	1986	2	2	810	\$1,376	\$1.70
74 Legends at Rε 13292 Lasselle S	206	1992	2	2	1,028	\$1,630	\$1.59
75 Legends at Rε 13292 Lasselle S	206	1992	2	2	1,085	\$1,605	\$1.48
76 Legends at Rε 13292 Lasselle S	206	1992	2	2	1,090	\$1,635	\$1.50
77 Legends at Rε 13292 Lasselle S	206	1992	2	2	1,130	\$1,622	\$1.44
78 Verano Terrac 25445 Sunnymε:	137	1987	2	1	812	\$1,179	\$1.45
79 Verano Terrac 25445 Sunnymε:	137	1987	2	1.5	835	\$1,204	\$1.44
80 Verano Terrac 25445 Sunnymε:	137	1987	2	2	849	\$1,280	\$1.51
81 Verano Terrac 25445 Sunnymε:	137	1987	2	2	867	\$1,281	\$1.48

Two Bedroom					985	\$1,526	\$1.55
82 Ridgeview 25335 Alessandr	320	2006	3	2	1,207	\$1,851	\$1.53
83 Ridgeview 25335 Alessandr	320	2006	3	2	1,223	\$1,917	\$1.57
84 Tuscany Hills 21012 Box Sprin	144	2005	3	2	1,215	\$1,923	\$1.58
85 Sorano 12406 Clark St	266	2019	3	2	1,278	\$2,408	\$1.88
86 The Villas at T 13120 Day St	394	2005	3	2	1,278	\$2,084	\$1.63
87 Palos Verdes 24248-24254 Drε	54	1990	3	2	1,400	\$1,771	\$1.27
88 La Pacifica 23400 Hemlock /	360	2006	3	2	1,015	\$1,695	\$1.67
89 Ironwood Villa 23163 Ironwood	47	1986	3	2	900	\$1,330	\$1.48
90 Ironwood Villa 23163 Ironwood	47	1986	3	2	950	\$1,583	\$1.67
Three Bedroom					1,163	\$1,840	\$1.58
Total					894	\$1,471	\$1.65

Costar, Apartments.com, December 2019

1 Limited to market rate multifamily buildings.

APPENDIX 4 - TABLE 8

RENTAL RESIDENTIAL PROPOSED & UNDER DEVELOPMENT Q4 2019 - RIVERSIDE/CORONA SUBMARKET⁽¹⁾
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Under Construction						
Address	City	Name	Total Units	Est. Date of Completion	Average Asking Rent/SF	Developer
5377 Quail Run Rd	Riverside	The Trails at Canyon Crest	216	Jan-20	\$2.22	The Hoffman Company
12406 Clark St	Moreno Valley	Sorano Phase II	196	Feb-20	-	Wermers Companies; R&V Management
3650 Market St	Riverside	Stalder Building	165	Aug-20	-	Regional Properties
2225 Collett Ave	Corona	The Monterey	120	Feb-20	\$2.31	Sares-Regis Group
4826 Van Buren Blvd	Riverside	Turtle Creek Apartments	98	Jan-20	\$2.29	Progressive Realty Partners
3115 Market Street	Riverside	Centerpointe Market	60	Feb-20	-	Zion Enterprises
Lasselle Street	Moreno Valley	Continental Villages	237	May-20	-	Continental East Development
8389 Mount Hood Rd	Riverside	Monte Vista	39	-	-	Investment Concepts, Inc.
			1,131		\$2.27	

Proposed						
Address	City	Name	Total Units	Est. Date of Completion	Average Asking Rent/SF	Developer
12209 68th St	Jurupa Valley	Vernola Marketplace Apartments	397	-	-	Vernola Family Trust
3575 Merrill Ave	Riverside	Merrill Ave Brownstones	108	-	-	Van Daele Development Corporation
Lasselle Street	Moreno Valley	Continental East Development	237	-	-	Continental East Development, Inc.
29095 John F Kennedy Dr	Moreno Valley	Moreno Valley Ranch Golf Project	446	-	-	Bridge Investment Group
			1,188		-	

Recently Completed						
Address	City	Name	Total Units	Date Completed	Average Asking Rent/SF	Developer
3870 Main St	Riverside	Main & 9th Lofts	36	Oct-19	\$2.82	Ratkovich Properties
3050 Mission Inn Ave	Riverside	Mission Lofts	212	Aug-19	\$2.71	The Wolff Company
12405 Clark St	Moreno Valley	Sorano Phase I	266	Jul-19	\$2.09	Wermers Companies
			514		\$2.54	

(1) Submarket includes Cities of Moreno Valley, Riverside, Jurupa Valley and Corona

APPENDIX 5

RESIDENTIAL (SALE) MARKET

APPENDIX 5 - TABLE 1

FOR SALE TRENDS - ALL HOMES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$227,800		\$176,000		\$165,900		\$232,500	
2011	\$217,400	-4.6%	\$171,000	-2.8%	\$157,900	-4.8%	\$222,600	-4.3%
2012	\$236,300	8.7%	\$184,100	7.7%	\$171,100	8.4%	\$243,200	9.3%
2013	\$289,100	22.3%	\$230,600	25.3%	\$217,800	27.3%	\$297,900	22.5%
2014	\$305,500	5.7%	\$253,700	10.0%	\$241,400	10.8%	\$319,300	7.2%
2015	\$320,700	5.0%	\$269,600	6.3%	\$257,700	6.8%	\$338,200	5.9%
2016	\$339,200	5.8%	\$289,600	7.4%	\$277,900	7.8%	\$359,300	6.2%
2017	\$362,400	6.8%	\$311,700	7.6%	\$301,300	8.4%	\$386,200	7.5%
2018	\$381,400	5.2%	\$333,500	7.0%	\$322,000	6.9%	\$407,600	5.5%
2019	\$394,800	3.5%	\$349,100	4.7%	\$337,900	4.9%	\$421,200	3.3%
Change 2010-2019	\$167,000	73.3%	\$173,100	98.4%	\$172,000	103.7%	\$188,700	81.2%

Source: Zillow Home Value Index, Keyser Marston Associates, Inc.

APPENDIX 5 - TABLE 2

FOR SALE TRENDS - CONDOMINIUMS
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$195,200		\$123,300		\$0		\$146,400	
2011	\$181,400	-7.1%	\$117,700	-4.5%	\$0	0.0%	\$137,800	-5.9%
2012	\$193,000	6.4%	\$125,800	6.9%	\$126,200	0.0%	\$146,700	6.5%
2013	\$235,600	22.1%	\$155,000	23.2%	\$161,900	28.3%	\$184,300	25.6%
2014	\$244,000	3.6%	\$163,600	5.5%	\$175,700	8.5%	\$202,000	9.6%
2015	\$250,500	2.7%	\$175,300	7.2%	\$189,000	7.6%	\$218,800	8.3%
2016	\$256,700	2.5%	\$192,700	9.9%	\$198,500	5.0%	\$232,400	6.2%
2017	\$269,700	5.1%	\$212,900	10.5%	\$212,500	7.1%	\$253,500	9.1%
2018	\$284,100	5.3%	\$234,000	9.9%	\$232,000	9.2%	\$272,900	7.7%
2019	\$296,900	4.5%	\$252,500	7.9%	\$249,600	7.6%	\$283,000	3.7%
Change 2010-2019	\$101,700	52.1%	\$129,200	104.8%	\$249,600	97.8%	\$136,600	93.3%

Source: Zillow Home Value Index, Keyser Marston Associates, Inc.

APPENDIX 5 - TABLE 3

FOR SALE TRENDS - SINGLE FAMILY HOMES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	Riverside County				Moreno Valley				Perris		City of Riverside	
	Price	Change	Price/SF	% Change	Price	% Change	Price/SF	% Change	Price	Change	Price	Change
2010	\$230,500		\$116		\$176,800		\$90		\$166,200		\$236,200	
2011	\$220,400	-4.4%	\$111	-4.3%	\$171,800	-2.8%	\$86	-4.4%	\$158,200	0.0%	\$226,100	-4.3%
2012	\$239,700	8.8%	\$131	18.0%	\$185,000	7.7%	\$94	9.3%	\$171,300	0.0%	\$247,100	9.3%
2013	\$294,500	22.9%	\$164	25.2%	\$231,700	25.2%	\$130	38.3%	\$218,200	27.4%	\$302,400	22.4%
2014	\$311,500	5.8%	\$171	4.3%	\$254,700	9.9%	\$141	8.5%	\$241,700	10.8%	\$323,700	7.0%
2015	\$327,500	5.1%	\$181	5.8%	\$270,600	6.2%	\$156	10.6%	\$258,100	6.8%	\$342,700	5.9%
2016	\$346,900	5.9%	\$188	3.9%	\$290,600	7.4%	\$163	4.5%	\$278,300	7.8%	\$363,600	6.1%
2017	\$370,900	6.9%	\$201	6.9%	\$312,600	7.6%	\$183	12.3%	\$301,800	8.4%	\$390,800	7.5%
2018	\$390,100	5.2%	\$209	4.0%	\$334,400	7.0%	\$190	3.8%	\$322,500	6.9%	\$412,000	5.4%
2019	\$403,500	3.4%	\$213	1.9%	\$350,000	4.7%	\$201	5.8%	\$338,300	4.9%	\$425,800	3.3%
2010-2019	\$173,000	75.1%	\$97	83.6%	\$173,200	98.0%	\$111	123.3%	\$172,100	97.5%	\$189,600	80.3%

Source: Zillow Home Value Index, Keyser Marston Associates, Inc.

APPENDIX 5 - TABLE 4

FOR SALE TRENDS - SALE PRICE BY TIER
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Bottom Tier								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$157,000		\$144,800		\$132,500		\$181,000	
2011	\$150,100	-4.4%	\$141,600	-2.2%	\$126,800	-4.3%	\$174,900	-3.4%
2012	\$164,300	9.5%	\$153,900	8.7%	\$139,100	9.7%	\$193,400	10.6%
2013	\$202,200	23.1%	\$197,900	28.6%	\$179,800	29.3%	\$242,300	25.3%
2014	\$217,400	7.5%	\$223,300	12.8%	\$201,400	12.0%	\$263,000	8.5%
2015	\$230,000	5.8%	\$237,600	6.4%	\$218,000	8.2%	\$280,700	6.7%
2016	\$244,700	6.4%	\$256,400	7.9%	\$236,600	8.5%	\$300,800	7.2%
2017	\$263,200	7.6%	\$277,500	8.2%	\$257,900	9.0%	\$326,200	8.4%
2018	\$279,300	6.1%	\$298,600	7.6%	\$278,600	8.0%	\$346,200	6.1%
2019	\$291,000	4.2%	\$314,400	5.3%	\$293,400	5.3%	\$360,100	4.0%
Change 2010-2019	\$134,000	85.4%	\$169,600	117.1%	\$160,900	121.4%	\$179,100	99.0%

Middle Tier								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$227,800		\$176,000		\$165,900		\$232,500	
2011	\$217,400	-4.6%	\$171,000	-2.8%	\$157,900	-4.8%	\$222,600	-4.3%
2012	\$236,300	8.7%	\$184,100	7.7%	\$171,100	8.4%	\$243,200	9.3%
2013	\$289,100	22.3%	\$230,600	25.3%	\$217,800	27.3%	\$297,900	22.5%
2014	\$305,500	5.7%	\$253,700	10.0%	\$241,400	10.8%	\$319,300	7.2%
2015	\$320,700	5.0%	\$269,600	6.3%	\$257,700	6.8%	\$338,200	5.9%
2016	\$339,200	5.8%	\$289,600	7.4%	\$277,900	7.8%	\$359,300	6.2%
2017	\$362,400	6.8%	\$311,700	7.6%	\$301,300	8.4%	\$386,200	7.5%
2018	\$381,400	5.2%	\$333,500	7.0%	\$322,000	6.9%	\$407,600	5.5%
2019	\$394,800	3.5%	\$349,100	4.7%	\$337,900	4.9%	\$421,200	3.3%
Change 2010-2019	\$167,000	73.3%	\$173,100	98.4%	\$172,000	103.7%	\$188,700	81.2%

Top Tier								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$330,900		\$216,500		\$222,100		\$325,900	
2011	\$314,000	-5.1%	\$208,400	-3.7%	\$210,900	-5.0%	\$309,000	-5.2%
2012	\$337,900	7.6%	\$225,800	8.3%	\$227,900	8.1%	\$334,100	8.1%
2013	\$420,200	24.4%	\$280,000	24.0%	\$284,500	24.8%	\$404,500	21.1%
2014	\$435,700	3.7%	\$301,500	7.7%	\$306,600	7.8%	\$429,100	6.1%
2015	\$451,200	3.6%	\$318,200	5.5%	\$325,600	6.2%	\$447,400	4.3%
2016	\$471,000	4.4%	\$339,600	6.7%	\$348,100	6.9%	\$469,500	4.9%
2017	\$499,800	6.1%	\$363,500	7.0%	\$374,200	7.5%	\$503,000	7.1%
2018	\$522,400	4.5%	\$386,900	6.4%	\$396,900	6.1%	\$525,400	4.5%
2019	\$537,800	2.9%	\$403,500	4.3%	\$415,900	4.8%	\$540,200	2.8%
Change 2010-2019	\$206,900	62.5%	\$187,000	86.4%	\$193,800	87.3%	\$214,300	65.8%

Source: Zillow Home Value Index, Keyser Marston Associates, Inc.

APPENDIX 5 - TABLE 5

FOR SALE TRENDS - SALE PRICE BY BEDROOM COUNT
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Studio								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$190,400		\$203,200		\$180,300		\$239,400	
2011	\$178,300	-6.4%	\$195,000	-4.0%	\$174,000	-3.5%	\$232,500	-2.9%
2012	\$192,000	7.7%	\$202,500	3.8%	\$194,300	11.7%	\$243,600	4.8%
2013	\$233,900	21.8%	\$243,400	20.2%	\$225,500	16.1%	\$293,800	20.6%
2014	\$261,500	11.8%	\$276,900	13.8%	\$240,700	6.7%	\$306,000	4.2%
2015	\$281,200	7.5%	\$291,000	5.1%	\$250,300	4.0%	\$329,800	7.8%
2016	\$299,700	6.6%	\$315,600	8.5%	\$276,500	10.5%	\$357,700	8.5%
2017	\$320,100	6.8%	\$334,500	6.0%	\$294,200	6.4%	\$383,500	7.2%
2018	\$340,700	6.4%	\$357,500	6.9%	\$321,300	9.2%	\$406,800	6.1%
2019	\$360,500	5.8%	\$375,400	5.0%	\$335,600	4.5%	\$423,400	4.1%
Change 2010-2019	\$170,100	89.3%	\$172,200	84.7%	\$155,300	86.1%	\$184,000	76.9%
One-Bedroom								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$103,900		\$91,100		\$99,400		\$111,700	
2011	\$96,800	-6.8%	\$93,500	2.6%	\$89,500	-10.0%	\$108,900	-2.5%
2012	\$102,700	6.1%	\$102,600	9.7%	\$91,200	1.9%	\$118,700	9.0%
2013	\$128,600	25.2%	\$119,300	16.3%	\$116,400	27.6%	\$153,000	28.9%
2014	\$138,400	7.6%	\$127,300	6.7%	\$143,200	23.0%	\$171,800	12.3%
2015	\$145,000	4.8%	\$159,400	25.2%	\$157,100	9.7%	\$185,500	8.0%
2016	\$152,600	5.2%	\$182,400	14.4%	\$173,000	10.1%	\$195,600	5.4%
2017	\$163,800	7.3%	\$205,600	12.7%	\$181,000	4.6%	\$219,500	12.2%
2018	\$177,800	8.5%	\$239,600	16.5%	\$223,100	23.3%	\$244,900	11.6%
2019	\$189,800	6.7%	\$255,300	6.6%	\$241,900	8.4%	\$254,400	3.9%
Change 2010-2019	\$85,900	82.7%	\$164,200	180.2%	\$142,500	143.4%	\$142,700	127.8%
Two-Bedrooms								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$161,600		\$120,700		\$93,600		\$158,800	
2011	\$153,800	-4.8%	\$121,200	0.4%	\$88,800	-5.1%	\$154,400	-2.8%
2012	\$166,400	8.2%	\$129,700	7.0%	\$96,900	9.1%	\$169,700	9.9%
2013	\$199,800	20.1%	\$165,200	27.4%	\$131,300	35.5%	\$212,200	25.0%
2014	\$214,100	7.2%	\$187,900	13.7%	\$159,900	21.8%	\$236,800	11.6%
2015	\$225,200	5.2%	\$201,900	7.5%	\$183,600	14.8%	\$255,100	7.7%
2016	\$237,100	5.3%	\$223,100	10.5%	\$198,800	8.3%	\$271,700	6.5%
2017	\$254,800	7.5%	\$242,000	8.5%	\$224,500	12.9%	\$300,800	10.7%
2018	\$270,300	6.1%	\$261,100	7.9%	\$240,500	7.1%	\$319,600	6.3%
2019	\$281,600	4.2%	\$275,500	5.5%	\$254,500	5.8%	\$335,700	5.0%
Change 2010-2019	\$120,000	74.3%	\$154,800	128.3%	\$160,900	171.9%	\$176,900	111.4%
Three-Bedrooms								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$208,000		\$161,300		\$152,700		\$207,700	
2011	\$198,800	-4.4%	\$155,600	-3.5%	\$144,600	-5.3%	\$199,300	-4.0%
2012	\$217,000	9.2%	\$167,900	7.9%	\$157,300	8.8%	\$219,300	10.0%
2013	\$267,500	23.3%	\$211,900	26.2%	\$199,300	26.7%	\$271,600	23.8%
2014	\$285,400	6.7%	\$237,400	12.0%	\$224,700	12.7%	\$291,500	7.3%
2015	\$301,400	5.6%	\$252,000	6.1%	\$240,500	7.0%	\$311,700	6.9%
2016	\$320,300	6.3%	\$271,600	7.8%	\$259,900	8.1%	\$334,300	7.3%
2017	\$343,600	7.3%	\$294,100	8.3%	\$282,000	8.5%	\$359,500	7.5%
2018	\$363,000	5.6%	\$316,100	7.5%	\$304,000	7.8%	\$382,000	6.3%
2019	\$376,600	3.7%	\$331,700	4.9%	\$318,900	4.9%	\$395,800	3.6%
Change 2010-2019	\$168,600	81.1%	\$170,400	105.6%	\$166,200	108.8%	\$188,100	90.6%
Four-Bedrooms								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$253,300		\$190,100		\$185,500		\$272,200	
2011	\$242,600	-4.2%	\$184,400	-3.0%	\$178,300	-3.9%	\$261,000	-4.1%
2012	\$263,200	8.5%	\$199,700	8.3%	\$192,600	8.0%	\$284,800	9.1%
2013	\$336,000	27.7%	\$252,400	26.4%	\$244,000	26.7%	\$349,000	22.5%
2014	\$352,000	4.8%	\$271,900	7.7%	\$263,600	8.0%	\$371,600	6.5%
2015	\$367,700	4.5%	\$289,300	6.4%	\$279,400	6.0%	\$389,000	4.7%
2016	\$387,700	5.4%	\$309,000	6.8%	\$300,700	7.6%	\$408,700	5.1%
2017	\$413,000	6.5%	\$331,200	7.2%	\$324,500	7.9%	\$439,200	7.5%
2018	\$432,400	4.7%	\$353,300	6.7%	\$345,000	6.3%	\$459,700	4.7%
2019	\$446,600	3.3%	\$369,200	4.5%	\$361,300	4.7%	\$474,000	3.1%
Change 2010-2019	\$193,300	76.3%	\$179,100	94.2%	\$175,800	94.8%	\$201,800	74.1%
Five-Bedrooms								
	Riverside County		Moreno Valley		Perris		City of Riverside	
	Price	Change	Price	Change	Price	Change	Price	Change
2010	\$322,800		\$231,400		\$231,200		\$364,900	
2011	\$307,700	-4.7%	\$222,800	-3.7%	\$220,900	-4.5%	\$342,900	-6.0%
2012	\$332,100	7.9%	\$240,000	7.7%	\$239,200	8.3%	\$367,400	7.1%
2013	\$419,700	26.4%	\$305,300	27.2%	\$294,100	23.0%	\$458,500	24.8%
2014	\$433,400	3.3%	\$324,000	6.1%	\$307,600	4.6%	\$478,700	4.4%
2015	\$447,900	3.3%	\$339,200	4.7%	\$326,400	6.1%	\$491,100	2.6%
2016	\$468,300	4.6%	\$359,100	5.9%	\$344,700	5.6%	\$510,700	4.0%
2017	\$496,000	5.9%	\$382,000	6.4%	\$367,100	6.5%	\$543,400	6.4%
2018	\$517,200	4.3%	\$405,200	6.1%	\$385,400	5.0%	\$562,000	3.4%
2019	\$529,700	2.4%	\$420,900	3.9%	\$407,400	5.7%	\$572,700	1.9%
Change 2010-2019	\$206,900	64.1%	\$189,500	81.9%	\$176,200	76.2%	\$207,800	56.9%

Source: Zillow Home Value Index, Keyser Marston Associates, Inc.

APPENDIX 5 - TABLE 6

KEY HOUSING STATISTICS - STATE AND COUNTY
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	Total	---- Single ----		--- Multiple ---		Mobile Homes	Occupied	Percent Vacant	Size of Household
		Detached	Attached	2 to 4	5 Plus				
California									
2010	13,670,304	7,959,078	966,440	1,110,620	3,076,519	557,647	12,568,167	8.10	2.90
2015	13,915,037	8,066,652	975,257	1,121,406	3,191,316	560,406	12,822,751	7.80	2.97
2019	14,235,093	8,190,950	994,710	1,132,562	3,357,051	559,820	13,085,036	8.10	2.99
Change 2010-2019									
Percent	4.13%	2.91%	2.93%	1.98%	9.12%	0.39%	4.11%	0.00%	3.10%
Absolute	564,789	231,872	28,270	21,942	280,532	2,173	516,869	0.00	0.09
Riverside County									
2010	800,707	543,209	50,784	38,409	89,577	78,728	686,260	14.29	3.14
2015	822,911	559,701	51,294	38,618	94,054	79,244	708,017	13.96	3.23
2019	847,851	579,511	52,512	38,744	96,769	80,315	725,160	14.47	3.32
Change 2010-2019									
Percent	5.89%	6.68%	3.40%	0.87%	8.03%	2.02%	5.67%	1.24%	5.73%
Absolute	47,144	36,302	1,728	335	7,192	1,587	38,900	0.18	0.18
San Bernardino County									
2010	699,637	498,965	24,640	45,123	87,405	43,504	611,618	12.58	3.26
2015	709,385	504,642	24,873	45,579	90,624	43,667	624,292	12.00	3.34
2019	723,783	514,630	25,078	46,242	93,873	43,960	637,569	11.91	3.38
Change 2010-2019									
Percent	3.45%	3.14%	1.78%	2.48%	7.40%	1.05%	4.24%	-5.32%	3.68%
Absolute	24,146	15,665	438	1,119	6,468	456	25,951	-0.67	0.12

Source: California Department of Finance

APPENDIX 5 - TABLE 7

KEY HOUSING STATISTICS - CITY
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

	Total	---- Single ----		--- Multiple ---		Mobile Homes	Occupied	Percent Vacant	Size of Household
		Detached	Attached	2 to 4	5 Plus				
City of Moreno Valley									
2010	55,559	44,842	1,127	1,505	6,721	1,364	51,592	7.14	3.74
2015	55,936	45,123	1,127	1,505	6,817	1,364	51,994	7.05	3.86
2019	57,005	46,098	1,127	1,511	6,905	1,364	52,405	8.07	3.96
Change 2010-2019									
Percent	2.60%	2.80%	0.00%	0.40%	2.74%	0.00%	1.58%	13.02%	5.88%
Absolute	1,446	1,256	0	6	184	0	813	0.93	0.22
City of Riverside									
2010	98,444	63,436	3,915	6,396	22,470	2,227	91,932	6.61	3.18
2015	99,501	63,791	3,915	6,388	23,180	2,227	93,273	6.26	3.29
2019	100,760	64,493	3,915	6,384	23,741	2,227	93,702	7.00	3.37
Change 2010-2019									
Percent	2.35%	1.67%	0.00%	-0.19%	5.66%	0.00%	1.93%	5.89%	5.97%
Absolute	2,316	1,057	0	(12)	1,271	0	1,770	0.39	0.19
City of Corona									
2010	47,174	32,720	2,117	2,201	8,403	1,733	44,950	4.71	3.38
2015	48,113	32,849	2,142	2,201	9,253	1,668	46,020	4.35	3.49
2019	49,434	33,059	2,194	2,201	10,306	1,674	46,730	5.47	3.58
Change 2010-2019									
Percent	4.79%	1.04%	3.64%	0.00%	22.65%	-3.40%	3.96%	16.02%	5.92%
Absolute	2,260	339	77	0	1,903	-59	1,780	0.76	0.20

Source: California Department of Finance

APPENDIX 5 - TABLE 8

**HISTORIC DISTRIBUTION OF HOUSING UNIT MIX AND GROWTH
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY**

	Single Family					Multiple Units					
	Total ¹	Detached	As a % of Total	Attached	As a % of Total	2 to 4 Attached	As a % of Total	5 Plus Attached	As a % of Total	Multiple Subtotal	As a % of Total
California											
2010	13,112,657	7,959,078	61%	966,440	7%	1,110,620	8%	3,076,519	23%	4,187,139	32%
2015	13,354,631	8,066,652	60%	975,257	7%	1,121,406	8%	3,191,316	24%	4,312,722	32%
2019	13,675,273	8,190,950	60%	994,710	7%	1,132,562	8%	3,357,051	25%	4,489,613	33%
Riverside County											
2010	721,979	543,209	75%	50,784	7%	38,409	5%	89,577	12%	127,986	18%
2015	743,667	559,701	75%	51,294	7%	38,618	5%	94,054	13%	132,672	18%
2019	767,536	579,511	76%	52,512	7%	38,744	5%	96,769	13%	135,513	18%
San Bernardino County											
2010	656,133	498,965	76%	24,640	4%	45,123	7%	87,405	13%	132,528	20%
2015	665,718	504,642	76%	24,873	4%	45,579	7%	90,624	14%	136,203	20%
2019	679,823	514,630	76%	25,078	4%	46,242	7%	93,873	14%	140,115	21%
City of Moreno Valley											
2010	54,195	44,842	83%	1,127	2%	1,505	3%	6,721	12%	8,226	15%
2015	54,572	45,123	83%	1,127	2%	1,505	3%	6,817	12%	8,322	15%
2019	55,641	46,098	83%	1,127	2%	1,511	3%	6,905	12%	8,416	15%

¹ Does not include mobile home units
Source: California Department of Finance

APPENDIX 6
LODGING MARKET

APPENDIX 6 - TABLE 1

2013-2019 HOTEL OCCUPANCY RATES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Year	Riverside Metropolitan Area ¹	Inland Empire ²
2013	67.8%	67.1%
2014	70.3%	71.2%
2015	74.8%	74.7%
2016	77.0%	75.9%
2017	77.9%	76.4%
2018	78.2%	76.6%
2019(f)	77.8%	75.9%
<hr/>		
Percentage Increase between 2013 and 2018	15.3%	14.2%
Compound Annual Growth between 2013 and 2018	2.9%	2.7%
Forecast Change between 2018 and 2019(f)	-0.5%	-0.9%

(f) Forecast

¹ Includes hotels in Riverside, as well as hotels in Corona and San Bernardino that compete with Moreno Valley hotels.

² Performance of all hotels in Inland Empire. Source: CBRE

APPENDIX 6 - TABLE 2

2013-2019 HOTEL AVERAGE DAILY RATE (ADR)
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Year	Riverside Metropolitan Area ¹	Inland Empire ²
2013	\$86.93	\$88.80
2014	\$93.01	\$93.36
2015	\$100.56	\$100.34
2016	\$107.38	\$107.23
2017	\$112.27	\$112.52
2018	\$116.12	\$116.62
2019(f)	\$119.60	\$120.51
<hr/>		
Percentage Increase between 2013 and 2018	33.6%	31.3%
Compound Annual Growth between 2013 and 2018	6.0%	5.6%
Forecast Change between 2018 and 2019(f)	3.0%	3.3%

(f) Forecast

¹ Includes hotels in Riverside, as well as hotels in Corona and San Bernardino that compete with Moreno Valley hotels.

² Performance of all hotels in Inland Empire. Source: CBRE

APPENDIX 6 - TABLE 3

2013 - 2019 HOTEL ANNUAL REVPAR¹
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Year	Riverside Metropolitan Area ²	Inland Empire ³
2013	\$58.94	\$59.58
2014	\$65.39	\$66.47
2015	\$75.22	\$74.95
2016	\$82.68	\$81.39
2017	\$87.46	\$85.97
2018	\$90.81	\$89.33
2019(f)	\$93.05	\$91.47
<hr/>		
Percentage Increase between 2013 and 2018	54.1%	49.9%
Compound Annual Growth between 2013 and 2018	9.0%	8.4%
Forecast Change between 2018 and 2019(f)	2.5%	2.4%

(f) Forecast

¹ RevPAR is equal to the occupancy rate multiplied by the average room rate.

² Includes hotels in Riverside, as well as hotels in Corona and San Bernardino that compete with Moreno Valley hotels.

³ Performance of all hotels in Inland Empire. Source: CBRE

APPENDIX 6 - TABLE 4

SUMMARY - RIVERSIDE METROPOLITAN AREA & INLAND EMPIRE MARKET AREA PERFORMANCE
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

Riverside Metropolitan Area							
	Average Occupancy	Average Daily Rate	Annual Supply of Room Nights	Annual Demand	Occupied Nights Change	RevPAR	Change
2013	67.8%	\$86.93	1,611,475	1,092,982		\$58.94	
2014	70.3%	\$93.01	1,686,300	1,185,801	8.5%	\$65.39	10.9%
2015	74.8%	\$100.56	1,742,510	1,304,225	10.0%	\$75.22	15.0%
2016	77.0%	\$107.38	1,761,003	1,355,403	3.9%	\$82.68	9.9%
2017	77.9%	\$112.27	1,795,800	1,398,938	3.2%	\$87.46	5.8%
2018	78.2%	\$116.12	1,808,940	1,414,257	1.1%	\$90.81	3.8%
2019(f)	77.8%	\$119.60	1,908,707	1,484,970	5.0%	\$93.05	2.5%
Compound Annual Growth between 2013 and 2018	2.9%	6.0%	2.3%	5.3%		9.0%	
Forecast Change between 2018 and 2019(f)	-0.5%	3.0%	5.5%	5.0%		2.5%	
Inland Empire							
	Average Occupancy	Average Daily Rate	Annual Supply of Room Nights	Annual Demand	Occupied Nights Change	RevPAR	Change
2013	67.1%	\$88.80	3,762,055	2,525,154		\$59.58	
2014	71.2%	\$93.36	3,836,880	2,731,904	8.2%	\$66.47	11.6%
2015	74.7%	\$100.34	3,899,295	2,914,272	6.7%	\$74.95	12.8%
2016	75.9%	\$107.23	3,948,448	2,995,207	2.8%	\$81.39	8.6%
2017	76.4%	\$112.52	4,011,380	3,065,359	2.3%	\$85.97	5.6%
2018	76.6%	\$116.62	4,121,945	3,159,218	3.1%	\$89.33	3.9%
2019(f)	75.9%	\$120.51	4,419,177	3,353,383	6.1%	\$91.47	2.4%
Compound Annual Growth between 2013 and 2018	2.7%	5.6%	1.8%	4.6%		8.4%	
Forecast Change between 2018 and 2019(f)	-0.9%	3.3%	7.2%	6.1%		2.4%	

APPENDIX 6 - TABLE 5

PROJECTED HOTEL OCCUPANCY
RIVERSIDE METROPOLITAN MARKET AREA
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

	Potential Demand - 1.5% Annual Increase			Market Area	
	Annual 1.5% Demand <u>Increase</u>	Existing Room Night Supply ¹	Occupancy Level	Target Occupancy - 74% Available Room Nights	Cumulative Rooms
2019	1,484,970	1,908,707	77.8%	2,006,716	269
2024	1,599,734	1,908,707	83.8%	2,161,803	693
2029	1,723,368	1,908,707	90.3%	2,328,876	1,151
2034	1,856,557	1,908,707	97.3%	2,508,861	1,644

	Potential Demand - 2.5% Annual Increase			Market Area	
	Adjusted Demand <u>Increase</u>	Existing Room Night Supply ¹	Occupancy Level	Target Occupancy - 74% Available Room Nights	Cumulative Rooms
2019	1,484,970	1,908,707	77.8%	2,006,716	269
2024	1,680,107	1,908,707	88.0%	2,270,415	991
2029	1,900,887	1,908,707	99.6%	2,568,766	1,808
2034	2,150,679	1,908,707	112.7%	2,906,323	2,733

¹ Includes hotels in Riverside, as well as hotels in Corona and San Bernardino that compete with Moreno Valley hotels.

APPENDIX 7
INDUSTRIAL MARKET

APPENDIX 7 - TABLE 1

4TH QUARTER 2019 INDUSTRIAL MARKET - INLAND EMPIRE EAST SUBMARKETS¹

MORENO VALLEY MARKET ANALYSIS

CITY OF MORENO VALLEY

Submarket	Square Feet GLA	Square Feet Vacant	Vacancy Rate	Net Absorption YTD (sf)	SF Under Construction	Avg Weighted Net Rent (\$/sf/mo)
Riverside	51,736,203	1,810,767	3.5%	4,566,765	2,552,931	\$0.79
San Bernardino	39,736,596	1,907,357	4.8%	1,610,504	587,308	\$0.51
Colton	8,011,599	96,139	1.2%	511,219	229,970	\$0.54
Redlands	28,725,637	344,708	1.2%	755,710	154,946	\$0.70
Rialto	30,799,526	3,233,950	10.5%	1,731,765	3,614,462	N/A
Moreno Valley	29,132,685	903,113	3.1%	3,754,631	868,947	N/A
Perris	26,364,414	3,321,916	12.6%	2,787,555	2,444,652	N/A
Hesperia	923,073	0	0.0%	128,000	-	N/A
Victorville	7,172,567	372,973	5.2%	109,255	-	N/A
Banning	187,500	0	0.0%	-	-	N/A
Beaumont	4,626,755	0	0.0%	2,621,128	-	N/A
Inland Empire West Total	227,416,555	11,990,924	5.3%	18,576,532	10,453,216	\$0.64

Cushman & Wakefield

APPENDIX 7 - TABLE 2

MARKET AREA INDUSTRIAL LEASE RATE COMPARABLES¹
MORENO VALLEY MARKET ANALYSIS
CITY OF MORENO VALLEY

No.	Address	City	Property Type	Asking	Type	SF Available
1	14340 Elsworth St	Moreno Valley	Industrial	\$14.40	NNN	3,388
2	14340 Veterans Way	Moreno Valley	Industrial	\$9.48	IG	13,758
3	28010 Eucalyptus Ave	Moreno Valley	Industrial	\$5.64	IG	185,055
4	23900 Alessandro Blvd	Moreno Valley	Industrial	\$10.20	IG	2,440
5	14340 Elsworth St	Moreno Valley	Industrial	\$14.40	NNN	2,186
6	14300 Elsworth St	Moreno Valley	Industrial	\$14.40	NNN	1,396
7	14320 Elsworth St	Moreno Valley	Industrial	\$13.20	NNN	1,641
8	24960 San Michele Rd	Moreno Valley	Manufacturing	\$5.16	NNN	244,336
9	7157 Old 215 Frontage Rd	Moreno Valley	Industrial	\$10.20	IG	4,526
10	23400 Cactus Ave	Moreno Valley	Industrial	\$4.20	IG	601,810
11	22620 Goldencrest Dr	Moreno Valley	Industrial	\$10.20	NNN	3,140
12	14300 Elsworth St	Moreno Valley	Industrial	\$12.72	NNN	1,093
13	22640 Goldencrest Dr	Moreno Valley	Industrial	\$10.20	NNN	1,600
14	240 S Loara St	Anaheim	Manufacturing	\$8.28	IG	3,500
15	220 N Crescent Way	Anaheim	Manufacturing	\$10.68	IG	1,460
16	2111 W Crescent Ave	Anaheim	Industrial Showroom	\$13.44	MG	938
				\$12.72	MG	1,562
17	1773 W Lincoln Ave	Anaheim	Warehouse	\$11.64	MG	4,000
18	704 N Valley St	Anaheim	Warehouse	\$13.44	MG	2,315

Lease Rate Range	\$4.20 - \$14.40
Weighted Average Lease Rate	\$4.97

Source: Costar 2019

¹ Market is an approximately two mile radius around the project site

APPENDIX 8 - TABLE 1

RETAIL BUILDING SALES COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

No.	Building Type	Address	City	Sale Date	Year Built	RBA (SF)	Land (SF)	Sales Price	Price Per SF	Price Per SF	
										Land	
1	Restaurant	23060 Alessandro Blvd	Moreno Valley	4/18/2019	-	8,927	22,216	\$2,000,000	\$224	\$90	
2	Storefront	24525 Alessandro Blvd	Moreno Valley	8/7/2019	1982	8,120	30,492	\$1,100,000	\$135	\$36	
3	Service Station	29010 Alessandro Blvd	Moreno Valley	8/10/2018	-	3,784	25,700	\$1,230,000	\$325	\$48	
4	Auto Repair	12470 Back Way	Moreno Valley	9/6/2018	1975	3,900	10,176	\$550,000	\$141	\$54	
5	Freestanding	12470 Back Way	Moreno Valley	3/8/2019	-	2,442	11,121	\$260,000	\$106	\$23	
6	Retail	22420 Cactus Ave	Moreno Valley	4/29/2019	2007	15,986	56,628	\$3,125,000	\$195	\$55	
7	Freestanding	12500 Day St	Moreno Valley	2/15/2019	2009	40,000	153,767	\$7,325,000	\$183	\$48	
8	Restaurant	12580 Day St	Moreno Valley	9/17/2018	2017	6,452	50,094	\$3,550,000	\$550	\$71	
9	Auto Repair	12275 Heacock St	Moreno Valley	10/3/2019	1987	4,927	16,553	\$617,439	\$125	\$37	
10	Auto Repair	13231 Perris Blvd	Moreno Valley	11/15/2018	-	4,784	9,583	\$1,295,000	\$271	\$135	
11	Storefront	23031 Sunnymead Blvd	Moreno Valley	7/29/2019	-	3,510	14,810	\$2,125,000	\$605	\$143	
12	Auto Repair	24035 Sunnymead Blvd	Moreno Valley	7/26/2018	1984	10,974	38,333	\$2,320,000	\$211	\$61	
13	Freestanding	24085-24095 Sunnymead Blvd	Moreno Valley	9/5/2019	-	1,600	46,609	\$525,000	\$328	\$11	
14	Restaurant	24800 Sunnymead Blvd	Moreno Valley	10/25/2019	1989	2,300	37,897	\$1,469,455	\$639	\$39	
15	Convenience Store	24840 Sunnymead Blvd	Moreno Valley	3/6/2019	-	4,836	38,333	\$3,600,000	\$744	\$94	
									Weighted Average	\$254	\$55
									Minimum Price/SF	\$106	\$11
									Maximum Price/SF	\$744	\$143

Source: Costar 12/2019

APPENDIX 8
LAND SALES COMPS

APPENDIX 8 - TABLE 2

OFFICE BUILDING SALES COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

No.	Building Type	Address	City	Sale Date	Year Built	RBA (SF)	Land (SF)	Sales Price	Price Per SF	Price Per SF	
											Land
1	Class B Medical	22675 Alessandro Blvd	Moreno Valley	12/14/2018	2007	14,167	61,420	\$6,350,000	\$448		\$103
2	Class C Office	22810 Alessandro Blvd	Moreno Valley	7/5/2019	1965	5,000	19,602	\$759,500	\$152		\$39
3	Class B Office	23020 Atlantic Cir	Moreno Valley	10/23/2019	-	3,866	16,988	\$650,000	\$168		\$38
4	Class C Office	24941 Dracaea Ave	Moreno Valley	12/12/2018	1970	2,300	13,499	\$465,000	\$202		\$34
5	Class B Office	12540 Heacock St	Moreno Valley	3/23/2018	-	6,623	11,761	\$1,200,000	\$181		\$102
7	Class B Office	23800 Sunnymead Blvd	Moreno Valley	6/20/2019	1987	5,905	20,473	\$740,000	\$125		\$36
8	Class C Office	23846 Sunnymead Blvd	Moreno Valley	4/5/2019	1975	5,437	62,726	\$2,530,000	\$465		\$40
9	Class C Office	24715 Sunnymead Blvd	Moreno Valley	7/23/2018	1979	4,362	16,988	\$730,000	\$167		\$43
									Weighted Average	\$282	\$60
									Minimum Price/SF	\$125	\$34
									Maximum Price/SF	\$465	\$103

Source: Costar 12/2019

APPENDIX 8 - TABLE 3

MULTIFAMILY BUILDING SALES COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

<u>No.</u>	<u>Building Type</u>	<u>Address</u>	<u>City</u>	<u>Sale Date</u>	<u>Year Built</u>	<u>Units</u>	<u>GBA (SF)</u>	<u>Land (SF)</u>	<u>Sales Price</u>	<u>Price Per SF GBA</u>	<u>Price Per SF Land</u>	<u>Price Per Unit</u>	
1	Class C Apts	24396 Atwood Ave	Moreno Valley	7/25/2018	1982	11	9,420	24,394	\$1,700,000	\$180	\$70	\$154,545.45	
2	Class B Apts	21550 Box Springs Rd	Moreno Valley	11/26/2019	1989	212	174,360	513,572	\$39,500,000	\$227	\$77	\$186,320.75	
3	Class B Apts	12159 Calle Sombra	Moreno Valley	12/6/2018	1986	330	283,320	736,600	\$56,250,000	\$199	\$76	\$170,454.55	
4	Class C Apts	24668 Eucalyptus Ave	Moreno Valley	9/11/2019	1980	15	12,960	39,600	\$2,150,000	\$166	\$54	\$143,333.33	
5	Class B Apts	12845-12881 Frederick St	Moreno Valley	12/17/2018	2006	262	252,504	571,072	\$59,200,000	\$234	\$104	\$225,954.20	
6	Class B Apts	15700 Lasselle St	Moreno Valley	7/5/2019	2005	304	272,424	663,419	\$68,000,000	\$250	\$102	\$223,684.21	
7	Class C Apts	22949-22953 Adrienne Ave	Moreno Valley	10/23/2017	1974	24	19,250	27,587	\$2,060,000	\$107	\$75	\$85,833.33	
8	Class B Apts	22945 Bay Ave	Moreno Valley	8/22/2017	2008	56	54,694	155,509	\$10,700,000	\$196	\$69	\$191,071.43	
9	Class B Apts	23925 Bay Ave	Moreno Valley	9/29/2017	1984	120	118,680	402,582	\$17,500,000	\$147	\$43	\$145,833.33	
										Weighted Average	\$215	\$82	\$192,699
										Minimum Price/SF	\$107	\$43	\$85,833
										Maximum Price/SF	\$250	\$104	\$225,954

Source: Costar 12/2019

APPENDIX 8 - TABLE 4

HOTEL SALES COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

No.	Building Type	Address	City	Sale Date	Year Built	Number of Units	GBA (SF)	Land (SF)	Sales Price	Price Per SF GBA	Price Per SF Land	Price Per Unit	
1	Motel 7	23581 Alessandro Blvd	Moreno Valley	7/19/2018	1971	60	16,720	60,984	\$3,800,000	\$227	\$62	\$63,333	
2	Best Western	24840 Elder Ave	Moreno Valley	12/29/2017	1988	126	53,022	93,218	\$11,485,455	\$217	\$123	\$91,154	
3	Econo Lodge	24412 Sunnymead Blvd	Moreno Valley	2/28/2019	-	50	30,936	35,284	\$4,700,000	\$152	\$133	\$94,000	
4	Comfort Inn	23330 Sunnymead Blvd	Moreno Valley	11/21/2018	1989	94	34,548	57,064	\$9,400,000	\$272	\$165	\$100,000	
										Weighted Average	\$217	\$119	\$89,047
										Minimum Price/SF	\$152	\$62	\$63,333
										Maximum Price/SF	\$272	\$165	\$100,000

Source: Costar 12/2019

APPENDIX 8 - TABLE 5

LAND SALES COMPARABLES
 MORENO VALLEY MARKET ANALYSIS
 CITY OF MORENO VALLEY

<u>No.</u>	<u>Description</u>	<u>Address</u>	<u>City</u>	<u>Sale Date</u>	<u>Size (AC)</u>	<u>Size (SF)</u>	<u>Sales Price</u>	<u>Price Per SF</u>
1	Commercial	Alesandro Blvd	Moreno Valley	6/12/2019	11.99	522,284	\$4,618,013	\$8.84
2	Commercial	Eucalyptus Ave	Moreno Valley	10/29/2019	1.56	67,954	\$1,250,000	\$18.39
3	Commercial	Sunnymead Blvd @ Graham St	Moreno Valley	6/18/2019	2.10	91,476	\$1,350,000	\$14.76
4	Commercial	Heacock St & Fir Ave	Moreno Valley	2/22/2019	5.11	222,592	\$1,500,000	\$6.74
5	Commercial	Hemlock Ave	Moreno Valley	9/27/2019	9.39	409,028	\$650,000	\$1.59
6	Industrial	29140 Dracaea Ave	Moreno Valley	8/28/2019	9.39	409,028	\$2,100,000	\$5.13
7	Industrial	14330 Frederick St	Moreno Valley	4/19/2019	8.46	368,518	\$4,112,000	\$11.16
8	Industrial	Indian St	Moreno Valley	2/22/2019	4.80	209,088	\$1,195,000	\$5.72
9	Residential	Alessandro Blvd @ Nason Street	Moreno Valley	9/11/2019	35.33	1,538,975	\$6,155,900	\$4.00
10	Residential	22314 Alessandro Blvd	Moreno Valley	7/12/2019	0.34	14,810	\$349,000	\$23.57
11	Residential	Bay Ave	Moreno Valley	6/21/2019	7.99	348,044	\$319,000	\$0.92
12	Residential	23802 Hemlock Ave	Moreno Valley	9/20/2019	0.99	43,124	\$335,000	\$7.77
13	Residential	14400 Lasselle St	Moreno Valley	6/25/2019	10.83	471,755	\$5,150,000	\$10.92
14	Residential	10140 Pigeon Pass Rd	Moreno Valley	5/13/2019	4.67	203,425	\$780,000	\$3.83
15	Residential	Perris Blvd	Moreno Valley	7/30/2019	25.19	1,097,276	\$426,000	\$0.39
16	Residential	13410 Moreno Beach Dr	Moreno Valley	4/12/2019	148.17	6,454,285	\$3,150,000	\$0.49

Total Weighted Average	\$2.68
Commercial Weighted Average	\$7.13
Industrial Weighted Average	\$7.51
Residential Weighted Average	\$1.64

Source: Costar 12/2019

Attachment No. 10
GPAC Meeting Schedule and Project Timeline



MOVAL 2040

GENERAL PLAN UPDATE

Moreno Valley General Plan Update | GPAC Meeting Schedule

Draft: March 12, 2020

The following is a working schedule which indicates the timing and objectives of GPAC meetings. The timing of GPAC meetings is keyed to the major milestones of the project. GPAC meetings will generally be held on the third Thursday of the month from 4:00 p.m. – 6:00 p.m.

Meeting #1 - January 2020

Phase: [Visioning \(Phase 1\)](#)

Objectives: Orient GPAC to project and receive input on key issues and opportunities
Receive feedback on community wide survey #1

Meeting #2 - March 2020

Phase: [Visioning \(Phase 1\)](#)

Objectives: Review Draft Existing Conditions Reports

Meeting #3 - April 2020

Phase: [Visioning \(Phase 2\)](#)

Objectives: Recap Phase 1 community input
Review Preliminary land use and circulation alternatives for Phase 2

Meeting #4 - August 2020

Phase: [Alternatives Exploration \(Phase 2\)](#)

Objectives: Review Draft Preferred Plan Concept

Meeting #5 - September 2020

Phase: [Draft Plan Development \(Phase 3\)](#)

Objectives: Review Draft policies and actions

Meeting #6 - October 2020

Phase: [Draft Plan Development \(Phase 3\)](#)

Objectives: Review Draft policies and actions

Meeting #7 - November 2020

Phase: [Draft Plan Development \(Phase 3\)](#)

Objectives: Review Draft policies and actions

Meeting #8 - December 2020

Phase: [Draft Plan Development \(Phase 3\)](#)

Objectives: Review Draft policies and actions

Timeline

